



BOARD OF COUNTY COMMISSIONERS
WARREN COUNTY, OHIO

406 Justice Drive, Lebanon, Ohio 45036

www.co.warren.oh.us

commissioners@co.warren.oh.us

Telephone (513) 695-1250

Facsimile (513) 695-2054

TOM GROSSMANN
SHANNON JONES
DAVID G. YOUNG

21-0890

June 29, 2021

ENTER INTO CONTRACT WITH LARRY SMITH INCORPORATED FOR THE FRANKLIN AREA WATER TREATMENT PLANT CONCENTRATE DISCHARGE LINES PROJECT

WHEREAS, pursuant to Resolution 21-0800 dated June 15, 2021, this Board approved a Notice of Intent to Award Bid for the Franklin Area Water Treatment Plant Concentrate Discharge Lines Project to Larry Smith Incorporated, for a total bid price of \$965,170.00; and

WHEREAS, all documentation, including performance bonds, insurance certificates, etc., has been submitted by the contractor; and

NOW THEREFORE BE IT RESOLVED, to enter into contract with Larry Smith Incorporated, 5737 Dry Fork Road Cleves, Ohio, for a total contract price of \$965,170.00; as attached hereto and made a part hereof.

Mrs. Jones moved for adoption of the foregoing resolution being seconded by Mr. Grossmann. Upon call of the roll, the following vote resulted:

Mr. Young – yea

Mr. Grossmann – yea

Mrs. Jones – yea

Resolution adopted this 29th day of June 2021.

BOARD OF COUNTY COMMISSIONERS

Tina Osborne, Clerk

KP\

cc: c/a—Larry Smith Incorporated
Water/Sewer (file)
OMB Bid file



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TOM GROSSMANN
SHANNON JONES
DAVID G. YOUNG

21-0800

June 15, 2021

APPROVE NOTICE OF INTENT TO AWARD BID TO LARRY SMITH INCORPORATED FOR THE FRANKLIN AREA WATER TREATMENT PLANT CONCENTRATE DISCHARGE LINES PROJECT

WHEREAS, bids were closed at 11:00 a.m., on June 3, 2021, and the bids received were opened and read aloud for the Franklin Area Water Treatment Plant Concentrate Discharge Lines Project, and the results are on file in the Commissioners' Office; and

WHEREAS, upon review of such bids by Chris Wojnicz, Deputy Sanitary Engineer, Larry Smith Incorporated has been determined to be the lowest and best bidder; and

NOW THEREFORE BE IT RESOLVED, upon recommendation of the Warren County Sanitary Engineer, that it is the intent of this Board to award the contract to Larry Smith Incorporated, 5737 Dry Fork Road Cleves, Ohio 45002, for a total bid price of \$965,170.00; and

BE IT FURTHER RESOLVED, that the President of the Board is hereby authorized to execute a "Notice of Intent to Award."

Mrs. Jones moved for adoption of the foregoing resolution being seconded by Mr. Grossmann. Upon call of the roll, the following vote resulted:

Mr. Young – yea
Mr. Grossmann – yea
Mrs. Jones – yea

Resolution adopted this 15th day of June 2021.

BOARD OF COUNTY COMMISSIONERS

Tina Osborne, Clerk

KP\

cc: Water/Sewer (file)

Bid File



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TOM GROSSMANN
SHANNON JONES
DAVID G. YOUNG

BID OPENING

June 3, 2021

BID OPENING –

Bids were closed at 11:00 a.m. this 3rd day of June and the following bids were received, opened, and read aloud for the Franklin Area Water Treatment Plant Concentrate Discharge Lines Project for the Warren County Water & Sewer Department.

Majors Enterprises Monroe, Ohio	\$1,489,335.00 Base \$135,000.00 Alternate Bid Item
Brackney, Inc. Brookville, Indiana	\$1,612,006.00 Base \$180,000.00 Alternate Bid Item
Larry Smith Incorporated Cleves, Ohio	\$965,170.00 Base \$142,500.00 Alternate Bid Item

Chris Wojnicz, Warren County Deputy Sanitary Engineer will review bids for a recommendation at a later date.

cc: Bid File

OMB

W/S (file)

TO ALL DOCUMENT HOLDERS:

Subject: WCWSD FAWTP Membrane Softening Upgrades Concentrate Discharge Line

AECOM Job No.: 60551697

Enclosed herewith is a copy of Addendum No. 1 covering the subject project.

Please retain this with your Documents.

Sincerely,

AECOM



Brian Benedict

Attachments:

Specifications:

Revised Unit Price Bid Form

Drawings:

Air Release Manhole Detail

ADDENDUM TO THE
BIDDING DOCUMENTS
FOR:

WCWSD FAWTP Membrane Softening Upgrades Concentrate Discharge Line

1.1 GENERAL

This Addendum covers changes to the Documents and in closing the Contract will become a part thereof. Each Bidder shall include these items to the extent they affect his Bid.

These items modify only the portion of the Documents specifically noted. All other wording and Drawings remain in effect.

1.2 CLARIFICATIONS

- A. The following is a list of clarifications regarding project documents. These clarifications include question received during the advertisement period:

Q: What size are Combination Air Release valves. The detail is not clear on assembly in the manhole.

A: They are 2" threaded CARV's, installed on a tee with a restrained blind flange tapped with a 2" pipe nipple and isolation valve. See revised detail attached. CARV to be ARI D-26 (SS) or Vent Tech SDG model

Q: Is Fusible PVC an acceptable alternate for directional drill of 10"

A: Yes, this product has been added to the specifications.

Q: Pay item 20 calls for C900 PVC bends but division 33 specification call for ductile iron pipes and fittings. Which are to be used?

A: Either C900 PVC fittings or ductile iron are acceptable. Both types are to be restrained. Ductile Iron fittings should have internal coating of ceramic epoxy P-401, or equal.

Q: Pay Item 16 calls for a 12" NFC Cleanout, but Detail 3 on page 14 calls for a 10"

A: Clean-outs are to be 10" pipe and fittings

Q: The plans show a 24" casing at the Jack and Bore locations, but the Pipe Information Sheet shows an 18" casing pipe. Which is correct?

A: The casing pipes for the Jack and Bore locations should be 24" steel meeting ASTM A53 specification. Note that there are two bores at each location with a separate 24" casing pipe for each 10" carrier pipe. These quantities are reflected in the Bid Form.

Q: The specifications call for the C900 PVC to be SDR 18 and the bid sheet calls for SDR 26, which is correct.

A: C900 PVC to be SDR 26.

Q: Is the Alternate for the Clearcreek HDD required or optional.

A: Bidders are required to provide a price for the Alternate.

1.3 PROJECT MANUAL

A. Unit Price Bid Form

Revised bid for attached

B. Section 33 3000 Sanitary Sewer Utilities

1. Paragraph 2.9.B.1 – Revise to read as follows
 - a. Pipe: Gasketed or Fusible. Conform to AWWA C-900
2. Paragraph 2.9.B.2 – Revise to read as follows
 - a. Dimension Ratio: DR-26 (Unless noted otherwise on drawings)
3. Paragraph 2.9.B.6 – Revise to read as follows
 - a. Fittings: Fully restrained ductile iron with ceramic epoxy internal coating, p-401 or equal, or fully restrained C900 PVC gasketed pressure fittings.
4. Paragraph 3.G.1– Add the following sentence to end of the paragraph:
 - a. Install Fusible PVC piping following manufacturer’s directions.

C. Section 31 7000 Trenchless Pipe Installation

1. Paragraph 1.04.A – Revise to read as follows
 - a. The Owner has no geotechnical data (boring logs and test reports) available for this location and can make no representations about the subsurface conditions. All risk for any conditions countered in the performance of this work will remain with the Contractor.
2. Paragraph 1.06.A.1-7.
 - a. Revise to include Fusible PVC pipe.
3. Paragraph 1.06.H.1. Add the following sentence at the end of the paragraph:
 - a. Fusible C-900 PVC pipe as specified in section 33 3000 may also be used.
4. Paragraph 1.06.I. revise to read as follows:
 - a. Physical Properties of HDPE pipe and pipe compound

1.4 DRAWINGS

A. Sheet C-15

- a. Replace Detail 11 Air Release Valve Assembly with attached

END OF ADDENDUM NO. 1
(SEE ENCLOSURES)

FRANKLIN AREA WATER TREATMENT PLANT CONCENTRATE DISCHARGE LINE								
Ref No	Item No	Item	Qty	Units	Labor	Material	Sum of Labor and Material	Item Total
1	201	Clearing and Grubbing	865	SY				
2	201	Tree and Stump Removed, 18" size (over 12" to 24")	14	EA				
3	202	Pavement Removed	230	SY				
4	204	Subgrade Compaction	230	SY				
5	301	301 Asphalt Concrete Base Course	165	SY				
6	304	304 Aggregate Base Course	230	SY				
7	407	Tack Coat	330	SY				
8	409	Sawing and Sealing Asphalt Concrete Pavement Joints	1430	LF				
9	441	Asphalt Concrete Surface Course, Type 1, PG64-22, 1-1/2"	165	SY				
10	441	Asphalt Concrete Intermediate Course, Type 2	165	SY				
11	452	Non-Reinforced Portland Cement Concrete Pavement	65	SY				
12	601	Tied Concrete Block Erosion Control Mat	200	SY				
13	611	10" Conduit, Type C (AWWA C-900 PVC San, HDPE C906 SDR-17, Fusible C-900 PVC SDR 26)	7480	LF				
14	611	10" Conduit, Type C (AWWA C-900 PVC San SDR 26, HDPE C906 SDR-17, Fusible C-900 PVC SDR 26) Clearcreek	300	LF				
15	611	18" Conduit, Type C (AWWA C-900 PVC San SDR-26, HDPE C906 SDR-17, Fusible C-900 PVC SDR 26)	100	LF				
16	611	10" NFC Cleanouts	18	EA				
17	614	Maintenance of Traffic	1	LS				
18	623	Construction Staking	1	LS				
19	624	Mobilization	1	LS				
20	638	10" restrained bends, AWWA C-900 PVC, or DI	20	EA				
21	638	24" Steel Pipe Encasement (Jack and Bore) SR74	360	LF				
22	638	24" Steel Pipe Encasement (Jack and Bore) Clearcreek	300	LF				
23	653	Topsoil Furnished & Placed	1510	SY				
24	659	Seeding and Mulching, Type 1	1510	SY				
25		Stormwater Pollution Prevention Plan (SWPPP)	1	LS				
26		ARV Manhole Complete (MH, CARV, Fittings, installation)	8	EA				
		BASE BID TOTAL						
14+22	ALT	Directional Drill 10" (HDPE C906 SDR-17, Fusible C-900 PVC SDR 26) @ Clearcreek	300	LF				

PLAN HOLDERS LIST

Franklin Area Water Treatment Concentrate Discharge Lines Project

Individuals or companies can be added to the plan holders list by contacting Krystal Powell at krystal.powell@co.warren.oh.us

Name	Company	Phone Number	E-mail Address
	Majors Enterprises	513-539-8212	majorssupply@hotmail.com
Andrew Kloenne	Ford Development Corp.	513-772-1521	akloenne@forddevelopment.com
J. Michael Lohrer	J.T Lohrer Construction	513-732-9192	jmlohrer@gmail.com
Michael D. Wiley	Howell Contractors	513-732-9192	mwiley@howellcontractors.com
Kevin Brackney	Brackney, Inc.	765-647-6551	kbrackney@brackneyinc.com
Donnie Miley	Smith & Brown Contractors, Inc.	513-678-0370	dmiley@sbcon.net
Kelly Simpson	Larry Smith Incorporated	513-367-3585	kelly.simpson@larrysmithinc.com

CONTRACT DOCUMENTS

**FRANKLIN AREA WATER TREATMENT PLANT CONCENTRATE DISCHARGE
LINES**

WARREN COUNTY WATER & SEWER DEPARTMENT

WARREN COUNTY BOARD OF COMMISSIONERS
406 JUSTICE DRIVE
LEBANON, OHIO 45036
(513) 695-1250

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SECTION 00 10 10
INVITATION TO BIDDERS

Separate sealed bids for the Franklin Area Water Treatment Plant Concentrate Discharge Lines Project will be received by the Warren County Board of Commissioners at the Office of the Warren County Commissioners, 406 Justice Drive, Lebanon, Ohio 45036, until 11:00 am, Thursday, June 3, 2021 and then at said time publicly be opened and read aloud.

Bid documents, including terms, general conditions, supplemental conditions, drawings and specifications are available online at the Warren County's Website at <https://www.co.warren.oh.us/Commissioners/Bids/Default.aspx>. Questions regarding the technical specifications should be directed to Chris Wojnicz at the Warren County Water and Sewer Department, (513) 695-1646.

The project generally consists of installation of approximately 7,800 feet of dual 10" C-900 concentrate discharge lines along Dixie Highway, SR 73 and Baxter Drive in Franklin, OH. The estimated contract value is \$1,470,000.

A bid guaranty, as required by Ohio Revised Code, Section 153.54, shall accompany each proposal submitted, as follows:

1. A Certified check, cashier's check, or letter of credit equal to ten (10) percent of the bid. A letter of credit may only be revocable by the Owner. Upon entering into a contract with the Owner, the contractor must file a performance bond for the amount of the contract, and the bid guaranty will then be returned to the successful and unsuccessful bidders upon contract execution.

OR

2. A form of bid guaranty bond (attached) for the full amount of the bid. Such bond is retained for the successful bidder, but returned to unsuccessful bidders after the contract is executed.

Warren County reserves the right to reject any or all bids submitted, to waive any irregularities in bids, and enter into a contract with the Bidder who in Warren County's consideration offered the lowest and best bid. By order of the Board of County Commissioner, County of Warren, State of Ohio.

Tina Osborne, Clerk

**SECTION 00 10 20
BID PROPOSAL**

The undersigned declares that the only persons or parties in this Bid are as stated; that the Bid is made without any collusion with other persons, firms, or corporations; that all the Contract Documents as prepared have been carefully examined; that the undersigned is fully informed in regard to all conditions pertaining to the Work and the place where it is to be done, and from them the undersigned makes this bid. The undersigned do hereby propose to furnish all labor, materials, tools, equipment, etc., necessary to complete the work in Franklin Township in Warren County and that the bid include all costs including, permit fees, taxes, insurance, overhead, and profit. All material and equipment must comply with the specifications and contract drawings that comprise the Contract Documents.

The premiums for all Bonds required shall be paid by the Contractor and shall be included in the Contract Price. The undersigned Bidder further agrees that the Bid Security accompanying this Bid shall become the property of the County if the Bidder fails to execute the Agreement.

If any addenda are published on Warren County's website at <https://www.co.warren.oh.us/Commissioners/Bids/Default.aspx>, pursuant to SECTION 00 20 00, Paragraph 7, the undersigned acknowledges receipt of the following Addenda:

No. _____, dated _____, 20__

No. _____, dated _____, 20__

No. _____, dated _____, 20__

The Bid shall include the following:

Ref 1 – Item 201 – Clearing and Grubbing

Ref 2 – Item 201 – Tree and Stump Removed, 18” size (over 12” to 24”)

Ref 3 – Item 202 – Pavement Removed

Ref 4 – Item 204 – Subgrade Compaction

Ref 5 – Item 301 – 301 Asphalt Concrete Base

Ref 6 – Item 304 – 304 Aggregate Base Course

Ref 7 – Item 407 – Tack Coat

Ref 8 – Item 409 – Sawing and Sealing Asphalt Concrete Pavement Joints

Ref 9 – Item 441 – Asphalt Concrete Surface Course, Type 1, PG64-22, 1-1/2”

Ref 10 – Item 441 – Asphalt Concrete Intermediate Course, Type 2

Ref 11 – Item 452 – Non-Reinforced Portland Cement Concrete Pavement

Ref 12 – Item 601 – Tied Concrete Block Erosion Control Mat

Ref 13 – Item 611 – 10” Conduit, Type C (AWWA C-900 PVC San)

Ref 14 – Item 611 – 10” Conduit, Type C (AWWA C-900 PVC San) Clearcreek

Ref 15 – Item 611 – 18” Conduit, Type C (AWWA C-900 PVC San)

Ref 16 – Item 611 – 12” NFC Cleanouts

Ref 17 – Item 614 – Maintenance of Traffic

Ref 18 – Item 623 – Construction Staking

Ref 19 – Item 624 - Mobilization

Ref 20 – Item 638 – 10” AWWA C-900 PVC Bends

Ref 21 – Item 638 – 24” Steel Pipe Encasement (Jack and Bore) SR73

Ref 22 – Item 638 – 24” Steel Pipe Encasement (Jack and Bore) Clearcreek

Ref 23 – Item 653 – Topsoil Furnished and Placed

Ref 24 – Item 659 – Seeding and Mulching, Type 1

Ref 25 – Stormwater Pollution Prevention Plan (SWPPP)

14+22 – ALT – Directional Drill 10” C-900 PVC @ Clearcreek

The written/typed Total Bid price is for the convenience of the Owner in comparing bids. Any discrepancy between the actual sum of the line item totals and the written/typed total bid price shall be resolved in favor of the actual sum of the correct individual line item.

The undersigned hereby certifies under the penalty of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person or entity. The bid proposals shall remain in full force and effect for sixty (60) days after the date of opening bids. The full name and address of all persons and parties interested in the foregoing bids as principals are as follows:

Individual, Partnership, or Corporation

Signature of Corporate Officer, President, or Owner

Date

Notice of acceptance should be mail or delivered to the following:

COMPANY NAME: _____

CHIEF EXECUTIVE OFFICER: _____

ADDRESS: _____

PHONE NUMBER: _____

FAX NUMBER: _____

PROJECT CONTACT PERSON: _____

PHONE NUMBER: _____

E-MAIL ADDRESS: _____

FEDERAL ID #: _____

WEBSITE ADDRESS: _____

NOTE: The firm, corporate or individual name of the bidder must be signed in ink in the space provided for the signatures on the proposed blanks. In the case of a corporation, the title of the

officer signing must be stated and such officer must be thereunto duly authorized and the seal of said corporation duly affixed. In the case of a partnership, the signature of at least one of the partners must follow the firm name, using the term “member of the firm.” In the case of an individual, use the terms “doing business as”, or “sole owner.”

**SECTION 00 10 30
BID FORM**

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

REF. NO.	ITEM NO.	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL COST
1	201	Clearing and Grubbing	2485	SY		
2	201	Tree and Stump Removed, 18" size (over 12" to 24")	15	EA		
3	202	Pavement Removed	380	SY		
4	204	Subgrade Compaction	380	SY		
5	301	301 Asphalt Concrete Base Course	300	SY		
6	304	304 Aggregate Base Course	380	SY		
7	407	Tack Coat	600	SY		
8	409	Sawing and Sealing Asphalt Concrete Pavement Joints	1430	LF		
9	441	Asphalt Concrete Surface Course, Type 1, PG64-22, 1-1/2"	300	SY		
10	441	Asphalt Concrete Intermediate Course, Type 2	300	SY		
11	452	Non-Reinforced Portland Cement Concrete Pavement	80	SY		
12	601	Tied Concrete Block Erosion Control Mat	200	SY		
13	611	10" Conduit, Type C (AWWA C-900 PVC San)	12600	LF		
14	611	10" Conduit, Type C (AWWA C-900 PVC San) Clearcreek	300	LF		
15	611	18" Conduit, Type C (AWWA C-900 PVC San)	100	LF		
16	611	12" NFC Cleanouts	24	EA		
17	614	Maintenance of Traffic	1	LS		
18	623	Construction Staking	1	LS		
19	624	Mobilization	1	LS		
20	638	10" AWWA C-900 PVC Bends	20	EA		
21	638	24" Steel Pipe Encasement (Jack and Bore) SR74	360	LF		
22	638	24" Steel Pipe Encasement (Jack and Bore) Clearcreek	300	LF		
23	653	Topsoil Furnished & Placed	2495	SY		

24	659	Seeding and Mulching, Type 1	2495	SY		
25		Stormwater Pollution Prevention Plan (SWPPP)	1	LS		
14+22	ALT	Directional Drill 10" C-900 PVC @ Clearcreek	300	LF		

Total of Bid Items 1 through 25 \$ _____

Total Bid Items 1 through 25 (In Words)

**SECTION 00 10 50
EXCEPTION SHEET**

Exceptions: Exceptions to any bid specification must be clearly stated on this sheet. This sheet must be submitted with each bid. If there are no exceptions, please indicate “none” below.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

SECTION 00 20 00
GENERAL INSTRUCTION TO BIDDERS

1. **Receipt and Opening of Bids:** The Warren County Board of Commissioners (herein referred to as “Owner”), invites bides on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be receive by the Owner at the Office of the Warren County Board of Commissioners until 11:00 AM, Thursday June 3, 2021 and then at said office publicly opened and read aloud. The envelopes containing the bids must be sealed, addressed to Warren County Board of Commissioners at 406 Justice Drive, Lebanon, Ohio 45036, and shall be clearly marked as follows:

Bid Opening
Franklin Area Water Treatment Plant Concentrate Discharge Lines Project
11:00 AM, Thursday June 3, 2021

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered.

2. **Description of Project:** The project generally consists of installing approximately 7,800 feet of dual 10” C-900 concentrate discharge lines along Dixie Highway, SR 73 and Baxter Drive in Franklin, OH.

3. **Construction Cost:** The Engineer’s opinion of probable construction cost for the base bid work is \$1,470,000.

4. **Project Funding/Financing:** The project shall be financed only through the Owner’s reserved funds and does not receive financing through any State of Ohio or Federal funding.

5. **Time of Completion and Liquidated Damages:** The Bidder hereby agrees that the Contract Time shall commence on the date stipulated in the Notice to Proceed which will be issued by the Owner within 14 days of contract execution and to complete the work in accordance with the terms as stated in the Contract, and in accordance with the following schedule milestones:

Substantial Completion: 90 Days from Notice to Proceed.

Final Completion: 120 Days from Notice to Proceed.

Any delays in substantial completion of the work that are within the control of the Contractor, their Subcontractor, or Supplier shall be subject to liquidated damages in the sum of \$200.00 for each consecutive calendar day that the project extends beyond the substantial completion deadline. See the General Conditions and Supplemental Conditions for the definition and requirements of substantial completion.

6. **Bid Documents:** Bid documents, including terms, general conditions, supplemental conditions, drawings, addenda, and other information are available online, free of charge, at the

Warren County's Website at <https://www.co.warren.oh.us/Commissioners/Bids/Default.aspx>. No planholder list will be maintained by the Owner. All Addenda will be posted on the website and shall not be mailed to bidders.

7. **Addenda and Interpretations:** No interpretations of the meaning of the plans, specifications, or other pre-bid documents will be made to any bidder orally. Every request for such interpretation must be in writing to Chris Wojnicz at Christopher.Wojnicz@co.warren.oh.us. To be given consideration all questions must be received by 4:00 pm on Thursday, May 6, 2021. All such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be posted on the Warren County Commissioners' website <https://www.co.warren.oh.us/Commissioners/Bids/Default.aspx>, no later than three days prior to the date fixed for opening of bids. Failure of any bidder to monitor the website and download any such addendum or interpretations shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the contract documents. Bidders shall be responsible for checking the website prior to submitting their bid.

8. **Required Forms:** Each bid must be submitted on the forms contained in the Contract Documents herein. All blank spaces for bid prices must be completed, in ink or typewritten, in both words and figures, and the foregoing certifications must be fully completed and executed when submitted. Each Bidder shall complete and submit the following forms with his/her bid:

Section 00 10 20	BID PROPOSAL
Section 00 10 30	BID FORM
Section 00 10 50	EXCEPTION SHEET
Section 00 30 10	NONCOLLUSION AFFIDAVIT – FORM 1
Section 00 30 20	NONCOLLUSION AFFIDAVIT – FORM 2
Section 00 30 30	AFFIDAVIT OF NON-DELINQUENCY OF REAL AND/OR PERSONAL PROPERTY TAX
Section 00 30 40	FINDINGS FOR RECOVERY AFFIDAVIT
Section 00 30 50	EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS, BID CONDITIONS, NON-DISCRIMINATION, AND EQUAL EMPLOYMENT OPPORTUNITY AFFIDAVIT
Section 00 40 00	BONDING REQUIREMENTS
Section 00 40 10	BID GUARANTY AND CONTRACT BOND

9. **Modification or Withdraw of Bid:** Bids may be modified or withdrawn by any 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.

After opening, a Bidder may withdraw their bid from consideration if the price bid was substantially lower than the other bids, provided the bid was submitted in good faith and the reason for the price being substantially lower was a clerical mistake as opposed to a judgment mistake and was actually due to an unintentional omission of a substantial quantity of work, labor or material made directly in the compilation of the bid. Request to withdraw such bid must be made in writing and filed with the Owner within two business days after the opening of bids and prior to the acceptance thereof.

10. **Method of Award:** The Owner may reject all bids or may award the contract on the base bid or on the base bid combined with additions or deductible alternates, to the lowest and best bidder, as produces a net amount which is within the available funds.

To determine lowest and best bidder, the price of the bid will be given equal weight against the totality of the following factors: 1.) the bidder's information provided in the Section 00 50 10 Experience Statement which shall be used to judge responsibility, experience, skill, financial standing, feedback from references or prior clients—which may include Owner; 2.) the Section 00 10 30 Exception Sheet; 3.) availability.

If the total price received from the lowest and best bidder exceeds the amount of funds available to finance the contract, the Owner may:

- a. Reject all bids;
- b. Augment the funds available in the amount sufficient to enable award to the lowest and best bidder or bidders;
- c. Reduce the scope of the work by eliminated certain items of work to produce a total bid which is within the available funds;
- d. Reduce the scope of work by reducing the quantities of certain items of work to produce a total bid which is within the available funds;
- e. Reduce the scope of work by a combination of adjustments as outlined in “c” and “d” above to produce a total bid which is within available funds.
- f. The Owner may reject all bids or may award the contract on the base bid or on the base bid combined with additions or deductible alternative as produces a net amount which is within the available funds.

The Owner may consider informal and may reject any bid not prepared and submitted in accordance with the provisions hereof. The Owner reserves the right to reject all bids, to waive any informalities or irregularities in the bids received, and to accept any bid which is deemed lowest and best.

11. **Qualification of Bidder:** The Owner any make such investigations as he/she deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated herein; conditional bids will not be accepted.

12. **Conditions of Work:** Each bidder must inform him/herself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provisions of his/her contract. Insofar as possible the contractor, in carrying out the work, must employ such methods or means or will not cause any interruption of or interference with the work of any other contractor. No plea of ignorance of conditions that exist or that may hereafter exist, or of conditions or difficulties that may be encountered in the execution of the work as the result of failure to make such examination and investigation, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill in every

respect, all the requirements of the Contract, nor will the same be accepted as a basis for any claim whatsoever for extra compensation or for an extension of time.

13. **Obligation of Bidder:** Each bidder shall, and is hereby directed to inspect the entire site of the proposed work and judge for him/herself as to all the circumstances affecting the cost and progress of the work and shall assume all patent and latent risks in connection therewith. At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

14. **Non-Collusion Affidavit:** The successful bidder will be required to submit non-collusion affidavit on the form included in these Bid/Contract Documents (SECTION 00 30 10 and 00 30 20). These affidavits shall be dated and executed as part of this bid.

15. **Real and/or Personal Property Tax Affidavit:** All bidders must complete the Real and/or Personal property tax affidavit (Section 00 30 30) and submit with your bid. This section should be fully completed whether or not you as a vendor/contractor own property in Warren County, Ohio.

16. **EEO Compliance:** Equal Employment Opportunity (EEO) compliance requirements and affidavits are contained in SECTION 00 30 50. Owner contracts that receive state or federal funding including, but not limited to, grants, loans, and debt forgiveness shall not be executed unless the Contractor possesses a current Certificate of Compliance issued by the State EEO Coordinator.

Every contract for or on behalf of the County for the construction, alteration, or repair of any public building or public work shall include an affidavit certifying the contractor complies with EEO requirements specified in Ohio Revised Code Section 153.59.

17. **Bid Security:**

A bid guaranty, as required by Ohio Revised Code, Section 153.54, shall accompany each proposal submitted, as follows:

1. A Certified check, cashier's check, or letter of credit equal to ten (10) percent of the bid. A letter of credit may only be revocable by the Owner. Upon entering into a contract with the Owner, the contractor must file a performance bond for the amount of the contract, and the bid guaranty will then be return to the successful and unsuccessful bidders upon request.

OR

2. A form of bid guaranty bond (attached) for the full amount of the bid. Such bond is retained for the successful bidder, but returned to unsuccessful bidders after the contract is executed.

Such cash, checks or bid bonds will be returned to bidders after the Owner has awarded the bid and has executed the contract, or, if no award has been made within 60 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he/she has not been notified of the acceptance of his/her bid.

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

18. **Liquidated Damages for Failure to Enter into Contract:** The successful bidder, upon his/her failure or refusal to execute and deliver the contract and bonds required within 10 working days after he/she has received the documents, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the bid security.

19. **Security for Faithful Performance:** Simultaneously with his/her delivery of the executed contract, the Contractor shall furnish a performance (surety) bond as security for faithful performance of this contract and for the payment of all persons performing labor on project under this contract and furnishing materials in connection with the contract. The surety on such bond or bonds shall be duly authorized surety company satisfactory to the Owner. Please note that upon execution of the Contract if a Bid Guaranty/Contract Bond was submitted with your original bid a Performance Bond will not be required.

20. **Required Insurance:** In accordance with the specifications and the Supplemental Conditions, the Contractor, without restricting the obligations and liabilities assumed under the Contract Documents, shall at his own cost and expense purchase and maintaining in force until final acceptance of his work, the forms of insurance coverage as described in Section 00 80 10 Supplemental Conditions 1.2.C. Article 5 – Bonds and Insurance.

Certificates from the insurance carrier stating the limits of liability and expiration date shall be filed with the Owner before operations are begin. Such certificates shall not merely name the types of policy provided, but shall specifically refer to this Contract and shall name the Board of Warren County Commissioners as additionally insured.

All policies as hereinafter required shall be so written that the Owner will be notified of cancellation or restrictive amendment at least sixty days prior to the effective date of such cancellation or amendment.

If any part of the work is sublet, insurance of the same types and limits as required shall be provided by or on behalf of the Subcontractors to cover that part of the work they have contracted to perform including Property Damage Liability Special Hazards coverage if so required by this contract.

21. **Additional Obligations Upon Contract Award:** Upon award of the bid but prior to execution of the final agreement and notice to proceed, the Contractor shall submit all of the following documents, completed as required:

1. Contract
2. Performance Bond
3. Certificates of Insurance

22. **Wage Rates:** In the event that the rate of wages paid for any trade or occupant in the locality where such work is being performed are under current collective agreements or understandings between bona fide organizations of labor and employer, then the wages to be paid shall be not less than such agreed wage rates, nor less than the minimum rates compiled by the Federal Labor Standard Act. Copies of these prevailing wage rates have been included in these specifications. Every Contractor and Subcontractor who is subject to Ohio Revised Code,

Chapter 4115 shall, as soon as he begins performance under his contract with the Owner, supply the Prevailing Wage Coordinator for the Owner a schedule of the dates on which he is required to pay wages to employees. He shall also deliver to the Prevailing Wage Coordinator within three weeks after each pay date, a certified copy of his payroll which shall exhibit for each employee paid any wages, name, current address, social security number, number of hours worked each day of the pay period and the total for each week, hourly rate of pay, job classification, fringe payments, and deductions from wages. The certification of each payroll shall be executed by the Contractor, Subcontractor, or duly appointed agent thereof and shall recite that the payroll is correct and complete and that the wage rate shown is not less than those required by the contract.

In case the Owner orders the Contractor to perform extra or additional work which may make it necessary for the Contractor or any Subcontractor under this contract to employ a person not herein specified, the Contractor will include in the contract change order for such extra or additional work, a minimum wage rate for such trade or occupation, and insofar as such extra or additional work is concerned, there shall be paid to each employee engaged in work of such trade or occupation, not less than the wage so included. Insofar as possible, local labor shall be employed on this work.

23. **Laws and Regulations:** The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities have jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

24. **Foreign Corporation and Contractors:** "Foreign Corporations" means a corporation incorporated under the laws of another state. No contract shall be entered into with a foreign corporation until the Secretary of State has certified that such corporation is authorized to do business in Ohio: and until, if the bidder so awarded the Contract is a person or partnership, it has filed with the Secretary of State a Power of Attorney designating the Secretary of State as its agent for the purpose of accepting service of summons in any action brought under Ohio Revised Code, Section 153.05 or under Sections 4123.01 to 4123.94, inclusive.

25. **Safety Standards and Accident Prevention:** With respect to all work performed under this Contract, the Contractor shall:

- a. Comply with the safety standards provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of title 29 of the code of Federal Regulations, Section 1518 as published in the "Federal Register", Volume 36, N. 75, Saturday, April 17, 1971.
- b. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
- c. Maintain at his/her office or other well known place at the job site, all articles necessary for giving first aid to the injured, and shall make standing arrangements for the immediate removal to a hospital or doctor's care of persons (including employees) who may be injured at the job site. In no case shall employees be permitted to work

at a job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.

26. **Permits:** Contractor shall keep a copy of all permits at the project site throughout the duration of the work. The permits required for the work, the permit holder, and the entity paying for the permit is outlined below. All obtained permits acquired to date are included in SECTION 00 70 20.

Permit	Agency	Permit Holder	Entity Paying for Permit
Railroad Permit	Norfolk Southern	Owner	Owner
Land Use Permit	MCD	Owner	Owner
OEPA Permit-to-Install	OEPA	Owner	Owner

27. **Subcontracts:** Contractor shall provide upon request of the Owner a list of all subcontractors intended to be used in performance of the work. In the event the Owner does not object, Contractor may have such work performed by a subcontractor. Contractor shall bind every subcontractor to, and every subcontractor must agree to be bound by the terms of the Agreement, as far as applicable to the subcontractor's work particularly pertaining to Prevailing Wages and EEO requirements. Nothing contained in the Agreement shall create any contractual relationship between any subcontractor and Owner, nor create any obligations on the part of the Owner to pay or see to the payment of any sums to any subcontractor.

28. **Subletting of Contract:** The Contractor shall not sublet, sell, transfer or assign any portion of the contract without written consent of the Owner or his designated agent. When such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with his own organization, work amounting to no less than fifty percent of the total contract cost, except that any time designated in the contract before computing the amount of work required to be performed by the Contractor with his own organization, no subcontract, or transfer of contract, shall in any way release the Contractor of his liability under the contract and bonds.

29. **CONFIDENTIAL DOCUMENTS & INFORMATION:** Do not submit confidential documents or documents of any type that contain trade secrets. All materials submitted become public records once opened and may be copied upon request to anybody including competitive bidders.

END OF SECTION

**SECTION 00 30 10
NONCOLLUSION AFFIDAVIT – FORM 1**

State 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 colluded, conspired, connived or agreed with any BIDDER or any one else to put in a sham BID, or that any one shall refrain from Bidding; that said BIDDER has not in any manner, directly or indirectly, sought by agreement, communication or conference with any one 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 statement 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 who have a partnership or other financial interest with said BIDDER in his general business.

Signed:

Subscribed and sworn to before

me this ___ day of _____, 2021.

Seal of Notary

SECTION 00 30 20
NONCOLLUSION AFFIDAVIT – FORM 2

STATE OF _____

COUNTY OF _____

I, _____, holding the title and position of _____ at the firm _____, affirm that I am authorized to speak on behalf of the company, board directors and owners in setting the price on the contract, bid or proposal. I understand that any misstatements in the following information will be treated as fraudulent concealment of true facts on the submission of the contract, bid or proposal.

I hereby swear and depose that the following statements are true and factual to the best of my knowledge:

The contract, bid or proposal is genuine and not made on the behalf of any other person, company or client, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS.

The price of the contract, bid or proposal was determined independent of outside consultation and was not influenced by other companies, clients or contractors, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS.

No companies, clients or contractors, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS have been solicited to propose a fake contract, bid or proposal for comparative purposes.

No companies, clients or contractors, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS have been solicited to refrain from bidding or to submit any form of noncompetitive bidding.

Relative to sealed bids, the price of the bid or proposal has not been disclosed to any client, company or contractor, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS, and will not be disclosed until the formal bid/proposal opening date.

AFFIANT

Subscribed and sworn to before me this _____ day of _____ 2021.

(Notary Public),

_____ County.

My commission expires _____ 20__

SECTION 00 30 30
AFFIDAVIT OF NON-DELINQUENCY OF REAL AND/OR
PERSONAL PROPERTY TAX

THIS SECTION SHOULD BE FULLY COMPLETED WHETHER OR NOT YOU AS A VENDOR/CONTRACTOR OWN PROPERTY IN WARREN COUNTY, OHIO. MAKING A FALSE STATEMENT ON THIS AFFIDAVIT MAY BE PUNISHABLE BY A FINE AND/OR IMPRISONMENT.

STATE OF _____)

SS:

COUNTY OF _____)

_____ being duly cautioned and sworn, states as follows:

1. That he/she is _____ of
(Title)

(Name of Contracting Party)

2. That _____ is not presently charged with any
(Name of Contracting Party)
delinquent Real and/or Personal property taxes on the general tax list of Real and/or
Personal property of Warren County.

-OR-

1. That _____ is charged with delinquent Real and/or
(Name of Contracting Party)

Personal property tax on the general tax list of Real and/or Personal property of Warren
County. The amount of delinquent Real and/or Personal property tax due and unpaid
including any due and unpaid penalty and interest is:

\$ _____

Further, affiant states not.

Affiant

Sworn to and subscribed in my presence this ____ day of _____ 2021.

Notary Public

This instrument was prepared by _____.

Note to Fiscal Office: If any Real and/or Personal property taxes are delinquent, you must send a copy of this statement to the County Treasurer within 30 days of the date it is submitted.

**SECTION 00 30 40
FINDINGS FOR RECOVERY AFFIDAVIT**

STATE OF _____

COUNTY OF _____, SS:

_____, upon being duly cautioned and sworn, hereby states the following based on personal knowledge:

- 1) That he/she is _____ (title), of _____ (name of bidder) and authorized to execute this affidavit; and,
- 2) That _____ (name of bidder) is not a person or entity against whom a finding for recovery has been issued by the Auditor of State, which finding for recovery is unresolved as defined in Ohio Revised Code [General Provisions] Section 9.24 (B); and,
- 3) That _____ (name of bidder) does not appear in the database of unresolved findings of recovery maintained by the Auditor of State pursuant to Ohio Revised Code [General Provisions] Section 9.24 (D).

Affiant

Sworn to and subscribed in my presence this _____ day of _____, 2021.

Notary Public

My Commission expires: _____

Section 00 30 50

**EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS, BID CONDITIONS,
NON-DISCRIMINATION, AND EQUAL EMPLOYMENT OPPORTUNITY AFFIDAVIT**

Bidders shall submit a copy of a valid Certificate of Compliance issued by the State EEP Coordinator for Owner projects that received state or federal funding. The source of financing and funding for this project is specified in SECTION 00 20 00 – INSTRUCTION TO BIDDERS. Bidders may contact the State of Ohio, Department of Administrative Services, Equal Opportunity Division for information on how to apply online for a certification using the Ohio Business Gateway.

Every contract for or on behalf of the County for the construction, alteration, or repair of any public building or public work shall include an affidavit certifying the contractor complies with EEO requirements specified in Ohio Revised Code Section 153.59. In addition to the affidavit, all bidders agree to the following State of Ohio standard conditions of contract for construction:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. Such action shall include, but is not limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Contractor will in all solicitations or advertisements for employees placed by or on behalf of the prime contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex.
3. The Contractor agrees to fully cooperate with the County, the State Equal Employment Opportunity Coordinator and with any other official or agency, or the State or Federal government which seeks to eliminate unlawful employment discrimination, and with all other State and Federal efforts to assure equal employment practices under its contract and the contractor shall comply promptly with all requests and directions from the County, the State Equal Opportunity Coordinator and any of the State of Ohio officials and agencies in this regard, both before and during construction.
4. Full cooperation as expressed in clause (3), above, shall include, but not be limited to, being a witness and permitting employees to be witnesses and complainants in any proceedings involving questions of unlawful employment practices, furnishing all information requested by the County and the State Equal Employment Opportunity Coordinator, and permitting access to its books, records, and accounts by the County and the State Equal Employment

Opportunity Coordinator for purposes of investigation to ascertain compliance with applicable rules, regulations and orders.

5. In the event of the Contractor's noncompliance with the nondiscrimination clauses of its contract or with any of the said rules, regulations, or orders, its contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further County construction contracts.
6. The Contractor will require the inclusion of language reflecting these same six covenants within every subcontract or purchase order it executes in the performance of its contract unless exempted by rules, regulations or orders of the State Equal Employment Opportunity Coordinator so that these provisions will be binding upon each subcontractor or vendor. The contractor will take such as the County may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in any litigation with a subcontractor, vendor or other party as a result of such direction by the County, the contractor may be requested to protect the interests of the County.

The bidder hereby adopts the foregoing covenants?

_____ Yes _____ No

PLEASE NOTE: The bidder's failure to adopt the Bidder's EEO Covenants, will cause the bidder's proposal to be rejected as being non-responsive.

CERTIFICATE OF COMPLIANCE NON-DISCRIMINATION AND EQUAL EMPLOYMENT
OPPORTUNITY AFFIDAVIT (CONTRACTOR)

STATE OF _____)

SS:

COUNTY OF _____)

_____ being first duly sworn, deposes and
says that he/she is _____ of _____

the party who made the foregoing proposal; that such party as bidder does not and shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. If awarded the bid and contract under this proposal, said party shall take affirmative action to insure that applicants are employed and that employees are treated, during employment, without regard to their race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex.. If successful as the lowest and best bidder under the foregoing proposal, this party shall post non-discrimination notices in conspicuous places available to employees and applicants for employment setting forth the provisions of this affidavit.

Furthermore, said party agrees to abide by the assurances found in Section 153.54 of the Ohio Revised Code in the Contract Provisions with the Owner if selected as the successful bidder by the Owner.

Signature

Affiant

Company/Corporation

Address

City/State/Zip Code

Sworn to and subscribed before me this _____ day of _____, 2021.

(seal)

Notary

CERTIFICATE OF COMPLIANCE NON-DISCRIMINATION AND EQUAL EMPLOYMENT
OPPORTUNITY AFFIDAVIT (SUB-CONTRACTOR)

STATE OF _____)

SS:

COUNTY OF _____)

_____ being first duly sworn, deposes and

says that he/she is _____ of _____

the party who made the foregoing proposal; that such party as bidder does not and shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. If awarded the bid and contract under this proposal, said party shall take affirmative action to insure that applicants are employed and that employees are treated, during employment, without regard to their race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex.. If successful as the lowest and best bidder under the foregoing proposal, this party shall post non-discrimination notices in conspicuous places available to employees and applicants for employment setting forth the provisions of this affidavit.

Furthermore, said party agrees to abide by the assurances found in Section 153.54 of the Ohio Revised Code in the Contract Provisions with the Owner if selected as the successful bidder by the Owner.

Signature

Affiant

Company/Corporation

Address

City/State/Zip Code

Sworn to and subscribed before me this _____ day of _____, 2021.

(seal)

Notary

SECTION 00 40 00
BONDING REQUIREMENTS

Bid guaranty, as required by Ohio Revised Code, Section 153.54, shall accompany each proposal submitted, as follows, either:

1. A Certified check, cashier's check, or letter of credit equal to ten (10) percent of the bid. A letter of credit may only be revocable by the Owner.

OR

2. A form of bid guaranty and contract bond (attached) for the full amount of the bid. Such bond is retained for the successful bidder, but returned to unsuccessful bidders after contract is executed.

Performance bond is required upon entering into a contract with the Owner for 100 percent of the contract price when the bid guaranty is a certified check, cashier's check, or letter of credit equal to ten percent. Otherwise the bid guaranty and contract bond shall secure the performance of the contract with a penal sum of 100% of the bid. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.

SECTION 00 40 10
BID GUARANTY AND CONTRACT BOND

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

(Insert full name or legal title of Contractor and Address)

as Principal and

(Insert full name or legal title of Surety)

as Surety, are hereby held and firmly bound unto the Warren County Board of Commissioners hereinafter called the Obligee, in the penal sum of the dollar amount of the bid submitted by the Principal to the Obligee on _____ to undertake the project known as:

FRANKLIN AREA WATER TREATMENT PLANT CONCENTRATE DISCHARGE LINES PROJECT

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Obligee, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of _____ DOLLARS, \$ _____. If this item is left blank, the penal sum will be the full amount of the Principal's bid, including alternates. Alternatively, if completed, the amount stated must not be less than the full amount of the bid, including alternates in dollars and cents. A percentage is not acceptable.

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

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named Principal has submitted a bid on the above referred to project;

NOW, THEREFORE, if the Obligee accepts the bid of the Principal and the Principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications, and bills of material; and in the event the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid and such larger amount for which the Obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the Obligee does not award the contract to the next lowest bidder and resubmits the project for bidding, the Principal will pay the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new contract documents, required advertising, and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect.

If the Obligee accepts the bid of the Principal and within TEN days after the awarding of the contract, enters into a proper contract in accordance with the bid, plans, details, specifications, and bills of material, which said contract is made a part of this bond the same as though set forth herein; and

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

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

SIGNED AND SEALED this ____ day of _____ 2021.

PRINCIPAL

SURETY

By: _____

By: _____

Attorney-in-fact

Title: _____

Surety Agent's Name and Address:

**SECTION 00 40 20
PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

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

Principal, and _____
(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

WARREN COUNTY OHIO, BOARD OF COMMISSIONERS
406 Justice Drive
Lebanon, OH 45036

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 contract with the OWNER, dated the _____ day of _____, 2021, a copy of which is hereto attached and made a part hereof for the construction of:

FRANKLIN AREA WATER TREATMENT PLANT CONCENTRATE DISCHARGE LINES PROJECT

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract 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 guaranty period(s), and if he shall satisfy all claims and demands incurred under such contract, 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 of the terms of the contract or the

WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way 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 contract 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 counterparts, each one of which shall be deemed an original, this the _____ day of _____ 2021.

ATTEST:

(Principal)

(SEAL)

By _____

ATTEST:

(SEAL)

(Surety)

IMPORTANT: Pursuant to Ohio Revised Code §122.87(A) defines surety company as, “. . . a company that is authorized by the department of insurance to issue bonds as a surety”.

SECTION 00 50 10
EXPERIENCE STATEMENT

The Bidder is required to state in detail in the space provided below, what work they have completed of a character similar to that included in the proposed contract, to give references and such other detailed information as will enable the Owner to judge their responsibility, experience, skill and financial standing. Completion of this statement is required and must be submitted with the Bid in order to qualify for consideration for award of contract.

SUBMITTED FOR:

**FRANKLIN AREA WATER TREATMENT PLANT CONCENTRATE DISCHARGE
LINES PROJECT**

SUBMITTED BY:

Name: _____

(Print or Type Name of Bidder)
(A Corporation / A Partnership / An Individual)
[Bidder to strike out inapplicable terms.]

Address: _____

The undersigned certifies under oath the truth and correctness of all statements and of all answers to questions made hereinafter.

(Note: Attach Separate Sheets as Required)

1.0 How many years has your organization been in business as a construction contractor?

2.0 How many years has your organization been in business under its present name?

3.0 Has any construction contracts to which you have been a party been terminated by the owner; have you ever terminated work on a construction project prior to its completion for any reason; has any surety which issued a performance bond on your behalf ever completed the work in its own name or financed such completion on your behalf; has any surety expended any monies in connection with a contract for which they furnished a bond on your behalf? If the answer to any portion of this question is "yes", please furnish details of all such occurrences including name, address, phone number, and contact person of owner, engineer, and surety, and name and date of project.

No _____ Yes _____, If yes, attach details described above.

4.0 Has any officer or partner of your organization ever been an officer or partner of another organization that had construction contracts terminated by the owner; terminated work on a project prior to its completion for any reason; had any surety which issued a performance bond complete the work in its own name or financed such completion; or had any surety expend any monies in connection with a contract for which they furnished a bond? If the answer to any portion of this question is "yes", please furnish details of all such occurrences including name, address, phone number, and contact person of owner, engineer, and surety, and name and date of project.

No _____ Yes _____, If yes, attach details described above.

5.0 Provide a list of water and wastewater construction projects, their owners, contract amounts, percent complete, short description of work, and scheduled completion that your organization has in process on this date.

6.0 Provide a list of water and wastewater construction projects, their owners, contract amounts, short description of work, and dates of completion that your organization has completed in the past five years.

7.0 Have you personally inspected the site of the proposed work? Describe any anticipated problems with the site and your proposed solutions.

8.0 List name, address and telephone number of a reference for each project listed under Items 5.0 and 6.0, above.

9.0 List name and experience of the principal individuals of your organization.

10.0 List the states in which your organization is legally qualified to do business.

11.0 List name, address and telephone number of an individual who represents each of the following and whom OWNER may contact for a financial reference:

11.1 A surety:

Name _____

Contact _____

Address _____

_____ Phone No. _____

Financial Reference _____

11.2 A bank:

Name _____

Contact _____

Address _____

_____ Phone No. _____

Financial Reference _____

11.3 A major material supplier:

Name _____

Contact _____

Address _____

Phone No. _____

Financial Reference _____

12.0 Dated at _____ this ___ day of _____, 2021.

(Print or Type Name of Bidder)

By: _____

(Seal, if corporation)

------(Affidavit for Individual)-----

_____, being duly sworn, deposes and says that all of the foregoing qualification information is true, complete, and accurate.

------(Affidavit for Partnership)-----

_____, being duly sworn, deposes and says that he/she is a member of the partnership of _____ and that all of the foregoing qualification information is true, complete, and accurate.

------(Affidavit for Corporation)-----

_____, being duly sworn, deposes and says that he/she is _____ of _____, and that all of the (Full name of Corporation)

foregoing qualification information is true, complete, and accurate.

------(Affidavit for Joint Venture)-----

_____ and _____, being duly sworn, deposes and says that they are members of _____ (Full Name of Joint Venture)

, and that all of the foregoing qualification information is true, complete, and accurate.

------(Acknowledgment) -----

_____, being duly sworn, deposes and says that he/she is
of _____; that he/she is duly authorized to make the foregoing
(Name of Bidder)

affidavit and that he/she makes it on behalf of () himself/herself; () said partnership; ()
said corporation.

Sworn to before me this _____ day of _____, 2021, in the County
of _____, State of _____.

(Notary Public)

My commission expires _____

(Seal)

**SECTION 00 60 10
CONTRACT**

THIS AGREEMENT, made this _____ day of _____, 2021, with the Warren County Board of Commissioners, 406 Justice Drive, Lebanon, Ohio, hereinafter called "Owner" and **CONTRACTOR NAME AND ADDRESS HERE** doing businesses as (an individual, partner, a corporation) hereinafter called "Contractor."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Owner, the Contractor hereby agrees with the Owner to commence and complete the construction described as follows:

FRANKLIN AREA WATER TREATMENT PLANT CONCENTRATE DISCHARGE LINES PROJECT

hereinafter called the project, for the sum of **\$AMOUNT AND WRITE IT OUT HERE**, and all work in connection therewith, under the terms as stated in the General Conditions and Supplemental Conditions of the Contract; and as his (its or their) own proper cost and expense furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in Contract Documents. "Contract Documents" means and includes the following:

- Addendum
- Division 00 – Contract Requirements
- Division 01 to 48 – Technical Specifications
- General Conditions
- Supplemental Conditions
- Any and All Bid Documents
- Construction Drawings

CONTRACTOR hereby agrees to commence work under this contract on or before a date to be specified in a Written "Notice to Proceed" of the OWNER and shall complete all work within the following requirements:

Substantial Completion: 90 Days from Notice to Proceed.

Final Completion: 120 Days from Notice to Proceed.

Any delays in substantial completion of the work that are within the control of the Contractor, their Subcontractor, or Supplier shall be subject to liquidated damages in the sum of \$200.00 for each consecutive calendar day that the project extends beyond the substantial completion deadline.

This Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement. The nonperforming party shall have fifteen calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party.

OWNER may terminate or suspend performance of this Agreement for OWNER'S convenience upon written notice to the CONTRACTOR. CONTRACTOR shall terminate or suspend performance of the services/work on a schedule acceptable to the OWNER.

The CONTRACTOR will indemnify and save the OWNER, their officers and employees, harmless from loss, expenses, costs, reasonable attorneys fees, litigation expenses, suits at law or in equity, causes of action, actions, damages, and obligations arising from (a) negligent, reckless or willful and wanton acts, errors or omissions by CONTRACTOR, its agents, employees, licensees, consultants, or subconsultants; (b) the failure of the CONTRACTOR, its agents, employees, licensees, consultants or subconsultants to observe the applicable standard of care in providing services pursuant to this agreement; (c) the intentional misconduct of the CONTRACTOR, its agents, employees, licensees, consultants, or subconsultants that result in injury to persons or damage to property. for which the OWNER may be held legally liable.

The CONTRACTOR does hereby agree to indemnify and hold the OWNER harmless for any and all sums for which the OWNER may be required to pay or for which the OWNER may be held responsible for failure of the CONTRACTOR or any subcontractors to pay the prevailing wage upon this project.

The OWNER agrees to pay the CONTRACTOR in the manner and at such times as set forth in the General Conditions and as amended in the Supplemental Conditions and in such amounts as required by the Contract Documents.

This Contract shall be construed under the laws of the State of Ohio, and the parties hereby stipulate to the venue for any and all claims, disputes, interpretations, litigation of any kind arising out of this Contract being exclusively in the Warren County, Ohio Court of Common Pleas (unless both parties mutually agree in writing to alternate dispute resolution), as well as waiving any right to bring or remove such matters in or to any other state or federal court.

This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

Contractor shall bind every subcontractor to, and every subcontractor must agree to be bound by the terms of, this Agreement, as far as applicable to the subcontractor's work particularly pertaining to Prevailing Wages and EEO requirements. Nothing contained in this Agreement shall create any contractual relationship between any subcontractor and Owner, nor create any obligations on the part of the Owner to pay or see to the payment of any sums to any subcontractor.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in two counterparts, each of which shall be deemed an original on the date first above written.

WARREN COUNTY BOARD OF COMMISSIONERS
(Owner)

David G. Young, President

ATTEST:

Tom Grossmann, Vice President

Name

Shannon Jones

(Seal)

ATTEST:

CONTRACTOR NAME HERE
(Contractor)

By: _____
Name

Title

Approved as to Form:

Assistant Prosecutor

SECTION 00 70 10
WAGE RATE DETERMINATION

Prevailing wage rates for the State of Ohio apply to this project. Contractors and Subcontractor(s) shall conform to the State of Ohio Department of Labor requirements, guidelines, and laws. Included in this section is a list of the Ohio Prevailing Wage Rates available at the time of publication. It is the responsibility of the Contractor and Subcontractor(s) to verify the wage rates prior to bidding and throughout the project. A complete list of Ohio Prevailing Wage Rates is available at the Ohio Wage and Hour website or from the Ohio department of Commerce Wage and Hour Bureau.



Mike DeWine
Governor

Sheryl Maxfield
Director

PREVAILING WAGE GUIDE

WARREN COUNTY

OHIO DEPARTMENT OF COMMERCE

Division of Industrial Compliance
Bureau of Wage and Hour Administration
6606 Tussing Road, PO Box 4009
Reynoldsburg, Ohio 43068-9009
Phone: 614-644-2239
Fax: 614-728-8639
www.com.ohio.gov
TTY/TDD: 1-800-750-0750

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This packet of information is provided as a summary of the Prevailing Wage guidelines and responsibilities. The Ohio Revised Code, Chapter 4115 should be referred to for the exact wording of the law. Also included are references and forms which should be helpful in the compliance of the Prevailing Wage Law.

PACKET INFORMATION INDEX

A. The Ohio Department of Commerce-Division of Industrial Compliance, Wage and Hour Administration Investigators and their assigned counties

1. The Wage and Hour Investigators for the State of Ohio are listed with their contact information.
 - a. If you have questions or need assistance pertaining to Prevailing Wage, you can contact the Investigator in your area.

B. Prevailing Wage Guide for Public Authorities

1. Notice of change of the Prevailing Wage Threshold Level.
 - a. A notification will be sent to you when there is a change of the Prevailing Wage threshold level
2. Outline of the Public Authority's responsibilities for Prevailing Wage.
3. Public Authority's Compliance Checklist form.
 - a. A form for tracking the progress of a Prevailing Wage project
4. Request form for Prevailing Wage Rates.
 - a. Prevailing Wage Rates can be obtained on the website www.com.ohio.gov
 - (1) Prevailing Wage Determination Schedule of wages must be attached to and made part of the specifications for the project, and must be printed on the bidding blanks where the work is done by contract.
5. Bid Tabulation form
 - a. A form to be completed and returned to ODOC-DIC-Bureau of Wage and Hour Administration when the contract has been awarded.
6. Prevailing Wage Bonds form
 - a. Information needed to be kept on file by the Prevailing Wage Coordinator when bonds from the Public Authority are used for a project.

C. Prevailing Wage Guidelines for the Public Authority's Coordinator

1. Guideline for the Prevailing Wage Coordinator
 - a. The Prevailing Wage complaint form and instructions can be obtained on the website www.com.ohio.gov
2. Record of the Certified Payroll Reports Received form
 - a. Helpful form for recording the Certified Payroll Reports and the dates received from the contractors and subcontractors.
3. Employee Interview form
 - a. Helpful form for the use by the Prevailing Wage Coordinator when making on-site visits.
4. Employee vs. Independent Contractor
 - a. Helpful questions when determining if a person is an Employee or an Independent Contractor.

D. Prevailing Wage Guide for Contractors

(Incorporate this section in the Specifications or supply copies for the pre-construction meeting.)

1. Outline of responsibilities for the Prevailing Wage Contractor
2. Notification form from the Contractor to the Employee
 - a. The contractor must submit to employees a completed and signed notification form.
 - b. Some Prevailing Wage Coordinators may require a copy of the completed Notification to the Employee form be submitted with the Certified Payroll Reports.
3. Certified Payroll Report form
 - a. The contractor can use any form/format he chooses as long as **ALL** the information has been provided.
4. Certified Payroll Report form instruction sheet
5. Corrected Certified Payroll Report Example
6. Affidavit of Compliance form
 - a. No Public Authority shall make final payment unless the **Final Affidavits** have been filed by the contractors and subcontractors.



Mike DeWine
Governor

Sheryl Maxfield
Director

INVESTIGATORS CONTACT INFORMATION

OHIO DEPARTMENT OF COMMERCE

Division of Industrial Compliance
Bureau of Wage and Hour Administration
6606 Tussing Road, PO Box 4009
Reynoldsburg, Ohio 43068-9009
Phone: 614-644-2239
Fax: 614-728-8639
www.com.ohio.gov
TTY/TDD: 1-800-750-0750

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OHIO DEPARTMENT OF COMMERCE
Division of Industrial Compliance
Bureau of Wage and Hour Administration
Chief, Stephen Clegg

6606 Tussing Road, PO Box 4009
Reynoldsburg, Ohio 43068-9009
614-644-2239
fax: 614-728-8639
<http://www.com.ohio.gov>

INVESTIGATORS and THEIR HEADQUARTER COUNTY

#48 Dave Horvath PO Box 1512 Lima, Ohio 45802-1512 Voice: (419) 302-1200 Fax: (614) 728-8639 Dave.Horvath@com.state.oh.us	Allen *
#30 Mike McKee P.O. Box 1342 Cambridge, Ohio 43725-2247 Voice/Fax: (740) 432-1987 Michael.McKee@com.state.oh.us	Guernsey*
#56 Shawn Miles P.O. Box 2547 North Canton, Ohio 44720 Voice/Fax: (614) 496-9076 Shawn.Miles@com.state.oh.us	Stark *
#37 David Rice P.O. Box 41241 Dayton, Ohio 45441 Voice: (740) 502-0883 Fax: (614) 995-7768 Dave.Rice@com.state.oh.us	Montgomery *
#35 Sean Seibert P.O. Box 422 Palmsville, Ohio 44077-3938 Voice: (614) 557-8662 Fax: (614) 232-9541 Sean.Seibert@com.state.oh.us	Lake *
#11 Kela D. Thompson 6606 Tussing Rd, PO Box 4009 Reynoldsburg, Ohio 43068-9009 Voice: (614) 728-5007 Fax: (614) 232-9537 Kela.Thompson@com.state.oh.us	Franklin *

* **Headquarter County**

Stephen Clegg, Chief 6606 Tussing Road, PO Box 4009 Reynoldsburg, Ohio 43068-9009 Voice: (614) 728-8686 Fax: (614) 728-8639 Stephen.Clegg@com.state.oh.us	#90 Jackie Clark, Supervisor 6606 Tussing Rd, PO Box 4009 Reynoldsburg, Ohio 43068-9009 Voice: (614) 728-5019 Fax: (614) 222-2357 Jackie.Clark@com.state.oh.us
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Mike DeWine
Governor

Sheryl Maxfield
Director

PREVAILING WAGE GUIDE FOR PUBLIC AUTHORITIES

OHIO DEPARTMENT OF COMMERCE

Division of Industrial Compliance
Bureau of Wage and Hour Administration
6606 Tussing Road, PO Box 4009
Reynoldsburg, Ohio 43068-9009
Phone: 614-644-2239
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www.com.ohio.gov
TTY/TDD: 1-800-750-0750

The Ohio Department of Commerce is an Equal Opportunity Employer and Service Provider

PREVAILING WAGE THRESHOLD LEVELS

IMPORTANT NOTICE

Before advertising for bids, contracting, or undertaking construction with its own forces, to construct a public improvement, the Public Authority shall have the Ohio Department of Commerce-Division of Industrial Compliance, Bureau of Wage and Hour Administration determine the prevailing rates of wages for workers employed on the public improvement. The wage determination must be included in the project specifications and printed on the bidding blanks where work is done by contract.

“New” construction threshold for <i>Building Construction</i>:	\$250,000
---	------------------

“Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting” threshold level for <i>Building Construction</i>:	\$75,000
---	-----------------

As of January 1, 2018:

“New” construction that involves <i>roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction</i> threshold level has been adjusted to:	\$91,150
---	-----------------

“Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting” that involves <i>roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction</i> threshold level has been adjusted to:	\$27,309
---	-----------------

- A) Thresholds are to be adjusted biennially by the Director of the Ohio Department of Commerce.
- B) Biennial adjustments to threshold levels are made according to the Building Cost for Skilled Labor Index published by McGraw-Hill’s Engineering News-Record, but may not increase or decrease more than 3% for any year.

If there are questions concerning this notification, please contact:

Ohio Department of Commerce
 Division of Industrial Compliance
 Bureau of Wage and Hour Administration
 6606 Tussing Road, PO Box 4009
 Reynoldsburg, Ohio 43068-9009
 Phone: 614-644-2239
 Fax: 614-728-8639
www.com.ohio.gov

Public Authority Responsibilities
ORC Chapter 4115: Wages and Hours on Public Works
(Prevailing Wage Coordinator)

1. Before advertising for bids, contracting, or undertaking construction with its own forces, to construct a public improvement, the public authority shall have the Ohio Department of Commerce, Division of Industrial Compliance, Bureau of Wage and Hour Administration determine the prevailing rates of wages for workers employed on the public improvement. The wage determination must be included in the project specifications and printed on the bidding blanks where work is done by contract.
 - a) "New" construction has a threshold level of **\$250,000.**
 - b) "Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting" has a threshold level of **\$75,000.**
 - c) "New" construction that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction has a threshold level of **\$84,314.**
 - d) "Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting" that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction has a threshold of **\$25,261.**
 - i.) Thresholds are to be adjusted biennially by the Director of Ohio Department of Commerce, Division of Industrial Compliance, Bureau of Wage and Hour Administration.
 - ii.) Biennial adjustments to threshold levels are made according to the Price Deflator for Construction Index, United States Department of Commerce, Bureau of the Census, but may not increase or decrease more than 3% for any year.
2. Every contract for public work shall contain a provision that each worker employed by the contractor or subcontractor, or other person about or upon the public work, must be paid the prevailing rate of wages.
3. If contracts are not awarded or construction undertaken within ninety days (90) from the date of the determination of the prevailing wage there shall be a re-determination of the wage rates before the contract is awarded.
4. Within **seven (7) working days** after the receipt of notification of a change in the prevailing wage rates, the public authority shall notify all affected contractors and subcontractors. If it is determined that a contractor or subcontractor has violated sections 4115.03 to 4115.16 of the Ohio Revised Code because they were not notified as required, **the public authority is liable** for any back wages, fines, damages, court costs and attorney's fees for the period of time covering the receipt of wage changes, until they give the required notice.
5. No public authority shall award a contract for a public improvement to any contractor or subcontractor whose name appears on the list of debarred contractors. This list is filed with the Secretary of State by the Ohio Department of Commerce-Division of Industrial Compliance & Labor-Bureau of Wage and Hour Administration **The filing of the notice of conviction with the secretary of state constitutes notice to all public authorities.** These contractors are prohibited from working on public improvements for periods ranging from one to three years. The list of debarred contractors can be located on the website www.com.ohio.gov/laws
6. A public authority must designate and appoint **one of its own employees** to serve as the Prevailing Wage Coordinator during the life of the contract for constructing the public improvement. A Prevailing Wage Coordinator must be appointed no later than ten days before the first payment of wages by contractors to employees working on the public improvement.

PUBLIC AUTHORITY'S COMPLIANCE CHECKLIST FOR PREVAILING WAGE

Project:		Number:
Department:		Phone#:
PW Coordinator:		Phone#:
Architect/Engineer:		Phone#:
Contractor:		Phone#:
Contact Person:		Title:
General Contractor:		Prime Contractor:
		Construction Mgr:
Date Completed	Compliance Item Description	
	1.	Request Prevailing Wage Determination Schedule from ODOC-DIC-Wage & Hour
	2.	Received Prevailing Wage Determination Schedule
	3.	Incorporate Determination Schedule in Specs./Bidding Blanks
	4.	Incorporate notice of Prevailing Wage requirements in Invitation for Bids/Notice to Bidders
	5.	Incorporate Prevailing Wage requirements in Contract
	6.	Submit complete Invitation for Bid to ODOC-DIC-Wage & Hour
	7.	Invitation for Bids
	8.	Bid Opening
	9.	Check Listing of Violators
	10.	Award of Contract. (see note)
	11.	Submit Bid Tabulation/Award to ODOC-DIC-WAGE & HOUR
	12.	Notice to Successful Bidder
	13.	Work Commenced...(see note)
	14.	Appoint Prevailing Wage Coordinator
	15.	Received list of Subcontractors' names, addresses, phone #'s & email's
	16.	Received Payroll Date Schedule
	17.	Received Registered Apprenticeship Agreement Certifications
	18.	Received Deduction Agreements
	19.	Received Payroll Reports with Certification...(see attachment)
	20.	Visited project site
	21.	Received Changes to Determination Schedule
	22.	Notice to Contractors of Determination Schedule change
	23.	Request Final Compliance Affidavit from contractors & subcontractors
	24.	Received Final Affidavits from all contractors & subcontractors
	25.	Certify Final Payment

Note: If contract is not awarded or construction undertaken within 90 days from the date of establishment of the Prevailing Wage Rates, a re-determination of the Prevailing Wage Rates is required.

REQUEST FOR STATE OF OHIO PREVAILING WAGE RATES

Date		(Mark (X) One) <input type="checkbox"/> ~ Residential <input type="checkbox"/> ~ Construction
Project Information (only one project and one county per request form please)		
County of Project	Project Name	This form MUST be filled out COMPETELY & CORRECTLY for us to process your request. Forms not completed correctly will be RETURNED TO THE SENDER.
Site Address	City	
Owner/Public Authority		Prevailing Wage Rates can be obtained on the website www.com.ohio.gov
Address	Telephone Number	ODOC-DIC-WAGE & HOUR DATE STAMP
City	Zip Code	
PW Coordinator	Telephone Number	
Issuing Authority of Bonds	Type of Financing	
Estimated Total Overall Project Cost		
<input type="checkbox"/> New Construction <input type="checkbox"/> "Old" Construction * A copy of this form will be returned to you with your wage rates. You must send that copy to us with your bid tabulations once the contract has been awarded.		PLEASE MAIL THIS REQUEST TO: Ohio Department of Commerce Division of Industrial Compliance Bureau of Wage & Hour Administration 6606 Tussing Road, PO Box 4009 Reynoldsburg, Ohio 43068-9009 PHONE: (614) 644-2239 FAX: (614) 728-8639
Expected Date of Contract Award		
Projected Completion Date		
Send Wage Rates to: (contractors are charged \$5.00 per county)		ODOC-DIC-W&H DATE STAMP (bid tab)
<input type="checkbox"/> Mail <input type="checkbox"/> Pick Up <input type="checkbox"/> Federal Express Account Number		
Name	Company or Public Authority	
Address		
City	Zip	Telephone Number
* "Old" construction is reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting.		

BID TABULATION SHEET

Please attach a copy of your original dated and stamped **“Request for Prevailing Wage Rates”** with this **Bid Tabulation**. Please check mark which company was awarded the contract for the project.
(Note: DO NOT SEND UNTIL THE CONTRACT HAS BEEN OFFICIALLY AWARDED.)

Ohio Department of Commerce
 Division of Industrial Compliance, Bureau of Wage & Hour
 6606 Tussing Road, PO Box 4009
 Reynoldsburg, Ohio 43068-9009
 (Phone) 614-644-2239, (Fax) 614-728-8639 www.com.ohio.gov

Contracting Public Authority:

Project Name:

Project #:

Bid Date:

Estimate:

Contract Description: General HVAC Electrical Plumbing Asbestos Other:

AWARDED TO (CHECK)	LIST OF THE BIDDING CONTRACTORS	TOTAL BID AMOUNT
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

SUBMITTED BY

Print Name:	Title:
Telephone Number: ()	FAX #:
	EMAIL:
Signature:	Date:

INDUSTRIAL DEVELOPMENT BONDS

Bond Projects require the Public Authority to keep the following information on file			
1. Type of Bonds issued:	Amount:		
2. The total cost of the Project:			
3. The other type of financing involved in the project:			
4. Portion of the project being constructed with each type of financing:			
5. Are Prevailing Wage Rates being applied to all construction on the project: <input type="checkbox"/> Yes <input type="checkbox"/> No			
6. The name of the political subdivision who issued the bonds:			
7. When were the bonds issued:			
8. For what purpose were the bonds issued:			
9. Who handles the funds once the bonds are sold:			
10. Who is the lending institution that purchased the bonds:			
11. How are the funds to be paid out:			
12. When are the funds to be paid out:			
13. Who is the Bond Council:			
14. Who has been appointed as the Prevailing Coordinator:			
PWC Address:			
City:	OHIO	Zip:	Telephone #:
15. Obtain a copy of the inducement and other official documents for the issuance of the bonds.			



Mike DeWine
Governor

Sheryl Maxfield
Director

PREVAILING WAGE GUIDELINES
FOR THE
PUBLIC AUTHORITY'S
PW COORDINATOR

OHIO DEPARTMENT OF COMMERCE

Division of Industrial Compliance and Labor

Bureau of Wage and Hour Administration

6606 Tussing Road, PO Box 4009

Reynoldsburg, Ohio 43068-9009

Phone: 614-644-2239

Fax: 614-728-8639

www.com.ohio.gov

TTY/TDD: 1-800-750-0750

The Ohio Department of Commerce is an Equal Opportunity Employer and Service Provider

Prevailing Wage Coordinator Guidelines

For more detailed information please refer to Chapter 4115 of the Ohio Revised Code

- A. Attend any pre-bid and/or pre-construction meetings.
 - 1. To explain the prevailing wage rate requirements.
 - 2. To explain the contractor's responsibilities.
- B. Set up and maintain files containing all contractors' and subcontractors' payroll reports, affidavits, and related documents. These files must be available for public inspection.
- C. Obtain from each contractor a list of their subcontractors' names, addresses, telephone numbers, and email addresses.
- D. Require each contractor and subcontractor to provide their project dates. This will be used to make a time schedule for receiving their certified payrolls.
- E. Obtain from each contractor, the name and address of their Bonding/Surety Company.
- F. Obtain from out-of-state corporations, the name and address of their Statutory Agent. (This agent must be located in the State of Ohio and registered with the Ohio Secretary of State.)
 - 1. Records made in connection with the public improvement must not be removed from the State of Ohio for the period of one year following the completion of the project.
- G. Supply contractors with any changes in the Prevailing Wage Rates.
- H. Within two weeks after the first pay, obtain a certified payroll report from each contractor. A certified report is one that is sworn to and signed by the contractor.
 - 1. If the job will exceed four months, all reports after the initial report can be filed once per month. (The initial report must be filed within two weeks.)
 - 2. If the job will last less than four months, all reports are to be filed weekly after the initial report.
- I. Establish and follow procedures to monitor compliance by contractors and subcontractors.
 - 1. Visit project to verify posting requirements and job classifications.
 - 2. Review certified payroll reports to ensure they are submitted in a timely fashion and complete with the following information for each employee:
 - a) Name, current address, and their social security number or last 4 when permitted
 - b) Classification (must be specific for laborers and operators, including level)
 - c) Hours worked on the project
 - d) Hourly rate
 - e) Fringe benefits, if applicable
 - f) Total hours worked for the week (all jobs)
 - g) Gross wages, all deductions, net pay
 - 3. Compare rates and fringes reported to rates in prevailing wage schedule.
- J. Upon completion of the project and prior to the final payment, require an affidavit of compliance from each contractor and subcontractor. **No public authority shall make final payment to any contractor or subcontractor unless the final affidavits have been filed by the respective contractor and subcontractor. (O.R.C. section 4115.07)**
- K. Report any non-compliance to Ohio Department of Commerce, Division of Industrial Compliance, Bureau of Wage & Hour Administration. The PW complaint form and instructions can be obtained on the website www.com.ohio.gov.

RECORD OF THE CERTIFIED PAYROLL REPORTS RECEIVED

Project:		Number:
Contractor:		Phone #: Email:
General Contractor:	Prime Contractor:	Subcontractor:
Date work commenced:	Completed:	Final Affidavit:

Payroll	Payroll Date	Date Received		Payroll	Payroll Date	Date Received
1				33		
2				34		
3				35		
4				36		
5				37		
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32				64		

PREVAILING WAGE INVESTIGATION\EMPLOYEE INTERVIEW

Failure to complete this interview form may reduce our ability to recover back wages which may be owed to you.

Project:		Case #:	
Address:		City:	County:
Employee Name:		Last 4 digits of the SS#:	
Address:	City:	State:	Zip:
Telephone #: (Home)	(Work)	Email:	Best time to be reached:
Another source by which we can contact you.(Someone not living at your address):			
Name:		Relationship:	Telephone #:
Contractor's Name:		Telephone #:	
Address:		City:	State: Zip:
Date hired:	Date started on this project :	Approximate hours - Straight time:	Overtime:
Method of recording hours: <input type="checkbox"/> Time Card <input type="checkbox"/> Called into office		Recorded by: <input type="checkbox"/> Employee <input type="checkbox"/> Foreman	
Did you keep a personal record of your hours worked on this project? <input type="checkbox"/> Yes <input type="checkbox"/> No		Do you have check stubs? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Did anyone else keep a personal record ? <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, who:	
List your job classification(s):		<input type="checkbox"/> Journeyman <input type="checkbox"/> Helper <input type="checkbox"/> Apprentice - Level	
List your specific job duties:		List tools\equipment used:	
Hourly rate of pay for this project:		Your regular rate of pay:	
Fringe benefits paid by contractor: <input type="checkbox"/> None <input type="checkbox"/> Health Insurance <input type="checkbox"/> Life Insurance <input type="checkbox"/> Pension <input type="checkbox"/> Bonus ~ Vacation - Amount _____ <input type="checkbox"/> Holidays - Amount _____ <input type="checkbox"/> Apprenticeship training <input type="checkbox"/> Profit Sharing ~ Other (list):			
Did you work overtime? <input type="checkbox"/> Yes <input type="checkbox"/> No		Were hours over 40 per week paid at time and one half? <input type="checkbox"/> Yes <input type="checkbox"/> No	
When is your pay day?		Method of payment: <input type="checkbox"/> Check <input type="checkbox"/> Cash <input type="checkbox"/> Direct Deposit	
List names of co-workers on this project:			
Comments:		Please provide a detailed list of the dates, times and hours worked within each classification that may apply to the work performed on a separate sheet.	
SIGNATURE AND NOTARY			
Affiant is further informed that Section 2921.13 of the Ohio Revised Code provides a penalty of a misdemeanor of the first degree and that prosecution will be pursued of those persons who "knowingly swear or affirm the truth of a false statement when ...the statement is sworn or affirmed before a notary public..." Sworn to before me and subscribed by the said: _____ in my presence this _____ day of _____, 20_____. _____ Notary Public		I hereby certify that this is a true statement to the best of my knowledge and belief. _____ Signature Date Return to: Ohio Department of Commerce Division of Industrial Compliance & Labor Bureau of Wage and Hour Administration 6606 Tussing Road P.O. Box 4009 Reynoldsburg, Ohio 43068-9009 (614) 644-2239 www.com.ohio.gov	
Signature of PW Coordinator:		Date:	

EMPLOYEE VS. INDEPENDENT CONTRACTOR

EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the employer have the right to control and direct worker?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the worker receive instructions about how and where the work is to be done instead of the employer merely specifying the desired result?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Is payment based on time spent rather than a set price for the work to be performed?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the worker devote virtually all his working time to the employer rather than offering services to the general public?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the worker performing services make their services available to the general public and/or other businesses?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Is there a continuing relationship between employer and worker?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Can the worker be discharged at will?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Did the employer train the worker for the job?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the employer have employees performing the same work as the independent contractor?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR

EMPLOYEE VS. INDEPENDENT CONTRACTOR-continued

EMPLOYEE ↔ YES NO ↔ INDEPENDENT CONTRACTOR
Does the worker perform services personally rather than delegating them to others?

EMPLOYEE ↔ YES NO ↔ INDEPENDENT CONTRACTOR
Does the employer set a specific time when the individual services are to be performed?

EMPLOYEE ↔ YES NO ↔ INDEPENDENT CONTRACTOR
Does the employer furnish the tools and materials used by the worker performing services?

EMPLOYEE ↔ YES NO ↔ INDEPENDENT CONTRACTOR
Is the employer assuming all the financial risk, rather than the worker making a significant financial investment in the job and having the opportunity to realize a profit or loss from the work?

EMPLOYEE ↔ NO YES ↔ INDEPENDENT CONTRACTOR
Does the individual performing the services publicly advertise these services in for example, the newspaper or yellow pages ?

EMPLOYEE ↔ NO YES ↔ INDEPENDENT CONTRACTOR
Does the individual performing the services have a business license?

EMPLOYEE ↔ NO YES ↔ INDEPENDENT CONTRACTOR
Does the individual performing the services operate d.b.a. or under a tradename?



Mike DeWine
Governor

Sheryl Maxfield
Director

PREVAILING WAGE GUIDE FOR CONTRACTORS

OHIO DEPARTMENT OF COMMERCE

Division of Industrial Compliance
Bureau of Wage and Hour Administration
6606 Tussing Road, PO Box 4009
Reynoldsburg, Ohio 43068-9009

Phone: 614-644-2239

Fax: 614-728-8639

www.com.ohio.gov

TTY/TDD: 1-800-750-0750

The Ohio Department of Commerce is an Equal Opportunity Employer and Service Provider

OHIO DEPARTMENT OF COMMERCE
Division of Industrial Compliance
Bureau of Wage and Hour Administration
Chief, Stephen Clegg

6606 Tussing Road, PO Box 4009
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INVESTIGATORS and THEIR HEADQUARTER COUNTY

#48 Dave Horvath PO Box 1512 Lima, Ohio 45802-1512 Voice: (419) 302-1200 Fax: (614) 728-8639 Dave.Horvath@com.state.oh.us	Allen *
#30 Mike McKee P.O. Box 1342 Cambridge, Ohio 43725-2247 Voice/Fax: (740) 432-1987 Michael.McKee@com.state.oh.us	Guernsey*
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#11 Kela D. Thompson 6606 Tussing Rd, PO Box 4009 Reynoldsburg, Ohio 43068-9009 Voice: (614) 728-5007 Fax: (614) 232-9537 kela.thompson@com.state.oh.us	Franklin *

* Headquarter County

Stephen Clegg, Chief 6606 Tussing Road, PO Box 4009 Reynoldsburg, Ohio 43068-9009 Voice: (614) 728-8686 Fax: (614) 728-8639 Stephen.Clegg@com.state.oh.us	#90 Jackie Clark, Supervisor 6606 Tussing Rd, PO Box 4009 Reynoldsburg, Ohio 43068-9009 Voice: (614) 728-5019 Fax: (614) 222-2357 Jackie.Clark@com.state.oh.us
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PREVAILING WAGE CONTRACTOR RESPONSIBILITIES

This is a summary of prevailing wage contractors' responsibilities. For more detailed information please refer to Chapter 4115 of the Ohio Revised Code

General Information

Ohio's prevailing wage laws apply to all public improvements financed in whole or in part by public funds when the total overall project cost is fairly estimated to be more than \$250,000 for new construction or \$75,000 for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting.

Ohio's prevailing wage laws apply to all public improvements financed in whole or in part by public funds when the total overall project cost is fairly estimated to be more than \$91,150 for new construction that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction or \$27,309 for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting of a public improvement that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction.

- a) Thresholds are to be adjusted biennially by the Administrator of Ohio Department of Commerce, Division of Industrial Compliance and Labor, Bureau of Wage and Hour Administration
- b) Biennial adjustments to threshold levels are made according to the Price Deflator for Construction Index, United States Department of Commerce, Bureau of the Census*, but may not increase or decrease more than 3% for any year

Penalties for violation

Violators are to be assessed the wages owed, plus a penalty of 100% of the wages owed.

Intentional Violations

If an intentional violation is determined to have occurred, the contractor is prohibited from contracting directly or indirectly with any public authority for the construction of a public improvement. Intentional violation means "a willful, knowing, or deliberate disregard for any provision" of the prevailing wage law and includes but is not limited to the following actions:

- Intentional failure to submit payroll reports as required, or knowingly submitting false or erroneous reports.
- Intentional misclassification of employees for the purpose of reducing wages.
- Intentional misclassification of employees as independent contractors or as apprentices.
- Intentional failure to pay the prevailing wage.
- Intentional failure to comply with the allowable ratio of apprentices to skilled workers as required by the regulations established by Ohio Department of Commerce, Division of Industrial Compliance and Labor, Bureau of Wage and Hour Administration.
- Intentionally employing an officer, of a contractor or subcontractor, that is known to be prohibited from contracting, directly or indirectly, with a public authority.



Department of Commerce

Division of Industrial Compliance

Responsibilities

- A. Pay the prevailing rate of wages as shown in the wage rate schedules issued by the Ohio Department of Commerce, Division of Industrial Compliance and Labor, Bureau of Wage and Hour Administration, for the classification of work being performed.
 1. Wage rate schedules include all modifications, corrections, escalations, or reductions to wage rates issued for the project.
 2. Overtime must be paid at time and one-half the employee's base hourly rate. Fringe benefits are paid at straight time rate for all hours including overtime.
 3. Prevailing wages must be paid in full without any deduction for food, lodging, transportation, use of tools, etc.; unless, the employee has voluntarily consented to these deductions in writing. The public authority and the Director of Ohio Department of Commerce, Division of Industrial Compliance and Labor, Bureau of Wage and Hour Administration - must approve these deductions as fair and reasonable. Consent and approval must be obtained before starting the project.
- B. Use of Apprentices and Helpers cannot exceed the ratios permitted in the wage rate schedules.
 1. Apprentices must be registered with the U.S. Department of Labor Bureau of Apprenticeship and Training.
 2. Contractors must provide the Prevailing Wage Coordinator a copy of the Apprenticeship Agreement for each apprentice on the project.
- C. Keep full and accurate payroll records available for inspection by any authorized representative of the Ohio Department of Commerce, Division of Industrial Compliance, and Labor, Bureau of Wage and Hour Administration or the contracting public authority, including the Prevailing Wage Coordinator. Records should include but are not limited to:
 1. Time cards, time sheets, daily work records, etc.
 2. Payroll ledger\journals and canceled checks\check register.
 3. Fringe benefit records must include program, address, account number, & canceled checks.
 4. Records made in connection with the public improvement must not be removed from the State for one year following the completion of the project.
 5. Out-of-State Corporations must submit to the Ohio Secretary of State the full name and address of their Statutory Agent in Ohio.
- D. Prevailing Wage Rate Schedule must be posted on the job site where it is accessible to all employees.
- E. Prior to submitting the initial payroll report, supply the Prevailing Wage Coordinator with your project dates to schedule reporting of your payrolls.
- F. Supply the Prevailing Wage Coordinator a list of all subcontractors including the name, address, and telephone number for each.
 1. **Contractors are responsible for their subcontractors' compliance with requirements of Chapter 4115 of the Ohio Revised Code.**

Bureau of Wage and Hour Administration
6606 Tussing Road
Reynoldsburg, OH 43068-9099

614-644-2239
Fax 614-728-8639
TTY/TDD 800-750-0750
com.ohio.gov



**Department
of Commerce**

Division of Industrial Compliance

- G. Before employees start work on the project, supply them with written notification of their job classification, prevailing wage rate, fringe benefit amounts, and the name of the Prevailing Wage Coordinator for the project. A copy of the completed signed notification should be submitted to Prevailing Wage Coordinator.
- H. Supply all subcontractors with the Prevailing Wage Rates and changes.
- I. Submit certified payrolls within two (2) weeks after the initial pay period. Payrolls must include the following information:
 - 1. Employees' names, addresses, and social security numbers.
 - a. Corporate officers/owners/partners and any salaried personnel who do physical work on the project are considered employees. All rate and reporting requirements are applicable to these individuals.
 - 2. Employees' work classification.
 - a. Be specific about the laborers and/or operators (Group)
 - b. For all apprentices, show level/year and percent of journeyman's rate
 - 3. Hours worked on the project for each employee.
 - a. The number of hours worked in each day and the total number of hours worked each week.
 - 4. Hourly rate for each employee.
 - a. The minimum rate paid must be the wage rate for the appropriate classification. The Department's Wage Rate Schedule sets this rate.
 - b. All overtime worked is to be paid at time and one-half for all hours worked more than forty (40) per week.
 - 5. Where fringes are paid into a bona fide plan instead of cash, list each benefit and amount per hour paid to program for each employee.
 - a. When the amount contributed to the fringe benefit plan and the total number of hours worked by the employee on all projects for the year are documented, the hourly amount is calculated by dividing the total contribution of the employer by the total number of hours worked by the employee.
 - b. When the amount contributed to the fringe benefit is documented but not the total hours worked, the hourly amount is calculated by **dividing the total yearly contribution by 2080**.
 - 6. Gross amount earned on all projects during the pay period.
 - 7. Total deductions from employee's wages.
 - 8. Net amount paid.
- J. The reports shall be certified by the contractor, subcontractor, or duly appointed agent stating that the payroll is correct and complete; and that the wage rates shown are not less than those required by the O.R.C. 4115.
- K. Provide a Final Affidavit to the Prevailing Wage Coordinator upon the completion of the project.

PREVAILING WAGE NOTIFICATION to EMPLOYEE

4115.05... the contractor or subcontractor shall furnish each employee NOT covered by a collective bargaining agreement written notification of the job classification to which the employee is assigned, the prevailing wage determined to be applicable to that classification, separated into the hourly rate of pay and the fringe payments, and the identity of the prevailing wage coordinator appointed by the public authority. The contractor or subcontractor shall furnish the same notification to each affected employee every time the job classification of the employee is changed.

Project Name:		Job Number:
Contractor:		
Project Location:		
Prevailing Wage Coordinator		Employee
Public Authority:	Name:	
Name of PWC:	Street:	
Street:	City:	
City:	State/Zip:	
State/Zip:	Phone:	Email:
Phone:	Last 4 Digits of SS #:	

You will be performing work on this project that falls under these classifications. You will be paid the appropriate rate for the type of work you are performing.

Classification:	Prevailing Wage Rate Total Package:	Minus your fringe benefits *:	Your hourly base rate and overtime:
			/
			/
			/
			/
			/
			/

Hourly fringe benefits paid on your behalf by this company (Yearly amount the company pays divided by 2080):

Fringe	Amount	Fringe	Amount
Health Insurance		Vacation	
Life Insurance		Holiday	
Pension		Sick Pay	
Other (Specify)		Training	
Other (Specify)		Total Hourly Fringes *	

Contractor's Signature:	Date:
Employee's Signature:	Date:

INSTRUCTIONS FOR PREPARING CERTIFIED PAYROLL REPORTS

General

Contractors and subcontractors are required by law to submit certified payroll reports for work on projects covered by Ohio's Prevailing Wage Law. This form meets the reporting requirements established by Ohio Revised Code Chapter 4115. The use of this form is not mandatory; employers may submit their own forms provided that all of the required information is included. This form may be reproduced, or additional copies obtained from:

Ohio Department of Commerce
Division of Industrial Compliance and Labor
Bureau of Wage & Hour Administration
6606 Tussing Rd, P. O. Box 4009
Reynoldsburg, OH 43068-9009
Phone: (614) 644-2239
www.com.ohio.gov

Certified Payroll Heading

Employer name and address: Company's full name and address... Indicate if the company is a subcontractor.

Subcontractor: Check and list the name of the General Contractor or Prime.

Project: Name and location of the project, including county.

Contracting Public Authority: Name and address of the contracting public authority... (Owner of the project).

Week Ending: Month, day, and year for the last day of the reporting period.

Payroll #: Indicate first, second, third, etc. payroll filed by the company for the project.

Page Indicator: number of pages included in the report.

Project Number: Determined by the public authority... if there is no number leave it blank.

Payroll Information by Column

- Employee Name, Address and Social Security number:** This information must be provided for all employees that perform physical labor on the project. Corporate officers, partners, and salaried employees are considered employees and must be paid the prevailing rate. Individual sole proprietors do not have to pay themselves prevailing rate but must report their hours on the project.
- Work Class:** List classification of work actually performed by employee. If unsure of work classification, consult the Ohio department of Commerce, Wage and Hour Bureau. Employees working more than one classification should have separate line entries for each classification. Indicate what year/level for Apprentices. Be specific when using laborer and operator classifications; for example, Backhoe Operator or Asphalt Laborer.
- Hours Worked, Day & Date:** In the first row of column 3 enter days of pay period example; M T W T H F S S. The second row is for the date that corresponds with each day for the pay period. In the employee information section enter the number of hours worked on the prevailing wage project and which day the hours were worked. Separate rows are labeled for (ST) straight time hours and (OT) overtime hours. All hours worked after 40, must be paid at the appropriate overtime rate.
- Project Total Hours:** Total the hours entered for pay period.
- Base Rate:** Enter actual rate per hour paid to the employee. The overtime hourly rate is time and one-half the base rate listed in the prevailing wage schedule plus fringe benefits at straight time rate. The prevailing wage schedule lists the base rate plus fringe benefit amounts. These amounts added together equal the total prevailing wage rate. Employers must pay this total amount in one of three ways.
 - Total rate may be paid in entirety in the base rate to the employee; in which case, the cash designation will be checked for fringe benefits.
 - Total rate may be paid as listed in prevailing wage rate schedule with total fringe amounts paid approved plans.
 - Total rate may be paid with a combination of base rate and fringe payments to approved plans in amounts other than those listed in schedule.
- Project Gross:** Enter total gross wages earned on the project for straight time and overtime. Project hours X base rate should equal project gross.
- Fringes:** If fringe benefits are paid in the hourly base rate, indicate this by marking the **Cash** space. If fringe benefits are paid to approved plans as listed in the prevailing wage rate schedule, mark the space **Approved Plans**. If fringe benefits are paid partially in the base rate and partially to approved plans, mark the space **Cash & Approved plans**. List the hourly amount paid to approved plans for each fringe. If payments are not made on a per hour basis, **calculate the hourly fringe credit by dividing the yearly employer contribution by the lesser of: hours actually worked in the year (these must be documented) or 2080.** Fringe benefits include: **Employer's share** of health insurance, life insurance, retirement plan, bonus/profit sharing, sick pay, holiday pay, personal leave, vacation, and education/training programs. If unsure of a possible fringe benefit, contact the Ohio Department of Commerce - Division of Industrial Compliance and Labor - Bureau of Wage & Hour Administration.
- Total Hours All Jobs:** Total all hours worked during the pay period including non-prevailing wage jobs.
- Total Gross All Jobs:** Gross amount earned in the pay period for all hours worked.
- Self explanatory.
- Self explanatory

Certified Payroll Report

Report for: _____ **Contract No:** _____ **Payroll No:** _____
 Company:¹⁾ _____ **If Sub, GC/Prime Contractor Name:** _____ **Project Name & Location:** _____
 Address: _____ **Public Authority (Owner):** _____ **Week Ending:** _____
 City, State, Zip _____ **Phone No:** _____ **Sheet²⁾** _____ **of** _____

1. Employee Name, Address, & SS# (Last 4 digits if permitted)	2. Work Class ³⁾	3. Prevailing Wage Project Hours Worked - Day & Date	4. Total Hours	5. Base Rate	6. Project Gross	7. Fringes:					8. Total Hrs for all Jobs	9. Total Gross on All Jobs	10. Total Deductions	11. Net Pay on All Jobs
						Fringe Rate. Your Company Pays Per Hour								
						H&W	Pens	Vac	Hol	Other				
	OT													
	ST													
	OT													
	ST													
	OT													
	ST													
	OT													
	ST													
	OT													
	ST													

1) By signing below, I certify that: (1) I pay, or supervise the payment of the employees shown above; (2) during the pay period reported on this form, all hours worked on this project have been paid at the appropriate prevailing wage rate for the class of work done; (3) the fringe benefits have been paid as indicated above; (4) no rebates or deductions have been or will be made, directly or indirectly from the total wages earned, other than permissible deductions as defined in ORC Chapter 4115; and (5) apprentices are registered with the U.S. Dept. of Labor, Bureau of Apprenticeship and Training. I understand that the willful falsification of any of the above statements may subject the Contractor or Subcontractor to civil or criminal prosecution.

Type or Print Name and Title _____ Signature _____ Date _____
²⁾ Attach additional sheets as necessary. ³⁾ Type in continuous line, text will wrap.

DO NOT REDO FORM AND CHANGE RATES IF AN ERROR HAS BEEN MADE! SUBMIT A CORRECTED REPORT

Fill out all other areas of the form as usual

*** CORRECTED ***

Certified Payroll Report

Total Hours being corrected for this indiv.

Difference in base rate & corrected base rate if applicable

Difference in fringes & corrected fringes if applicable.

The net paid will be the total of difference paid and the total hours being corrected. Provide check # in the margin.

Put the period that is being corrected, i.e.: Oct 26 to Nov 02, not individual weekly dates

Report for: Check if Subcontractor¹⁾ Contract No: _____ Payroll No: _____
 Company: ¹⁾ _____ If Sub, GC/Prime Contractor Name: _____
 Address: _____ Project Name & Location: _____
 City, State, Zip _____ Public Authority (Owner): _____
 Phone No: _____ Week Ending: _____
 Sheet ²⁾ _____ of _____

1. Employee Name, Address & SS# (Last 4 digits if permitted)	2. Work Class ³⁾	3. Prevailing Wage Project Hours Worked - Day & Date	4. Total Hours	5. Base Rate	6. Project Gross	7. Fringe	Fringe Rate Your Company Pays Per Hour					8. Total Hrs for all Jobs	9. Total Gross on All Jobs	10. Total Deductions	11. Net Pay on All Jobs
							H&W	Pens	Vac	Hq	Other				
Name Address Last 4 SSN	Class														
	OT														
	ST														
	OT														
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1) By signing below, I certify that: (1) I pay, or supervise the payment of the employees shown above; (2) during the pay period reported on this form, all hours worked on this project have been paid at the appropriate prevailing wage rate for the class of work done; (3) the fringe benefits have been paid as indicated above; (4) no rebates or deductions have been or will be made, directly or indirectly from the total wages earned, other than permissible deductions as defined in ORC Chapter 4115; and (5) apprentices are registered with the U.S. Dept. of Labor, Bureau of Apprenticeship and Training. I understand that the willful falsification of any of the above statements may subject the Contractor or Subcontractor to civil or criminal prosecution.

Type or Print Name and Title _____ Signature _____ Sign _____ Date _____
 Complete _____

11/14 jc ²⁾ Attach additional sheets as necessary. ³⁾ Type in continuous line, text will wrap.

Send cover letter stating what happened along with a signed letter from the employee acknowledging that they were underpaid, received payment, check or transaction number. Contractor provided cancelled endorsed bank check.

IMPORTANT NOTICE - This process may be different if the Public Authority is using LCPTracker or some other online system to collect Certified Payroll Report from the contractors.



Department of Commerce

Division of Industrial Compliance

Affidavit of Compliance

Prevailing Wages

I, _____ (Name of person signing affidavit) (Title)

do hereby certify that the wages paid to all employees of

_____ (Company Name)

for all hours worked on the

_____ (Project name and location)

project, during the period from _____ to _____ are in (Project Dates)

compliance with prevailing wage requirements of Chapter 4115 of the Ohio Revised Code. I further certify that no rebates or deductions have been or will be made, directly or indirectly, from any wages paid in connection with this project, other than those provided by law.

_____ (Signature of Officer or Agent)

Sworn to and subscribed in my presence this _____ day of _____, 20_____.

_____ (Notary Public)

The above affidavit must be executed and sworn to by the officer or agent of the contractor or subcontractor who supervises the payment of employees. This affidavit must be submitted to the owner (public authority) before the surety is released or final payment due under the terms of the contract is made.

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Prevailing Wage Determination Cover Letter

County: ▼
 Determination Date: 05/11/2020
 Expiration Date: 08/11/2020

THE FOLLOWING PAGES ARE PREVAILING RATES OF WAGES ON PUBLIC IMPROVEMENTS FAIRLY ESTIMATED TO BE MORE THAN THE AMOUNT IN O.R.C. SEC. 4115.03 (b) (1) or (2), AS APPLICABLE.

Section 4115.05 provides, in part: "Where contracts are not awarded or construction undertaken within ninety days from the date of the establishment of the prevailing wages, there shall be a redetermination of the prevailing rate of wages before the contract is awarded." The expiration date of this wage schedule is listed above for your convenience only. This wage determination is not intended as a blanket determination to be used for all projects during this period without prior approval of this Department.

Section 4115.04, Ohio Revised Code provides, in part: "Such schedule of wages shall be attached to and made a part of the specifications for the work, and shall be printed on the bidding blanks where the work is done by contract..."

The contract between the letting authority and the successful bidder shall contain a statement requiring that mechanics and laborers be paid a prevailing rate of wage as required in Section 4115.06, Ohio Revised Code.

The contractor or subcontractor is required to file with the contracting public authority upon completion of the project and prior to final payment therefore an affidavit stating that he has fully complied with Chapter 4115 of the Ohio Revised Code.

The wage rates contained in this schedule are the "Prevailing Wages" as defined by Section 4115.03, Ohio Revised Code (the basic hourly rates plus certain fringe benefits). These rates and fringes shall be a minimum to be paid under a contract regulated by Chapter 4115 of the Ohio Revised Code by contractors and subcontractors. The prevailing wage rates contained in this schedule include the effective dates and wage rates currently on file. In cases where future effective dates are not included in this schedule, modifications to the wage schedule will be furnished to the Prevailing Wage Coordinator appointed by the public authority as soon as prevailing wage rates increases are received by this office.

"There shall be posted in a prominent and accessible place on the site of work a legible statement of the Schedule of Wage Rates specified in the contract to the various classifications of laborers, workmen, and mechanics employed, said statement to remain posted during the life of such contract." Section 4115.07, Ohio Revised Code.

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.

Section 4115.071 provides that no later than ten days before the first payment of wages is due to any employee of any contractor or subcontractor working on a contract regulated by Chapter 4115, Ohio Revised Code, the contracting public authority shall appoint one of his own employees to act as the prevailing wage coordinator for said contract. The duties of the prevailing wage coordinator are outlined in Section 4115.071 of the Ohio Revised Code.

Section 4115.05 provides for an escalator in the prevailing wage rate. Each time a new rate is established, that rate is required to be paid on all ongoing public improvement projects.

A further requirement of Section 4115.05 of the Ohio Revised Code is: "On the occasion of the first pay date under a contract, the contractor shall furnish each employee not covered by a collective bargaining agreement or understanding between employers and bona fide organizations of Labor with individual written notification of the job classification to which the employee is assigned, the prevailing wage determined to be applicable to that classification, separated into the hourly rate of pay and the fringe payments, and the identity of the prevailing wage Coordinator appointed by the public authority. The contractor or subcontractor shall furnish the same notification to each affected employee every time the job classification of the employee is changed."

Work performed in connection with the installation of modular furniture may be subject to prevailing wage.

THIS PACKET IS NOT TO BE SEPARATED BUT IS TO REMAIN COMPLETE AS IT IS SUBMITTED TO YOU. (Reference guidelines and forms are included in this packet to be helpful in the compliance of the Prevailing Wage law.)
 wh1500

Prevailing Wage Rate Skilled Crafts

Name of Union: Asbestos Local 50 Zone 1

Change # : LCN01-2021fbLoc50

Craft : Asbestos Worker Effective Date : 03/10/2021 Last Posted : 03/10/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Asbestos Insulation Mechanic	\$33.32		\$7.70	\$7.60	\$0.44	\$0.00	\$2.50	\$0.15	\$0.00	\$0.00	\$51.71	\$68.37
Firestop Technician	\$33.32		\$7.70	\$7.60	\$0.44	\$0.00	\$2.50	\$0.15	\$0.00	\$0.00	\$51.71	\$68.37
Apprentice	Percent											
1st year	53.12	\$17.70	\$7.46	\$0.00	\$0.40	\$0.00	\$0.00	\$0.15	\$0.00	\$0.00	\$25.71	\$34.56
2nd year	63.58	\$21.18	\$7.46	\$0.95	\$0.40	\$0.00	\$0.00	\$0.15	\$0.00	\$0.00	\$30.14	\$40.74
3rd year	73.12	\$24.36	\$7.46	\$1.90	\$0.40	\$0.00	\$0.30	\$0.15	\$0.00	\$0.00	\$34.57	\$46.76
4th year	83.55	\$27.84	\$7.46	\$1.90	\$0.40	\$0.00	\$0.30	\$0.15	\$0.00	\$0.00	\$38.05	\$51.97

Special Calculation Note : Other is Industry Fund.

Ratio :

1 Journeymen to 1 Apprentice
4 Journeymen to 1 Apprentice there after

Jurisdiction (* denotes special jurisdictional note) :

ATHENS, AUGLAIZE, BUTLER*, CLINTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HARDIN, HOCKING, KNOX, LICKING, LOGAN, MADISON, MARION, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, ROSS, SHELBY, UNION, VINTON, WARREN*

Special Jurisdictional Note : Township of Butler County-Townships of Lemon and Madison. Warren County-Township of Cleer Creek, Franklin, Massie, Turtle Creek and Wayne

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Asbestos Local 8 Heat & Frost Insulators

Change # : LCN01-2021fbAsbLoc8

Craft : Asbestos Worker Effective Date : 03/10/2021 Last Posted : 03/10/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Asbestos Insulators	\$31.82		\$7.14	\$9.35	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$51.32	\$67.23
Apprentice	Percent											
1st year	46.67	\$14.85	\$7.14	\$5.10	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$30.10	\$37.53
2nd year	53.58	\$17.05	\$7.14	\$6.65	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$33.85	\$42.37
3rd year	58.30	\$18.55	\$7.14	\$6.65	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$35.35	\$44.63
4th year	63.01	\$20.05	\$7.14	\$6.65	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$36.85	\$46.87

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

- 1 Journeymen to 1 Apprentice
- 2 Journeymen to 2 Apprentice
- 3 Journeymen to 3 Apprentice
- 3 Journeymen to 1 Apprentice there After

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, BROWN, BUTLER*, CLERMONT, HAMILTON, HIGHLAND, WARREN*

Special Jurisdictional Note : In Butler County: townships of Fairfield, Hanover, Liberty, Milford, Morgan, Oxford, Ripley, Ross, St. Clair, Union & Wayne. In Warren County: Townships of Deerfield, Hamilton, Harlan, Salem, Union & Washington

Details :

All work in connection with Asbestos Removal, Abatement, Encapsulation, Lead Abatement, Hazardous Materials and Fire Stopping which is performed by employees in the Mechanic or Apprentice Classification shall be covered under the terms of this Agreement.

Prevailing Wage Rate Skilled Crafts

Name of Union: Asbestos Local 207 OH

Change # : LCN01-2018fbLoc207OH

Craft : Asbestos Worker Effective Date : 08/23/2018 Last Posted : 08/23/2018

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Asbestos Abatement	\$25.50	\$7.25	\$6.45	\$0.65	\$0.00	\$0.00	\$0.07	\$0.00	\$0.00	\$39.92	\$52.67
Trainee	\$16.50	\$7.25	\$1.50	\$0.65	\$0.00	\$0.00	\$0.07	\$0.00	\$0.00	\$25.97	\$34.22

Special Calculation Note :

Ratio :

3 Journeymen to 1 Trainee

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA*, ATHENS, AUGLAIZE, BROWN, BUTLER*, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARDIN, HARRISON, HIGHLAND, HOCKING, HOLMES, HURON, KNOX, LAKE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MIAMI, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PORTAGE, PREBLE, RICHLAND, ROSS, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VINTON, WARREN*, WAYNE

Special Jurisdictional Note : Butler County:(townships of Fairfield,Hanover,Liberty,Milford,Morgan,Oxford,Ripley,Ross,StClair,Union & Wayne.) (Lemon & Madison) Warren County: (townships of: Deerfield, Hamilton, Harlan, Salem, Union & Washington). (Clear Creek, Franklin, Mossie, Turtle Creek & Wayne). Ashtabula County: (post offices & townships of Ashtabula, Austinburg, Geneva, Harperfield, Jefferson, Plymouth & Saybrook) (townships of Andover, Cherry Valley, Colbrook, Canneaut, Denmark, Dorset, East Orwell, Hartsgrove, Kingville, Lenox, Monroe,Morgan,New Lyme,North Kingsville, Orwell, Pierpoint, Richmond Rock Creek, Rome, Sheffield, Trumbull, Wayne, Williamsfield & Windsor) Erie County:(post offices & townships of Berlin, Berlin Heights,Birmingham,Florence ,Huron, Milan, Shinrock & Vermilion)

Details :

Asbestos & lead paint abatement including, but not limited to the removal or encapsulation of asbestos & lead paint, all work in conjunction with the preparation of the removal of same & all work in conjunction with the clean up after said removal. The removal of all insulation materials, whether they contain asbestos or not, from mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) is recognized as being the exclusive work of the Asbestos Abatement Workers.

On all mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) that are going to be demolished, the removal of all insulating materials whether they contain asbestos or not shall be the exclusive work of the Laborers. An Abatement Journeyman is anyone who has more than 300 hours in the Asbestos Abatement field.

Prevailing Wage Rate Skilled Crafts

Name of Union: Boilermaker Local 105

Change # : LCN02-2013fbLoc 105

Craft : Boilermaker Effective Date : 10/01/2013 Last Posted : 09/25/2013

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Boilermaker	\$35.26		\$7.07	\$13.28	\$0.89	\$0.00	\$3.00	\$0.55	\$0.00	\$0.00	\$60.05	\$77.68
Apprentice	Percent											
1st 6 months	70.03	\$24.69	\$7.07	\$11.30	\$0.89	\$0.00	\$2.10	\$0.55	\$0.00	\$0.00	\$46.60	\$58.95
2nd 6 months	75.02	\$26.45	\$7.07	\$11.30	\$0.89	\$0.00	\$2.25	\$0.55	\$0.00	\$0.00	\$48.51	\$61.74
3rd 6 months	80.00	\$28.21	\$7.07	\$11.30	\$0.89	\$0.00	\$2.40	\$0.55	\$0.00	\$0.00	\$50.42	\$64.52
4th 6 months	85.02	\$29.98	\$7.07	\$11.30	\$0.89	\$0.00	\$2.55	\$0.55	\$0.00	\$0.00	\$52.34	\$67.33
5th 6 months	87.52	\$30.86	\$7.07	\$13.28	\$0.89	\$0.00	\$2.63	\$0.55	\$0.00	\$0.00	\$55.28	\$70.71
6th 6 months	90.03	\$31.74	\$7.07	\$13.28	\$0.89	\$0.00	\$2.70	\$0.55	\$0.00	\$0.00	\$56.23	\$72.11
7th 6 months	92.50	\$32.62	\$7.07	\$13.28	\$0.89	\$0.00	\$2.78	\$0.55	\$0.00	\$0.00	\$57.19	\$73.49
8th 6 months	95.00	\$33.50	\$7.07	\$13.28	\$0.89	\$0.00	\$2.85	\$0.55	\$0.00	\$0.00	\$58.14	\$74.89

Special Calculation Note : Other is Supplemental Health and Welfare

Ratio :

5 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ATHENS, BROWN, BUTLER,
CHAMPAIGN, CLARK, CLERMONT, CLINTON,
FAIRFIELD, FAYETTE, FRANKLIN, GALLIA,
GREENE, GUERNSEY, HAMILTON, HIGHLAND,
HOCKING, JACKSON, LAWRENCE, LICKING,
MADISON, MEIGS, MIAMI, MONTGOMERY,
MORGAN, MUSKINGUM, NOBLE, PERRY,
PICKAWAY, PIKE, PREBLE, ROSS, SCIOTO,
VINTON, WARREN

Special Jurisdictional Note :

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Boilermaker Local 154

Change # : LCN01-2012kpLoc 154

Craft : Boilermaker Effective Date : 03/22/2012 Last Posted : 03/22/2012

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Boilermaker	\$36.17		\$8.57	\$11.28	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$62.56	\$80.65
Trainee 60%	\$23.25		\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$41.95	\$53.57
Trainee 70%	\$27.13		\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$45.83	\$59.40
Trainee 80%	\$31.00		\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$49.70	\$65.20
Trainee 90%	\$34.88		\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$53.58	\$71.02
Apprentice Registered After 11/01/2005												
Percent												
1st 6 months	60.00	\$21.70	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$40.40	\$51.25
2nd 6 months	65.00	\$23.51	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$42.21	\$53.97
3rd 6 months	70.00	\$25.32	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$44.02	\$56.68
4th 6 months	75.00	\$27.13	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$45.83	\$59.39
5th 6 months	80.00	\$28.94	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$47.64	\$62.10
6th 6 months	85.00	\$30.74	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$49.44	\$64.82
7th 6 months	90.00	\$32.55	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$51.25	\$67.53
8th 6 months	95.00	\$34.36	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$53.06	\$70.24

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :
5 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :
BUTLER, COLUMBIANA, FAYETTE, JEFFERSON,
LAWRENCE, MERCER, WARREN, WASHINGTON

Special Jurisdictional Note :

Details :

Work includes but not limited to: boiler making, acetylene burning, riveting, chipping, caulking, rigging, fitting-up, grinding, reaming, impact machine operating, unloading, and handling of boilermaker's material and equipment. Boilermakers, Blacksmiths, Forgers, Iron Shipbuilders

Prevailing Wage Rate Skilled Crafts

Name of Union: Bricklayer Local 18

Change # : LCN01-2019fbLoc18

Craft : Bricklayer Effective Date : 06/05/2019 Last Posted : 06/05/2019

Classification	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Bricklayer	\$28.66		\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.32	\$57.65
Stone Mason	\$28.66		\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.32	\$57.65
Pointer Caulker Cleaner	\$28.66		\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.32	\$57.65
Refractory Workers	\$29.66		\$8.75	\$5.38	\$0.52	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.31	\$59.14
Refractory Worker Hot Pay	\$31.66		\$8.75	\$5.38	\$0.52	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.31	\$62.14
Sawman	\$28.91		\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.57	\$58.03
Layout Man	\$28.91		\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.57	\$58.03
Free Standing Chimney	\$29.16		\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.82	\$58.40
Apprentice	Percent											
1st 6 months	60.00	\$17.20	\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$31.86	\$40.45
2nd 6 months	65.00	\$18.63	\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.29	\$42.60
3rd 6 months	70.00	\$20.06	\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34.72	\$44.75
4th 6 months	75.00	\$21.50	\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.16	\$46.90
5th 6 months	80.00	\$22.93	\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.59	\$49.05
6th 6 months	85.00	\$24.36	\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.02	\$51.20
7th 6 months	90.00	\$25.79	\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.45	\$53.35
8th 6 months	95.00	\$27.23	\$8.75	\$5.38	\$0.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.89	\$55.50
MASON FINISHER 1st 180 Days	45.00	\$12.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12.90	\$19.35
	45.00	\$12.90	\$8.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21.65	\$28.10

1st Year H&W after 6 months													
2nd Year	50.00	\$14.33	\$8.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.08	\$30.25	

Special Calculation Note : **In order to utilize a Pre-Apprentice, you must have 1 Registered Apprentice in your employ.

Ratio :

- 1-2 Journeyman to 1 Apprentice
- 3-4 Journeyman to 2 Apprentice
- 5-6 Journeyman to 2 Apprentice
- 7-10 Journeyman to 3 Apprentice

- 1 Apprentice permits 1 Mason Trainee
- 2 Apprentice permits 1 Mason Trainee
- 3 Apprentice permits 2 Mason Trainees
- 4 Apprentice permits 2 Mason Trainees

For each additional 5 Journeyman to 1 Apprentice,
for every 3 additional Apprentices, 1 Mason Finisher
may be added

Jurisdiction (* denotes special jurisdictional note) :

BROWN, BUTLER, CLERMONT, HAMILTON,
PREBLE*, WARREN

Special Jurisdictional Note : In Preble County the following townships are included: (Dixon, Gasper, Graits, Israel, Lanier and Somers)

Details :

MASON FINISHER:duties shall be to work in all aspects of Masonry construction taking direction from the employer and the Journeyman Bricklayer & Stone Mason's working on the job. Mason Finisher's may work on job site only when a registered apprentice is on job and the ratios in table above will strictly be enforced.

Refractory work is classified as working with any of the following materials:

Acid brick, carbon black brick or carbon black block, firebrick grinding, plastics (with a gun) and any resinous cement.

Fifty cents (\$0.50) per hour above scale shall be paid to employees working on free standing industrial or institutional chimneys which are completely detached from any building structure.

Prevailing Wage Rate Skilled Crafts

Name of Union: Bricklayer Local 18 Tile Finisher

Change # : LCN01-2019fbLoc18

Craft : Bricklayer Effective Date : 09/04/2019 Last Posted : 09/04/2019

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Bricklayer Tile Marble Terrazzo Finisher	\$24.69		\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.51	\$51.86
Terrazzo Base Grinder	\$25.19		\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.01	\$52.61
Marble Sander Polisher	\$24.79		\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.61	\$52.01
Apprentices												
	Percent											
1st 6 months 0-600 hrs	60.00	\$14.81	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$29.63	\$37.04
2nd 6 months 601-1200 hrs	65.00	\$16.05	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.87	\$38.89
3rd 6 months 1201-1800 hrs	70.00	\$17.28	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.10	\$40.74
4th 6 months 1801-2400 hrs	75.00	\$18.52	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.34	\$42.60
5th 6 months 2401-3000 hrs	80.00	\$19.75	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34.57	\$44.45
6th 6 months 3001-3600	90.00	\$22.22	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.04	\$48.15
1-30 Days Prior to Entering Apprenticeship	50.00	\$12.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12.35	\$18.52

Special Calculation Note : Classification title contains "Bricklayer" because contract originates within the Bricklayer Local.

Note that the classification description is clarified after the local union number at the top of the page. **In order to utilize a Pre-Apprentice, you must have 1 Registered Apprentice in your employ.**

Ratio :

- 1 Journeyman to 1 Apprentice
- 5 Journeymen to 1 Apprentice
- 10 Journeymen to 2 Apprentices
- 15 Journeymen to 3 Apprentices
- 20 Journeymen to 4 Apprentices
- 25 Journeymen to 5 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

- ADAMS, BROWN, BUTLER, CLERMONT, GALLIA,
- HAMILTON, LAWRENCE, PREBLE*, SCIOTO,
- WARREN, WARREN*

Special Jurisdictional Note : Warren in the townships of Dixon, Gasper, Isrsel, Somers & Gratis in Prebble County

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Bricklayer Local 18 Tile Mechanic

Change # : LCN01-2019fbLoc18

Craft : Bricklayer Effective Date : 09/04/2019 Last Posted : 09/04/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Bricklayer Tile Terrazzo Marble Mason Mechanic	\$29.24		\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.10	\$58.72
Marble Layout Work	\$29.74		\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.60	\$59.47
Swing Scaffold Worker	\$30.74		\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.60	\$60.97
Apprentice after 2 years (2400 hrs) as Apprentice Finisher												
5th/6 Months 0-600 hrs.	70.00	\$20.47	\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.33	\$45.56
6th/6 months 601-1200 hrs.	75.00	\$21.93	\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.79	\$47.75
7th/6 months 1201-1800 hrs.	80.00	\$23.39	\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.25	\$49.95
8th/6 months 1801-2400 hrs.	90.00	\$26.32	\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.18	\$54.33

Special Calculation Note : Classification title contains "Bricklayer" because contract originates within the Bricklayer Local. Note that the classification description is clarified after the local union number at the top of the page.

Ratio :

- 1 Journeyman to 1 Apprentice
- 5 Journeymen to 1 Apprentice
- 10 Journeymen to 2 Apprentices
- 15 Journeymen to 3 Apprentices
- 20 Journeymen to 4 Apprentices
- 25 Journeymen to 5 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

- ADAMS, BROWN, BUTLER, CLERMONT, GALLIA,
- HAMILTON, LAWRENCE, PREBLE*, SCIOTO, WARREN

Special Jurisdictional Note : In Preble County the Townships of Dixon, Israel, Gasper, Lanier, Somers and Gratis.

Details :

In order to utilize a Pre-Apprentice, you must have 1 Registered Apprentice in your employ.

Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter & Pile Driver SW District HevHwy

Change # : LCN01-2020fbLoc126

Craft : Carpenter Effective Date : 05/07/2019 Last Posted : 05/07/2020

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Carpenter	\$31.01		\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$49.19	\$64.70
Pile Driver	\$29.34		\$6.63	\$6.95	\$0.40	\$0.00	\$1.97	\$0.10	\$0.00	\$0.00	\$45.39	\$60.06
Apprentice	Percent											
1st 6 Months	60.00	\$18.61	\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$36.79	\$46.09
2nd 6 Months is 1st year	65.00	\$20.16	\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$38.34	\$48.41
3rd 6 Months	70.00	\$21.71	\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$39.89	\$50.74
4th 6 Months is 2 years	75.00	\$23.26	\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$41.44	\$53.07
5th 6 Months	80.00	\$24.81	\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$42.99	\$55.39
6th 6 Months is 3 years	85.00	\$26.36	\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$44.54	\$57.72
7th 6 Months	90.00	\$27.91	\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$46.09	\$60.04
8th 6 Months is 4 years	95.00	\$29.46	\$7.89	\$6.95	\$0.40	\$0.00	\$2.82	\$0.12	\$0.00	\$0.00	\$47.64	\$62.37

Special Calculation Note : Other is UBC National Fund.

Ratio :

1 Journeymen to 1 Apprentice

An employer shall have the right to employ one (1) Apprentice for one (1) Journeyman Carpenter in its employment for the first Apprentice employed, and 1 (1) Apprentice for two (2) Journeyman Carpenter for additional Apprentices employed.

Thereafter, every third additional carpenter hired shall be

Jurisdiction (* denotes special jurisdictional note) :

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY, WARREN

an apprentice, if available, and if practical for the type of work being performed.

Special Jurisdictional Note :

Details :

Highway Construction, Airport Construction, Heavy Construction but not limited to:(tunnels,subways,drainage projects,flood control,reservoirs). Railroad Construction,Sewer Waterworks & Utility Construction but not limited to: (storm sewers, waterlines, gaslines). Industrial & Building Site, Power Plant, Amusement Park, Athletic Stadium Site, Sewer and Water Plants.

When the Contractor furnishes the necessary underwater gear for the Diver, the Diver shall be paid one and one half (1&1/2) times the journeyman rate for the time spent in the water.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Carpenter & Pile Driver
SW Zone 2

Change # : LCN01-2020fbLoc126

Craft : Carpenter Effective Date : 06/18/2020 Last Posted : 06/18/2020

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Carpenter	\$27.87		\$7.81	\$6.95	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$44.82	\$58.76
Pile Driver	\$25.84		\$6.62	\$6.95	\$0.40	\$0.00	\$0.91	\$0.10	\$0.00	\$0.00	\$40.82	\$53.74
Apprentice	Percent											
1st 3 Months	60.00	\$16.72	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$16.72	\$25.08
2nd 3 Months	60.00	\$16.72	\$7.81	\$0.00	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$26.72	\$35.08
2rd 6 Months	60.00	\$16.72	\$7.81	\$0.00	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$26.72	\$35.08
3rd 6 Months	65.00	\$18.12	\$7.81	\$0.00	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$28.12	\$37.17
4th 6 Months	65.00	\$18.12	\$7.81	\$0.00	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$28.12	\$37.17
5th 6 Months	70.00	\$19.51	\$7.81	\$6.95	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$36.46	\$46.21
6th 6 Months	75.00	\$20.90	\$7.81	\$6.95	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$37.85	\$48.30
7th 6 Months	80.00	\$22.30	\$7.81	\$6.95	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$39.25	\$50.39
8th 6 Months	85.00	\$23.69	\$7.81	\$6.95	\$0.38	\$0.00	\$1.64	\$0.17	\$0.00	\$0.00	\$40.64	\$52.48

Special Calculation Note : Other is for UBC National Fund.

Ratio :

1 Journeyman to 1 Apprentice
3 Journeyman to 1 Apprentice
5 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

BROWN, BUTLER, CLERMONT, CLINTON,
HAMILTON, WARREN

Special Jurisdictional Note :

Details :

Carpenter duties shall include but not limited to: Pile driving,

milling, fashioning, joining, assembling, erecting, fastening, or dismantling of all material of wood, plastic, metal, fiber, cork, and composition, and all other substitute materials: pile driving, cutting, fitting, and placing of lagging, and the handling, cleaning, erecting, installing, and dismantling of machinery, equipment, and erecting pre-engineered metal buildings.

Pile Drivers work but not limited to: unloading, assembling, erection, repairs, operation, signaling, dismantling, and reloading all equipment that is used for pile driving including pile butts. pile butts is defined as sheeting or scrap piling. Underwater work that may be required in connection with the installation of piling. The diver and his tender work as a team and shall arrive at their own financial arrangements with the contractor. Any configuration of wood, steel, concrete, or composite that is jettied, driven, or vibrated onto the ground by conventional pile driving equipment for the purpose of supporting a future load that may be permanent or temporary.

Driving bracing, plumbing, cutting off and capping of all piling whether wood, metal, pipe piling or composite. loading, unloading, erecting, framing, dismantling, moving, and handling of pile driving equipment. piling used in the construction and repair of all wharves, docks, piers, trestles, caissons, cofferdams, and the erection of all sea walls and breakwaters. All underwater and marine work on 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.

Rate shall include carpenters, acoustic, and ceiling installers, drywall installers, pile drivers, and floorlayers.

Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter Floorlayer SW District G

Change # : LCR01-2020fbLocSWDayton

Craft : Carpenter Effective Date : 09/10/2020 Last Posted : 09/10/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter Floorlayer	\$26.36		\$7.80	\$6.95	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$43.33	\$56.51
Apprentice	Percent											
1st 3 months	60.00	\$15.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15.82	\$23.72
2nd 3 months	60.00	\$15.82	\$7.80	\$0.00	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$25.84	\$33.74
2nd 6 months	60.00	\$15.82	\$7.80	\$0.00	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$25.84	\$33.74
3rd 6 months	60.00	\$15.82	\$7.80	\$0.00	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$25.84	\$33.74
4th 6 months	65.00	\$17.13	\$7.80	\$0.00	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$27.15	\$35.72
5th 6 months	70.00	\$18.45	\$7.80	\$6.95	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$35.42	\$44.65
6th 6 months	75.00	\$19.77	\$7.80	\$6.95	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$36.74	\$46.63
7th 6 months	80.00	\$21.09	\$7.80	\$6.95	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$38.06	\$48.60
8th 6 months	85.00	\$22.41	\$7.80	\$6.95	\$0.40	\$0.00	\$1.70	\$0.12	\$0.00	\$0.00	\$39.38	\$50.58

Special Calculation Note : Other fs for UBC National Fund and Install

Ratio :

1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY, WARREN

Special Jurisdictional Note :

Details :

Scope of work shall include, but not be limited to: receiving,unloading,handling,distribution and installation of all carpeting materials,carpet padding or matting materials and all resilient materials whether for use on walls,

floors, counter, sink, table and all preparation work necessary in connection therewith, including sanding work. the installation of nonstructural under-layment and the work of removing, cleaning waxing of any of the above. Carpeting shall include any floor covering composed of either natural or synthetic fibers that are made in breadths to be sewed, fastened or directly glued to floors or over cushioning sound-proofing materials. Resilient Floors shall consist of and include the laying of all special designs of wood, wood block, wood composition, cork, linoleum, asphalt, mastic, plastic, rubber tile, whether nailed or glued.

Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter Millwright Local 1090 SW Zone I

Change # : LCN01-2020fbLoc1066

Craft : Carpenter Effective Date : 09/10/2020 Last Posted : 09/10/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter Millwright	\$32.00		\$7.78	\$6.95	\$0.44	\$0.00	\$6.73	\$0.25	\$0.00	\$0.00	\$54.15	\$70.15
Apprentice	Percent											
1st 6 months	60.00	\$19.20	\$7.78	\$4.27	\$0.44	\$0.00	\$4.04	\$0.25	\$0.00	\$0.00	\$35.98	\$45.58
2nd 6 months	65.00	\$20.80	\$7.78	\$4.61	\$0.44	\$0.00	\$4.37	\$0.25	\$0.00	\$0.00	\$38.25	\$48.65
3rd 6 months	70.00	\$22.40	\$7.78	\$4.94	\$0.44	\$0.00	\$4.71	\$0.25	\$0.00	\$0.00	\$40.52	\$51.72
4th 6 months	75.00	\$24.00	\$7.78	\$5.28	\$0.44	\$0.00	\$5.05	\$0.25	\$0.00	\$0.00	\$42.80	\$54.80
5th 6 months	80.00	\$25.60	\$7.78	\$5.61	\$0.44	\$0.00	\$5.38	\$0.25	\$0.00	\$0.00	\$45.06	\$57.86
6th 6 months	85.00	\$27.20	\$7.78	\$5.95	\$0.44	\$0.00	\$5.72	\$0.25	\$0.00	\$0.00	\$47.34	\$60.94
7th 6 months	90.00	\$28.80	\$7.78	\$6.28	\$0.44	\$0.00	\$6.06	\$0.25	\$0.00	\$0.00	\$49.61	\$64.01
8th 6 months	95.00	\$30.40	\$7.78	\$6.62	\$0.44	\$0.00	\$6.39	\$0.25	\$0.00	\$0.00	\$51.88	\$67.08

Special Calculation Note : Other (\$0.25) \$0.10 National Fund, \$0.10. Drug Safety Program \$0.10 and National Millwright Fund \$0.05

Ratio :

3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

Special Jurisdictional Note :

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter NE District Industrial Dock & Door

Change # : LCN01-2014fbCarpNEStatewide

Craft : Carpenter Effective Date : 03/05/2014 Last Posted : 03/05/2014

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter	\$19.70		\$5.05	\$1.00	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25.90	\$35.75
Trainee												
	Percent											
1st Year	60.00	\$11.82	\$5.05	\$1.00	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.02	\$23.93
2nd Year	80.20	\$15.80	\$5.05	\$1.00	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.00	\$29.90

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeymen to 1 Trainee

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, 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 : Industrial Dock and Door is the installation of overhead doors, roll up doors and dock leveling equipment

Details :

10/27/10 New Contract jc

Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Bricklayer Local 97 HevHwy A

Change # : LCN01-2020fbHvyHwy

Craft : Bricklayer Effective Date : 06/01/2020 Last Posted : 05/21/2020

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Cement Mason Bricklayer Sewer Water Works A	\$29.96		\$9.50	\$6.77	\$0.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.70	\$61.68
Apprentice	Percent											
1st year	50.00	\$14.98	\$9.50	\$6.77	\$0.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$31.72	\$39.21
2nd year	70.00	\$20.97	\$9.50	\$6.77	\$0.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.71	\$48.20
3rd year	90.00	\$26.96	\$9.50	\$6.77	\$0.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.70	\$57.19

Special Calculation Note : NOT FOR BUILDING CONSTRUCTION.

Ratio :

3 Journeymen to 1 Apprentice
6 Journeymen to 2 Apprentice
9 Journeymen to 3 Apprentice
12 Journeymen to 4 Apprentice
15 Journeymen to 5 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, 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

Special Jurisdictional Note :

Details :

(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site Heavy Construction, Airport Construction Or Railroad Construction Work.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Bricklayer Local 97 HevHwy B

Change # : LCN01-2020fbHvyHwy

Craft : Bricklayer Effective Date : 06/01/2020 Last Posted : 05/21/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason Bricklayer Power Plants Tunnels Amusement Parks B	\$30.95		\$9.50	\$6.77	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$47.70	\$63.17
Apprentice	Percent											
1st year	50.00	\$15.48	\$9.50	\$6.77	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.23	\$39.96
2nd year	70.00	\$21.66	\$9.50	\$6.77	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.42	\$49.25
3rd year	90.00	\$27.85	\$9.50	\$6.77	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.60	\$58.53

Special Calculation Note : NOT FOR BUILDING CONSTRUCTION.

Ratio :

- 3 Journeymen to 1 Apprentice
- 6 Journeymen to 2 Apprentice
- 9 Journeymen to 2 Apprentice
- 12 Journeymen to 4 Apprentice
- 15 Journeymen to 5 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, 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

Special Jurisdictional Note :

Details :

(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site Heavy Construction, Airport Construction Or Railroad Construction Work.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Local 132 (Cincinnati)

Change # : LCN01-2019fbLoc132

Craft : Cement Effective Date : 06/05/2019 Last Posted : 06/05/2019

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason	\$24.50		\$6.70	\$6.50	\$0.60	\$0.00	\$0.80	\$0.00	\$0.00	\$0.00	\$39.10	\$51.35
Apprentice Percent												
1st yr	70.00	\$17.15	\$6.70	\$6.50	\$0.60	\$0.00	\$0.80	\$0.00	\$0.00	\$0.00	\$31.75	\$40.32
2nd yr	80.00	\$19.60	\$6.70	\$6.50	\$0.60	\$0.00	\$0.80	\$0.00	\$0.00	\$0.00	\$34.20	\$44.00
3rd yr	90.00	\$22.05	\$6.70	\$6.50	\$0.60	\$0.00	\$0.80	\$0.00	\$0.00	\$0.00	\$36.65	\$47.68

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

- 1 Journeymen to 1 Apprentice
- 4 Journeymen to 2 Apprentice
- 7 Journeymen to 3 Apprentice
- 10 Journeymen to 4 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN

Special Jurisdictional Note :

Details :

- *Cement Masons working on silo & slip form work shall receive \$.50 per hour over Journeyman scale.
- *Cement Masons working on swinging scaffolds shall receive \$.50 per hour over Journeyman scale.
- *Cement Masons working on high lifts from 20' and above shall receive \$.50 per hour over Journeyman scale.

Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Statewide HevHwy Exhibit A District II

Change # : OCN01-2021fbCementHevHwy

Craft : Cement Mason Effective Date : 05/01/2021 Last Posted : 04/23/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Cement Mason	\$31.15		\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$49.72	\$65.29
Apprentice	Percent											
1st Year	70.00	\$21.80	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$40.37	\$51.28
2nd Year	80.00	\$24.92	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$43.49	\$55.95
3rd Year	90.00	\$28.03	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$46.60	\$60.62

Special Calculation Note : Other \$0.07 is for International Training Fund

Ratio :

1 Journeymen to 1 Apprentice
2 to 1 thereafter

Jurisdiction (* denotes special jurisdictional note) :

ALLEN, AUGLAIZE, BROWN, BUTLER, CARROLL, CLERMONT, COLUMBIANA, DEFIANCE, ERIE, HAMILTON, HARDIN, HIGHLAND, HOLMES, HURON, LOGAN, LORAIN, MAHONING, MEDINA, MERCER, OTTAWA, PAULDING, PORTAGE, SANDUSKY, SENECA, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, VAN WERT, WARREN, WAYNE, WILLIAMS

Special Jurisdictional Note : (A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site, Heavy Construction, Airport Construction Or Railroad Construction Work.

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Statewide HevHwy Exhibit B District II

Change # : OCN01-2021fbCementHevHwy

Craft : Cement Mason Effective Date : 05/01/2021 Last Posted : 04/23/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Cement Mason	\$32.02		\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$50.59	\$66.60
Apprentice	Percent											
1st Year	70.00	\$22.41	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$40.98	\$52.19
2nd Year	80.00	\$25.62	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$44.19	\$56.99
3rd Year	90.00	\$28.82	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$47.39	\$61.80

Special Calculation Note : Other \$0.07 is for International Training Fund.

Ratio :

1 Journeymen to 1 Apprentice
2 to 1 thereafter

Jurisdiction (* denotes special jurisdictional note) :

ALLEN, AUGLAIZE, BROWN, BUTLER, CARROLL, CLERMONT, COLUMBIANA, DEFIANCE, ERIE, HAMILTON, HARDIN, HIGHLAND, HOLMES, HURON, LOGAN, LORAIN, MAHONING, MEDINA, MERCER, OTTAWA, PAULDING, PORTAGE, SANDUSKY, SENECA, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, VAN WERT, WARREN, WAYNE, WILLIAMS

Special Jurisdictional Note : (B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control, Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

Details :

1st 1000 hrs	60.00	\$27.37	\$6.75	\$0.82	\$0.27	\$0.00	\$6.57	\$0.60	\$0.00	\$0.00	\$42.38	\$56.06
2nd 1000 hrs	65.00	\$29.65	\$6.75	\$0.89	\$0.30	\$0.00	\$7.12	\$0.60	\$0.00	\$0.00	\$45.31	\$60.13
3rd 1000 hrs	70.00	\$31.93	\$6.75	\$0.96	\$0.32	\$0.00	\$7.66	\$0.60	\$0.00	\$0.00	\$48.22	\$64.18
4th 1000 hrs	75.00	\$34.21	\$6.75	\$1.03	\$0.34	\$0.00	\$8.21	\$0.60	\$0.00	\$0.00	\$51.14	\$68.24
5th 1000 hrs	80.00	\$36.49	\$6.75	\$1.09	\$0.36	\$0.00	\$8.76	\$0.60	\$0.00	\$0.00	\$54.05	\$72.29
6th 1000 hrs	85.00	\$38.77	\$6.75	\$1.16	\$0.39	\$0.00	\$9.30	\$0.60	\$0.00	\$0.00	\$56.97	\$76.35
7th 1000 hrs	90.00	\$41.05	\$6.75	\$1.23	\$0.41	\$0.00	\$9.85	\$0.60	\$0.00	\$0.00	\$59.89	\$80.41

Special Calculation Note : Other is Health Retirement Account

Operator "A"

John Henry Rock Drill, D-6 (or equivalent) and above, Trackhoe Digger, (320 Track excavator), Cranes (greater than 25 tons and less than 45 tons).

Operator "B"

Cranes (greater than 6 tons and up to 25 tons), Backhoes, Road Tractor, Dozer up to D-5, Pressure Digger-wheeled or tracked, all Tension wire Stringing equipment.

Operator "C"

Trench, Backhoe, Riding type vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton & below), Skid Steer Loaders, Material Handler.

*All Operators of cranes 45 ton or larger shall be paid the journeyman rate of pay. \$0.30 is for Health Retirement Account.

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARRISON, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, RICHLAND, ROSS, SCIOTO, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VINTON, WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

Heli - Arc Welding will be paid \$.30 above Journeyman rate. Additional compensation of 10% over the Journeyman

Lineman and Journeyman Technician for performing work on structures outside of buildings such as water towers, smoke stacks, radio and television towers, more than 75' above the ground.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 71 Outside Cincinnati

Change # : LCN01-2021fbLoc71Cincinnati

Craft : Lineman Effective Date : 03/16/2021 Last Posted : 03/16/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrical Lineman	\$40.31		\$6.75	\$1.21	\$0.40	\$0.00	\$7.66	\$0.06	\$0.00	\$0.00	\$56.39	\$76.54
Traffic Signal & Lighting Journeyman	\$38.77		\$6.75	\$1.16	\$0.39	\$0.00	\$7.37	\$0.06	\$0.00	\$0.00	\$54.50	\$73.89
Equipment Operator	\$35.41		\$6.75	\$1.06	\$0.35	\$0.00	\$6.73	\$0.06	\$0.00	\$0.00	\$50.36	\$68.06
Groundman 0-12 months (W/O CDL)	\$21.47		\$6.75	\$0.64	\$0.21	\$0.00	\$4.08	\$0.06	\$0.00	\$0.00	\$33.21	\$43.95
Groundman 0-21 Months (W/CDL)	\$23.46		\$6.75	\$0.70	\$0.23	\$0.00	\$4.46	\$0.06	\$0.00	\$0.00	\$35.66	\$47.39
Groundman 1 Year or More (W/CDL)	\$25.45		\$6.75	\$0.76	\$0.25	\$0.00	\$4.84	\$0.06	\$0.00	\$0.00	\$38.11	\$50.83
Traffic Signal Apprentices												
1st 1,000 hours	\$23.26		\$6.75	\$0.70	\$0.23	\$0.00	\$4.42	\$0.06	\$0.00	\$0.00	\$35.42	\$47.05
2nd 1,000 hours	\$25.20		\$6.75	\$0.76	\$0.25	\$0.00	\$4.79	\$0.06	\$0.00	\$0.00	\$37.81	\$50.41
3rd 1,000 hours	\$27.14		\$6.75	\$0.81	\$0.27	\$0.00	\$5.16	\$0.06	\$0.00	\$0.00	\$40.19	\$53.76
4th 1,000 hours	\$29.08		\$6.75	\$0.87	\$0.29	\$0.00	\$5.53	\$0.06	\$0.00	\$0.00	\$42.58	\$57.12
5th 1,000 hours	\$31.01		\$6.75	\$0.93	\$0.31	\$0.00	\$5.89	\$0.06	\$0.00	\$0.00	\$44.95	\$60.46
6th 1,000 hours	\$34.89		\$6.75	\$1.05	\$0.35	\$0.00	\$6.63	\$0.06	\$0.00	\$0.00	\$49.73	\$67.17
Apprentice Lineman	Percent											
1st 1,000	60.00	\$24.19	\$6.75	\$0.73	\$0.24	\$0.00	\$4.60	\$0.06	\$0.00	\$0.00	\$36.57	\$48.66

Hours												
2nd 1,000 Hours	65.00	\$26.20	\$6.75	\$0.79	\$0.26	\$0.00	\$4.98	\$0.06	\$0.00	\$0.00	\$39.04	\$52.14
3rd 1,000 Hours	70.00	\$28.22	\$6.75	\$0.85	\$0.28	\$0.00	\$5.36	\$0.06	\$0.00	\$0.00	\$41.52	\$55.63
4th 1,000 Hours	75.00	\$30.23	\$6.75	\$0.91	\$0.30	\$0.00	\$5.74	\$0.06	\$0.00	\$0.00	\$43.99	\$59.11
5th 1,000 Hours	80.00	\$32.25	\$6.75	\$0.97	\$0.32	\$0.00	\$6.13	\$0.06	\$0.00	\$0.00	\$46.48	\$62.60
6th 1,000 Hours	85.00	\$34.26	\$6.75	\$1.03	\$0.34	\$0.00	\$6.51	\$0.06	\$0.00	\$0.00	\$48.95	\$66.09
7th 1,000 Hours	90.00	\$36.28	\$6.75	\$1.09	\$0.36	\$0.00	\$6.89	\$0.06	\$0.00	\$0.00	\$51.43	\$69.57

Special Calculation Note : Other is Safety & Education Fund.

Ratio : 1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) : BROWN, BUTLER, CLERMONT, HAMILTON, WARREN

Special Jurisdictional Note :

Details :

A groundman when directed shall assist a Journeyman in the performance of his/her work on the ground, including the use of hand tools. A Groundman under no circumstances shall climb poles, towers, ladders, or work from an elevated platform or bucket truck.

No more than three (3) Groundmen shall work alone. Jobs with more than three Groundmen shall be supervised by a Groundcrew Foreman, Journeyman Lineman, Journeyman Traffic Signal Technician or an Equipment Operator.

Scope of Work: installation and maintenance of highway and street lighting, highway and street sign lighting, electronic message boards and traffic control systems, camera systems, traffic signal work, substation and line construction including overhead and underground projects for private and industrial work as in accordance with the IBEW Constitution. This Agreement includes the operation of all tools and equipment necessary for the installation of the above projects.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 71 Outside Utility Power

Change # : LCN01-2021fbLoc7

Craft : Lineman Effective Date : 03/16/2021 Last Posted : 03/16/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrical Lineman	\$43.22		\$6.75	\$1.30	\$0.43	\$0.00	\$10.37	\$0.60	\$0.00	\$0.00	\$62.67	\$84.28
Substation Technician	\$43.22		\$6.75	\$1.30	\$0.43	\$0.00	\$10.37	\$0.60	\$0.00	\$0.00	\$62.67	\$84.28
Cable Splicer	\$45.26		\$6.75	\$1.36	\$0.45	\$0.00	\$10.86	\$0.60	\$0.00	\$0.00	\$65.28	\$87.91
Operator A	\$38.75		\$6.75	\$1.16	\$0.39	\$0.00	\$9.30	\$0.60	\$0.00	\$0.00	\$56.95	\$76.32
Operator B	\$34.27		\$6.75	\$1.03	\$0.34	\$0.00	\$8.22	\$0.60	\$0.00	\$0.00	\$51.21	\$68.34
Operator C	\$27.54		\$6.75	\$0.83	\$0.28	\$0.00	\$6.61	\$0.60	\$0.00	\$0.00	\$42.61	\$56.38
Groundman 0-12 months Exp	\$21.61		\$6.75	\$0.65	\$0.22	\$0.00	\$5.19	\$0.60	\$0.00	\$0.00	\$35.02	\$45.82
Groundman 0-12 months Exp w/CDL	\$23.77		\$6.75	\$0.71	\$0.24	\$0.00	\$5.70	\$0.60	\$0.00	\$0.00	\$37.77	\$49.66
Groundman 1 yr or more	\$23.77		\$6.75	\$0.71	\$0.24	\$0.00	\$5.70	\$0.60	\$0.00	\$0.00	\$37.77	\$49.66
Groundman 1 yr or more w/CDL	\$28.09		\$6.75	\$0.84	\$0.28	\$0.00	\$6.74	\$0.60	\$0.00	\$0.00	\$43.30	\$57.35
Equipment Mechanic A	\$34.27		\$6.75	\$1.03	\$0.34	\$0.00	\$8.22	\$0.60	\$0.00	\$0.00	\$51.21	\$68.34
Equipment Mechanic B	\$30.91		\$6.75	\$0.93	\$0.31	\$0.00	\$7.42	\$0.60	\$0.00	\$0.00	\$46.92	\$62.38
Equipment Mechanic C	\$27.54		\$6.75	\$0.83	\$0.28	\$0.00	\$6.61	\$0.60	\$0.00	\$0.00	\$42.61	\$56.38
Line Truck w/uuger	\$30.44		\$6.75	\$0.91	\$0.30	\$0.00	\$7.31	\$0.60	\$0.00	\$0.00	\$46.31	\$61.53
Apprentice	Percent											
1st 1000 hrs	60.00	\$25.93	\$6.75	\$0.78	\$0.26	\$0.00	\$6.22	\$0.60	\$0.00	\$0.00	\$40.54	\$53.51

2nd 1000 hrs	65.00	\$28.09	\$6.75	\$0.84	\$0.28	\$0.00	\$6.74	\$0.60	\$0.00	\$0.00	\$43.30	\$57.35
3rd 1000 hrs	70.00	\$30.25	\$6.75	\$0.91	\$0.30	\$0.00	\$7.26	\$0.60	\$0.00	\$0.00	\$46.07	\$61.20
4th 1000 hrs	75.00	\$32.42	\$6.75	\$0.97	\$0.32	\$0.00	\$7.78	\$0.60	\$0.00	\$0.00	\$48.84	\$65.04
5th 1000 hrs	80.00	\$34.58	\$6.75	\$1.04	\$0.35	\$0.00	\$8.30	\$0.60	\$0.00	\$0.00	\$51.62	\$68.90
6th 1000 hrs	85.00	\$36.74	\$6.75	\$1.10	\$0.37	\$0.00	\$8.82	\$0.60	\$0.00	\$0.00	\$54.38	\$72.75
7th 1000 hrs	90.00	\$38.90	\$6.75	\$1.17	\$0.39	\$0.00	\$9.34	\$0.60	\$0.00	\$0.00	\$57.15	\$76.60

Special Calculation Note : Other is Health Retirement Account

Operator "A"

John Henry Rock Drill, D-6 (or equivalent) and above, Trackhoe Digger, (320 Track excavator), Cranes (greater then 25 tons and less than 45 tons).

Operator "B"

Cranes (greater than 6 tons and up to 25 tons), Backhoes, Road Tractor, Dozer up to D-5, Pressure Digger-wheeled or tracked, all Tension wire Stringing equipment.

Operator "C"

Trench, Backhoe, Riding type vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton & below), Skid Steer Loaders, Material Handler.

Ratio :

(1) Journeyman Lineman to (1) Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARRISON, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, RICHLAND, ROSS, SCIOTO, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VINTON, WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note : 0.30 is for Health Retirement Account.

Details :

Heli - Arc Welding will be paid \$.30 above Journeyman rate. Additional compensation of 10% over the Journeyman Lineman and Journeyman Technician for performing work on structures outside of buildings such as water towers, smoke stacks, radio and television towers, more than 75' above the ground.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 71 Voice Data Video Outside

Change # : LCR01-2017fbLoc71VDV

Craft : Voice Data Video Effective Date : 10/18/2017 Last Posted : 10/18/2017

Classification	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Electrical Installer Technician I	\$23.46	\$5.50	\$0.70	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$29.96	\$41.69
Installer Technician II	\$22.37	\$5.50	\$0.67	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$28.84	\$40.03
Equipment Operator I	\$22.37	\$5.50	\$0.67	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$28.84	\$40.03
Equipment Operator II	\$18.43	\$5.50	\$0.55	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$24.78	\$33.99
Installer /Repair Outside	\$22.37	\$5.50	\$0.67	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$28.84	\$40.03
Ground Driver W/CDL	\$15.83	\$5.50	\$0.47	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$22.10	\$30.01
Groundman	\$13.24	\$5.50	\$0.40	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$19.44	\$26.06
Cable Splicer	\$23.46	\$5.50	\$0.70	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$29.96	\$41.69

Special Calculation Note :

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GEauga, GREENE, GUERNSEY, HAMILTON, HARRISON, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, RICHLAND, ROSS, SCIOTO, SHELBY, STARK, SUMMIT,

TRUMBULL, TUSCARAWAS, UNION, VINTON,
WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

Cable Splicer: Inspect and test lines or cables, analyze results, and evaluate transmission characteristics. Cover conductors with insulation or seal splices with moisture-proof covering. Install, splice, test, and repair cables using tools or mechanical equipment. This will include the splicing of fiber.

Journeyman Technician I: Must know all aspects of telephone and cable work. This is to include aerial, underground, and manhole work. Must know how to climb and run bucket. Must have all the tools required to perform these tasks. Must be able to be responsible for the safety of the crew at all times. Must also have CDL license and have at least 5 years experience.

Installer/Repairman: Perform tasks of repairing, installing, and testing phone and CATV services.

Technician II: Have at least three years of telephone and CATV experience. Must have the knowledge of underground, aerial, and manhole work. Must be able to climb and operate bucket. Must have CDL. Must have all tools needed to perform these tasks.

Equipment Operator I: Able to operate a digger derrick or bucket truck. Have at least 5 years of experience and must have a valid CDL license.

Equipment Operator II: Able to operate a digger derrick or bucket truck. Have at least 3 years of experience and must have a valid CDL license.

Groundman W/CDL: Must have a valid CDL license and be able to perform tasks such as: climbing poles, pulling downguys, making up material, and getting appropriate tools for the job. Must have at least 5 year's experience.

Groundman: Perform tasks such as: climbing poles, pulling downguys, making up material, and getting appropriate tools for the job. Experience 0-5 years.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 82 Inside

Change # : LCN01-2020fbLoc82in

Craft : Electrical Effective Date : 11/30/2020 Last Posted : 11/18/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrician	\$32.15		\$7.45	\$9.31	\$0.55	\$0.00	\$3.20	\$0.00	\$0.00	\$0.00	\$52.66	\$68.73
Apprentice	Percent											
1st period 0 - 1000 hrs	42.00	\$13.50	\$4.07	\$0.61	\$0.23	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.41	\$25.16
2nd period 1001-2000 hrs	42.00	\$13.50	\$4.07	\$0.61	\$0.23	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.41	\$25.16
3rd period 2001-3500 hrs	47.00	\$15.11	\$6.92	\$4.37	\$0.26	\$0.00	\$1.50	\$0.00	\$0.00	\$0.00	\$28.16	\$35.72
4th period 3501-5000 hrs	52.00	\$16.72	\$6.97	\$4.84	\$0.28	\$0.00	\$1.66	\$0.00	\$0.00	\$0.00	\$30.47	\$38.83
5th period 5001-6500 hrs	62.00	\$19.93	\$7.07	\$5.78	\$0.34	\$0.00	\$1.98	\$0.00	\$0.00	\$0.00	\$35.10	\$45.07
6th period 6501-8000 hrs	77.00	\$24.76	\$7.22	\$7.17	\$0.42	\$0.00	\$2.46	\$0.00	\$0.00	\$0.00	\$42.03	\$54.40

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 to 3 Journeymen to 3 Apprentices
4 to 6 Journeymen to 6 Apprentices
per job site

Jurisdiction (* denotes special jurisdictional note) :

CLINTON, DARKE, GREENE, MIAMI,
MONTGOMERY, PREBLE, WARREN*

Special Jurisdictional Note : The following townships in Warren County are included: Clearcreek, Franklin and Wayne.

Details :

Only correction made on 6-19-19 was the 5th year Apprentice fb.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 82 Lightning Rod

Change # : LCR01-2020fbLoc82

Craft : Electrical Effective Date : 11/30/2020 Last Posted : 11/25/2020

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lightning Rod Technican	\$30.79	\$7.45	\$9.27	\$0.00	\$0.00	\$3.20	\$0.00	\$0.00	\$0.00	\$50.71	\$66.10

Special Calculation Note : No Apprentice approved by OSAC.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE, WARREN*

Special Jurisdictional Note : The following townships in Warren County are included: (Clearcreek, Franklin and Wayne)

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 648 Voice Data Video

Change # : LCR01-2020fbLoc648VDV

Craft : Voice Data Video Effective Date : 12/03/2020 Last Posted : 12/03/2020

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Installer Technician A	\$25.10	\$6.60	\$0.75	\$0.48	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$37.33	\$49.88
Electrical Installer Technician B	\$23.85	\$6.60	\$0.72	\$0.45	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$36.02	\$47.95
JW Installer Technician B	\$22.59	\$6.60	\$0.68	\$0.43	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$34.70	\$46.00
Non BICSI Installer	\$16.32	\$3.00	\$0.49	\$0.31	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$22.12	\$30.28
Apprentice Indentured AFTER 09-03-2018											
1st Period 0-800 Hrs	\$13.81	\$3.00	\$0.41	\$0.26	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$17.73	\$24.64
2nd Period 801-1600 Hrs	\$13.81	\$3.00	\$0.41	\$0.26	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$17.73	\$24.64
3rd Period 1601-2400 Hrs	\$16.32	\$6.50	\$0.49	\$0.31	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.02	\$36.18
4th Period 2401-3200 Hrs	\$16.32	\$6.50	\$0.49	\$0.31	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.02	\$36.18
5th Period 3201-4000 Hrs	\$18.83	\$6.53	\$0.56	\$0.36	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$30.68	\$40.10
6th Period 4001-4800 Hrs	\$18.83	\$6.53	\$0.56	\$0.36	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$30.68	\$40.10
7th Period	\$20.08	\$6.54	\$0.60	\$0.38	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$32.00	\$42.04

4801-5600 Hrs												
8th Period 5601-6400	\$20.08	\$6.54	\$0.60	\$0.38	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$32.00	\$42.04	
Cable Puller	\$12.55	\$3.00	\$0.38	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$16.43	\$22.71	
Apprentice Indentured PRIOR to 09-03-2018	Percent											
1st period 0-800 hrs	50.00	\$12.55	\$6.50	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$19.90	\$26.18
2nd period 801-1600 hrs	50.00	\$12.55	\$6.50	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$19.90	\$26.18
3rd period 1601-2400 hrs	60.00	\$15.06	\$6.50	\$0.44	\$0.28	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$26.68	\$34.21
4th period 2401-3200 hrs	65.00	\$16.32	\$6.50	\$0.47	\$0.30	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$27.98	\$36.14
5th period 3201-4000 hrs	70.00	\$17.57	\$6.50	\$0.51	\$0.32	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$29.30	\$38.09
6th period 4001-4800 hrs	75.00	\$18.83	\$6.50	\$0.55	\$0.35	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$30.63	\$40.04
Cable Puller	50.00	\$12.55	\$3.00	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$16.40	\$22.68

Special Calculation Note :

Ratio :

1Technician to 2 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

BUTLER, WARREN*

Special Jurisdictional Note : The following townships In Warren County are included: (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union, and Washington)

Details :

The following work is excluded from the Teledata Technician work scope:

*The installation of computer systems in industrial applications such as assembly lines, robotics, computer controller manufacturing systems.

*The installation of conduit and/or raceways shall be installed by Inside Wireman. On sites where there is no Inside Wireman employed, the

Teledata Technician may install raceway or conduit not greater than 10 ft.

*Fire Alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit

*All HVAC control work.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 648 Inside

Change # : LCN01-2019fbLoc648in

Craft : Electrical Effective Date : 09/11/2019 Last Posted : 09/11/2019

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrician	\$30.00		\$7.10	\$8.90	\$0.45	\$0.00	\$2.50	\$0.90	\$0.00	\$0.00	\$49.85	\$64.85
Apprentice	Percent											
1st period 0-1000 hrs	45.00	\$13.50	\$4.07	\$0.00	\$0.20	\$0.00	\$2.50	\$0.41	\$0.00	\$0.00	\$20.68	\$27.43
2nd period 1001- 2000 hrs	45.00	\$13.50	\$4.07	\$0.00	\$0.20	\$0.00	\$2.50	\$0.41	\$0.00	\$0.00	\$20.68	\$27.43
3rd period 2001- 3500 hrs	50.00	\$15.00	\$7.10	\$4.45	\$0.23	\$0.00	\$2.50	\$0.45	\$0.00	\$0.00	\$29.73	\$37.23
4th period 3501- 5000 hrs	55.00	\$16.50	\$7.10	\$4.90	\$0.25	\$0.00	\$2.50	\$0.50	\$0.00	\$0.00	\$31.75	\$40.00
5th period 5001- 6500 hrs	62.00	\$18.60	\$7.10	\$5.52	\$0.28	\$0.00	\$2.50	\$0.56	\$0.00	\$0.00	\$34.56	\$43.86
6th period 6501- 8000 hrs	71.00	\$21.30	\$7.10	\$6.32	\$0.32	\$0.00	\$2.50	\$0.64	\$0.00	\$0.00	\$38.18	\$48.83

Special Calculation Note : Other is NEBF (Natioanl Electrical Benifit Fund.)

Ratio :

3 Journeyman to 2 Apprentices or fraction thereof:
 1-3 Journeymen to 2 Apprentice
 4-6 Journeymen to 4 Apprentice
 7-9 Journeymen to 6 Apprentice
 first person assigned to any job site shall be a journeyman

Jurisdiction (* denotes special jurisdictional note) :

BUTLER, WARREN*

Special Jurisdictional Note : In Warren County the following townships are included: (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union, and Washington)

Details :

Electricians while splicing cable shall receive \$.50 an hour above the regular electrical rate.

All work that requires the use of gas masks or respirators, shall be paid 50% above the appropriate rate of pay. Work up to & including 40 feet shall be paid \$.50 over the journeyman rate. All work from a Boatswain Chair, Swinging Scaffold, or Barrel shall be at double the Journeyman rate. Workmen required to work 50 feet or more below the surface of the earth will be paid 50% above the Journeyman rate.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Electrical Local 648 Lt Commercial South West

Change # : LCN01-2021fbLoc648in

Craft : Electrical Effective Date : 02/17/2021 Last Posted : 02/17/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrician	\$31.00		\$7.25	\$8.40	\$0.47	\$0.00	\$3.00	\$0.93	\$0.00	\$0.00	\$51.05	\$66.55
CE-3 12,001- 14,000 Hrs	\$23.03		\$6.35	\$0.69	\$0.68	\$0.00	\$0.69	\$0.27	\$0.00	\$0.00	\$31.71	\$43.23
CE-2 10,001- 12,000 Hrs	\$18.00		\$6.35	\$0.54	\$0.68	\$0.00	\$0.54	\$0.27	\$0.00	\$0.00	\$26.38	\$35.38
CE-1 8,001- 10,000 Hrs	\$16.45		\$6.35	\$0.49	\$0.68	\$0.00	\$0.49	\$0.27	\$0.00	\$0.00	\$24.73	\$32.96
CW-4 6,001-8,000 Hrs	\$14.81		\$6.35	\$0.44	\$0.68	\$0.00	\$0.44	\$0.27	\$0.00	\$0.00	\$22.99	\$30.39
CW-3 4,001-6,000 Hrs	\$13.16		\$6.35	\$0.39	\$0.68	\$0.00	\$0.39	\$0.27	\$0.00	\$0.00	\$21.24	\$27.82
CW-2 2,001-4,000 Hrs	\$12.34		\$6.35	\$0.37	\$0.68	\$0.00	\$0.37	\$0.27	\$0.00	\$0.00	\$20.38	\$26.55
CW-1 0- 2,000 Hrs	\$11.52		\$6.35	\$0.35	\$0.68	\$0.00	\$0.35	\$0.27	\$0.00	\$0.00	\$19.52	\$25.28
Apprentice Indentured AFTER 9/1/2006	Percent											
1st period 0-1000 hrs	45.00	\$13.95	\$4.22	\$0.00	\$0.21	\$0.00	\$2.50	\$0.42	\$0.00	\$0.00	\$21.30	\$28.28
2nd period 1001- 2000 hrs	45.00	\$13.95	\$4.22	\$0.00	\$0.21	\$0.00	\$2.50	\$0.42	\$0.00	\$0.00	\$21.30	\$28.28
3rd period 2001- 3500 hrs	50.00	\$15.50	\$7.25	\$4.20	\$0.23	\$0.00	\$2.75	\$0.47	\$0.00	\$0.00	\$30.40	\$38.15
4th period 3501- 5000 hrs	55.00	\$17.05	\$7.25	\$4.62	\$0.26	\$0.00	\$2.78	\$0.51	\$0.00	\$0.00	\$32.47	\$41.00

5th period 5001- 6500 hrs	62.00	\$19.22	\$7.25	\$5.21	\$0.29	\$0.00	\$2.81	\$0.58	\$0.00	\$0.00	\$35.36	\$44.97
6th period 6501- 8000 hrs	71.00	\$22.01	\$7.25	\$5.96	\$0.33	\$0.00	\$2.86	\$0.66	\$0.00	\$0.00	\$39.07	\$50.07

Special Calculation Note : Other is for NEBF (National Electrical Benifit Fund)

Ratio :

1 Journeymen to 3 Apprentice
 4 Journeymen to 6 Apprentice
 first person assigned to any job site shall be a
 journeyman

Jurisdiction (* denotes special jurisdictional note) :

BUTLER, WARREN*

Construction Electrician and Construction Wireman Ratio

There shall be a minimum ratio of one inside Journeyman to every (4) employees of different classification per jobsite. An inside Journeyman Wireman is required on the project as the fifth (5th) worker or when apprentices are used

Special Jurisdictional Note : In Warren County the following townships are included: (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union, and Washington)

The scope of work for the light commercial agreement shall apply to the following facilities not to exceed 200,000 square feet; office buildings, shopping centers, auto sales agencies and garages, churches, funeral homes, nursing homes, hotels, retail and wholesale facilities, small stand-alone manufacturing facilities when free standing and not part of a larger facility (not to exceed 50,000 square fee), solar projects (500 panels or less) unless otherwise covered under the agreement, lighting retrofits (when not associated with remodels involving branch re-circuiting) lighting retrofits shall be defined as the changing of lamps and ballasts in existing light fixtures and shall also include the one for one replacement of existing fixtures, warehouses, gas stations, food service centers, restaurants, entertainment facilities, hospitals, clinics, motels, residential buildings.

Details :

Electricians while splicing cable shall receive \$.50 an hour above the regular electrical rate.

All work that requires the use of gas masks or respirators, shall be paid 50% above the appropriate rate of pay. Work up to & including 40 feet shall be paid \$.50 over the journeyman rate. All work from a Boatswain Chair, Swinging Scaffold, or Barrel shall be at double the Journeyman rate. Workmen required to work 50 feet or more below the surface of the earth will be paid 50% above the Journeyman rate.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 648 Lt Commercial South West

Change # : LCN01-2019fbLoc648in

Craft : Electrical Effective Date : 12/24/2019 Last Posted : 12/24/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrician	\$30.00		\$7.10	\$8.90	\$0.45	\$0.00	\$2.50	\$0.90	\$0.00	\$0.00	\$49.85	\$64.85
CE-3 12,001- 14,000 Hrs	\$22.45		\$6.15	\$0.67	\$0.67	\$0.00	\$0.67	\$0.00	\$0.00	\$0.00	\$30.61	\$41.84
CE-2 10,001- 12,000 Hrs	\$17.64		\$6.15	\$0.53	\$0.67	\$0.00	\$0.53	\$0.00	\$0.00	\$0.00	\$25.52	\$34.34
CE-1 8,001- 10,000 Hrs	\$16.04		\$6.15	\$0.48	\$0.67	\$0.00	\$0.48	\$0.00	\$0.00	\$0.00	\$23.82	\$31.84
CW-4 6,001-8,000 Hrs	\$14.43		\$6.15	\$0.43	\$0.67	\$0.00	\$0.43	\$0.00	\$0.00	\$0.00	\$22.11	\$29.33
CW-3 4,001-6,000 Hrs	\$12.83		\$6.15	\$0.38	\$0.67	\$0.00	\$0.38	\$0.00	\$0.00	\$0.00	\$20.41	\$26.83
CW-2 2,001-4,000 Hrs	\$12.03		\$6.15	\$0.36	\$0.67	\$0.00	\$0.36	\$0.00	\$0.00	\$0.00	\$19.57	\$25.58
CW-1 0-2,000 Hrs	\$11.22		\$6.15	\$0.34	\$0.67	\$0.00	\$0.34	\$0.00	\$0.00	\$0.00	\$18.72	\$24.33
Apprentice Indentured AFTER 9/1/2006	Percent											
1st period 0-1000 hrs	45.00	\$13.50	\$4.07	\$0.00	\$0.20	\$0.00	\$2.50	\$0.41	\$0.00	\$0.00	\$20.68	\$27.43
2nd period 1001- 2000 hrs	45.00	\$13.50	\$4.07	\$0.00	\$0.20	\$0.00	\$2.50	\$0.41	\$0.00	\$0.00	\$20.68	\$27.43
3rd period 2001- 3500 hrs	50.00	\$15.00	\$7.10	\$4.45	\$0.23	\$0.00	\$2.50	\$0.45	\$0.00	\$0.00	\$29.73	\$37.23
4th period 3501- 5000 hrs	55.00	\$16.50	\$7.10	\$4.90	\$0.25	\$0.00	\$2.50	\$0.50	\$0.00	\$0.00	\$31.75	\$40.00
5th period 5001- 6500 hrs	62.00	\$18.60	\$7.10	\$5.52	\$0.28	\$0.00	\$2.50	\$0.56	\$0.00	\$0.00	\$34.56	\$43.86
6th period 6501- 8000 hrs	71.00	\$21.30	\$7.10	\$6.32	\$0.32	\$0.00	\$2.50	\$0.64	\$0.00	\$0.00	\$38.18	\$48.83

Special Calculation Note : Other is for NEBF (National Electrical Benifit Fund)

Ratio :

1-3 Journeymen to 2 Apprentice
4-6 Journeymen to 4 Apprentice
7-9 Journeymen to 6 Apprentice
first person assigned to any job site shall be a journeyman

Jurisdiction (* denotes special jurisdictional note) :

BUTLER, WARREN*

Construction Electrician and Construction Wireman Ratio
There shall be a minimum ratio of one inside Journeyman to every (4) employees of different classification per jobsite. An inside Journeyman Wireman is required on the project as the fifth (5th) worker or when apprentices are used

Special Jurisdictional Note : In Warren County the following townships are included: (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union, and Washington)

The scope of work for the light commercial agreement shall apply to the following facilities not to exceed 200,000 square feet; office buildings, shopping centers, auto sales agencies and garages, churches, funeral homes, nursing homes, hotels, retail and wholesale facilities, small stand-alone manufacturing facilities when free standing and not part of a larger facility (not to exceed 50,000 square fee), solar projects (500 panels or less) unless otherwise covered under the agreement, lighting retrofits (when not associated with remodels involving branch re-circuiting) lighting retrofits shall be defined as the changing of lamps and ballasts in existing light fixtures and shall also include the one for one replacement of existing fixtures, warehouses, gas stations, food service centers, restaurants, entertainment facilities, hospitals, clinics, motels, residential buildings.

Details :

Electricians while splicing cable shall receive \$.50 an hour above the regular electrical rate.

All work that requires the use of gas masks or respirators, shall be paid 50% above the appropriate rate of pay. Work up to & including 40 feet shall be paid \$.50 over the journeyman rate. All work from a Boatswain Chair, Swinging Scaffold, or Barrel shall be at double the Journeyman rate. Workmen required to work 50 feet or more below the surface of the earth will be paid 50% above the Journeyman rate.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 648 Voice Data Video

Change # : LCR01-2019fbLoc648VDV

Craft : Voice Data Video Effective Date : 12/24/2019 Last Posted : 12/24/2019

Classification	BHR	Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Electrical Installer Technician A	\$24.35	\$6.50	\$0.73	\$0.46	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$36.44	\$48.62
Electrical Installer Technician B	\$23.13	\$6.50	\$0.69	\$0.44	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$35.16	\$46.72
JW Installer Technician B	\$21.92	\$6.50	\$0.66	\$0.42	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$33.90	\$44.86
Non BICSI Installer	\$15.83	\$3.00	\$0.47	\$0.30	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$21.60	\$29.51
Apprentice Indentured AFTER 09-03-2018											
1 st Period 0-800 Hrs	\$13.14	\$3.00	\$0.38	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$17.02	\$23.59
2nd Period 801-1600 Hrs	\$13.14	\$3.00	\$0.38	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$17.02	\$23.59
3rd Period 1601-2400 Hrs	\$15.83	\$6.00	\$0.47	\$0.30	\$0.00	\$4.00	\$0.00	\$0.00	\$0.00	\$26.60	\$34.52
4th Period 2401-3200 Hrs	\$15.83	\$6.00	\$0.47	\$0.30	\$0.00	\$4.00	\$0.00	\$0.00	\$0.00	\$26.60	\$34.52
5th Period 3201-4000 Hrs	\$18.26	\$6.03	\$0.55	\$0.35	\$0.00	\$4.00	\$0.00	\$0.00	\$0.00	\$29.19	\$38.32
6th Period 4001-4800 Hrs	\$18.26	\$6.03	\$0.55	\$0.35	\$0.00	\$4.00	\$0.00	\$0.00	\$0.00	\$29.19	\$38.32
7th Period 4801-5600 Hrs	\$19.48	\$8.04	\$0.58	\$0.30	\$0.00	\$4.00	\$0.00	\$0.00	\$0.00	\$32.40	\$42.14
8th Period 5601-6400 Hrs	\$19.48	\$8.04	\$0.58	\$0.37	\$0.00	\$4.00	\$0.00	\$0.00	\$0.00	\$32.47	\$42.21
Cable Puller	\$12.18	\$3.00	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$16.03	\$22.12

Apprentice Indentured PRIOR to 09-03-2018	Percent											
	1st period 0-800 hrs	50.00	\$12.18	\$6.50	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$19.53
2nd period 801-1600 hrs	50.00	\$12.18	\$6.50	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$19.53	\$25.61
3rd period 1601-2400 hrs	60.00	\$14.61	\$6.50	\$0.44	\$0.28	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$26.23	\$33.54
4th period 2401-3200 hrs	65.00	\$15.83	\$6.50	\$0.47	\$0.30	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$27.50	\$35.41
5th period 3201-4000 hrs	70.00	\$17.04	\$6.50	\$0.51	\$0.32	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.77	\$37.30
6th period 4001-4800 hrs	75.00	\$18.26	\$6.50	\$0.55	\$0.35	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$30.06	\$39.19
Cable Puller	50.00	\$12.18	\$3.00	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$16.02	\$22.11

Special Calculation Note :

Ratio :

1 Technician to 2 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

BUTLER, WARREN*

Special Jurisdictional Note : The following townships In Warren County are included: (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union, and Washington)

Details :

The following work is excluded from the Teledata Technician work scope:

*The installation of computer systems in industrial applications such as assembly lines, robotics, computer controller manufacturing systems.

*The installation of conduit and/or raceways shall be installed by Inside Wireman. On sites where there is no Inside Wireman employed, the

Teledata Technician may install raceway or conduit not greater than 10 ft.

*Fire Alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit

*All HVAC control work.

Prevailing Wage Rate Skilled Crafts

Name of Union: Elevator Local 11

Change # : LCN01-2020fbLoc11

Craft : Elevator Effective Date : 01/05/2021 Last Posted : 01/05/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Elevator Mechanic	\$48.82		\$15.88	\$10.46	\$0.64	\$3.91	\$8.85	\$1.56	\$0.00	\$0.00	\$90.12	\$114.53
Probationary Apprentice	50.00	\$24.41	\$0.00	\$0.00	\$0.00	\$1.46	\$0.00	\$0.78	\$0.00	\$0.00	\$26.65	\$38.86
1st year	55.00	\$26.85	\$15.88	\$10.46	\$0.64	\$1.61	\$8.85	\$0.86	\$0.00	\$0.00	\$65.15	\$78.58
2nd year	65.00	\$31.73	\$15.88	\$10.46	\$0.64	\$1.90	\$8.85	\$1.02	\$0.00	\$0.00	\$70.48	\$86.35
3rd year	70.00	\$34.17	\$15.88	\$10.46	\$0.64	\$2.05	\$8.85	\$1.09	\$0.00	\$0.00	\$73.14	\$90.23
4th year	80.00	\$39.06	\$15.88	\$10.46	\$0.64	\$2.34	\$8.85	\$1.25	\$0.00	\$0.00	\$78.48	\$98.00
Helper	70.00	\$34.17	\$15.88	\$10.46	\$0.64	\$2.05	\$8.85	\$1.09	\$0.00	\$0.00	\$73.14	\$90.23
Assistant Mechanic	80.00	\$39.06	\$15.88	\$10.46	\$0.64	\$2.34	\$8.85	\$1.25	\$0.00	\$0.00	\$78.48	\$98.00

Special Calculation Note : Other is Holiday Pay. Vacation calculated at 6%.

Ratio :

The total number of Helpers & Apprentices employed shall not exceed the number of Mechanics on any one job, except on jobs where (2) teams or more are working, (1) extra Helper or Apprentice may be employed for the first (2) teams and an extra Helper or Apprentice for each additional (3) teams.

- 1 Journeymen to 1 Apprentice
- 2 Journeymen to 5 Apprentice
- 3 Journeymen to 6 Apprentice

Special Jurisdictional Note :

Details :

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, BROWN, BUTLER, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, HIGHLAND, MIAMI, MONTGOMERY, PREBLE, SCIOTO, SHELBY, WARREN

Prevailing Wage Rate Skilled Crafts

Name of Union: Glazier Local 387

Change # : LCN01-2020fbLoc387

Craft : Glazier Effective Date : 11/01/2020 Last Posted : 10/28/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Glazier	\$27.93		\$5.67	\$10.10	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.95	\$57.92
Apprentice												
	Percent											
1st 6 months	53.70	\$15.00	\$5.67	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20.92	\$28.42
2nd 6 months	65.00	\$18.15	\$5.67	\$6.19	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.26	\$39.34
3rd 6 months	70.00	\$19.55	\$5.67	\$6.71	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.18	\$41.96
4th 6 months	75.00	\$20.95	\$5.67	\$6.85	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.72	\$44.19
5th 6 months	80.00	\$22.34	\$5.67	\$7.43	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.69	\$46.87
6th 6 months	85.00	\$23.74	\$5.67	\$7.57	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.23	\$49.10
7th 6 months	90.00	\$25.14	\$5.67	\$8.09	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.15	\$51.72
8th 6 months	95.00	\$26.53	\$5.67	\$8.68	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.13	\$54.40

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

Each employer may employ and train Apprentices in the following ratio to journeymen workers employed.
1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, FAYETTE*, GREENE, HAMILTON, HIGHLAND, MIAMI, MONTGOMERY, PREBLE, SHELBY*, WARREN

Special Jurisdictional Note : Fayette County: Eastern portion of route #41 being the dividing line between locals 372 and 387. Local 387 has jurisdiction of projects built on property which borders route #41 East. Shelby County: Southern portion of routes #47 & 29.

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Ironworker Local 44

Change # : LCNO1-2019fbLoc44

Craft : Ironworker Effective Date : 06/05/2019 Last Posted : 06/05/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Ironworker Reinforcing	\$29.87		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$51.36	\$66.29
Structural	\$29.37		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$50.86	\$65.54
Ornamental	\$29.37		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$50.86	\$65.54
Machine Mover/Rigger	\$29.37		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$50.86	\$65.54
Conveyer Mechanic	\$29.37		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$50.86	\$65.54
Maintenance/Heavy Hwy	\$29.37		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$50.86	\$65.54
Welder A	\$29.62		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$51.11	\$65.92
Welder B	\$29.87		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$51.36	\$66.29
Sheeter	\$29.37		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$50.86	\$65.54
Fence Erector	\$27.90		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$49.39	\$63.34
Ironworker	\$29.37		\$8.20	\$9.50	\$0.60	\$0.00	\$3.00	\$0.19	\$0.00	\$0.00	\$50.86	\$65.54
Apprentice	Percent											
Apprentice												
1st yr A	55.00	\$16.43	\$8.20	\$9.50	\$0.60	\$0.00	\$0.75	\$0.19	\$0.00	\$0.00	\$35.67	\$43.88
1st yr B	60.00	\$17.92	\$8.20	\$9.50	\$0.60	\$0.00	\$0.75	\$0.19	\$0.00	\$0.00	\$37.16	\$46.12
1st yr C	65.00	\$19.42	\$8.20	\$9.50	\$0.60	\$0.00	\$0.75	\$0.19	\$0.00	\$0.00	\$38.66	\$48.36
2nd yr A	70.00	\$20.91	\$8.20	\$9.50	\$0.60	\$0.00	\$0.75	\$0.19	\$0.00	\$0.00	\$40.15	\$50.60
2nd yr B	75.00	\$22.40	\$8.20	\$9.50	\$0.60	\$0.00	\$0.75	\$0.19	\$0.00	\$0.00	\$41.64	\$52.84
3rd yr A	80.00	\$23.90	\$8.20	\$9.50	\$0.60	\$0.00	\$1.50	\$0.19	\$0.00	\$0.00	\$43.89	\$55.83
3rd yr B	85.00	\$25.39	\$8.20	\$9.50	\$0.60	\$0.00	\$1.50	\$0.19	\$0.00	\$0.00	\$45.38	\$58.07
4th yr A	90.00	\$26.88	\$8.20	\$9.50	\$0.60	\$0.00	\$2.25	\$0.19	\$0.00	\$0.00	\$47.62	\$61.06
4th yr B	95.00	\$28.38	\$8.20	\$9.50	\$0.60	\$0.00	\$2.25	\$0.19	\$0.00	\$0.00	\$49.12	\$63.30
4th yr C	100.00	\$29.87	\$8.20	\$9.50	\$0.60	\$0.00	\$2.25	\$0.19	\$0.00	\$0.00	\$50.61	\$65.54

Special Calculation Note : Other is Impact Fund Training

Ratio :

1 Journeymen to 1 Apprentice
2 Journeymen to 2 Apprentice
10 Journeymen to 4 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

ADAMS*, BROWN, BUTLER*, CLERMONT,
CLINTON*, HAMILTON, HIGHLAND*,
WARREN*

Special Jurisdictional Note : Adams County Twps included: Bratton, Scott, Winchester, Wayne. Butler County Twps included: Oxford, St. Clair, Fairfield, Morgan, Liberty, Union, Ross, Reily, Hanover, West Chester. In Clinton County, Manchester and South West Borrow. Highland County Twps included: Dotson, Salem, Clay, White Oak, Hamer, New Market, Concord, Jackson, Washington. Warren County Twps included: Harlan, Deerfield, Hamilton.

Details :

Structural Iron Work but not limited to:field fabrication, all loading to and including the erecting,rigging,assembly,dismantling, placing, temporary and permanent securing by any means of all structural iron,steel,ornamental lead,bronze,brass,copper,aluminum,glass all ferrous and non ferrous metal and composite material, precast prestressed and post-stressed concrete structures. Bridges and bridge rails,bridge viaducts,bucks bulkheads,bumper and bumper post,canopies and unistrut canopies,corrugated ferrous and non ferrous sheets when attached to steel frames,columns,beams,bar-joists,trusses,grinders,roof decking,electrical supports,elevator cars,elevator fronts and enclosures,erection of steel towers,flag poles, gymnasium equipment,stadium and arena seating,jail cell work,jail cell beds,benches,bunks,chairs,tables,mirrors,jail cell access doors,rigging and installation of machinery and equipment(erecting,aligning,anchoring and dismantling, erection and dismantling of tower cranes,derrick monorail systems, Chicago booms,overhead cranes,gantries,material and personnel hoists,tanks,hoppers and conveyors. All pre-engineered metal buildings and their entirety including siding,roofing, gutters, downspouts and erection of all.

Ornamental Iron Work but not limited to:all work in connection with field fabrication,handling including loading/off loading,sorting,cutting,fastening,anchoring,bending,hoisting,placing,burning,welding,and tying,dismantling of all materials used in miscellaneous iron or steel, for stairs,hand railings,rolling doors, rolling gates,rolling shutters,fence,windows,curtain wall,erection and welding of all metal, sash,architectural and ornamental treatments, but not necessarily limited to all sizes and types of ornamental,steel iron,lead,bronze,brass,copper,aluminum,all ferrous and non ferrous metals and composite materials

Fence Erector Iron Worker but not limited to: All work in connection with the field fabrication and erection of chain link fence,which includes but not limited to the loading and of the fence fabric and posts also the installation of the above.

Prevailing Wage Rate Skilled Crafts

Name of Union: Ironworker Local 290

Change # : LCN01-2021fbLoc290

Craft : Ironworker Effective Date : 01/27/2021 Last Posted : 01/27/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Ironworker Structural	\$29.68		\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44
Welder	\$29.68		\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44
Fence Erector	\$29.68		\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44
Reinforcing Rods	\$29.68		\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44
Machinery Mover	\$29.68		\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44
Sheeter	\$29.68		\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44
Metal Building Erector	\$29.68		\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44
Rigger & Erector	\$29.68		\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44
Apprentice	Percent											
1st year	65.05	\$19.31	\$8.30	\$9.50	\$0.65	\$0.00	\$2.95	\$0.02	\$0.00	\$0.00	\$40.73	\$50.38
2nd year	75.07	\$22.28	\$8.30	\$9.50	\$0.65	\$0.00	\$2.95	\$0.02	\$0.00	\$0.00	\$43.70	\$54.84
3rd year	85.05	\$25.24	\$8.30	\$9.50	\$0.65	\$0.00	\$2.95	\$0.02	\$0.00	\$0.00	\$46.66	\$59.28
4th year	95.05	\$28.21	\$8.30	\$9.50	\$0.65	\$0.00	\$2.95	\$0.02	\$0.00	\$0.00	\$49.63	\$63.74

Special Calculation Note : Other is for Industry Fund.

Ratio :

3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ALLEN*, AUGLAIZE, BUTLER*, CHAMPAIGN*, CLARK, CLINTON, DARKE, FAYETTE*, GREENE, HARDIN*, HIGHLAND*, LOGAN*, MADISON*, MERCER*, MIAMI, MONTGOMERY, PREBLE, SHELBY, VAN WERT*, WARREN*

Special Jurisdictional Note : Allen County Twps included are: Auglaize, Perry, Shawnee, Amanda, Spencer, Marion, Sugar Creek, American, Bath, Jackson. Butler County Twps included are: Milford, Wayne, Madison, Lemon. Champaign Cnty Twps included are: Union, Urbana, Jackson, Concord, Salem, Mad River, Johnson, Harrison, Adams. Fayette County Twps included are: Green, Jasper,

Concord, Jefferson. Hardin County Twps included are: Round Head, Marion, Liberty. Highland County Twps included are: Fairfield, Penn, Union, Marshall, Liberty, Paint, Brush Creek. Logan County Twps included are: Richland, Stokes, Bloomfield, Washington, Harrison, McArthur, Lake, Liberty, Pleasant, Miami. Madison County Twps included are: Stokes. Mercer County Twps included are: Dublin, Washington, Jefferson, Recovery, Gibson, Union, Liberty, Butler, Granville, Center, Hopewell, Franklin, Marion. VanWert County Twps included are: Jennings. Warren County Twps included are: Franklin, Clear Creek, Turtle Creek, Wayne, Massie, Washington, Salem, Union.

Details :

Structural Iron Work but not limited to: field fabrication, all loading to and including the erecting, rigging, assembly, dismantling, placing, temporary and permanent securing by any means of all structural iron, steel, ornamental lead, bronze, brass, copper, aluminum, glass all ferrous and non ferrous metal and composite material, precast prestressed and post-stressed concrete structures. Bridges and bridge rails, bridge viaducts, bucks bulkheads, bumper and bumper post, canopies and unistrut canopies, corrugated ferrous and non ferrous sheets when attached to steel frames, columns, beams, bar-joists, trusses, grinders, roof decking, electrical supports, elevator cars, elevator fronts and enclosures, erection of steel towers, flag poles, gymnasium equipment, stadium and arena seating, jail cell work, jail cell beds, benches, bunks, chairs, tables, mirrors, jail cell access doors, rigging and installation of machinery and equipment (erecting, aligning, anchoring and dismantling, erection and dismantling of tower cranes, derrick monorail systems, Chicago booms, overhead cranes, gantries, material and personnel hoists, tanks, hoppers and conveyors. All pre-engineered metal buildings and their entirety including siding, roofing, gutters, downspouts and erection of all.

Ornamental Iron Work but not limited to: all work in connection with field fabrication, handling including loading/off loading, sorting, cutting, fastening, anchoring, bending, hoisting, placing, burning, welding, and tying, dismantling of all materials used in miscellaneous iron or steel, for stairs, hand railings, rolling doors, rolling gates, rolling shutters, fence, windows, curtain wall, erection and welding of all metal, sash, architectural and ornamental treatments, but not necessarily limited to all sizes and types of ornamental, steel iron, lead, bronze, brass, copper, aluminum, all ferrous and non ferrous metals and composite materials

Fence Erector Iron Worker but not limited to: All work in connection with the field fabrication and erection of chain link fence, which includes but not limited to the loading and of the fence fabric and posts also the installation of the above.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Labor HevHwy 3

Change # : LCN01-2021fbLocalHevHwy3

Craft : Laborer Group 1 Effective Date : 05/01/2021 Last Posted : 04/21/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Laborer Group 1	\$33.27		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$45.22	\$61.86
Group 2	\$33.44		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$45.39	\$62.11
Group 3	\$33.77		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$45.72	\$62.61
Group 4	\$34.22		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$46.17	\$63.28
Watch Person	\$26.00		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$37.95	\$50.95
Apprentice	Percent											
0-1000 hrs	60.00	\$19.96	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$31.91	\$41.89
1001-2000 hrs	70.00	\$23.29	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$35.24	\$46.88
2001-3000 hrs	80.00	\$26.62	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.57	\$51.87
3001-4000 hrs	90.00	\$29.94	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.89	\$56.86
More than 4000 hrs	100.00	\$33.27	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$45.22	\$61.86

Special Calculation Note : Watchmen have no Apprentices. Tunnel Laborer rate with air-pressurized add \$1.00 to the above wage rate.

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

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 perform work as per the October 31, 1949, memorandum on concrete forms, by and between the United Brotherhood of Carpenters and Joiners of America 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 members 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, Guniting 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 Rate Skilled Crafts

Name of Union: Labor Local 534 Building

Change # : LCNO1-2019fbLoc534

Craft : Laborer Effective Date : 06/01/2019 Last Posted : 05/23/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Laborer Group 1	\$27.59		\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.84	\$52.64
Laborer Group 2	\$27.69		\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.94	\$52.79
Laborer Group 3	\$27.79		\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$39.04	\$52.94
Laborer Group 4	\$27.92		\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$39.17	\$53.13
Laborer Group 5	\$28.17		\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$39.42	\$53.51
Laborer Group 6	\$27.94		\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$39.19	\$53.16
Laborer Group 7	\$27.14		\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.39	\$51.96
Apprentice	Percent											
0-1000 hrs	60.00	\$16.55	\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$27.80	\$36.08
1001-2000 hrs	70.00	\$19.31	\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$30.56	\$40.22
2001-3000 hrs	80.00	\$22.07	\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$33.32	\$44.36
3001-4000	90.00	\$24.83	\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$36.08	\$48.50
4001	100.00	\$27.59	\$7.00	\$3.70	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.84	\$52.64

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeyman to 1 Apprentice
3 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :
BUTLER, WARREN

Special Jurisdictional Note :

Details :

Note:

Group 1: Building & Common Laborer; All general laborers work including all forms of landscaping, Rough Rider - all pump's 4 inch or smaller, Small Pump Portable Generators-Bobcat to Cleanup, Firewatch and Monitor, (Safety Person)

Group 2: Asphalt Raker, Tamper, Smoother, Hand Air Pump, Hand air Tamper, Chisel, Power Tamper, Operator, Switch, Assemblies, Handling & Laying Precast Concrete Floors & Deck Tool Repairman.

Group 3: Concrete Specialist; Skid Steers (with attachments to perform Laborer's duties) Jack Hammer * Concrete Busterman, Barco Tamper Man, Power Georgia Buggy Man, Power Sweeper Man, Vibrator, Concrete Saw Man, Rail Spikers, Acetylene Burner, Pipelayers, Bos'n Cradleman, Bottom Man, Chipping Hammer Grade Checker, Radio Operator, Form Cleanout & blowout Man, Red Concrete Coloring Man (Electrical Safety)

Group 4: Mason Tender, Mortar Mixers & Scaffold Builders

Group 5: Fork Lift for Mason, all work involving Refractory Materials Including Demolition of Refractory Materials.

Asbestos Removal and Hazardous Waste Removal (handling, control, removal abatement, encapsulation or disposal of asbestos & hazardous waste),

Group 6: Gunnite Man, Sand Blaster, Concrete & Grout Pump & Hose Man, Blast Trac, Miners & Muckers, Free Air, Powderman or Blaster, Mortar or Gypsum Machineman, Welder, Scuba Diver.

Group 7: Watchman & Tool Checker/Toolroom Man

Prevailing Wage Rate Skilled Crafts

Name of Union: Operating Engineers - Building Local 18 - Zone III

Change # : LCN01-2020fbLoc18zone3

Craft : Operating Engineer Effective Date : 05/14/2020 Last Posted : 05/14/2020

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Operator Class 1	\$38.24		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.69	\$72.81
Class 2	\$38.12		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.57	\$72.63
Class 3	\$37.08		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$52.53	\$71.07
Class 4	\$35.90		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$51.35	\$69.30
Class 5	\$30.44		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$45.89	\$61.11
Class 6	\$38.49		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.94	\$73.18
Class 7	\$38.74		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$54.19	\$73.56
Class 8	\$39.24		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$54.69	\$74.31
Class 9	\$39.49		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$54.94	\$74.68
Apprentice	Percent											
1st Year	50.00	\$19.12	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$34.57	\$44.13
2nd Year	60.00	\$22.94	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$38.39	\$49.87
3rd Year	70.00	\$26.77	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$42.22	\$55.60
4th Year	80.00	\$30.59	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$46.04	\$61.34
Field Mechanic Trainee												
1st Year	50.00	\$19.12	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$34.57	\$44.13
2nd Year	60.00	\$22.94	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$38.39	\$49.87
3rd Year	70.00	\$26.77	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$42.22	\$55.60
4th Year	80.00	\$30.59	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$46.04	\$61.34

Special Calculation Note : Other: Education & Safety \$0.09

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

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,

77, will not be subject to the apprenticeship ratios in this collective bargaining agreement

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 :

**Apprentices will receive a 10% increase on top of the percentages listed above provided they are operating mobile equipment. Mechanic Trainees will receive 10% increase if required to have CDL

Class 1 - Barrier Moving Machine; 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) Derricks (all types); Draglines Dredges (dipper, clam or suction) 3-man crew; Elevating Graders or Euclid Loaders; Floating Equipment; Gradalls; Helicopter Operators; hoisting building materials; Helicopter Winch Operators, Hoisting building materials; Hoes (All types); Hoists (with two or more drums in use); Hydraulic Gantry (lift system); Laser Finishing Machines; Lift Slab or Panel Jack Operators; Locomotives (all types); Maintenance Engineers (Mechanic 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 work; Side Booms; Slip Form Pavers; Straddle Carriers (Building Construction on site); Tug Boats. Horizontal Directional Drill, Rough Terrain Fork-lift with Winch/Hoist, Laser Screed, and Like equipment; Compact Cranes, track or rubber over 4,000 pound capacity, self-erecting cranes: stationary, track or truck (all configurations) bucket trench machines (over 24 " wide).

Class 2 - Asphalt Pavers; Bobcat-type and/or skid steer loader with hoe attachment greater than 7000 lbs. Bulldozers; CMI type Equipment; Endloaders; Hydro Milling Machine; Kolman-type Loaders (Dirt Loading); Lead Greasemen; Mucking Machines; Pettibone-Rail Equipment; Power Graders; Power Scoops; Power Scrapers; Push Cats; Vermeer Type Concrete Saw; All rotomills, grinders & planers of all types. Articulating/end dumps (minus \$4.00/hour from Class 2 rate)

Class 3 - 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 Drillers - all types (with integral power); Hoists (with one drum); House Elevators (except those automatic call button controlled); Man lifts; 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; Rotator (Lime-Soil Stabilizer); Submersible Pumps (4 inches and over discharge); Switch & Tie Tampers (without lifting and aligning device); Trench Machines (24 inches and under); Utility Operators; Material hoist/elevators.

Class 4 - Ballast Re-locator; Backfillers and Tampers; Batch Plant Operators; Bar and Joint Installing Machines; Bull Floats; Burlap and Curing Machines; Clefplanes; Compressors, on building construction; Concrete Spreader; Conveyors, used for handling building materials; Concrete Mixers, one bag capacity (side loader); Concrete Mixers, capacity more than one bag; Crushers; Deck Hands; Drum Fireman (in Asphalt Plant); 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 inch discharge); Road Widening Trenchers; Rollers (except asphalt); All Concrete pumps (without Boom with 4 inch or smaller systems); Self-Propelled Power Spreaders; Concrete Spreaders; Self-Propelled Sub-graders; Shotcrete Machines; Tire Repairmen; Tractors, pulling sheepfoot rollers or graders; VAC/ALLS; Vibratory Compactors, with integral power; Welder Operators.

Class 5 - Boilers (less than 15 lbs. pressure); 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); Signalmen, Submersible Pumps (under 4 inch discharge). Directional Drill Locator and Allen Screed Concrete Paver. Fueling and greasing (Primary Operator with Specialized CDL Endorsement Add \$3.00/ hour), compact cranes; track or rubber under 4,000 pounds.

Class 6 - Master Mechanic

Class 7 - Boom & Jib 150 - 180 feet

Class 8 - Boom & Jib 180 - 249 feet

Class 9 - Boom & Jib 250 - or over

Prevailing Wage Rate Skilled Crafts

Name of Union: Operating Engineers - HevHwy Zone II

Change # : LCN01-2020fbLoc18hevhwyl

Craft : Operating Engineer Effective Date : 05/14/2020 Last Posted : 05/14/2020

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)		
Classification											
Operator Class 1	\$38.24	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.69	\$72.81
Class 2	\$38.12	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.57	\$72.63
Class 3	\$37.08	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$52.53	\$71.07
Class 4	\$35.90	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$51.35	\$69.30
Class 5	\$30.44	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$45.89	\$61.11
Class 6	\$38.49	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.94	\$73.18
Apprentice	Percent										
1st Year	50.00	\$19.12	\$8.51	\$6.00	\$0.85	\$0.00	\$0.09	\$0.00	\$0.00	\$34.57	\$44.13
2nd Year	60.00	\$22.94	\$8.51	\$6.00	\$0.85	\$0.00	\$0.09	\$0.00	\$0.00	\$38.39	\$49.87
3rd Year	70.00	\$26.77	\$8.51	\$6.00	\$0.85	\$0.00	\$0.09	\$0.00	\$0.00	\$42.22	\$55.60
4th Year	80.00	\$30.59	\$8.51	\$6.00	\$0.85	\$0.00	\$0.09	\$0.00	\$0.00	\$46.04	\$61.34
Field Mech Trainee Class 2											
1st year	49.85	\$19.06	\$8.51	\$6.00	\$0.85	\$0.00	\$0.09	\$0.00	\$0.00	\$34.51	\$44.04
2nd year	59.80	\$22.87	\$8.51	\$6.00	\$0.85	\$0.00	\$0.09	\$0.00	\$0.00	\$38.32	\$49.75
3rd year	69.77	\$26.68	\$8.51	\$6.00	\$0.85	\$0.00	\$0.09	\$0.00	\$0.00	\$42.13	\$55.47
4th year	79.75	\$30.50	\$8.51	\$6.00	\$0.85	\$0.00	\$0.09	\$0.00	\$0.00	\$45.95	\$61.19

Special Calculation Note : Other: Education & Safety Fund is \$0.09 per hour.

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 65, will not be subject 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 will receive a 10% increase on top of the percentages listed above provided they are operating mobile equipment. Mechanic Trainees will receive 10% increase if they are required to have CDL.

Class 1 - Air Compressors on Steel Erection; Barrier Moving Machine; Boiler Operators, on Compressors or Generators, when mounted on a rig: Cableways, Combination Concrete mixers & Towers; Concrete Pumps; Concrete Plants (over 4 yd capacity); Cranes (all types, including Boom Trucks, Cherry Pickers); Derricks; Draglines, Dredgers (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, on shaft or tunnel work; Hydraulic Gantry (lifting system); Industrial - Type Tractors; Jet Engine Dryers (D8 or D9), Diesel Tractors; Locomotives (standard gage); Maintenance Operators (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); Side Booms; Slip Form Pavers; Tower Dericks; Tree Shredders; Truck Mounted Concrete Pumps; Tug Boats; Tunnel Machines and /or Mining Machines; Wheel Excavators. Rough Terrain Fork-lift with Winch/Hoist; Compact Cranes, track rubber over 4,000 pound capacity, self-erecting cranes; stationary, track or truck (all configurations) Bucket trench machines (over 24 inches wide).

Class 2 - 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; Endloaders; Hydro Milling Machine; Kolman-type Loaders (production type-dirt); Lead Greasemen; Maintenance Operators, Class B (Portage and Summit Counties only); Pettibone-Rail Equipment; Power Graders; Power Scrapers; Push Cats; Lighting and Traffic Signal Installation Equipment includes all groups or classifications; Trench Machines (24inch wide and under); Vermeer Type Concrete saw. Material Transfer Equipment (Shuttle buggy) Asphalt; All rotomills,grinders and planers of all types. Horizontal Directional Drill (Over 50,000 ft.lbs.thrust and over)

Class 3 - A-Frames; Air Compressors, on tunnel work (low Pressure); Asphalt Plant Engineers; Bobcat-type and/or skid steer loader with or without attachments; Power Boilers (15 lbs pressure and over); Highway Drills (all types); Rollers, asphalt; Pump Operators (installing or operating well Points); Pumps (4 inch and over discharge); Railroad Tie Inserter/Remover; Rotator (lime-soil Stabilizer), Switch & Tie Tampers (without lifting and aligning device); Locomotives (narrow gage); Mixers, concrete (more than one bag capacity); Mixers, one bag capacity (side loader); Utilities Operators, (small equipment); Welding Machines; Material hoist/elevators. Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

Class 4 -Ballast Re-locator; Backfillers, Batch Plants; Bar and Joint Installing Machines; Boring Machine Operators (48 inch or less); Bull Floats; Burlap and Curing Machines; Concrete Plants (capacity 4 yd and under); Conveyors (highway); Concrete Saws (multiple); Crushers; Deckhands; Farm type tractors, with attachments (highway), except masonry; Finishing Machines; Firemen, Floating Equipment (all types); Fork Lifts (highway); Form Trenchers; Hydro Hammers; Hydro Seeders; Pavement Breakers; Plant Mixers; Post Drivers; Post Hole Diggers (power auger); Power Brush Burners; Power Form Handling Equipment; Road Widening Trenchers; Rollers (brick, grade, macadam); Self-Propelled Power Spreaders; Self-Propelled Sub-

Graders; Tractors, pulling sheepsfoot rollers or graders; Steam Firemen; Vibratory Compactors, with integral power.

Class 5 - Compressors (portable, Sewer, Heavy and Highway); Generators; Inboard-Outboard Motor Boat Launches; Masonry Fork Lifts; Oilers/Helpers; Power Driven Heaters; Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalmen; Drum Fireman (in Asphalt Plant); Oil Heaters (Asphalt Plant); Tire Repairmen; VAC/ALLS; Fueling and greasing (Primary Operator with Specialized CDL Endorsement Add \$3.00/ hour), compact cranes: track or rubber under 4,000 pounds.

Class 6 - Master Mechanic

Prevailing Wage Rate

Skilled Crafts

Name of Union: Painter Locals 123 & 238

Change # : LCR01-2021fbLoc123-238

Craft : Drywall Finisher Effective Date : 05/01/2021 Last Posted : 04/21/2021

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Drywall Finisher	\$25.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.85	\$50.80
Tapers and Finishers	\$25.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.85	\$50.80
Apprentice											
1st Year	\$14.83	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.23	\$30.64
2nd Year	\$17.63	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$26.03	\$34.85
3rd Year	\$20.43	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28.83	\$39.05
4th Year	\$21.84	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.24	\$41.16

Special Calculation Note : Apprentices shall be paid the proper % of the classification above.

Ratio :
1 Journeyman to 1 Apprentice per job

Jurisdiction (* denotes special jurisdictional note) :
BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

Special Jurisdictional Note :

Details :
Industrial Work paid as commercial work above for each class which includes, Industrial Plants, repair garages, processing plants, storage tanks, warehouses, skeletons structures, bridges unless highest point of clearance is 60 feet or more whether new or old construction offices and office buildings in industrial sites are at industrial rates. Heavy & Highway Bridges- Guard Rails- Light Poles. A hazardous steeplejack rate shall apply on radio towers, stacks, light towers, water towers, steeples, skeleton steel, and exterior industrial conveyors over 25 feet, where such items require steeplejack methods and the rate of pay shall be a \$1.00 per hour above the industrial rate. Steeplejack rate to apply to bridges where highest point of clearance is 60 feet.

Prevailing Wage Rate

Skilled Crafts

**Name of Union: Painter Locals 123 & 238
Commercial & Industrial**

Change # : LCR01-2021fbLoc123

Craft : Painter Effective Date : 05/01/2021 Last Posted : 04/21/2021

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Brush Roll	\$25.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.85	\$50.80
Paper Hanger	\$25.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.85	\$50.80
Spray Painter	\$26.39	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.35	\$51.55
Sand Blaster Water Blaster	\$26.64	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.60	\$51.92
Elevated Tanks	\$26.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.85	\$52.30
Apprentice											
1st Year	\$14.82	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.22	\$30.63
2nd Year	\$17.63	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$26.03	\$34.85
3rd Year	\$20.43	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28.83	\$39.05
4th Year	\$21.84	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.24	\$41.16

Special Calculation Note : Apprentices shall be paid the proper % of the classification above.

Ratio :
(1) Journeymen to (1) Apprentice per jobsite

Jurisdiction (* denotes special jurisdictional note) :
BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

Special Jurisdictional Note :

Details :
Industrial Work paid as commercial work above for each class which includes, Industrial Plants, repair garages, processing plants, storage tanks, warehouses, skeletons structures, bridges unless highest point of clearance is 60 feet or more whether new or old construction offices and office buildings in industrial sites are at industrial rates. Heavy & Highway Bridges- GuardRails- Light Poles. A hazardous steeplejack rate shall apply on radio towers, stacks, light towers, water towers, steeples, skeleton steel, and exterior industrial conveyors over 25 feet, where such items require steeplejack methods and the rate of pay shall be a \$1.00 per hour above the industrial rate. Steeplejack rate to apply to bridges where highest point of clearance is 60 feet.

industrial rate. Steeplejack rate to apply to bridges where highest point of clearance is 60 feet.

Prevailing Wage Rate Skilled Crafts

Name of Union: Painter Local 123 & 238 Hvy Hwy

Change # : LCR01-2021fbLoc123

Craft : Painter Effective Date : 05/01/2021 Last Posted : 04/21/2021

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Bridge Class 1	\$36.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.24	\$66.38
Bridge Painter, Rigger, Containment Builder, Spot Blaster Class 2	\$29.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.24	\$55.88
Equipment Operator/Field Mechanic, Grit Reclamation, Paint Mixer, Traffic Control, Boat Person Class 3	\$29.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.24	\$55.88
Concrete Sealing, Concrete Blasting/Power Washing, Etc. Class 4	\$29.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.24	\$55.88
Quality Control/Quality Assurance, Traffic Safety, Competent Person Class 5	\$29.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.24	\$55.88
Apprentice											
1st Year	\$20.58	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28.98	\$39.27
2nd Year	\$24.21	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.61	\$44.71
3rd Year	\$27.84	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.24	\$50.16
4th Year	\$29.65	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.05	\$52.87

Special Calculation Note : Apprentices shall be paid proper % of the classification above..

Ratio :
1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :
BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

Special Jurisdictional Note :

Details :

1 Journeyman to 1 Apprentice

BROWN, BUTLER, CLERMONT, CLINTON,
HAMILTON, WARREN

Special Jurisdictional Note :

Details :

Industrial Work paid as commercial work above for each class which includes, Industrial Plants, repair garages, processing plants, storage tanks, warehouses, skeletons structures, bridges unless highest point of clearance is 60 feet or more whether new or old construction offices and office buildings in industrial sites are at industrial rates. Heavy & Highway Bridges-Guard Rails- Light Poles. A hazardous steeplejack rate shall apply on radio towers, stacks, light towers, water towers, steeples, skeleton steel, and exterior industrial conveyors over 25 feet, where such items require steeplejack methods and the rate of pay shall be a \$1.00 per hour above the industrial rate. Steeplejack rate to apply to bridges where highest point of clearance is 60 feet.

Class 1 – Abrasive blasting of any kind.

Class 2 – Bridge painting, coating application of any kind. All steel surface preparation other than abrasive blasting. All necessary rigging and containment building. All remedial/ spot blasting.

Class 3 – Tend to all equipment including but not limited to abrasive blasting, power washing, spray painting, forklifts, hoists, trucks, etc. Load and unload trucks, handle materials, man safety boats, handle traffic control, clean up/ vacuum abrasive blast materials and related tasks.

Class 4 – All aspects of concrete coating/ sealing including but not limited to preparation, containment, etc.

Class 5 – Verify and record that all work is completed according to job specifications. Assure that all health and safety standards are adhered to. Assure all traffic is safely handled.

Prevailing Wage Rate Skilled Crafts

Name of Union: Painter Local 639

Change # : LCNO1-2015fbLoc639

Craft : Painter Effective Date : 06/10/2015 Last Posted : 06/10/2015

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Metal Finisher/Helpers											
Top Helper Class A	\$19.09	\$3.65	\$0.00	\$0.00	\$0.66	\$0.00	\$0.00	\$0.00	\$0.00	\$23.40	\$32.94
Top Helper Class B	\$19.09	\$3.65	\$0.65	\$0.00	\$1.03	\$0.00	\$0.37	\$0.00	\$0.00	\$24.79	\$34.33
Top Helper Class C	\$19.09	\$3.65	\$1.00	\$0.00	\$1.76	\$0.00	\$0.37	\$0.00	\$0.00	\$25.87	\$35.41
Helper Class A	\$14.69	\$3.65	\$0.00	\$0.00	\$0.51	\$0.00	\$0.00	\$0.00	\$0.00	\$18.85	\$26.19
Helper Class B	\$14.69	\$3.65	\$0.65	\$0.00	\$0.79	\$0.00	\$0.28	\$0.00	\$0.00	\$20.06	\$27.40
Helper Class C	\$14.69	\$3.65	\$1.00	\$0.00	\$1.64	\$0.00	\$0.28	\$0.00	\$0.00	\$21.26	\$28.60
New Hire 90 Days	\$11.00	\$3.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14.65	\$20.15

Special Calculation Note : Other is Sick and Personal Time

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, 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 :

Top Helper: Shall perform the responsibilities of a Helper and be responsible for the setup, break down, safety and quality of the company's product.

Helper : Shall be responsible for performing tasks in refinishing, compliance with safety procedures, setting up and breaking down job sites, scaffolding and swing stages and preparing surfaces for refinishing including but not limited to, masking and stripping and cleaning, oxidizing, polishing and scratch removal on various surfaces

Class A Workers: Less than 1 Year of Service.

Class B Workers: More than 1 and less than 8 Years of Service.

Class C Workers: More than 8 Years of Service.

Metal Polisher Scope of Work: Polishing, buffing, stripping, coloring, lacquering, spraying, cleaning and maintenance of ornamental and architectural metals, iron, bronze, nickel, aluminum and stainless steel and in mental specialty work, various stone finishes, stone specialty work and any other work pertaining to the finishing of metal, stones, woods, and any window washing/cleaning done in conjunction with this work, using chemicals, solvents, coatings and hand applied lacquer thinner, removing scratches from mirror finished metals, burnishing of bronze, statuary finishes on exterior and interior surfaces and the use of all tools required to perform such work, including but not limited to polishes, spray equipment and scaffolding.

Swing State Rate: All work on scaffold 4 sections or higher, including any boom lifts and swing stage scaffolds including the rigging and derigging of hanging/suspended swing stage systems and rappelling/bolson chair work, ADD \$1.50 per hour.

Prevailing Wage Rate Skilled Crafts

Name of Union: Painter Local 639 Zone 2 Sign

Change # : LCN01-2016fbLoc639

Craft : Painter Effective Date : 08/03/2016 Last Posted : 08/03/2016

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Sign Journeyman Tech/Team Leader Class A	\$21.25	\$1.33	\$0.14	\$0.00	\$0.00	\$0.00	\$0.57	\$0.00	\$0.00	\$23.29	\$33.92
Painter Sign Journeyman Tech/Team Leader Class B	\$21.25	\$1.33	\$0.14	\$0.00	\$0.41	\$0.00	\$0.57	\$0.00	\$0.00	\$23.70	\$34.32
Painter Sign Journeyman Tech/Team Leader Class C	\$21.25	\$1.33	\$0.14	\$0.00	\$0.82	\$0.00	\$0.57	\$0.00	\$0.00	\$24.11	\$34.74
Painter Sign Journeyman Tech/Team Leader Class D	\$21.25	\$1.33	\$0.14	\$0.00	\$1.23	\$0.00	\$0.57	\$0.00	\$0.00	\$24.52	\$35.14
Sign Journeyman Class A	\$20.98	\$1.33	\$0.14	\$0.00	\$0.00	\$0.00	\$0.56	\$0.00	\$0.00	\$23.01	\$33.50
Sign Journeyman Class B	\$20.98	\$1.33	\$0.14	\$0.00	\$0.40	\$0.00	\$0.56	\$0.00	\$0.00	\$23.41	\$33.90
Sign Journeyman Class C	\$20.98	\$1.33	\$0.14	\$0.00	\$0.81	\$0.00	\$0.56	\$0.00	\$0.00	\$23.82	\$34.31
Sign Journeyman Class D	\$20.98	\$1.33	\$0.14	\$0.00	\$1.21	\$0.00	\$0.56	\$0.00	\$0.00	\$24.22	\$34.71
Tech Sign Fabrication/ Erector Class A	\$15.90	\$1.33	\$0.14	\$0.00	\$0.00	\$0.00	\$0.43	\$0.00	\$0.00	\$17.80	\$25.75
Tech Sign Fabrication/ Erector Class B	\$15.90	\$1.33	\$0.14	\$0.00	\$0.31	\$0.00	\$0.43	\$0.00	\$0.00	\$18.11	\$26.06
Tech Sign Fabrication/ Erector Class C	\$15.90	\$1.33	\$0.14	\$0.00	\$0.61	\$0.00	\$0.43	\$0.00	\$0.00	\$18.41	\$26.36
Tech Sign Fabrication/ Erector Class D	\$15.90	\$1.33	\$0.14	\$0.00	\$0.92	\$0.00	\$0.43	\$0.00	\$0.00	\$18.72	\$26.67

Special Calculation Note : Other is for paid holidays.

Ratio :

Jurisdiction (* denotes special jurisdictional note) :
ADAMS, ALLEN, AUGLAIZE, BROWN, BUTLER,
CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON,
COLUMBIANA, COSHOCTON, CRAWFORD, DARKE,
DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE,
FRANKLIN, FULTON, GREENE, HAMILTON, HANCOCK,
HARDIN, HENRY, HIGHLAND, HOLMES, HURON,
JACKSON, KNOX, LICKING, LOGAN, LORAIN, LUCAS,
MADISON, MAHONING, MARION, MERCER, MIAMI,
MONTGOMERY, MORROW, MUSKINGUM, OTTAWA,
PAULDING, PERRY, PICKAWAY, PIKE, PREBLE,
PUTNAM, ROSS, SANDUSKY, SCIOTO, SENECA,
SHELBY, STARK, TRUMBULL, TUSCARAWAS, UNION,
VAN WERT, WARREN, WAYNE, WILLIAMS, WOOD,
WYANDOT

Special Jurisdictional Note :

Details :

Class A: less than 1 year.

Class B: 1-3 years.

Class C: 3-10 years.

Class D: More than 10 years.

Prevailing Wage Rate Skilled Crafts

Name of Union: Plasterer Local 132 (Cincinnati)

Change # : LCN01-2021fbLoc132

Craft : Plasterer Effective Date : 03/10/2021 Last Posted : 03/10/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Plasterer	\$25.90		\$5.80	\$8.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$41.40	\$54.35
Apprentice	Percent											
1st 900 hours	60.00	\$15.54	\$5.80	\$0.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$23.04	\$30.81
2nd 900 hours	65.00	\$16.83	\$5.80	\$0.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$24.33	\$32.75
3rd 900 hours	70.00	\$18.13	\$5.80	\$7.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$32.63	\$41.70
4th 900 hours	75.00	\$19.42	\$5.80	\$7.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$33.92	\$43.64
5th 900 hours	80.00	\$20.72	\$5.80	\$7.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$35.22	\$45.58
6th 900 hours	85.00	\$22.01	\$5.80	\$7.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$36.52	\$47.52
7th 900 hours	90.00	\$23.31	\$5.80	\$7.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$37.81	\$49.46
8th 900 hours	95.00	\$24.60	\$5.80	\$7.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$39.11	\$51.41

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

- 1 Journeyman to 1 Apprentice
- 4 Journeyman to 2 Apprentice
- 7 Journeyman to 3 Apprentice

Jurisdiction (* denotes special jurisdictional note):

BROWN, BUTLER, CLERMONT, HAMILTON,
HIGHLAND, WARREN

Special Jurisdictional Note :

Details :

Apprentice and Shop Hand Pension are \$1.00 less than Journeyman.

Prevailing Wage Rate Skilled Crafts

Name of Union: Plumber Pipefitter Local 392

Change # : LCN01-2019-fbLoc392

Craft : Plumber/Pipefitter Effective Date : 06/05/2019 Last Posted : 06/05/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Plumber Pipefitter	\$32.81		\$7.40	\$12.39	\$0.50	\$0.00	\$0.00	\$0.98	\$0.00	\$0.00	\$54.08	\$70.48
Plumber Helper	\$21.33		\$7.30	\$6.59	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.72	\$46.38
Apprentice	Percent											
1st yr	46.50	\$15.26	\$7.20	\$0.40	\$0.50	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$23.84	\$31.46
2nd yr	51.53	\$16.91	\$7.20	\$0.40	\$0.50	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$25.49	\$33.94
3rd yr	56.53	\$18.55	\$7.20	\$6.59	\$0.50	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$33.32	\$42.59
4th yr	61.53	\$20.19	\$7.20	\$6.59	\$0.50	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$34.96	\$45.05
5th yr	76.53	\$25.11	\$7.20	\$12.39	\$0.50	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$45.68	\$58.23

Special Calculation Note : OTHER IS: SUPPLEMENTAL UNEMPLOYMENT BENEFITS.

Ratio :

- 1 Journeymen to 1 Apprentice
- 2 Journeymen to 4 Apprentices
- 3 Journeymen to 6 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

BROWN, BUTLER, CLERMONT, HAMILTON, WARREN

When more than twenty (20) Journeymen are employed additional apprentices may be acquired at a ratio of one (1) apprentice to four (4) journeymen.

Special Jurisdictional Note :

Details :

Helpers shall be permitted to work on ONLY , Exterior Sewers, Concrete, Vitrified Clay or PVC Pipe and Digging and Backfilling for Piping Work. The ratio shall not exceed 2 helpers to 1 Journeymen when performing the scope of work listed above

Prevailing Wage Rate Skilled Crafts

Name of Union: Roofer Local 42

Change # : LCNO2-2019fbLoc42

Craft : Roofer Effective Date : 09/19/2019 Last Posted : 09/19/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Roofer	\$28.25		\$7.87	\$7.55	\$0.32	\$0.00	\$0.50	\$0.06	\$0.00	\$0.00	\$44.55	\$58.67
Tradesmen	\$22.60		\$7.87	\$6.04	\$0.00	\$0.00	\$0.50	\$0.03	\$0.00	\$0.00	\$37.04	\$48.34
Apprentice Percent												
1st period	60.00	\$16.95	\$7.87	\$4.53	\$0.03	\$0.00	\$0.50	\$0.00	\$0.00	\$0.00	\$29.88	\$38.35
2nd period	70.00	\$19.77	\$7.87	\$5.28	\$0.03	\$0.00	\$0.50	\$0.00	\$0.00	\$0.00	\$33.46	\$43.34
3rd period	80.00	\$22.60	\$7.87	\$6.04	\$0.03	\$0.00	\$0.50	\$0.00	\$0.00	\$0.00	\$37.04	\$48.34

Special Calculation Note : Other is Education and Safety.

Journeymen shall receive \$1.00 per hour above journeyman rate for work with pitch material.

Ratio :

Employer may employ 1 apprentice for every 2 journeymen in his employment.

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN.

Special Jurisdictional Note :

Details :

Any Tradesman Worker completing 2,000 hours in (2) years may move to Journeyman status by utilizing the Training Yard to improve their skills. Tradesman Workers will be tested at these yards to determine their competency for Journeyman status. Tradesman Workers must schedule and successfully complete the industry test battery in order to gain journeyman status.

Prevailing Wage Rate Skilled Crafts

Name of Union: Sheet Metal Local 24 (Dayton)

Change # : LCR02-2019fbLoc24(Day)

Craft : Sheet Metal Worker Effective Date : 06/19/2019 Last Posted : 06/19/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Sheet Metal Worker	\$27.72	\$8.52	\$14.46	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$51.55	\$65.41	
Apprentice	Percent											
Apprentice												
5th Year B	80.00	\$22.18	\$8.26	\$11.56	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$42.85	\$53.93	
5th Year A	75.00	\$20.79	\$8.20	\$10.85	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$40.69	\$51.09	
4th Year B	70.00	\$19.40	\$8.13	\$10.13	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$38.51	\$48.22	
4th Year A	65.00	\$18.02	\$8.07	\$9.40	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$36.34	\$45.35	
3rd year B	60.00	\$16.63	\$8.01	\$8.68	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$34.17	\$42.49	
3rd Year A	55.00	\$15.25	\$7.94	\$7.95	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$31.99	\$39.61	
2 Year B	53.78	\$14.91	\$7.90	\$7.02	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$30.68	\$38.13	
2 Year A	52.69	\$14.61	\$7.88	\$6.49	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$29.83	\$37.13	
Probationary 1 Year	51.13	\$14.17	\$7.85	\$5.87	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$28.74	\$35.83	

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeyman to 1 Apprentice then,
1 Apprentice for every 2 Journeymen thereafter

Jurisdiction (* denotes special jurisdictional note) :

ALLEN, AUGLAIZE, BUTLER, CHAMPAIGN,
CLARK, CLINTON, DARKE, GREENE, HARDIN,
LOGAN, MERCER, MIAMI, MONTGOMERY,
PREBLE, SHELBY, VAN WERT, WARREN,
WYANDOT

Special Jurisdictional Note :

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Sprinkler Fitter Local 669

Change # : LCN01-2021fbLoc669

Craft : Sprinkler Fitter Effective Date : 04/01/2021 Last Posted : 03/31/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Sprinkler Fitter	\$41.87		\$10.55	\$7.00	\$0.52	\$0.00	\$5.12	\$0.10	\$0.00	\$0.00	\$65.16	\$86.09
Apprentice Indentured after April 1, 2013	Percent											
CILASS 1	45.00	\$18.84	\$7.75	\$0.00	\$0.52	\$0.00	\$0.00	\$0.10	\$0.00	\$0.00	\$27.21	\$36.63
CLASS 2	50.00	\$20.93	\$7.75	\$0.00	\$0.52	\$0.00	\$0.00	\$0.10	\$0.00	\$0.00	\$29.30	\$39.77
CLASS 3	54.40	\$22.78	\$10.55	\$7.00	\$0.52	\$0.00	\$1.15	\$0.10	\$0.00	\$0.00	\$42.10	\$53.49
CLASS 4	59.40	\$24.87	\$10.55	\$7.00	\$0.52	\$0.00	\$1.15	\$0.10	\$0.00	\$0.00	\$44.19	\$56.63
CLASS 5	64.42	\$26.97	\$10.55	\$7.00	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$46.54	\$60.03
CLASS 6	69.40	\$29.06	\$10.55	\$7.00	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$48.63	\$63.16
CLASS 7	74.40	\$31.15	\$10.55	\$7.00	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$50.72	\$66.30
CLASS 8	79.42	\$33.25	\$10.55	\$7.00	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$52.82	\$69.45
CLASS 9	84.40	\$35.34	\$10.55	\$7.00	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$54.91	\$72.58
CLASS 10	89.40	\$37.43	\$10.55	\$7.00	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$57.00	\$75.72

Special Calculation Note : \$0.10 for Other is National Fire Sprinkler Association

Ratio :

1 Journeyman 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, 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 :

Sprinkler Fitter work shall consist of the installation, dismantling, maintenance, repairs, adjustments, and corrections of all fire protection and fire control systems including the unloading, handling by hand, power equipment and installation of all piping or tubing, appurtenances and equipment pertaining thereto, including both overhead and underground water mains, fire hydrants and hydrant mains, standpipes and hose connections to sprinkler systems used in connection with sprinkler and alarm systems. Also all tanks and pumps connected thereto, also included shall be CO-2 and Cardox Systems, Dry Chemical Systems, Foam Systems and all other fire protection systems.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Truck Driver Bldg & HevHwy Class 1
 Locals 20,40,92,92b,100,175,284,438,377,637,908,957

Change # : OCRO1-2019fbBldgHevHwy

Craft : Truck Driver Effective Date : 09/11/2019 Last Posted : 09/11/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Truck Driver CLASS 1 4 wheel service, dump, and batch trucks, Oil Distributor - Asphalt Distributor-Tandems	\$28.04		\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.14	\$57.16
Apprentice	Percent											
First 6 months	80.00	\$22.43	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.53	\$48.75
7-12 months	85.00	\$23.83	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.93	\$50.85
13-18 months	90.00	\$25.24	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.34	\$52.95
19-24 months	95.00	\$26.64	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.74	\$55.06
25-30 months	100.00	\$28.04	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.14	\$57.16

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

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 :

** Asphalt - Oil spray bar man when operating from cab shall receive \$0.20 cents per hour above their Basic Hourly Rate.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Truck Driver Bldg & HevHwy Class 2
 Locals 20,40,92,92b,100,175,284,438,377,637,908,957

Change # : LCRO1-2019-fbBldgHevHwy

Craft : Truck Driver Effective Date : 10/16/2019 Last Posted : 10/16/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Truck Driver CLASS 2 Tractor Trailer-Semi Tractor Trucks-Pole Trailers-Ready Mix Trucks-Fuel Trucks-Asphalt-Oil Spray bar men- 5 Axle & Over -Belly Dumps-End Dumps-Articulated Dump Trucks-Low boys- Heavy duty Equipment (irrespective of load carried) when used exclusively for transportation- Truck Mechanics (when needed)	\$28.46		\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.56	\$57.79
Apprentice	Percent											
First 6 months	80.00	\$22.77	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.87	\$49.25
7-12 months	85.00	\$24.19	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.29	\$51.39
13-18 months	90.00	\$25.61	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.71	\$53.52
19-24 months	95.00	\$27.04	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.14	\$55.66
25-30 months	100.00	\$28.46	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.56	\$57.79

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

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 :

** Asphalt - Oil spray bar man when operating from cab shall receive \$0.20 cents per hour above their Basic Hourly Rate.

SECTION 00 70 20
PERMITS

Contractor shall keep a copy of all permits at the project site throughout the duration of the work.



AECOM 215 735 0832 tel
1700 Market Street 215 735 0883 fax
Suite 1600
Philadelphia, PA 19103
www.aecom.com

April 20, 2020

Chris Wojnicz, PE
Deputy Sanitary Engineer
Warren County Water & Sewer Department
406 Justice Drive
Lebanon, OH 45036

Subject: Franklin, Warren County, Ohio
Milepost QD-2.32, Carlisle Jct-Franklin Line, Lake Division
Latitude N39.549537, Longitude W84.313503

Norfolk Southern Activity No. 1277361

Proposed installation of two (2) underground crossings of a 10-inch PVC WTP residuals pipeline in an 18-inch steel casing pipe wholly within the confines of Dixie Highway (AAR/DOT # 507865E)

Dear Mr. Wojnicz, PE:

Attached is the fully executed Public Street Acknowledgement Form dated April 14, 2020 between Norfolk Southern Railway Company and Warren County Board of County Commissioners covering the above referenced project, your project number 60551697.

This letter acknowledges receipt of your payment in the amount of \$1,000.00, which covers the Risk Management Fee. Your Commercial General Liability insurance coverage has been reviewed by Norfolk Southern's Risk Manager and is acceptable through May 1, 2020.

NOTE: Your organization's General Liability Insurance and Railroad Protective Liability insurance are scheduled to expire within thirty days. In order to avoid delay in your scheduled project, please forward the renewed Certificate of Liability Insurance and the renewed Railroad Protective Liability Policy to the attention of:

Director Risk Management
Norfolk Southern Corporation
Three Commercial Place
Norfolk, VA 23510-2191
Email: nsrisk1@nscorp.com
Copy to: NSInsurance@aecom.com

Prior to start of work on Railway right of way, you are required to contact the following:

For Scheduling of Flagging and Inspection and For Railway Signal Identification
Gretchen Pounds of NS's Lake Division Engineering Office, 260-493-5355

Once contacted, the Division Engineer requires 72 hours to review the need for and availability of flagmen for this project and will advise you of the cost of said flagmen. No work is permitted on Railway right of way without a flagman or the Division Engineer's agreement to waive the flag protection requirement. Entry onto Railway property without the Division Engineer's prior approval is considered trespassing. In the event you are unable to contact the railway for flagging services, please contact the undersigned for assistance.

Thank you for your cooperation.

Very truly yours,

Angelina Discienzo
Contract Administrator
215-789-2168
angelina.discienzo@aecom.com

CC: Archives

CHECK FORM
AECOM for Norfolk Southern Railway Company
Send this document to Lydia Asare in Corporate Accounting

Date: March 31, 2020

Activity #: 1277361

Licensee: Warren County Board of County Commissioners

Check Received from: Warren County

Check Date: 3/3/2020

Check No.: 1215753

Check Amount: \$1,000.00

Payable To: NORFOLK SOUTHERN RAILWAY COMPANY

NS and Subsidiary Lines - Credit Rental Income and Fees To:

Profit Center: 59596

NEC: 59585002

Settlement Code: 001

One-time Fee:

1277361

\$0.00

Profit Center: 58005

NEC: 58816000


Settlement Code: 001

Insurance:

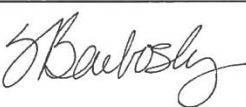
1277361

\$1,000.00

ORIGINAL DOCUMENT IS PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER - SEE REVERSED SIDE FOR COMPLETE SECURITY FEATURES

1215753	MATT NOLAN WARREN COUNTY AUDITOR WARRANT ON COUNTY TREASURER	03/03/2020
<small>LEBANON CITIZENS NATIONAL BANK LEBANON, OHIO 45036 56-570/422</small>	<small>LEBANON, OHIO</small>	<small>PLEASE CASH WITHIN 90 DAYS</small>
One Thousand Dollars and 00 Cents		
PAY TO THE ORDER OF	FUND 1000	AMOUNT \$1,000.00
NORFOLK SOUTHERN RAILWAY COMPANY THREE COMMERCIAL PLACE NORFOLK, VA 23510		<small>PLEASE CASH WITHIN 90 DAYS</small> <small>WARREN COUNTY AUDITOR</small>  <small>WARREN COUNTY AUDITOR</small>
<small>DOCUMENT INCLUDES A HIDDEN WORD. DO NOT CASH IF THE WORD VOID IS VISIBLE. DOCUMENT ALSO CONTAINS HEAT-SENSITIVE INK. TOUCH HERE - RED IMAGE DISAPPEARS WITH HEAT.</small>		

⑆01215753⑆ ⑆042205708⑆ 0921406⑆ /1277361-OH

CERTIFICATE OF COVERAGE				
THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE COVERAGE AGREEMENT BELOW				
World Risk Management 20 N. Orange Ave. Ste. 500 Orlando, FL 32801		January 17, 2020		
COVERED MEMBER Board of Commissioners of Warren County 406 Justice Dr. Lebanon, OH 45036		COVERAGE TO MEMBER PROVIDED BY AGREEMENT WITH: COUNTY RISK SHARING AUTHORITY 209 EAST STATE STREET COLUMBUS OHIO 43215 JOINT SELF INSURANCE POOL FORMED UNDER OHIO REVISED CODE CHAPTER # 2744		
COVERAGES: THIS IS TO CERTIFY THAT THE AGREEMENT WHICH PUT COVERAGE IN EFFECT AS LISTED BELOW HAS BEEN ISSUED TO THE POOL MEMBER NAMED ABOVE FOR THE TIME PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE PROTECTION AFFORDED BY THE COVERAGE AGREEMENT DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH AGREEMENT.				
TYPE OF COVERAGE	MEMBER NUMBER	EFFECTIVE DATE	EXPIRATION DATE	LIMIT
GENERAL LIABILITY INCLUDING ERRORS AND OMISSIONS LIABILITY	0920	5-1-2019	5-1-2020	\$1,000,000.
AUTO LIABILITY INCLUDING OWNED, NON-OWNED, HIRED AUTOMOBILES	0920	5-1-2019	5-1-2020	\$1,000,000.
PROPERTY INCLUDING ALL REAL AND PERSONAL PROPERTY, AUTOMOBILES, AND EQUIPMENT	0920	5-1-2019	5-1-2020	Per Schedules on File
OTHER				
EXCESS LIABILITY	0920	5-1-2019	5-1-2020	\$000,000
CRIME: EMPLOYEE DISHONESTY/FAITHFUL PERFORMANCE	0920	5-1-2019	5-1-2020	\$1,000,000
DESCRIPTION OF OPERATIONS\LOCATIONS\VEHICLES\SPECIAL ITEMS The Certificate Holder is included as a Covered Party as defined in the CORSA Coverage Agreement with regard to Norfolk Southern Activity No. 1277361, but only with respect to General Liability coverage.				
CERTIFICATE HOLDER Norfolk Southern Railway Company Attn: Director of Risk Management Three Commercial Place Norfolk, VA 23510		CANCELLATION: SHOULD THE ABOVE DESCRIBED COVERAGE AGREEMENT BE CANCELED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING POOL WILL ENDEAVOR TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE ISSUING POOL, OR ITS REPRESENTATIVES.		
				

Revised May 1, 2019

NORFOLK SOUTHERN RAILWAY COMPANY

ACKNOWLEDGMENT FORM FOR WIRE AND/OR PIPE OCCUPATION
WITHIN THE LIMITS OF A PUBLIC RIGHT OF WAY

APPLICANT: Warren County Board of County Commissioners
406 Justice Drive
Lebanon, Ohio 45036

SUBJECT: Franklin, Warren County, Ohio
Milepost QD-2.32, Carlisle Jct-Franklin Line, Lake Division
Latitude N39.549537, Longitude W84.313503

Norfolk Southern Activity No. 1277361

Proposed installation of two (2) underground crossings of a 10-inch PVC WTP residuals pipeline in an 18-inch steel casing pipe wholly within the confines of Dixie Highway (AAR/DOT # 507865E)

In response to Applicant's submittal dated November 13, 2019, regarding the proposed construction of the subject project, Norfolk Southern Railway Company ("Railway") does not object to the installation of the Facilities as shown on the attached Drawings marked Exhibits A and B, received by Railway on December 13, 2019, and Pipe Data Sheet, provided Applicant adheres to the following terms and conditions:

- The Facilities shall be installed, maintained, repaired and renewed by and at the sole risk, cost and expense of the Applicant.
- The Facilities must conform with all Federal, State and local laws, rules and regulations and will not be attached to any railroad structure or appurtenance and will not be located on any private property of Railway.
- The design and construction of aerial Facilities shall comply with Railway's NSCE-4 Specification, latest edition, and underground Facilities shall comply with Railway's NSCE-8 Specification, latest edition.
- Insurance

(a) Without limiting in any manner the liability and obligations assumed by Applicant under any other provision of this Agreement, and as additional protection to Railway, Applicant shall, at its expense, pay the Risk Financing Fee set forth in subparagraph (i) below and shall procure and maintain with insurance companies satisfactory to Railway, the insurance policies described in subparagraphs (ii) and (iii).

(i) Upon execution of this Agreement, Applicant shall pay Railway a risk financing fee of \$1,000 per installation (herein called the "Risk Financing Fee") to provide Railroad Protective Liability Insurance or such supplemental insurance (which may be self-insurance) as Railway, in its sole discretion, deems to be necessary or appropriate.

(ii) Prior to commencement of installation or maintenance of the Facilities or entry on Railway's property, Applicant, and its contractor if it employs one, shall procure and maintain for the course of said installation and maintenance, a general liability insurance policy naming Railway as an additional insured, and containing products and completed operations and contractual liability coverage, with a combined single limit of not less than \$1,000,000 for each occurrence.

(iii) Prior to commencement of any subsequent maintenance of the Facility during the term of this Agreement, unless Railway elects to make available and Applicant pays the then current risk financing fee for each affected installation, Applicant, or its contractor if it employs one, shall furnish Railway with an original Railroad Protective Liability Insurance Policy naming Railway as the named insured and having a limit of not less than a combined single limit of \$2,000,000 each occurrence and \$6,000,000 aggregate. Such policy shall be written using Insurance Services Offices Form Numbers CG 00 35 01 10 01.

(b) All insurance required under preceding subsection (a) shall be underwritten by insurers and be of such form and content as may be acceptable to Railway. Prior to commencement of installation or maintenance of the Facilities or any entry on Railway's property, Applicant, or its contractor if it employs one, shall furnish to Railway's Risk Manager, Three Commercial Place, Norfolk, Virginia 23510-2191 (or such other representative and/or address as subsequently given by Railway to Applicant in writing), for approval, the original policy described in subsection (a)(iii) and a certificate of insurance evidencing the existence of a policy with the coverage described in subsection (a)(ii).

- Prior to commencement of any work to be performed, Applicant shall notify the appropriate Division Engineer for the scheduling of protection and inspection. Within seventy-two (72) hours after the Division Engineer's actual receipt of such notification, the Division Engineer shall review the necessity and availability of flagmen for the proposed work and advise Applicant of such matters and the estimated cost therefor. No work shall be permitted without the presence of Railway's flagman or the Division Engineer's waiver of the requirement for flag protection. Entry on or about any Railway right-of-way without the Division Engineer's prior approval shall be deemed trespassing. Applicant agrees to pay Railway, within thirty (30) days after delivery of an invoice therefor, for any protection and inspection costs incurred by Railway, in Railway's sole judgment, during any such entry.
- If Railway deems it advisable during the progress of any work of construction, maintenance, repairs and renewals, alterations, adjustments or removal of the Applicant's Facilities to place watchmen, flagmen, inspectors or any other employees deemed necessary by Railway for the protection of its train traffic and the protection of the property owned or in possession or control of Railway, or its employees, patrons, or licensees, Railway shall have the right to do so and Applicant agrees to bear full cost and expense thereof and to promptly reimburse Railway upon demand.
- All cost or expense resulting from any and all loss of life or property, or injury or damage to the person or property of any person, firm or corporation (including the parties hereto and their respective officers, agents and employees) and any and all claims, demands or actions for such loss, injury or damage, caused by or growing out of the presence or use, or the construction, maintenance, renewal, change or relocation and subsequent removal of the Facilities and appurtenances herein referred to shall be borne by Applicant unless caused solely by the negligence or willful misconduct of Railway.
- In the event of any revision, renewal, addition, removal or alteration of said facilities, prior approval of the Railway must be secured. Applicant must also furnish Railroad Protective Liability Insurance for this work.
- Upon abandonment of the Facilities by Applicant, Applicant shall seek direction from Railway's Chief Engineer, or his representative, regarding the method of abandonment if the Facilities will be abandoned in place.
- In the event the Facilities consist of electrical power or communication wires and appurtenances, Applicant shall promptly remedy any inductive interference growing out of, or resulting from the presence of, the Facilities.
- In the event the Facilities consist of an underground occupation, Applicant will be responsible for any settlement caused to the roadbed, right of way and/or tracks, facilities and appurtenances of Railway arising from or as a result of the installation of the Facilities, and Applicant shall pay to Railway on demand the full cost and expense therefore.
- All rights and obligations conferred hereby shall extend to the successors and assigns of the parties hereto, provided that the Applicant shall in no event transfer or assign its rights hereunder without the written consent of Railway, which will not be unreasonably withheld.
- If the public road is abandoned by the appropriate governmental authority and the Facilities remain within the limits of Railway's right of way after such abandonment, as a condition for the continuing presence of the Facilities within Railway's right of way, Railway and Applicant shall agree upon an appropriate occupancy fee or rental for the Facilities and execute an amendment to this Agreement within ninety (90) days after the date upon which such public road is abandoned.

AD

- The Applicant, with respect to the indemnification provisions contained in this Acknowledgement Form, hereby expressly waives any immunity granted or afforded Applicant pursuant to Section 35, Article II of the Ohio Constitution and Section 4123.74 of the Ohio Revised Code.
- Any and all notices, demands or requests by or from Railway to Applicant, or Applicant to Railway, shall be in writing and shall be sent by (a) postage paid, certified mail, return receipt requested, or (b) a reputable national overnight courier service with receipt therefor, or (c) personal delivery, and addressed in each case as follows:

If to Railway: c/o Norfolk Southern Corporation
 1200 Peachtree Street, NE - 12th Floor
 Atlanta, Georgia 30309-3504
 Attention: Director Real Estate

If to Applicant: Warren County Board of County Commissioners
 406 Justice Drive
 Lebanon, Ohio 45036
 Attention: Deputy Sanitary Engineer

Either party may, by notice in writing, direct that future notices or demands be sent to a different address. All notices hereunder shall be deemed given upon receipt (or, if rejected, upon rejection).

ACCEPTED BY:

NORFOLK SOUTHERN RAILWAY COMPANY


 Real Estate Manager


DATE 4/14/20

WARREN COUNTY BOARD OF COUNTY COMMISSIONERS


 Title Vice-president

DATE 3/12/2020

APPROVED AS TO FORM


 Adam M. Nice
 Asst. Prosecuting Attorney

Activity Number: 1277361
 AD: January 03, 2020
 File No. 1812102v1

AD

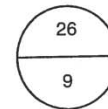


PIPE DATA SHEET

	CARRIER PIPE	CASING PIPE
CONTENTS TO BE HANDLED	WTP Residuals (NF Concentrate)	Carrier Pipe
MAX. ALLOWABLE OPERATING PRESSURE	50 of 165 psi	n/a
NOMINAL SIZE OF PIPE	10"	18"
OUTSIDE DIAMETER	11.10"	18.75"
INSIDE DIAMETER	10.16"	18"
WALL THICKNESS	0.444"	0.312"
WEIGHT PER FOOT	10.1 lb	75 lb
MATERIAL	PVC	Steel
PROCESS OF MANUFACTURE	Typical	Typical
SPECIFICATION	AWWA C900	ASTM A53
GRADE OR CLASS (Specified Minimum Yield Strength)	DR 25	35,000 psi
TEST PRESSURE	350 psi	n/a
TYPE OF JOINT	ASTM D3139 F477	Fully Welded
TYPE OF COATING	None	None
DETAILS OF CATHODIC PROTECTION	None	None
DETAILS OF SEALS OR PROTECTION AT END OF CASING	End Seals	End Seals
CHARACTER OF SUBSURFACE MATERIAL	Loamy Fill	Loamy Fill
APPROXIMATE GROUND WATER LEVEL	> 7'	> 7'
SOURCE OF INFORMATION ON SUBSURFACE CONDITIONS	Soil Survey	Soil Survey

Proposed method of installation (refer to NSCE-8 Specification):

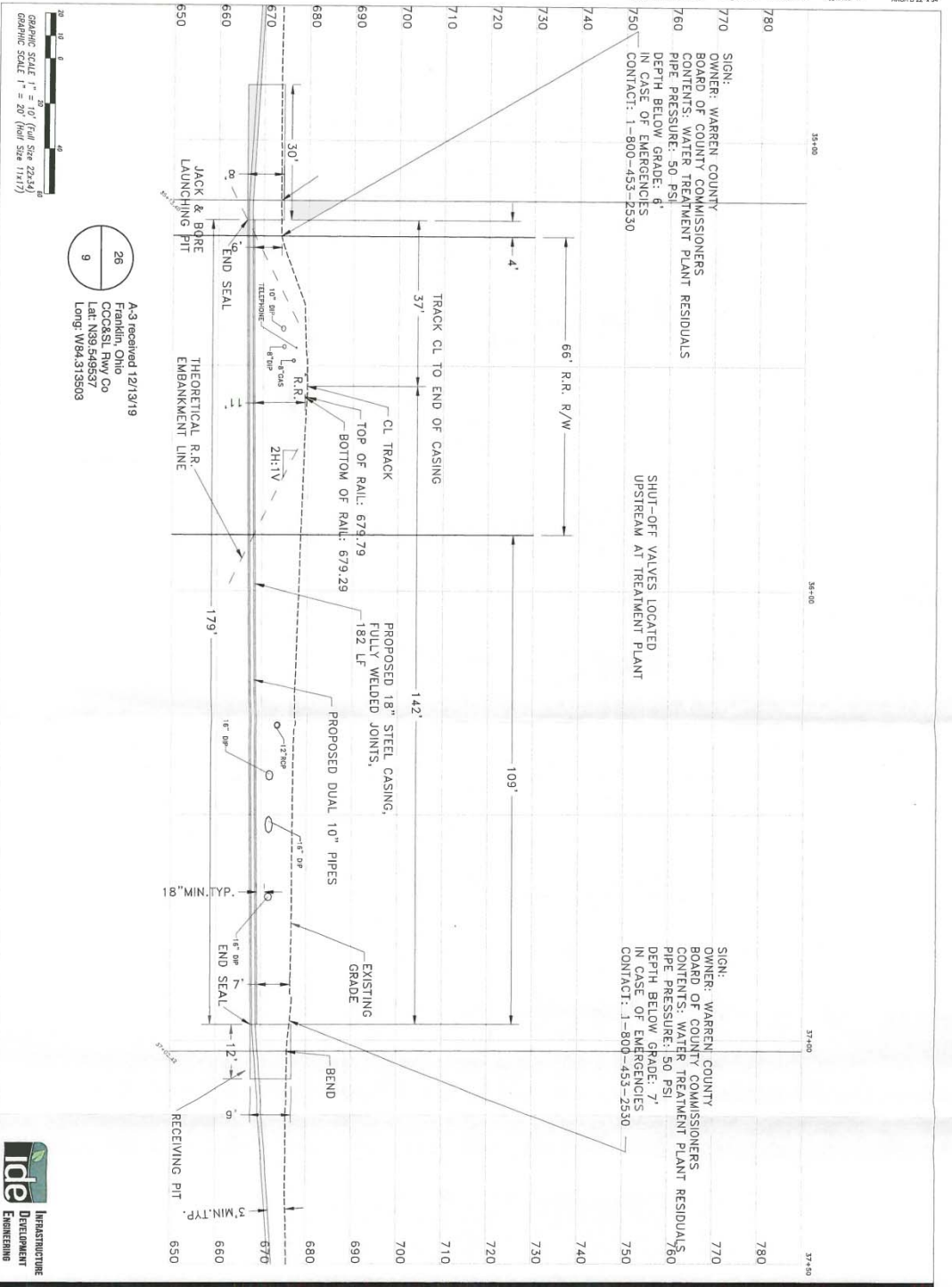
- Bore and jack
- Jacking
- Tunneling (with Tunnel Liner Plate)
- Directional Bore/Horizontal Direction Drilling – Method A
- Directional Bore/Horizontal Direction Drilling – Method B
- Open Cut – *All installations directly under any track must be designed as a bored installation. Open cut installations will be considered on a case-by-case basis by Norfolk Southern's Division Superintendent at the time of installation.*
- Other (Specify): _____



A-3 received 12/13/19
Franklin, Ohio
CCC&SL Rwy Co
Lat: N39.549537
Long: W84.313503

1273361-110

Last Revised: 113018



A-3 received 12/13/19
 Franklin, Ohio
 CCC&SL Rwy Co
 LAT: N39.549537
 Long: W84.313503

<p>750 SIGN: DIVNER: WARREN COUNTY BOARD OF COUNTY COMMISSIONERS CONTENTS: WATER TREATMENT PLANT RESIDUALS PIPE PRESSURE: 50 PSI DEPTH BELOW GRADE: 6' IN CASE OF EMERGENCIES CONTACT: 1-800-453-2530</p>	<p>750 SHUT-OFF VALVES LOCATED UPSTREAM AT TREATMENT PLANT</p>
<p>770 SIGN: OWNER: WARREN COUNTY BOARD OF COUNTY COMMISSIONERS CONTENTS: WATER TREATMENT PLANT RESIDUALS PIPE PRESSURE: 50 PSI DEPTH BELOW GRADE: 7' IN CASE OF EMERGENCIES CONTACT: 1-800-453-2530</p>	

AECOM
 PROJECT: FAWTP MEMBRANE SOFTENING UPGRADES
 CLIENT: WARREN COUNTY
 Warren County Administration Building
 604 S. State Street
 Warren, OH 44205
 513-865-1250 Ext. 4026
 760 W. Main Street
 Warren, OH 44205
 513-865-1250 Ext. 4026

WARREN COUNTY
 Warren County Administration Building
 604 S. State Street
 Warren, OH 44205
 513-865-1250 Ext. 4026

277 WEST TAYLORVILLE SQUARE
 COLUMBUS, OH 43215-2666
 614-664-6500 Ext. 914-664-6288 Ext. 914-664-6288 Ext. 914-664-6288
 CONSTRUCTION

ARCHITECTURAL, CIVIL & STRUCTURAL
 AND/OR ELECTRICAL ENGINEERING
 13300 BROADVIEW AVENUE
 CLEVELAND, OH 44130
 216-291-1100
 513-963-0711 Ext. 513-963-0711

513-963-0711
 513-963-0711
 513-963-0711

REGISTRATION:
 REGISTERED PROFESSIONAL ENGINEER
 IN THE STATE OF OHIO
 NO. 123361
 EXPIRES 12/31/2024
 REGISTERED PROFESSIONAL ENGINEER
 IN THE STATE OF OHIO
 NO. 123361
 EXPIRES 12/31/2024

123361-PA0

EXHIBIT B

ISSUER/REVISION	
1. REVISION	DESCRIPTION

KEY PLAN

PROJECT NUMBER: 18055A-61
 SHEET TITLE: CONGENERATE DISCHARGE PUMP AND PIPING
 SHEET NUMBER: C-09

IDE INFRASTRUCTURE DEVELOPMENT ENGINEERING

**BOARD OF COUNTY COMMISSIONERS
WARREN COUNTY, OHIO**

Resolution

Number 20-0571

Adopted Date April 21, 2020

APPROVE LAND USE PERMIT WITH THE MIAMI CONSERVANCY DISTRICT AND
AUTHORIZE COUNTY ADMINISTRATOR OF THE BOARD TO SIGN SAID PERMIT

WHEREAS, for the benefit of its water customers, Warren County is requesting a land use permit from the Miami Conservancy District for the development and operation of water supply and treatment facilities on one parcel totaling 3.8 acres owned by the Miami Conservancy District along the left bank of the Great Miami River between Baxter Drive and South River Street from Clear Creek to the river; and

NOW THEREFORE BE IT RESOLVED:

1. That the Land Use Permit with the Miami Conservancy District is hereby approved by this Board.
2. That the County Administrator is hereby directed to sign said Permit on behalf of this Board.

Mrs. Jones moved for adoption of the foregoing resolution, being seconded by Mr. Grossmann. Upon call of the roll, the following vote resulted:

Mr. Young – yea
Mr. Grossmann – yea
Mrs. Jones – yea

Resolution adopted this 21th day of April 2020.

BOARD OF COUNTY COMMISSIONERS


Tina Osborne, Clerk

cc: c/a – Miami Conservancy District
Water/Sewer (file)

The Miami Conservancy District

LAND USE PERMIT NO. 10-3651-1

THE MIAMI CONSERVANCY DISTRICT, a body corporate and political subdivision of the State of Ohio, hereinafter called "MCD", in consideration of compensation as specified within this Permit, and subject to the terms, conditions and restrictions hereinafter set forth, hereby grants to

**WARREN COUNTY WATER & SEWER DEPT.
406 JUSTICE DRIVE
LEBANON, OHIO 45036**

hereinafter called the "Grantee" the authority and permission to use that portion of MCD property as further described below for the following specified use and for no other use without express written consent by MCD.

The right to construct, use, maintain and remove the following:

- **New Dual 10" CONCENTRATE DISCHARGE PIPES** for a Cascade Aerator to provide dissolved oxygen to the discharge of the new Franklin Area Softening Facility, not located on MCD property, as shown on the attached Exhibit "A".

The property, **Part MCD Parcel No. 993 & 4656**, is located in the City of Franklin, Warren County, Ohio, and more specifically along the left bank of the Great Miami river between Baxter Drive and South River Street from Clear Creek to the river as shown on the attached Exhibit "B".

All real property, easements, land, structures, infrastructure, and facilities that are owned or controlled by MCD or any MCD subdistrict shall hereinafter be called "MCD property."

THIS PERMIT IS GRANTED SUBJECT TO COMPLIANCE WITH THE FOLLOWING TERMS, CONDITIONS AND RESTRICTIONS AS SET FORTH BY MCD IN ACCORDANCE WITH SECTION 6101.19 OF THE OHIO REVISED CODE:

1. PROPERTY USE, MAINTENANCE & RESTRICTION: The Grantee AGREES to maintain all property as authorized for use within this Permit. Maintenance shall include regular inspection and repair of the concentrate discharge pipes including trash and debris removal.

Whenever the employees, agents, or contractors of said Grantee enter upon MCD property, for the purpose of maintaining, modifying, repairing or removing any structures and/or improvements as described within this Permit, the Grantee AGREES all operations will be confined to a reasonable area adjacent to said structures and/or improvements.

The Grantee AGREES all MCD property will be continually used and maintained in a safe and responsible manner that does not affect MCD operations and maintenance.

The Grantee must contact MCD for approval prior to performing any repairs or maintenance on MCD property that would result in any land disturbance.

Any land disturbing activity on MCD property involving the services of a contractor will require that the contractor contact MCD to acquire a MCD Construction Permit prior to doing any work on MCD property.

The Grantee, prior to initiating any land disturbing activity, AGREES to contact OUPS to determine if there are any utilities located within the permit area. The Grantee further AGREES to protect all identified utilities from damage that could result from land use as outlined within this Permit.

All activities listed in the attached Exhibit "C" are prohibited unless specifically authorized in this permit.

The Grantee AGREES all use of vehicles on MCD property shall be in compliance with the Ohio Revised Code and other applicable laws.

2. DAMAGE TO MCD PROPERTY: Any damages, resulting from the land use granted, caused to MCD structures and facilities including, but not limited to, levees, dams, floodwalls, bikeways, roads, gates, wells, gages, monitoring equipment, monuments and/or MCD property shall be repaired or replaced in a manner satisfactory to MCD as more specifically defined in Exhibit "D" of this Permit. Revocation, termination or expiration of the Permit does not release the Grantee from its obligation to repair damages. In the event the repair or replacement is not completed in a reasonable amount of time, MCD may, at its option, cause said repairs or replacements to be accomplished and Grantee shall reimburse MCD for any expenses incurred.

3. TERM: The term of this Permit shall be for a period of **fifteen (15) years, effective February 1, 2020 and terminating on January 31, 2035.**

4. MCD's RIGHT OF REVOCATION

- a. If the property use causes damage or imminent damage to MCD property, or creates a health or safety hazard, MCD will order all use by the Grantee be stopped immediately and notify the Grantee to repair or replace MCD Property and remove the hazard. If the Grantee fails to respond in the time set by MCD, MCD will revoke the rights granted by this Permit. Such revocation would not release the Grantee from its obligation to restore the land as required by item 6 below.
- b. If, at any time, in the opinion of MCD, the said use interferes with the primary objectives of MCD; or should the best interests of MCD so justify; this Permit shall be revoked. MCD will provide seven (7) days written notice of revocation. Such revocation would not release the Grantee from its obligation to restore the land as required by item 6 below.

5. GRANTEE'S RIGHT OF TERMINATION: The Grantee may request termination of this Permit if the use of MCD property described in this Permit is no longer necessary or desired. The Grantee shall notify the MCD Property Administrator within forty-eight (48) hours following cessation of the permitted land use to request termination.

6. RESTORATION: Prior to termination of this Permit, the Grantee AGREES to remove or properly abandon all structures and/or improvements and repair or restore all MCD property as specified in Exhibit "D" of this Permit. Revocation, termination or expiration of the permit does not release the Grantee from its obligation to restore the property. In the event the Grantee does not restore or remove the said structures and/or improvements within a timely manner, MCD may, at its option, cause said work to be accomplished and Grantee shall reimburse MCD for any expenses incurred.

7. FAILURE TO IMPLEMENT LAND USE: Should the Grantee fail to implement the requested land use **within one (1) year of the effective date of this Permit**, the Permit will terminate. Furthermore, MCD will retain all permit fees unless the Grantee, prior to termination, has submitted written notification concerning cancellation of the Permit.

8. FINAL INSPECTION: Within forty-eight (48) hours following cessation of the permitted use and all restoration, the Grantee AGREES to notify the MCD Property Administrator for final inspection.

9. OPTION OF RENEWAL: This Permit may be renewed, subject to MCD approval, provided all terms, conditions, and restrictions of the Permit have been maintained to the reasonable satisfaction of MCD. **All renewals will be subject to those terms, conditions, and Permit fees in effect at time of renewal.**

10. INSURANCE: MCD is to be insured in an amount not less than **One Million (\$1,000,000) Dollars**, from any liability resulting from injuries to persons or property and all direct cost and expenses associated therewith. Prior to issuance of this Permit the Grantee AGREES to provide to MCD verification of liability coverage naming "**The Miami Conservancy District**" as an additional insured for an amount of not less than **One Million (\$1,000,000) Dollars**. The Grantee must provide MCD a copy of a certificate of liability verifying that MCD has been named as an additional insured. Insurance coverage must be in force throughout the term of the permit. If insurance coverage is cancelled the permit will terminate.

11. SOIL & WATER CONTAMINATION: The Grantee AGREES to assume all liability and responsibility for clean-up and restoration required due to soil and water contamination resulting from the land use granted within this Permit.

12. RELEASE OF LIABILITY: The Grantee herein releases MCD, to the extent permitted by law, from any and all liability resulting from injuries to persons or property and all direct cost and expenses associated therewith, resulting from or caused by floodwater, maintenance or construction operations and/or any other activities of MCD, its agents, employees or contractors provided such damages were not caused by the negligent act or omission of MCD, its agents, employees or contractors.

13. RIGHT OF ACCESS: MCD, shall at all times, have the right to enter upon any MCD property for the purpose of using, monitoring, maintaining, altering or repairing any works, or improvements owned or controlled by MCD. MCD retains the right to photograph, for private and/or public use, any use, work or event, which takes place on MCD property.

MCD shall have the right of inspection to determine compliance with this Permit. Upon notification of any violation, the Grantee AGREES to promptly take corrective action as directed by MCD. Should corrective action not be taken within the time specified, MCD may revoke this Permit, subject to the terms and conditions as stated within this Permit.

14. TRANSFER OF LAND USE RIGHTS: This Permit is NOT assignable or transferable.

15. PRE-EXISTING LAND USE RIGHTS: All rights granted within this Permit will be limited by, and subject to, any rights and claims of record that exist prior to the effective date of this Permit, regarding all property described within this Permit. Said claims of record include, but are not limited to, any existing easements, right-of-ways, and/or permits.

16. ADDITIONAL RIGHTS: MCD does not claim full warranty deed ownership to all MCD property. The Grantee must accept full responsibility for acquiring any additional rights to property not owned by MCD, when use of such property is necessary for the purposes of this Permit. Furthermore, MCD, in granting land use authorization, is to be released from any additional expense and/or all liability related to any unauthorized use of property.

17. PUBLIC DISCLOSURE: All MCD records, including deeds, leases, permits and all related correspondence, will be considered public records and shall be available for public use and disclosure.

18. COMPLIANCE WITH LAWS: The Grantee AGREES that MCD property is not to be used or occupied for any unlawful purpose. Additionally, all use of MCD property will comply with all laws, ordinances, rules, regulations, requirements, and orders of the United States of America, the State of Ohio, and of all governmental authorities or agencies, including, without limitation, all bureaus, boards or officials thereof respecting said premises and the use and occupation thereof.

19. ADDITIONAL IMPROVEMENTS: The Grantee AGREES no additional temporary or permanent structures and/or improvements will be constructed by the Grantee on MCD property without prior written MCD approval.

20. PERMIT FEE: The Permit fee is **One Hundred Fifty (\$150.00) Dollars.**

EXHIBIT C - PROHIBITED USE

The following activities are prohibited on MCD property:

- a. Violating any federal, state, county, municipal, or other applicable law, ordinance, rule, regulation or requirement.
- b. Soliciting.
- c. Abandoning any animal.
- d. Lighting fires or burning any materials.
- e. Sledding, skiing, or ice skating.
- f. Camping.
- g. Operating any vehicle on dam or levee slopes.
- h. Moving, by-passing, or damaging any gate, barricade or barrier so placed to temporarily or permanently close a road or area to traffic.
- i. Hunting and trapping.
- j. Depositing burning material or hot ashes on grass, plants or in refuse receptacles.
- k. Dumping, depositing or discarding, intentionally or unintentionally, any trash, garbage, building debris, rubble, metal, concrete, asphalt, organic waste, or other noxious materials.
- l. Damaging, destroying, or disturbing any MCD land as described below:
 1. Removing any property, structures, facilities, or amenities, or any part thereof.
 2. Writing upon, painting, cutting, mutilating, defacing, or damaging in any manner any building, flood control structure, equipment, or other property, or part thereof.
 3. Climbing or rappelling any flood control structure, rock escarpment or other natural features.
 4. Willfully destroying, injuring or removing any bench marks, witness marks, stakes, or other reference marks (ORC 6101.81).
 5. Disturbing, defacing, removing, or injuring trees or other vegetation.

LAND USE PERMIT NO. 10-3651-1

EXHIBIT "D"

RESTORATION REQUIREMENTS

All MCD owned or controlled property disturbed by land use and/or construction will be restored to the reasonable satisfaction of MCD **within thirty (30) days** of project completion and/or prior to termination of this Permit as follows.

Restoration of Property:

1. Grantee shall contact MCD's Property Administrator 48 hours in advance of restoration.
2. Seed mix specifications shall be submitted to MCD for approval.
3. All disturbed areas shall be graded to the lines and grades of the adjacent undisturbed areas
4. All disturbed areas shall be graded away from the toe of the levees or dams and all run off shall flow towards the river.
5. All disturbed areas shall be graded in a way as to not create any ponding.
6. Any top soil lost during land use shall be replaced to a compacted depth of four inches.
7. After regrading and placing top soil where necessary all disturbed areas shall be seeded, fertilized, and mulched.
8. Seed types shall consist of an 80/20 Turf Type Tall Fescue Mix with perennial rye with an application rate of 8 pounds per 1000 square feet.
9. Fertilizer shall be 18-24-12 25% Polyplus Fertilizer.
10. Mulch shall consist of straw, and be free of weed seed.
11. Evenly place straw mulch over all seeded areas at the following rates:

<u>Seeding Period</u>	<u>Rate</u>
From March 15 to October 30	2 Tons per acre
From October 31 to March 14	3 Tons per acre

12. Hydroseeding is acceptable, approved tackifier shall be applied at 2 gallons per acre.

Inspection:

1. MCD will do a preliminary inspection after 4 weeks to ensure that grass is being established after final seeding.
2. MCD will inspect all seeded areas no earlier than 6 months and no later than 12 months after final seeding. For any area identified without uniform density of at least 90 percent grass cover, the grantee will be required to seed, fertilize and mulch any areas where sufficient turf has not been established.
3. If seeding of an area is not successful, MCD may require sodding of disturbed areas.
4. All property is to be properly monitored and maintained until sufficient turf has been established.
5. MCD inspection and approval must be acquired prior to obtaining all other necessary approvals.

Restoration of Pavement, Recreation trails (asphalt):

1. Depending of the severity of damage to the recreation trail, MCD shall require either, pavement planing (milling) and a surface course of asphalt be applied or full depth replacement with intermediate and surface courses of asphalt per MCD's typical recreation trail section drawings.
2. Full depth replacement will require sub-base to be compacted to not less than 100% of maximum dry density.
3. Base shall consist of 8" of ODOT ITEM 304 aggregate base material compacted to not less than 98% of maximum dry density.
4. See typical recreation trail section drawings located at the end of this Permit for asphalt concrete details.
5. For asphalt roads, parking lots, and all other asphalt surfaces, MCD will determine the design on a per project basis.
6. Concrete roads, trails and parking lots disturbed shall be restored to their original lines and grades. Remove all damaged areas by saw-cutting to the closest construction joint to provide a clean square joint. The concrete for the pavement shall be Class QC1 per ODOT ITEM 499. All replacement concrete pavement shall be dowelled into existing pavement per ODOT ITEMS 509 and 510. The size and spacing of dowels shall be determined by MCD on a per project basis.
7. ODOT ITEMS are referenced to the most recent ODOT Construction and Material Specifications publication.

Roads, Driveways, Sidewalks, and Trails:

1. MCD will determine whether a road, driveway, sidewalk, or trail must be removed or may remain in place.
2. All roads, driveways, sidewalks, and trails designated for removal shall be addressed as follows:
 - All materials including but not limited to asphalt, concrete, brick and other pavement material shall be removed from MCD property and legally disposed.
 - Site shall be restored to match adjacent lines and grades.
 - Any damaged sections of recreational trail or revetment shall be restored using materials and construction requirements that meet the MCD Land Use Policy APPENDIX III and V.
 - Gravel, mulch, and earthen trails shall be disked.
 - All areas shall be restored to MCD's satisfaction.
3. MCD or an MCD subdistrict may elect to assume ownership and maintenance of a road, driveway, sidewalk, or trail. The terms of the ownership transfer shall be agreed to in writing by both parties before the obligations of the Grantee are released.

Electrical/Communications Conduits, Water, Sewer and Fuel Lines:

1. MCD will determine whether the pipe line or conduit must be removed or abandoned in place.
2. Pipe lines designated for removal shall be excavated and completely removed. The area shall be backfilled with clean fill material and restored according to Appendix III of the MCD Land Use Policy.
3. Pipe lines designated for abandonment must be addressed as follows:
 - The pipe or conduit must be completely removed within six feet of any levee slope and within ten feet of any river bank
 - The remainder of the pipe or conduit must be mechanically capped or plugged with concrete (minimum 12 inches thickness)
 - Pipes and conduits shall be capped or plugged with concrete (minimum 12 inches thickness) at all manholes or access points, and all terminus points where they have been disconnected from wells, tanks, meters or other pipelines
4. Vents should be removed to a minimum depth of three feet and mechanically capped or plugged with concrete (minimum 12 inches thickness).
5. The area shall be backfilled with clean fill material and restored according to Appendix III of the MCD Land Use Policy.

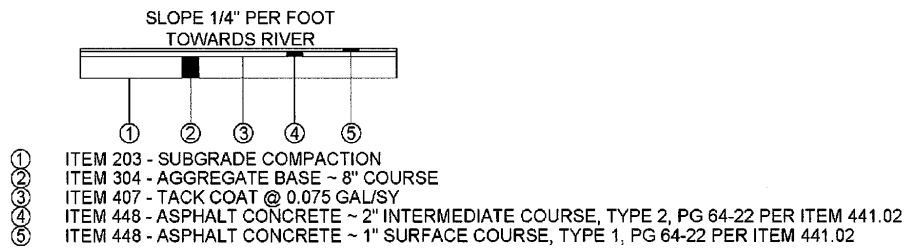
Underground structures:

1. Underground structures include, but are not limited to foundations, footers, bases, anchors, piling, gate chambers, manholes, meter pits, and vaults.
2. MCD will determine whether underground structures must be removed or may be abandoned in place.

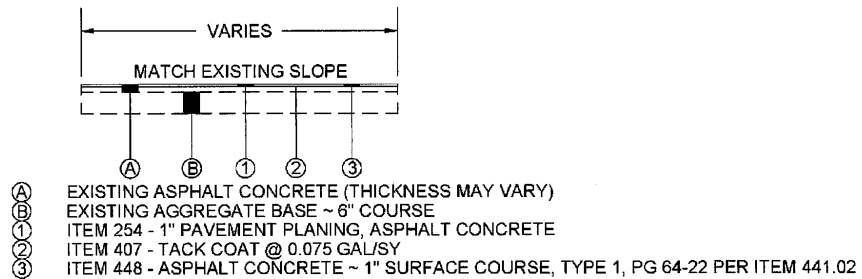
3. Underground structures designated for removal shall be excavated and completely removed. The area shall be backfilled with clean fill material and restored according to Appendix III of the MCD Land Use Policy.

4. Underground structures designated for abandonment must be addressed as follows:

- All gates, valves, meters, and other equipment must be removed from the structure.
- All connections such as water, gas, or electric must be disconnected and removed.
- All pipes and conduits must be disconnected from the structure and removed or abandoned per item c. below.
- The structure must be cut off and removed to a minimum of three feet below the ground surface.
- The top cone or top section of any pre-cast structure shall be removed.
- The remainder of the structure and the excavation shall be backfilled with clean fill material or flowable cement grout.
- The area shall be restored to MCD's satisfaction.



**TYPICAL SECTION
(FULL DEPTH REPLACEMENT)**



**TYPICAL SECTION
(PLANING AND RESURFACING)**

NOTE: ALL PAVEMENT SHALL MATCH EXISTING SLOPES OR IF NECESSARY SLOPE TOWARDS THE RIVER. AT NO TIME SHOULD THE TRAIL BE SLOPED AWAY FROM THE RIVER.

NOTE: ITEMS REFER TO ODOT 2013 CONSTRUCTION AND MATERIAL SPECIFICATIONS

I, THE GRANTEE OR AUTHORIZED REPRESENTATIVE FOR SAID GRANTEE, IN EXCHANGE FOR SUCH USE AS DEFINED WITHIN THIS PERMIT, DO HEREBY ACKNOWLEDGE ACCEPTANCE OF ALL TERMS AND CONDITIONS AS STATED WITHIN THIS PERMIT:

WARREN COUNTY BOARD OF COUNTY COMMISSIONERS

Date: 4/21/20

By: Tiffany Zindel

Print Name: Tiffany Zindel

Title: County Admin.

APPROVED AS TO FORM

Adam M. Nice

Adam M. Nice

Asst. Prosecuting Attorney

* * * * *

AS AUTHORIZED REPRESENTATIVE FOR MCD I DO HEREBY GRANT APPROVAL, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, TO USE MCD PROPERTY FOR SUCH USE AS DEFINED WITHIN THIS PERMIT:

THE MIAMI CONSERVANCY DISTRICT

Date: _____

By: _____

Kurt A. Rinehart, Chief Engineer

Any questions concerning this Permit or the use of MCD property shall be directed to the **MCD PROPERTY ADMINISTRATOR** Roxanne Farrier at (937) 223-1278, ext. 3230.

MCD CARETAKER: Jack Fisher at (937) 746-7766 (office) or (937) 478-7436 (cell)

GRANTEE'S CONTACT PERSON: Chris Brausch (513) 695-1377

FORM-Permit, Land Use.doc (F-51-43,1/30/2020)

CERTIFICATE OF COVERAGE				
THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE COVERAGE AGREEMENT BELOW				
Agency Adam Balls 20 N. Orange Ave. St. 500 Orlando, FL 32801		April 13, 2020		
COVERED MEMBER Warren County Board of Commissioners 406 Justice Dr. Lebanon, OH 45036		COVERAGE TO MEMBER PROVIDED BY AGREEMENT WITH: COUNTY RISK SHARING AUTHORITY 209 EAST STATE STREET COLUMBUS OHIO 43215 JOINT SELF INSURANCE POOL FORMED UNDER OHIO REVISED CODE CHAPTER # 2744		
COVERAGES: THIS IS TO CERTIFY THAT THE AGREEMENT WHICH PUT COVERAGE IN EFFECT AS LISTED BELOW HAS BEEN ISSUED TO THE POOL MEMBER NAMED ABOVE FOR THE TIME PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE PROTECTION AFFORDED BY THE COVERAGE AGREEMENT DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH AGREEMENT.				
TYPE OF COVERAGE	MEMBER NUMBER	EFFECTIVE DATE	EXPIRATION DATE	LIMIT
GENERAL LIABILITY INCLUDING ERRORS AND OMISSIONS LIABILITY	0920	5-1-2020	5-1-2021	\$1,000,000.
AUTO LIABILITY INCLUDING OWNED, NON-OWNED, HIRED AUTOMOBILES	0920	5-1-2020	5-1-2021	\$1,000,000.
PROPERTY INCLUDING ALL REAL AND PERSONAL PROPERTY, AUTOMOBILES, AND EQUIPMENT	0920	5-1-2020	5-1-2021	Per Schedules on File
OTHER				
EXCESS LIABILITY	0920	5-1-2020	5-1-2021	\$9,000,000
CRIME: EMPLOYEE DISHONESTY/FAITHFUL PERFORMANCE		5-1-2020	5-1-2021	\$1,000,000
DESCRIPTION OF OPERATIONS\LOCATIONS\VEHICLES\SPECIAL ITEMS CERTIFICATE HOLDER IS INCLUDED AS A COVERED PARTY AS DEFINED IN THE CORSA COVERAGE AGREEMENT WITH REGARD TO THE Land Use Permit No. 10-3651-1, but only with respect to General Liability coverage.				
CERTIFICATE HOLDER The Miami Conservancy District 38 E. monument Ave. Dayton, Ohio 45402		CANCELLATION: SHOULD THE ABOVE DESCRIBED COVERAGE AGREEMENT BE CANCELED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING POOL WILL ENDEAVOR TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE ISSUING POOL, OR ITS REPRESENTATIVES.		

Jocia Callahan

AUTHORIZED REPRESENTATIVE

Revised May 1, 2020



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

October 06, 2020

Warren Co. Water & Sewer
Department
Attn: Chris Wojnicz

406 Justice Dr.
Lebanon, OH 45036

RE: Warren Co. Water & Sewer Department
Permit-Long Term

Approval
Surface Water Permit to Install
Warren
DSWPT11354686

Subject: Warren Co. Membrane Softening Upgrades, Franklin Area WTP, Franklin
Plans Received on June 04, 2020
From: Infrastructure & Development Engineering, Inc

Ladies and Gentlemen:

Enclosed is an approved Ohio EPA Permit to Install. This permit contains several conditions and restrictions; I urge you to read it carefully. A general condition of your permit states that issuance of the permit does not relieve you of the duty of complying with all applicable federal, state, and local laws, ordinances, and regulations. You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Treasurer State of Ohio", which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address: Environmental Review Appeals Commission, 30 East Broad Street, 4th Floor, Columbus, OH 43215. If you have any questions, please contact the Ohio EPA District Office.

Ohio EPA has developed a customer service survey to get feedback from regulated entities that have contacted Ohio EPA for regulatory assistance, or worked with the Agency to obtain a permit, license or other authorization. Ohio EPA's goal is to provide our customers with the best possible customer service, and your feedback is important to us in meeting this goal. Please take a few minutes to complete this survey and share your experience with us at <http://www.surveymonkey.com/s/ohioepacustomersurvey>. If you have any questions, please contact the Ohio EPA district office to which you submitted your application.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin J. Fowler".

Kevin J. Fowler, Supervisor
Permit Processing Unit, Division of Surface Water

KJF/bd

Enclosure

cc: Southwest District Office

Infrastructure & Development Engineering, Inc

Ohio Environmental Protection Agency

Permit to Install

Application No: 1354686

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

Applicant Name: Warren Co. Water & Sewer Department
Address: 406 Justice Dr.
City: Lebanon
State Zip: OH 45036

By:  Date: _____

10/6/2020

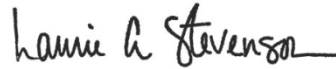
Person to Contact: Chris Wojnicz
Telephone: 513-695-1646

Description of Proposed Source: Warren Co. Membrane Softening Upgrades, Franklin Area WTP, Franklin, Warren

Issuance Date: October 06, 2020
Effective Date: October 06, 2020

The above named entity is hereby granted a permit to install for the above described source pursuant to Chapter 3745-42 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source of environmental pollutants will operate in compliance with applicable state and federal laws and regulations. Issuance of this permit does not constitute expressed or implied assurance that, if constructed or modified in accordance with those plans and specifications, the above described source of pollutants will be granted the necessary operating permits. This permit is granted subject to the following conditions attached hereto.

Ohio Environmental Protection Agency



Laurie A. Stevenson
Director
P.O. Box 1049
50 West Town Street, Suite 700
Columbus, OH 43216-1049

This permit shall expire if construction has not been initiated by the applicant within eighteen months of the effective date of this permit. By accepting this permit, the applicant acknowledges that this eighteen month period shall not be considered or construed as extending or having any effect whatsoever on any compliance schedule or deadline set forth in any administrative or court order issued to or binding upon the permit applicant, and the applicant shall abide by such compliance schedules or deadlines to avoid the initiation of additional legal action by the Ohio EPA.

The director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records, or reports pertaining to the construction, modification, or installation of the above described source of environmental pollutants.

Issuance of this permit does not relieve you of the duty of complying with all applicable federal, state, and local laws, ordinances, and regulations.

Any well, well point, pit or other device installed for the purpose of lowering the ground water level to facilitate construction of this project shall be properly abandoned in accordance with the provisions of Section 3745-9-10 of the Ohio Administrative Code or in accordance with the provisions of this plan or as directed by the Director or his representative. For more information please contact: Division of Drinking and Ground Water - Lazarus Government Center, 50 West Town Street, Suite 700, Columbus, Ohio 43215 (614) 644-2752.

Any person installing any well, well point, pit or other device used for the purpose of removing ground water from an aquifer shall complete and file a Well Log and Drilling Report form with the Ohio Department of Natural Resources, Division of Water, within 30 days of the well completion in accordance with the Ohio Revised code Section 1521.01 and 1521.05. In addition, any such facility that has a capacity to withdraw waters of the state in an amount greater than 100,000 gallons per day from all sources shall be registered by the owner with the chief of the Division of Water, Ohio Department of Natural Resources, within three months after the facility is completed in accordance with Section 1521.16 of the Ohio Revised Code. For copies of the necessary well log, drilling report, or registration forms, please contact:

Ohio Department of Natural Resources
2045 Morse Road Bldg. E
Columbus, OH 43229-6693
(614) 265-6717

1. The proposed wastewater disposal system shall be constructed in strict accordance with the plans and application approved by the director of the Ohio Environmental Protection Agency. There shall be no deviation from these plans without the prior express, written approval of the agency. Any deviations from these plans or the above conditions may lead to such sanctions and penalties as provided for under Ohio law. Approval of these plans and issuance of this permit does not constitute an assurance by the Ohio Environmental Protection Agency that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

2. For projects involving construction or placement of fill in a stream or wetland, the applicant shall contact the appropriate district of the U.S. Army Corps of Engineers for a determination regarding potential impacts to water of the state as well as the requirements for obtaining, if necessary, certification. The applicant shall acquire a Section 404 permit and 401 water quality certification, if needed, before impacting any waters of the state as part of this project.

3. The Warren County Water and Sewer Department shall be responsible for proper operation and maintenance of the wastewater disposal system.

4. This permit to install applies only to the wastewater disposal system listed above. The installation of drinking water supplies, air contaminant sources, or solid waste disposal facilities will require the submittal of a separate application to the director.

5. This permit applies only to the proposed wastewater disposal system. All other aspects of the proposed projects must be approved by the Ohio Department of Health, the local health department, and/or other state and local agencies.

6. This permit applies to a wastewater disposal system designed to serve an average daily hydraulic flow of no more than 1,300,000 gallons.

7. Roof drains, foundation drains, and other clean water connections to the disposal system are prohibited.

8. No liquids, sludges, or toxic or hazardous substances other than those set forth in the approved permit shall be accepted for disposal without the prior written approval of the Ohio Environmental Protection Agency.

9. Sewer and manhole construction joints shall conform to standards of the Ohio Environmental Protection Agency.

10. When flexible pipe (PVC, ABS, HDPE, etc.) is used it must be tested for maximum deflection of 5 percent after the final backfill has been in place no less than 30 days to permit stabilization of the soil-pipe system. Pipe with a stiffness of 200 p.s.i. or greater need not be tested for deflection if all pipe between manholes is less than 12 feet below final grade.

The rigid ball or mandrel used for the deflection test shall have a diameter not less than 95 percent of the base inside diameter or average inside diameter of the pipe depending on which is specified in the ASTM specification, including the appendix, to which the pipe is manufactured. The test shall be performed without mechanical pulling devices.

All pipe, flexible and rigid, shall be subject to a leakage test. The leakage exfiltration/infiltration test shall be a hydrostatic or air test. The hydrostatic leakage test shall not exceed 100 gallons per inch of pipe diameter per mile per day for any section of the system. If an air test is used, the test shall conform to the test procedure outlined in the ASTM standards for the material of pipe used.

The leakage and deflection test shall be conducted under the supervision of a professional engineer. A representative of the professional engineer may supervise the deflection and leakage tests, but the professional engineer must sign off on the results of the deflection and leakage tests. Results of the deflection and leakage tests shall be kept on file at least 180 days by the entity responsible for the sewerage system, and shall be available upon request by the Ohio Environmental Protection Agency. Any lines which fail the deflection or leakage test must be repaired and retested until they meet the requirements which have been set forth within this condition.

11. The issuance of this permit to install for Warren County Membrane Softening Upgrades, Franklin Area Water Treatment Plant located in Franklin, Warren County, Ohio is based upon the detailed plans electronically submitted to the Ohio EPA, Division of Surface Water, Southwest District Office, signed by an Ohio licensed Professional Engineer and dated April 24, 2020 as depicted on the cover page of the detailed plans.

12. The Southwest District office of the Ohio Environmental Protection Agency shall be notified in writing as to (a) the construction starting date; (b) the construction completion date; and (c) the date the wastewater disposal system was placed into operation.

SECTION 00 70 30
STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

The Warren County Water and Sewer Department has adopted the Standard General Conditions of the Construction Contract prepared by the Engineers Joint Contract Documents Committee and issued and published by the American Consulting Engineers Council, the National Society of Professional Engineers, and the American Society of Civil Engineers. This document, contained herein, shall be made part of the Contract and shall be used during the performance of the work, except as modified by the following SECTION 00 80 10 Supplemental Conditions.

SECTION 00 80 10
SUPPLEMENTAL CONDITIONS

PART 1 GENERAL

1.1 GENERAL

- A. These Supplementary Conditions shall modify and supplement the Standard General Conditions of the Construction Contract (Section 00 70 30, EJCDC C-700), and shall govern whenever they conflict. All provisions which are not so amended or supplemented remain in full force and effect.

1.2 MODIFICATIONS TO ARTICLES OF THE GENERAL CONDITIONS

A. ARTICLE 1 – DEFINITIONS

1. Paragraph 1.01.A.19 is supplemented with the following: Where the term “Engineer” is used in the Specification for the approval of materials or work, it shall be understood to mean Warren County Water & Sewer. Contractor acknowledges that Engineer is a full-time employee appointed by Owner, and Engineer is not an independent third party, rather is a department of the governmental entity of Owner (Warren County Board of Commissioners) a political subdivision of Ohio.
2. Paragraph 1.01.A.29 is supplemented with the following: Whenever the term “Owner” is used in the Contract Documents, it shall refer to Warren County Board of Commissioners on behalf of Warren County Water & Sewer, or its authorized representative.

B. ARTICLE 2 – PRELIMINARY MATTERS

1. Paragraph 2.03 – Commencement of Contract Time: Notice to Proceed is amended as follows: Delete the last sentence.

C. ARTICLE 4 – AVAILABILITY OF LANDS; SURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

1. Paragraph 4.06(G) shall be deleted.

D. ARTICLE 5 – BONDS AND INSURANCE

1. Paragraph 5.01.A – Amend the second sentence to read: “ ...These bonds shall remain in effect not less than one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents”
2. Paragraph 5.01.D – Add the following paragraph:

“D. If the Contractor provided a certified or cashier’s check or letter of credit as Bid Security, he shall furnish a Performance Bond in an amount at least equal to 100% of the Contract Price as security for the faithful performance of this agreement.”

3. Paragraph 5.04.C – Add the following new paragraph immediately after 5.04.B:

“C. The Contractor shall, at his own expense, purchase and maintain the following minimum coverage:

1. Workers Compensation, for claims for bodily injury, sickness, disease or death as follows:
 - a. Coverage A Statutory Benefits as described by the applicable law.
 - b. Coverage B Employer’s Liability
 - i. \$500,000 Bodily Injury by Accident – each employee
 - ii. \$500,000 Bodily Injury by disease – each employee
 - iii. \$500,000 Bodily Injury by disease – policy limit

The Contractor shall provide a copy of a certificate of premium payment from the Industrial Commission and Bureau of Workers Compensation, State of Ohio, for the period of time specified during which construction commences and copies of renewal certificates for subsequent periods, so long as the project continues.

2. Comprehensive General Liability Coverage for Bodily Injury and Property Damage – occurrence form.

General Aggregate	\$2,000,000	Each occurrence, combined single limit for Bodily Injury and Property Damager
Products – Completed Operations	\$1,000,000	Each occurrence
Aggregate	\$2,000,000	
Personal and Advertising Liability per Occurrence	\$1,000,000	Combined Single Limit for Bodily Injury and Property Damager

Coverage shall be extended to include the following:

- a. Per project and per location aggregate.
- b. Premises and operations coverage.
- c. Coverage for liability and independent contractors.
- d. Products and completed operations.
- e. Coverage for explosion, collapse and underground hazards.

- f. Stop-Gap Liability: All monopolistic states - \$1,000,000.
- g. Owner as additional insureds.
- h. Waiver of Subrogation against Owner
- i. 60-Day Notice of Cancellation or material change.

3. Comprehensive Automobile Liability Insurance – Occurrence Form

Any Automobile	\$1,000,000	Bodily Injury and Property Damage, Combined Single Limit
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Borrowed, Non-Owned	\$1,000,000	Bodily Injury and Hired Automobile Property Damage, Combined Single Limit
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Coverage shall be extended to include:

- a. Contractual liability for assumed liability.
- b. Owner as additional insureds.
- c. Waiver of Subrogation against Owner
- d. 60 Day Notice of Cancellation or material change.
- e. Motor Carrier Act Endorsement MCS-90
- f. Extra Wide/Extra Heavy Hauling Permit Endorsement

4. Any Umbrella Liability or Excess Liability Policy over primary comprehensive General and Automobile Liability shall be carried in a minimum amount of:

\$5,000,000 Each Occurrence
 \$5,000,000 Aggregate

The Umbrella or Excess Policy shall be following the form of:

- a. Any Additional Insured under primary policy.
- b. Per project and per location aggregates.
- c. Explosion, Collapse, or Underground Hazards
- d. Stop-Gap Liability
- e. Waiver of Subrogation against Owner.
- f. Watercraft (when employed to perform the work).
- g. Aircraft (when employed to perform the work).
- h. 60-Day Notice of Cancellation or material change.

4. Paragraph 5.06 – *Property Insurance* – shall be DELETED in its entirety.

D. ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

1. Paragraph 6.01.A – After the first sentence add: “Contractor’s Work shall be performed according to the standards of care normally exercised by construction organizations within Ohio that are engaged in performing comparable services devoting such attention thereto and applying such skills as may be necessary to perform the work in accordance with the Contract Documents.”
2. Paragraph 6.02.C – Add a new paragraph as follows:
 - “C. If the Contractor does not perform the work in accordance with the Contractor’s construction schedule and the project construction schedule, and it becomes apparent that the work may not be completed within the contract times, the Contractor shall, at no additional cost to the Owner, as necessary to improve the Contractor’s progress: (a) increase the number of employees in such crafts as will regain lost scheduled progress; and (b) increase the number of working hours per shift, shifts per work day, working days per week, the amount of equipment, or any combination of the foregoing measures to regain lost scheduled progress. Contractor shall furnish such employees, materials, facilities, and equipment, and shall work such hours, including extra shifts, overtime operations, and Sundays and holidays, as may be necessary to insure the prosecution and completion of the work in accordance with the Contractor’s construction schedule and the project construction schedule.”
3. Paragraph 6.02.D – Add a new paragraph as follows:
 - “D. Contractor shall at all times maintain good discipline and order at the site. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. If the Owner deems any employee of the Contractor or a subcontractor unsatisfactory, the Contractor must transfer or require its subcontractor to transfer such employee from the project immediately.”
4. Paragraph 6.05(E) - shall be deleted.
5. Paragraph 6.08 – Replace this Paragraph with the following:
 - “A. Permit requirements are specified in Section 0020 00 – INSTRUCTIONS TO BIDDERS, and 00 70 20 – PERMITS.
6. Paragraph 6.10 – Taxes, is amended as follows:
 - “A. OWNER, being a public body, is exempt from taxes on material incorporated into the work. CONTRACTOR, therefore, is not

required to pay such materials taxes. The OWNER will provide the tax exemption forms. These forms are to contain all necessary information required by the State. CONTRACTOR shall be responsible for payment of any applicable commercial activity tax.

- B. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated to the Work.
- C. Contractor is specifically required to abide by all local tax requirements, if any, including income tax requirements to withhold at source. Contractor acknowledges that the Contract work may take place in various cities and taxing districts, and further acknowledges different tax burdens may be imposed by each. Contractor shall indemnify, defend, and hold Owner harmless for any federal, state, or local tax liabilities incurred as a result of Contractor performing the Work."

- 6. Paragraphs 6.13 and 6.14 – Safety and Protection, are supplemented with the following: "All construction work under this Agreement is subject to Chapter XVII of Title 29, Code of Federal Regulations (CFR) Part 1926 (formerly Chapter XVII of Title 29, Part 1518) titled, "Safety and Health Regulations for Construction" and subsequent amendments."

E. ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

- 1. Paragraph 9.01 – Add the following sentence: The parties acknowledge and agree that ENGINEER is a full time employee of OWNER and is not an independent third party, however, ENGINEER shall perform any duties under this agreement in good faith and adhere to a standard of professional care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality.

F. ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

- 1. Paragraph 10.03.A.4 – Add the following paragraph:
 - "4. In no event is the Contractor entitled to reserve any rights or take other similar action with respect to a change order if the effect or intent of such reservation or action would be to accommodate a further adjustment in the contract times, contract price, or both, after the Contractor executes the change order. By executing a change order, the Contractor irrevocably certifies that the elements of the change order described are completely satisfied and waives all rights to seek further adjustment of the contract times, contract price, or both, at a later date with respect to the associated change in the work."

E. ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

1. Paragraph 11.01(A)(3) – Amend the Second Sentence as follows: DELETE the phrase “If required by Owner”. Add Sentence OWNER requires CONTRACTOR to competitively bid work from subcontractors.

2. Paragraph 11.01(D) Add the following Sentence: This agreement shall be subject to open book pricing, CONTRACTOR shall make any all bids, invoices, receipts, any and all documentation for expenses and costs available for inspection by OWNER immediately upon request.

Paragraph 11.01.B.1 – Add project manager and project executive to the list of excluded compensation and payroll costs.

E. ARTICLE 12 – CHANGE OF CONTRACT PRICE, CHANGE OF CONTRACT TIMES

1. Paragraph 12.01.C.2.e – Add the following to the end of paragraph 12.01.C.2.e: “Any change that results in a net decrease in cost shall include the appropriate overhead and profit added thereto calculated as set forth in ARTICLE 12 of the General Conditions.”

2. Paragraph 12.01.D – Insert new paragraph as follows: “D. In no event shall Contractor be entitled to any increase in the Contract Price on account of any adverse weather.”

3. Paragraph 12.02.B – Replace Paragraph 12.02.B with the following:

“B. If the Contractor wishes to make a claim for an increase in contract times, prompt written notice as provided herein shall be given. The Contractor’s claim shall include an estimate of cost and of probable effect of delay on progress of the work, a detailed schedule which indentifies the critical portions of the work impacted by the delaying event and the dates of such impact, and a statement from Contractor that the increase requested is the entire increase in the contract time associated with the claim. The failure to provide such information and statement within the time period established in Paragraph 10.05.B shall constitute an irrevocable waiver of the claim. In the case of a continuing delay occurring on consecutive days, only one claim is necessary, provided, however, that within ten (10) days of the cessation of the cause of the continuing delay, the Contractor shall notify the Owner in writing that the cause of the delay has ceased. The failure to give notice of the cessation of the cause of the continuing delay shall constitute an irrevocable waiver of any claim based upon the continuing delay.”

4. Add the following paragraph as Paragraph 12.02.C:

“In addition to the requirements of Paragraph 12.02.B, if adverse weather conditions are the basis for a claim for additional time, the contractor shall

support such claim with data acceptable to the Owner and Engineer that substantiates that weather conditions were significantly abnormal for the period of time and could not have reasonably been anticipated and that weather conditions had an adverse effect on a critical element of the scheduled construction. Notwithstanding any other provisions of the Contract Documents to the contrary, the project times will not be adjusted on account of the impact of an normal adverse weather or any of the work or on account of the impact of any abnormal adverse weather on non-critical elements of the work. The support for the evaluation of all adverse-weather claims resulting in lost work days shall be based upon criteria as provided for in the State of Ohio Department of Transportation (ODOT) Construction and Material Specifications dated January 1, 2013. ODOT Specification 108.06.C lists the number of days that the Contractor may expect to be lost due to weather as follows:

Month	Number of Days Lost Due to Weather
January	8
February	8
March	7
April	6
May	5
June	5
July	4
August	4
September	5
October	6
November	6
December	6

5. Paragraph 12.03.F – Add new paragraph as follows:

“F. Any proposed time extensions for delays requested because of abnormal weather conditions shall be subject to Paragraph 12.02.C.”

6. Paragraph 12.03.G. – Add new paragraph as follows:

“G. Delays beyond the substantial completion date attributable to and within the control of the Contractor, their Subcontractor, or Supplier shall be subject to liquidated damages in the amounts specified in SECTION 00 60 10 – CONTRACT.”

F. ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

1. Paragraph 15.01.A. – Delete the sentence that states: “Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

REPLACE the above sentence with the following: Contractor shall be granted an extension of the Contract Times directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

2. Paragraph 15.03.A(3) – shall be DELETED in its entirety.

G. ARTICLE 14 – PAYMENT TO CONTRACTOR AND COMPLETION

1. Add new Paragraph 14.02.A.4 as follows:

“4. In accordance with ORC Section 153.12 partial payments to the Contractor for labor performed under either a unit or lump sum price contract shall be made at the rate of ninety-two per cent of the estimates prepared by the Contractor and approved by the Engineer. All labor performed after the job is fifty percent completed shall be paid for at the rate of one hundred per cent of the estimates submitted by the Contractor and approved by the Engineer. A Contract shall be considered 50 percent complete when the Contractor has been paid an amount equal to 50 percent of the total cost of the labor of the Contract and 50 percent of the total cost of the material of the Contract.

All materials furnished and delivered but not actually included in the construction and approved by the Owner, after the work under this contract is 50 percent complete, shall be paid for at the rate of 92 percent of the invoiced value of the materials. The balance of such estimates shall be paid when the material is incorporated into and becomes a part of the building construction.

When the major portion of the project is substantially completed and occupied, or in use, or otherwise accepted, and there exists no other reason to withhold retainage, the retained percentages held in connection with such portion shall be released and paid to the contractor, withholding only that amount necessary to assure completion.

All retained payments shall be deposited into an escrow account at the 1st National Bank, 1160 E. Main Street, Lebanon Ohio (513) 932-3221, Contact: Gail Haines. The Contractor may waive their right to deposit the payments in an escrow account by written request to the Owner. Retained payments not deposited into an escrow account will be held by the Owner for future payment to the Contractor.”

2. Amend Paragraph 14.02.C to read: “Thirty days after presentation”

G. ARTICLE 16 – DISPUTE RESOLUTION

1. Delete Paragraphs 16.01.A, 16.01.B, and 16.01.C and replace with the following:

“1. This Contract shall be construed under the laws of the State of Ohio, and the parties hereby stipulate to the venue for any and all claims, disputes, interpretations, litigation of any kind arising out of this Contract being exclusively in the Warren County, Ohio Court of Common Pleas (unless both parties mutually agree in writing to alternate dispute resolution), as well as waiving any right to bring or remove such matters in or to any other state or federal court.”

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

TECHNICAL SPECIFICATIONS
FOR
**FRANKLIN AREA WATER TREATMENT PLANT
CONCENTRATE DISCHARGE LINES**

May 2021

Warren County Water & Sewer Department
406 Justice Drive
Lebanon, OH 45036

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SECTION 01 11 00

SUMMARY OF WORK

PART 1 – GENERAL

1.1 LOCATION OF WORK

- A. The work for this Contract generally consists of installation of approximately 7,800 feet of dual 10” C-900 concentrate discharge lines along Dixie Highway, SR 73 and Baxter Drive in Franklin, OH
- B. Specific location of the Project is as indicated on the Construction Drawings.

1.2 GENERAL

- A. The installing Contractor shall furnish all labor, materials, equipment, tools, services and incidentals to complete all work required by these Specifications and as shown on the Drawings.
- B. The Contractor shall perform the work complete, in place, and ready for continuous service, and shall include repairs, testing, permits, cleanup, replacements and restoration as a result of construction of the work.
- C. All materials, equipment, skills, tools, and labor which is reasonably and properly inferable and necessary for proper completion of the work in a substantial manner and in compliance with the requirements stated or implied by these Specifications or Drawings shall be furnished and installed by the Contractor without additional compensation, whether specifically indicated in the Contract Documents or not.
- D. The Contractor shall comply with all municipal, county, state, federal, and other codes, which are applicable to the proposed construction work.

1.3 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required for the construction of the FAWTP Discharge Lines in its entirety as shown on the Drawings and specified herein.
- B. General Construction work includes all work shown on the contract drawings and specifications, including, but is not limited to, the following:
 - 1. Site work including earthwork, dewatering, piping, paving, and restoration.

1.4 WORK SEQUENCE

- A. General sequencing of Work shall be discussed at preconstruction meeting.

1.5 CONTRACTOR’S USE OF PREMISES

- A. Contractor shall limit the use of the premises for his/her Work and for storage to allow

for:

1. Work by other contractors.
 2. Owner occupancy.
- B. Coordinate use of premises with Owner.
- C. Contractor shall assume full responsibility for security of all his/her and his/her subcontractors' materials and equipment stored on the site.
- D. If directed by the Engineer, move any stored items, which interfere with operations of Owner or other contractors.
- E. Obtain and pay for use of additional storage or work areas if needed to perform the Work.

1.6 PLANS AND SPECIFICATIONS

- A. Specifications
1. The General Conditions Section (Section 00 70 30) and the Supplemental Conditions Section (Section 00 80 10) contain the General Requirements which govern the Work.
 2. The Technical Specifications consists of three parts, General, Products, and Execution. Products and Execution modify and supplement these by detailed requirements of the work and shall always govern whenever there appears to be a conflict.

1.7 WORK BY OWNER

- A. Owner will perform the following activities in connection with the Work:
1. Operation of all existing valves, gates, pumps, equipment, and appurtenance that will affect Owner's operation, unless otherwise specified.

1.8 EASEMENTS AND RIGHTS-OF-WAY

- A. Easements and rights-of-way will be provided by OWNER. Confine construction operations within Owner's property, public rights-of-way, and easements obtained by Owner, and the limits shown. Use care in placing construction tools, equipment, excavated materials, and products to be incorporated into the Work to avoid damage to property and interference with traffic. Do not enter private property outside the construction limits without permission from the Owner of the property.
- B. Within Highway and Railroad Right-of-Way: Permits will be obtained by Owner, other work permits to be obtained by Contractor. All work performed and all operations of Contractor and Subcontractors within the limits of railroad and highway rights-of-ways shall conform to the requirements of the railroad or highway authority owner and applicable work permits, or authority having jurisdiction over right-of-way.

1.9 NOTICES TO OWNERS AND AUTHORIZES OF PROPERTIES ADJACENT TO OR SIGNIFICANTLY IMPACTED BY THE WORK

- A. Notify owners of adjacent property and utilities when construction of the Work may affect their property, facilities, or use of property.
- B. When it is necessary to temporarily obstruct access to property, or when utility service connection will be interrupted, provide notices sufficiently in advance to enable affected persons to provide their needs. Conform notices to applicable local ordinance and, whether delivered orally or in writing, include appropriate information concerning the interruption and instructions on how to limit inconvenience caused thereby.
- C. Utilities and other concerned agencies shall be notified at least 48 hours prior to cutting or closing streets or other traffic areas or excavating near underground utilities or pole lines.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

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SECTION 01 26 27

CHANGE ORDER PROCEDURES

PART 1 – GENERAL

1.1 CHANGE TO CONTRACT

- A. If the Contractor must undertake additional work occurring after the execution of the Contract, the Contractor, prior to the start of additional work, shall issue a change order request setting forth the additional work that must be undertaken and requesting authorization for additional cost. Any change order issued during the work shall not invalidate the Contract. The cost of such a change order shall be the contractor's actual costs including wages, labor costs other than wages, wage taxes, materials, equipment costs and rentals, insurance, and subcontracts attributable to the additional activity, plus an overhead and profit fee.
1. An overhead and profit fee of 15% shall be permitted for all payroll costs for employees in the direct employment of the Contractor and for all materials and equipment furnished and incorporated into change order work.
 2. An overhead and profit fee of 5% shall be permitted for all change order work performed by subcontractors.
- B. Contractor shall not perform work outside of the Contract without written authorization. Should disputes regarding change order work arise between the Contractor and Owner that cannot be amiably resolved, the venue for any disputes hereunder shall be the Warren County Court of Common Pleas.

1.2 REQUIREMENTS INCLUDED

- A. Promptly implement change order procedures.
1. Provide full written data required to evaluate changes.
 2. Maintain detailed records of work done on a time-and-material/force account basis.
 3. Provide full documentation to Engineer on request.
- B. Designate in writing the member of Contractor's organization:
1. Who is authorized to accept changes in the work?
 2. Who is responsible for informing others in the Contractor's employment of the authorization of changes in the work?
- C. Owner will designate in writing the person who is authorized to execute Change Orders.

1.3 RELATED REQUIREMENTS

- A. Standard General Conditions of the Construction Contract are included in Section 00700.

1.4 PRELIMINARY PROCEDURES

- A. Owner may initiate changes by submitting a Request for Proposal (RFP) to Contractor. Request will include:
 - 1. Detailed description of the Change, Products and location of the change in the project.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time span for making the change and a specific statement as to whether overtime work is, or is not, authorized.
 - 4. A specific period of time during which the requested price will be considered valid.
 - 5. Such request is for information only and is not an instruction to execute the changes, nor to stop work in progress.

- B. Contractor may initiate changes by submitting a written notice to Owner, containing:
 - 1. Description of the proposed changes.
 - 2. Statement of the reason for making the changes.
 - 3. Statement of the effect on the Contract Sum and the Contract Time.
 - 4. Statement of the effect on the work of separate Contractors.
 - 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

1.5 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump sum proposal and for each unit price which has not previously been established, with sufficient substantiating data to allow Owner to evaluate the quotation.

- B. On request, provide additional data to support time and cost computations
 - 1. Labor required.
 - 2. Equipment required.
 - 3. Products required.
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 - 4. Taxes, insurance and bonds.
 - 5. Credit for work deleted from Contract, similarly documented.
 - 6. Overhead and profit.
 - 7. Justifications for any change in Contract Time.

- C. Support each claim for additional costs and for work done on a time-and-material/force account basis, with documentation as required for a lump sum proposal, plus additional information.

1. Name of the Owner's authorized agent who ordered the work and date of the order.
2. Dates and times work was performed and by whom.
3. Time record, summary of hours worked, and hourly rates paid.
4. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, listing of quantities.
 - c. Subcontracts.

1.6 PREPARATION OF CHANGE ORDERS

- A. Owner will prepare each Change Order.
- B. Change Order will describe changes in the work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- C. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.7 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of work, and to record the adjusted Contract Sum.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time.
 1. Revise subschedules to show changes for other items of work affected by changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

PART 2 –PRODUCTS

Not Used.

PART 3 –EXECUTION

Not Used.

END OF SECTION

CHANGE ORDER PROPOSAL REQUEST

Contract Title: FAWTP CONCENTRATE DISCHARGE LINES PROJECT

Purchase Order Number: _____

Proposal Number: _____

Owner's Name: _____

Owner's Address: _____

Contractor's Name: _____

Contractor's Address: _____

Description of Change

Reason for Change

Net Increase/Decrease in Contract Price: _____

Total Number Added Days: _____

FIELD ORDER

PROJECT: RIVIERA DRIVE WATER MAIN PROJECT

FIELD ORDER NO:

DATE:

CONTRACT:

OWNER:

OWNER PROJECT NO.

TO:

CONTRACT DATE:

This Field Order is issued to interpret/clarify the Contract Documents, order minor changes in the work and/or memorialize trade-off agreements. Both parties hereby agree that the work described by this Field Order is to be accomplished without change in Contract Sum, Contract Time, and/or claims for other costs.

-
DESCRIPTION: (Here insert a written description of the interpretation, change or agreement.)

FIELD ENGINEER:

CONTRACTOR:

BY:

BY:

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SECTION 01 29 73

SCHEDULE OF VALUES

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Contractor shall furnish all labor, materials, tools, equipment, appurtenances, and all services to perform all Work required at the Contractor's lump sum or unit prices listed herein and/or on the Bid Form.
- B. No direct or separate payment will be made for providing miscellaneous temporary or accessory work, plants, services, Contractor's field offices, job signs, sanitary requirements, testing, safety devices, approval and record drawings, water supplies, power, maintaining traffic, removal of waste, watchmen, bonds, insurance, etc. unless specifically listed on the Bid Form, this Section or requested by the Engineer. Compensation for all such services, items and materials shall be included in the Contractor's prices bid for the lump sum and unit price pay items listed herein and/or on the Bid Form.
- C. Each lump sum and unit bid price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item, in accordance with the SECTION 00 70 30 GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT.

1.2 ENGINEER'S ESTIMATE OF QUANTITIES

- A. Engineer's estimated quantities for unit price pay items, as listed in the Bid Form, are approximate only. Owner does not expressly or by implication agree that the nature of the materials encountered below the surface of the ground or the actual quantities of material encountered or required will correspond therewith and reserves the right to increase or decrease any quantity or to eliminate any quantity, as Owner may deem necessary.

1.3 Unit Price Work

- A. General: All payments based on the as-built measurements.
- B. Unsuitable Soil: If, as determined by the Engineer, the material at or below the grade of the bottom of trench or other excavation is unsuitable as a foundation for its intended purpose, it shall be removed to such depths and widths as ENGINEER may direct and be replaced by the Contractor with approved materials. Payment for this work will be made on a lineal foot price bid on one (1) foot increments of fill for various size pipe unless otherwise stated in the Bid Form. If not listed on the Bid Form, Contractor shall be paid a negotiated amount.
- C. Pressure Pipe (Water):
 - 1. Pipe: Unless otherwise shown on the Bid Form, the unit price bid for each type, size

and class of water main pipe shall include the cost of furnishing and installing the water main pipe including all pipe fittings, restraint systems, anchoring products, thrust blocking, water service lines and connections specified, or shown on the drawings or otherwise required. The length of water main to be used as a basis of payment shall be the actual field measurement taken along the centerline of each type, size and class of pipe as measured along restored ground profile. The measurement shall be through all valves and fitting installed in the pipe line.

- a. Fire Hydrants: The unit price for each type, size and class of water main pipe shall include the cost of furnishing and installing the fire hydrant assemblies in accordance with specifications.
 - b. Valves: The unit price for each type, size and class of water main pipe shall include furnishing and installing the valve, valve keys, valve box and covers in conformity with the specifications.
 - c. Excavation and Backfill: Unless otherwise shown on the Bid Form, the unit price for each type, size and class of water main pipe shall include the cost of excavation (other than suitable material) and backfilling with gravel backfill or controlled density fill as specified, or shown on the drawings or otherwise required.
 - d. Testing and Disinfection: Unless otherwise shown on the Bid Form, the unit price for each type, size, and class of water main pipe shall include the cost of testing and disinfection of the pipe.
2. Taps: All taps to existing water mains are to be made under the authority of the required permit issued by the Warren County Water and Sewer Department. The Contractor under Warren County's guidance and inspection will make taps. This cost shall be included in the Contractor's unit price bid for each type, size and class of water main pipe. Note that some pipe materials require special manufacturer's services for tapping. Contractor shall include all costs for such services in the price bid.

D. Lump Sum Items:

1. Whenever a construction item that requires excavation and backfill is bid on a lump sum basis, the price shall include all work specified to be done on an itemized basis.
2. When a pressure or gravity system is part of a lump sum type proposal, the price quoted shall include the cost of furnishing all labor and material to construct the pressure or gravity system in accordance with these specifications.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01 29 76

PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to the Owner in accordance with the project schedule contained in the Contract between the Owner and Contractor.
- B. The Contractor shall submit a Schedule of Values to be used as the basis for the Contractor's Application for Payment.

1.2 SUBMITTALS

- A. Submit to the Owner applications with itemized data typed on 8-½-in by 11-in paper.
- B. Provide itemized data on continuation sheet.
 - 1. The Schedule of Values format, line items and monetary values shall be reviewed and approved by the Owner.

1.3 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

A. Application Form

- 1. Partial payment to the Contractor for work performed under a lump sum project shall be based on a schedule prepared by the Contractor and approved by the Owner who shall apportion the lump sum price to the major components entering into or forming a part of the work under the lump sum price.
- 2. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
- 3. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
- 4. Execute certification with signature of a responsible officer of Contract firm.

B. Continuation Sheets

- 1. Fill in total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.
- 2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
 - a. Round off values to nearest dollar, or as specified for Schedule of Values.
- 3. List each Change Order executed prior to date of submission, at the end of the continuation sheets.
 - a. List by Change Order Number and description, as for an original component item of work.

4. To receive approval for payment on component material stored on site, submit copies of the original paid invoices with the application for payment.

C. Prevailing Wage and Subcontractor Payments

1. Prior to the first pay request the Contractor shall submit completed Prevailing Wage Notification to Employee Forms for all employees that will work under the Contract.
2. Each pay request shall be accompanied by a notarized Affidavit of Compliance certifying that the Contractor has complied with prevailing wage requirements of Chapter 4115 of the Ohio Revised Code and that no rebates or deductions have been or will be made, directly or indirectly from any wages paid in connection with this project, other than those provided by law.
3. Each pay request shall be accompanied by certified weekly payroll reports documenting the number of hours worked by employee, net pay, tax withholdings, and other deducted amounts provided by law.
4. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

D. Retainage

1. In accordance with ORC Section 153.12 partial payments to the Contractor for labor performed under either a unit or lump sum price contract shall be made at the rate of ninety-two per cent of the estimates prepared by the Contractor and approved by the Engineer. All labor performed after the job is fifty per cent completed shall be paid for at the rate of one hundred per cent of the estimates submitted by the Contractor and approved by the Engineer.
2. When the major portion of the project is substantially completed and occupied, or in use, or otherwise accepted, and there exists no other reason to withhold retainage, the retained percentages held in connection with such portion shall be released and paid to the contractor, withholding only that amount necessary to assure completion.

1.4 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the Owner requires substantiating data, submit suitable information, with a cover letter identifying.
 1. Project
 2. Application number and date.
 3. Detailed list of enclosures.
 4. For stored products:
 - a. Item number and identification as shown on application.
 - b. Description of specific material.

1.5 SUBMITTAL PROCEDURE

- A. Submit Applications for Payment to the Owner at the times stipulated in the Agreement.
- B. Number: Two copies of each Application.
- C. When the Owner finds Application properly completed and correct, he/she will transmit certificate for payment to Owner, with copy to Contractor.

PART 2 –PRODUCTS

Not Used.

PART 3 –EXECUTION

Not Used.

END OF SECTION

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SECTION 01 31 00

COORDINATION

PART 1 – GENERAL

1.1 UTILITIES

- A. Coordinate Work with various utilities within Project limits in accordance with Section 00700.
- B. Ohio Utilities Protection Service
 - 1. Telephone: 1-800-362-2764
 - 2. Notify at least 48 hours in advance of any construction.

1.2 PROJECT MEETINGS

- A. Preconstruction Conference:
 - 1. To be held at Warren County Water & Sewer Department.
 - 2. Contractor shall provide to the Owner the following items at or before the Preconstruction Conference:
 - a. List and contact information of Subcontractors
 - b. Schedule of Values
 - c. Preliminary Project Schedule
 - d. Prevailing Wage Employee Notification Forms
 - 3. Contractor shall be prepared to discuss the following subjects, as a minimum:
 - a. Status of Bonds and Insurance.
 - b. Sequencing of critical path work items.
 - c. Project changes and clarification procedures.
 - d. Use of site, access, office and storage areas, security and temporary facilities.
 - e. Major product delivery and priorities.
 - f. Contractor's safety plan and representative.
 - 4. Attendees may include but not limited to:
 - a. Owner.
 - b. Contractor's office representative.
 - c. Contractor's resident superintendent.
 - d. Subcontractors' representatives whom Contractor may desire or Engineer may request to attend.
 - e. Others as appropriate.

1.3 OWNER’S OCCUPANCY REQUIREMENTS

- A. Owner shall occupy the premises during the entire Contract period to conduct its normal operations. Cooperate with Owner in all operations to minimize conflict and to facilitate Owner usage.

1.4 OWNER’S FACILITIES

A. Operation and Shutdown of Existing Facilities:

- 1. The operation of any County owned valves or County owned equipment is strictly prohibited. Valves and County owned equipment shall only be operated by County personnel. For safety purposes, lock-out/tag-out procedures shall be followed for all valves isolating the tank.
- 2. All work shall be limited to weekdays, excluding County recognized holidays, and shall occur between the hours of 8:00 AM to 5:00 PM. Work conducted outside of regular hours shall occur only with prior written consent of Owner and shall only be approved to meet the project schedule and/or to avoid undesirable weather conditions.
- 3. Do not proceed with Work affecting the operation without obtaining the Owner’s advance approval of the need for and duration of such Work.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01 31 19

PRECONSTRUCTION MEETING

PART 1 – GENERAL

1.1 DESCRIPTION

- A. A pre-construction meeting will be held for the Project. Contractor shall attend the conference prepared to discuss all items on the agenda. The representatives present for each party shall be authorized to act on their behalf.
- B. Purpose of the meeting is to designate responsible personnel, establish working relationships, and establish administrative provisions for the Project. Matters requiring coordination will be discussed and procedures for handling such matters will be established.
- C. Date, Time and Location: Meeting will be held after execution of the Contract and before Work starts at the Site. Engineer/Owner will determine the date, time, and location of the meeting and advise the interested and involved parties.
- D. Engineer/Owner will distribute an agenda, preside at the meeting, and prepare and distribute meeting minutes to all meeting participants and others as requested.
- E. Contractor shall provide data required and contribute appropriate items for discussion. Unless previously submitted to Engineer, Contractor shall bring to the meeting a draft of each of the following:
 - 1. Progress Schedule.
 - 2. List of required Shop Drawings and submittals
 - 3. Schedule of Values.
 - 4. Contractor's Site-specific health and safety plan.
 - 5. List of emergency contact information.

1.2 REQUIRED ATTENDANCE

- A. Meeting shall be attended by Contractor's project manager, Site superintendent, and major Subcontractors and major equipment Suppliers, as Contractor deems appropriate.
- B. Other attendees will be representatives of:
 - 1. Owner.
 - 2. Engineer
 - 3. Governmental agencies having control or responsibility, if available.
 - 4. Utility companies.
 - 5. Others as requested by Owner, Contractor, or Engineer.

1.3 AGENDA

- A. Agenda: A complete agenda will be furnished to Contractor prior to the conference. However, Contractor shall be prepared to discuss the following:
1. Designation of responsible personnel.
 2. Communications and correspondence.
 3. Coordination with other Contractors.
 4. Emergency contact information.
 5. Review of scope of Work.
 6. Review of Contract Times, Milestones, and completion dates.
 7. Subcontractors.
 8. Progress Schedule.
 9. Schedule of Values.
 10. Project coordination and coordination with Owner's operations.
 11. Progress meetings.
 12. Submittals and Shop Drawings: processing and schedule of submittals.
 13. Substitutions.
 14. Owner's tax-exempt status.
 15. Payments, retainage, payrolls, and Substantial Completion.
 16. Processing of Field Orders and Change Order.
 17. Use of premises, security, housekeeping, safety, Contractor's Responsibility for safety and first aid procedures, Site access.
 18. Field offices, trailers, and temporary facilities.
 19. Storage of materials.
 20. Construction photographs.
 21. Record drawings.
 22. Clarifications.
 23. Requirements for copies of Contract Documents and availability.
 24. Contractor correction period.
 25. Layouts and surveys.
 26. Hours of Work and overtime.
 27. Restoration.
 28. Permits.
 29. Insurance in force.
 30. Financing.

31. Disposal of demolition materials.
32. Next meeting.
33. General discussion and questions.
34. Site visit if required.

PART 2 – PRODCUTUS

(NOT USED)

PART 3 – EXECUTION

(NOT USED)

END OF SECTION

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SECTION 01 33 00

SUBMITTALS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specifications, apply to this section.

1.2 SUMMARY

- A. This Section specifies the general methods and requirements of submissions applicable to Shop Drawings, Product Data, Samples, Mock Ups, and Schedules. Additional general submission requirements are contained in Paragraphs 6.24 and 6.25 of the General Conditions. Detailed submittal requirements are specified in the technical Sections.
- B. All submittals shall be clearly identified by reference to Section Number, Paragraph, Drawing Number or Detail as applicable. Submittals shall be clear and legible and of sufficient size for presentation of data.

1.3 SHOP DRAWINGS, PRODUCT DATA, SAMPLES

A. Shop Drawings

1. Contractor shall submit complete information by each specification section. A complete submittal shall include all items listed under the submittal heading for each specification section.
2. Shop drawings as specified in individual Sections shall include, but is not limited to, manufacture data, drawings, and technical data sheets; color charts and samples; manufacture instructions; warranties; applicator and employee experience and certifications; scheduled in information; actual shop work manufacturing instructions; custom templates; coordination drawings; individual system or equipment inspection and test reports; including performance curves and certifications; as applicable to the work.
3. All submittals shall be by the General Contractor. Information prepared by subcontractors shall be sent directly to the General Contractor for checking and submission.
4. Check all shop drawings regarding measurements, size of members, materials and details to make sure that they conform to the intent of the Drawings and related Sections. Return shop drawings found to be inaccurate or otherwise in error to the subcontractors for correction before submission thereof.
5. All details on shop drawings shall show clearly the relation of the various parts to the main members and lines of the structure and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted.

B. Product Data

1. Product data as specified in individual Sections include, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances and applicability, roughing in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare parts listing and printed product warranties, as applicable to the work.

C. Samples

1. Samples specified in individual Sections include, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols and units of work to be used by the Owner for independent inspection and testing, as applicable to the work.

1.4 CONTRACTOR'S RESPONSIBILITIES

- A. Review shop drawings, product data and samples, including those by subcontractors, prior to submission to determine and verify the following:
 1. Field measurements
 2. Filed construction criteria.
 3. Catalog numbers and similar data.
 4. Conformance with related Sections.
- B. Notify the Owner in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.
- C. The review and approval of shop drawings, samples or product data by the Owner shall not relieve the Contractor from the responsibility for the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the Owner will have no responsibility therefore.
- D. No portion of the work requiring a shop drawing, sample, or product data shall be started nor shall any materials be fabricated or installed prior to the approval or qualified approval of such item. Fabrication performed, materials purchased or on site construction accomplished which does not conform to approved shop drawings and data shall be at the Contractor's risk. The Owner will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
- E. Project work, materials, fabrication, and installation shall conform with approved shop drawings, applicable samples, and product data.

1.5 SUBMITTAL PROCEDURES

A. Submittal Schedule:

1. Prepare and submit a Submittal schedule that identifies the following for each Submittal:
 - a. Submittal Number
 - b. Submittal Description
 - c. Projected date Submittal will be submitted.

B. Submittal Identification Numbering – The Contractor shall utilize an 8-character submittal identification numbering Format SSSSS-NN-V in the following manner:

1. SSSSS shall be the applicable Section Number.
2. NN shall be the number 01 to 99 to sequentially number each initial separate item or drawing submitted under each specific Section Number.
3. V, the last character shall be a letter, A to Z, indicating the submission, or resubmission of the same Drawing, i.e., “A”=1st submission, “B”=2nd submission, “C”=3rd submission, etc. A typical submittal number would be as follows:

03 30 00 – 08 – B

03 30 00 = Section for Concrete

08 = The eighth initial submittal under this section

B = The second submission (first resubmission) of that particular shop drawing

C. Delivery Method:

1. Submittals may be delivered as paper copies or electronic files at Contractor’s option.
2. Advise Engineer of delivery method to be used at the preconstruction meeting.
3. Paper Copies:
 - a. Unless otherwise indicated, submit 2 copies of each Submittal.
 - b. One copy of each Action Submittal will be returned to Contractor.
 - c. Extra copies submitted by Contractor will be discarded.
4. Electronic Files:
 - a. Unless otherwise indicated, submit 1 copy of each Submittal in PDF format.
 - b. Scanned Submittals shall be produced in such a way as to not compromise the graphic quality or accuracy of scale, where applicable; and text shall be searchable.
 - c. One copy of each Action Submittal will be returned to the Contractor.
 - d. Submittals may be transmitted via electronic mail (e-mail) or on a CD or DVD. Submittals that are transmitted electronically may be returned electronically at the Engineer’s discretion.
5. Transmit Submittals to party and address identified by Engineer at preconstruction meeting.

- D. Coordination and Timing: Coordinate preparation and processing of Submittals with performance of construction activities. Contractor is responsible for cost of delays caused by lack of coordination or tardiness of Submittals. Incomplete submittals will be rejected.
1. Coordinate each Submittal with fabrication, purchasing, testing, delivery, other Submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of Submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Engineer reserves the right to withhold action on a Submittal requiring coordination with other Submittals until related Submittals are received.
- E. Processing Time: Allow 15 full working days for Engineer to review each Submittal, including Resubmittals. Time for review shall commence on Engineer's receipt of Submittal. No extension of the Contract Time will be authorized because of failure to transmit Submittals enough in advance of the Work to permit processing, including Resubmittals. Engineer will advise Contractor when a Submittal being processed must be delayed for coordination.
- F. Identification: Place a permanent label on each Submittal or generate a separate cover sheet.
1. Indicate the name of firm or entity that prepared Submittal.
 2. Provide space to record Contractor's review and approval markings and action taken by Engineer.
 3. Include the following information:
 - a. Project Name.
 - b. Date
 - c. Name and address of Engineer.
 - d. Name and address of Contractor.
 - e. Name and address of Subcontractor(s).
 - f. Name and address of Supplier(s).
 - g. Name of Manufacturer.
 - h. Submittal Number (as specified in article 1.4.B of this Section)
 - i. Drawing Number and detail references, as applicable.
 - j. Location(s) where product is to be installed, as applicable.
 - k. Other necessary identification
- G. Deviations: Encircle or otherwise specifically identify deviations from the Contract Documents on Submittals. Submittals that include deviations that are not identified may be rejected. Engineer may or may not consider deviations. Deviations are not substitutions.
- H. Transmittal: Package each Submittal individually and appropriately for transmittal and handling. Transmit each Submittal using a transmittal form. Engineer will reject Submittal(s) received from sources other than Contractor.

- I. Resubmittals: Make Resubmittals in same form and number of copies as initial Submittal.
 - 1. Note date and content of previous Submittal.
 - 2. Clearly identify additions and revisions.
 - 3. Resubmit Submittals until they are marked, “Approved” or “Approved with Changes Noted.”
- J. Distribution: Furnish copies of Submittals with mark indicating “Approved” or “Approved with Changes Noted” to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities.
- K. Use for Construction: Unless otherwise indicated by Engineer, use only Submittals with mark indicating, “Approved” or “Approved with Changes Noted.”

PART 2 – PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit project specific Action Submittals required by individual Specification Sections. Do not use highlighting that would not be reproducible.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale where appropriate. Scale shall be sufficiently large to indicate pertinent features of the item and its methods of connection to the Work.
 - 1. Preparation: Fully illustrate requirements of the Contract Documents. Including the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Colors and materials as applicable.
 - e. Roughing-in and setting diagrams.
 - f. Wiring diagrams showing field-installed wiring, including power, signal, control, and communication wiring. Differentiate between Manufacturer-installed and field-installed wiring.
 - g. Manufacturing instructions
 - h. Templates and patterns.
 - i. Schedules.
 - j. Calculations.
 - k. Compliance with specified standards.
 - l. Notation of coordination requirements.
 - m. Notation of dimensions established by field measurement.
 - n. Relationship to adjoining construction clearly indicated.

2. Sheet Size: Submit Shop Drawings on sheets at least 8-1/2-inches by 11-inches but no larger than 36- inches by 48-inches.
 3. Maintain copy of returned Submittal for Project records.
- C. Product Data: Collect information into a single Submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for Submittal because standard printed data are not suitable for use, submit as Shop Drawings and, not as Product Data.
 2. Mark each copy of each Submittal to indicate which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Color charts as required by individual Specification Sections.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Mill reports.
 - j. Standard product operation and maintenance manuals.
 - k. Compliance with specified reference standards.
 - l. Testing by recognized testing agency.
 - m. Application of testing agency labels and seals.
 - n. Notation of coordination requirements.
 4. Submit Product Data before or concurrent with Samples.
 5. Maintain copy of returned Submittal for Project Records.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements, and for a comparison of these characteristics between Submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components, such as accessories, together in one Submittal package.
 2. Identification: On unexposed side of Samples, attach label that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of Manufacturer
 - c. Sample source
 - d. Number and title of appropriate Specification Section.
 3. Samples from Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner

specified, physically identical with material or product proposed for use, and that show full range of color and texture variations expected.

4. Samples include, but are not limited to, the following: Partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
5. Number of Samples: Unless otherwise indicated, submit 2 sets of Samples. Engineer will retain 1 Sample Set; remainder will be returned.
 - a. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - b. If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
6. Disposition: Maintain sets of approved Samples at Site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used by Engineer to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples shall be in an undamaged condition at the time of Substantial Completion.
 - b. Samples not incorporated into the Work, or otherwise designated to become Owner's property, are the property of the Contractor.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by individual Specification Sections. Do not use highlighting that would not be reproducible.
- B. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects/engineers and owners, and other information specified.
- D. Installer Certificates: Prepare written statements on Manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by Manufacturer for this Project.
- E. Manufacturer Certificates: Prepare written statements on Manufacturer's letterhead certifying that Manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

- F. Product Certificates: Prepare written statements on Manufacturer's letterhead certifying that product complies with requirements in the Contract documents.
- G. Material Certificates: Prepare written statements on Manufacturer's letterhead certifying that material complies with requirements in the Contract documents.
- H. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- I. Product Test Results: Prepare written reports indicating current product produced by Manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of test performed by Manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by qualified testing agency.
- J. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- K. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- L. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- M. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- N. Manufacturer's Instructions: Prepare written or published information that documents Manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of Manufacturer. Include the following, as applicable:
 - 1. Preparation of substrates.

2. Required substrate tolerances.
 3. Sequence of installation or erection.
 4. Required installation tolerances.
 5. Required adjustments.
 6. Recommendations for cleaning and protection.
- O. Manufacturer's Field Reports: Prepare written information documenting tests and inspections of factory authorized service representative. Include the following, as applicable:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement of substrate condition and acceptability of substrate for installation or application of product.
 3. Statement that products at Site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Document settings in writing.
 8. Other required items indicated in individual Specification Sections.
- P. Safety Data Sheets (SDSs): Submit information directly to Owner; do not submit to Engineer.
1. Engineer will not review Submittals that include SDSs and will return the entire Submittal for Resubmittal.

PART 3 – EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each Submittal and check for coordination with other work of the Contract and for compliance with the Contract Documents. Verify field dimensions and conditions; note corrections as necessary. Mark with approval stamp before submitting to Engineer.
1. Approval Stamp: Stamp each Submittal with an approval stamp. Use the same stamp format for each Submittal. Include Project name and location, Submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that Submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
- B. Submittals that are not approved and stamped by Contractor will be rejected.

3.2 ENGINEER'S REVIEW

- A. Action Submittals: Engineer will review Action Submittals, make marks to indicate corrections or modifications required, and return Submittal. Engineer will stamp each Submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
1. Approved: Submittal appears to conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Approved with Changes Noted: Upon incorporation of review comments, it appear that Submittal will conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 3. Revise and Resubmit: Submittal has one or more specific segments that are incomplete, do not appear to conform to the information given in the Contract Documents, or are incompatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Contractor shall resubmit information for review to demonstrate understanding of comments and portions of Work to be provided. Except as noted, Contractor shall not proceed with work related to Submittal.
 4. Rejected: Submittal as a whole is incomplete, does not appear to conform to the information given in the Contract Documents, or is incompatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Contractor shall resubmit information for review to demonstrate understanding of comments and portions of Work to be provided. Contractor shall not proceed with work related to Submittal.
- B. Informational Submittals: Other Submittals required by the Contract Documents for information only. Engineer will acknowledge receipt of Information Submittals. Such Submittals include, but are not limited to:
1. Qualifications Data.
 2. Certificates.
 3. Test Reports
 4. Manufacturer's Instructions.
 5. Maintenance Data.
 6. Field Reports.
- C. Submittals not required by the Contract Documents will be returned without being reviewed.
- D. Partial Submittals are not acceptable, will be considered non-responsive, and will be rejected.

END OF SECTION

SECTION 01 55 00

VEHICULAR ACCESS AND PARKING

PART 1 – GENERAL

1.1 GENERAL

- A. All streets shall be kept open for the passage of traffic during the construction period unless otherwise approved by the Engineer and authority having jurisdiction over the same.
 - 1. Owner will obtain all right-of-way permits.
 - 2. Contractor shall maintain access for emergency vehicles at all times.
- B. When required to cross, obstruct or temporary close a street, Contractor shall provide and maintain detours for the accommodation of traffic. Closings shall be for the shortest time practical, and passage shall be restored immediately after completion of backfill and temporary paving or plating.
- C. Contractor shall be responsible to contact all local authorities and utilities at least two (2) weeks prior to commencement of work. Local authorities include but are not limited to police, fire, gas, electric, telephone, TV cable, water, sewer, traffic and street department. Contractor shall be responsible to keep all above apprised of Work schedule, actual progress, etc.
- D. Contractor shall give reasonable notice to owners or tenants of private property and commercial or industrial facilities who may be affected by Contractor's operation, minimum of 48 hours in advance.
- E. Contractor shall take all means necessary to prevent accidents. Contractor shall provide signs, signals, barricades, flares, lights, and all other equipment, service, and personnel required to regulate and protect all traffic, and warn of hazards. All such work shall conform to requirements of the Warren County Engineers Office and the Ohio Department of Transportation or authority having jurisdiction and be provided in accordance with ODOT Manual of Uniform Traffic Control Devices, Construction and Maintenance Operations. Remove temporary equipment and facilities when no longer required, restore grounds to original, or to specified conditions.
- F. Contractor shall provide dust control in accordance with Section 01 57 00.

1.2 TRAFFIC SIGNALS AND SIGNS

- A. Provide and operate traffic control and directional signals required to direct and maintain orderly flow of traffic in all areas under Contractor's control or affected by Contractor's operation.
- B. Provide traffic control and directional signs, mounted on barricades or standards posts:
 - 1. At each change of direction of a roadway and at each crossroad.

2. At detours and hazardous areas.
3. At parking areas.
4. As required by approved permit or authority having jurisdiction.

1.3 FLAGMEN

- A. Provide qualified and suitably equipped flagmen, including STOP/SLOW paddles, when construction operation encroach on traffic lanes or prevent adequate sight distance, as required for regulation of traffic and in accordance with the requirements of the authority having jurisdiction.

1.4 FLARES AND LIGHTS

- A. Provide flares and lights during period of low visibility:
 1. To clearly delineate traffic lanes, to guide traffic, and to warn of hazardous areas.
 2. For use by flagmen in directing traffic.

1.5 PARKING CONTROL

- A. Control all construction related vehicular parking within the limits of Work to preclude interference with public traffic or parking, access by emergency vehicles, OWNER'S operations, or construction operations. Provide temporary parking facilities for the public as may be required because of construction or operations.
- B. Monitor parking of all construction and private vehicles:
 1. Maintain free vehicular access to and through parking area.
 2. Prohibit parking on or adjacent to access roads or in non-designated areas.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01 57 00

TEMPORARY CONTROLS

PART 1 – GENERAL

1.1 DESCRIPTION OF REQUIREMENTS

- A. Contractor shall provide and maintain methods, equipment, and temporary construction, as required to provide controls over environmental conditions at the construction site and adjacent areas. Remove physical evidence of temporary facilities at completion of the Work.
- B. Contractor shall obtain all City, County, and State permits required for the construction of the work Hazardous Material Management, Earth Moving/Dust Control and Stormwater Pollution Prevention Permits.

1.2 NOISE CONTROL

- A. Contractor's vehicles and equipment shall be such as to minimize noise to the greatest degree practicable. Noise levels shall conform to the latest OSHA standards and in no case will noise levels be permitted which interfere with the Work of the Owner or others.

1.3 DUST CONTROL

- A. Contractor shall be responsible for controlling objectionable dust caused by Contractor's operation of vehicles and equipment, clearing or for any reason whatever. Contractor shall apply water or use other methods subject to Engineer's approval, which will keep dust in the air to a minimum.

1.4 PEST AND RODENT CONTROL

- A. Provide rodent and pest control as required to prevent infestation of construction or storage areas.
 - 1. Employ methods and use materials that will not adversely affect conditions at the Site or on adjoining properties.

1.5 WATER CONTROL

- A. Provide methods to control surface water and water from excavations and structures to prevent damage to the Work, the Site, or adjoining properties.
 - 1. Control fill, grading and ditching to direct water away from excavations, pits, tunnels and other construction areas and to direct drainage to proper runoff courses so as to prevent any erosion, damage or nuisance.
- B. Provide, operate and maintain equipment and facilities of adequate size to control surface water.
- C. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to

any portion of the Site or to adjoining areas and in conformance with all environmental requirements.

1.6 POLLUTION CONTROL

- A. Provide methods, means, and facilitates required to prevent contamination of soil, water, or atmosphere by the discharging of noxious substances for construction operations.
- B. Provide equipment and personnel, perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids.
 - 1. Excavate and dispose of any contaminated earth offsite, and replace with suitable compacted fill and topsoil.
- C. Take special measures to prevent harmful substances from entering public waters.
 - 1. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers.
- D. Provide systems for control of atmospheric pollutants.
 - 1. Prevent toxic concentrations of chemicals.
 - 2. Prevent harmful dispersal of pollutants into the atmosphere.
- E. All Contractor's equipment used during construction shall conform to all current federal, state and local laws and regulations.

1.7 EROSION CONTROL

- A. Plan and execute construction and earth work by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.
 - 1. Hold the areas of bare soil exposed at one time to a minimum.
 - 2. Provide temporary control measures such as berms, dikes and drains.
- B. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.
- C. Periodically inspect earthwork to detect any evidence of the start of erosion; apply corrective measures as required to control erosion.
- D. Coordinate erosion control requirements with the requirements of Article 1.05, above.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.1 SCOPE OF WORK

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
 - 1. Closeout procedures.
 - 2. Final cleaning.
 - 3. Adjusting.
 - 4. Project record documents.
 - 5. Spare parts and maintenance materials.

1.2 RELATED WORK

- A. Warranties and Bonds are included in Section 01 78 00.

1.3 RECORD DOCUMENTS

- A. Maintain on site, one set of the following documents; actual revisions to the work shall be recorded in these documents:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and Modifications.
- E. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.

2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
3. Field changes of dimension and detail.
4. Details not on original Contract Drawings.

F. Submit documents to Owner with Application for Final Payment.

1.4 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, work has been inspected and that work is complete in accordance with Contract Documents and ready for Owners's inspection.
- B. Provide submittals to Owner that are required by governing or other authorities.
- C. Submit Application for Final Payment identifying total adjusted Contract Sum, previous payments and sum remaining due.

1.5 FINAL CLEANING

- A. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
 1. Clean the site of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.

1.6 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01 78 00

WARRANTIES AND BONDS

PART 1 – GENERAL

1.1 SCOPE OF WORK

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

1.2 RELATED WORK

- A. General closeout requirements are included in Section 01 77 00 Closeout Procedures.
- B. Specific requirements for warranties for the work, products, and installations that are specified to be warranted are included in the individual sections

1.3 SUBMITTALS

- A. Submit written warranties to the Owner prior to the date fixed by the Engineer for Substantial Completion. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the work, or a designation portion of the work, submit written warranties upon request of the Owner.
- B. When a designated portion of the work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Owner within 15 days of completion of that designated portion of the work.
- C. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Engineer for approval prior to final execution.
- D. Refer to individual Sections for specific content requirements for submittal of special warranties.
- E. At Final Completion compile two copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- F. Bond warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents and sized to receive 8-1/2-inch by 11-inch paper.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project

Manual, with each item identified with the number and title of the Section in which specified and the name of the product or work item.

- H. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the products and the name, address and telephone number of the installer, supplier, and manufacturer.
- I. Identify each binder on the front and the spine with the typed title “Warranties and Bonds”, the project title or name and the name, address, and telephone number of the Contractor.
- J. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

1.4 WARRANTY REQUIREMENT

- A. **Related Damages and Losses:** When correcting warranted work that has failed, remove and replace other work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted work.
- B. **Reinstatement of Warranty:** When work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. **Replacement Cost:** Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the Owner has benefited for use of the work through a portion of its anticipated useful service life.
- D. **Owner’s Recourse:** Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- E. **Rejection of Warranties:** The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the contract Documents.
- F. **Disclaimers and Limitations:** Manufacturer’s disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the work that incorporates the products, nor does it relieve suppliers, manufacturers and subcontractors required to countersign special warranties with the Contractor.
- G. **Separate Prime Contracts:** Each Prime Contractor is responsible for warranties related to its own Contract.

1.5 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend the time limits provided by standard warranties or to provide greater rights to the Owner.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

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SECTION 310519.13 - GEOTEXTILES FOR EARTHWORK

PART 1 - GENERAL

1.1 SCOPE

- A. Contractor shall provide all labor, materials, equipment, and services required to provide and place geosynthetics as shown and specified.

1.2 REFERENCES

- A. Standards referenced in this Section are listed below:
 - 1. American Society for Testing and Materials, (ASTM).
 - a. ASTM D4355, Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc-Type Apparatus
 - b. ASTM D4491, Standard Test Methods for Water Permeability of Geotextiles by Permittivity
 - c. ASTM D4533, Standard Test Method for Trapezoid Tearing Strength of Geotextiles
 - d. ASTM D4632, Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
 - e. ASTM D4751, Standard Test Methods for Determining Apparent Opening Size of a Geotextile
 - f. ASTM D6241, Standard Test Method for Static Puncture Strength of Geotextiles and Geotextile-Related Products Using a 50-mm Probe

1.3 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Geotextile manufacturer shall be listed on the Ohio Department of Transportation Office of Materials Management Approved List.
 - 2. Geotextile manufacturer shall be a specialist in the manufacture of geotextile filter fabric, and have produced and successfully installed a minimum of five million square feet.

1.4 SUBMITTALS

- A. Action Submittals: Submit the following:
 - 1. Product Data:
 - 2. Submit geotextile manufacturer's data, specifications, installation instructions and dimensions.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Each roll of geotextile delivered to the Site shall be labeled by the manufacturer identifying the manufacturer's name, product identification, lot number, roll number and roll dimensions.
- B. All rolls and packages shall be inspected by Contractor upon delivery to the Site. Contractor shall notify Engineer if any loss or damage exists to geotextile filter fabric. Replace loss and repair damage to new condition, in accordance with manufacturer's instructions.

- C. Geotextile shall be protected from ultraviolet light exposure, precipitation or other inundation, mud, dirt, dust, puncture, cutting or any other damaging or deleterious conditions. Geotextile rolls shall be shipped and stored in relatively opaque and watertight wrappings.

PART 2 - PRODUCTS

2.1 GEOTEXTILE FILTER FABRIC

- A. Provide woven or non-woven fabric composed of polymeric fibers which are formed into a stable network such that the filaments retain their relative position. The fabric shall be inert to biological degradation and naturally encountered chemicals, alkalizes, and acids.

- B. All minimum strengths for geotextile filter fabrics are in the weakest principal direction.

C. Type A: Underdrains and Slope Drains

- 1. Product and Manufacturer: Provide the following:

- a. Mirafi 140 NL by TenCate Geosynthetics,
- b. 0311T by ADS Geosynthetics,
- c. FX-30HS by Carthage Mills,
- d. Or Equal.

- 2. Geotextile filter fabric shall conform to the following:

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Minimum tensile strength	80 lb	ASTM D4632
Minimum puncture strength	140 lb	ASTM D6241
Minimum tear strength	25 lb	ASTM D4533
Apparent opening size	≤ 0.3 mm	ASTM D4751
Minimum permittivity	2.0/sec	ASTM D4491
Minimum water flow rate	140 gpm/ft ²	ASTM D4491

D. Type B: Filter Blankets for Rock Channel Protection

- 1. Product and Manufacturer: Provide the following:

- a. Mirafi 180 N by TenCate Geosynthetics,
- b. 0801T by ADS Geosynthetics,
- c. FX-80HS by Carthage Mills,
- d. Or Equal.

- 2. Geotextile filter fabric shall conform to the following:

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Minimum tensile strength	200 lb	ASTM D4632
Minimum elongation	15%	ASTM D4632
Minimum puncture strength	440 lb	ASTM D6241
Minimum tear strength	50 lb	ASTM D4533
Apparent opening size	≤ 0.6 mm	ASTM D4751
Minimum permittivity	0.2/sec	ASTM D4491

E. Type C: Sediment Fences

1. Geotextile filter fabric shall conform to the following:

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Minimum tensile strength	120 lb	ASTM D4632
Maximum elongation	50%	ASTM D4632
Minimum puncture strength	275 lb	ASTM D6241
Minimum tear strength	40 lb	ASTM D4533
Apparent opening size	≤ 0.84 mm	ASTM D4751
Minimum permittivity	0.01/sec	ASTM D4491
Ultraviolet exposure strength retention	70%	ASTM D4355

PART 3 - EXECUTION

3.1 INSPECTION:

- A. Contractor shall examine the conditions under which the Work is to be installed and notify the Engineer, in writing, of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General

1. All geotextiles shall be weighted with sandbags or the equivalent when required. Such sandbags shall be installed during placement and shall remain until replaced with cover material or geomembrane.
2. Contractor shall take any necessary precautions to prevent damage to underlying layers during placement of the geotextile.
3. During placement of geotextiles, care shall be taken not to entrap in the geotextile stone, excessive dust, or moisture that could damage the geomembrane, generate clogging, or hamper subsequent seaming.
4. Geotextiles shall not be exposed to precipitation prior to being installed, and shall not be exposed to direct sunlight for more than 15 days.

B. Type A: Underdrains and Slope Drains

1. Place the Geotextile Fabric to completely surround the granular material. Overlap the Geotextile Fabric at the top of the trench. Match the overlap to the trench width. At other seams, overlap Geotextile Fabric a minimum of 12 inches.

C. Type B: Filter Blankets for Rock Channel Protection

1. Prepare the surface to receive the fabric to a relatively smooth surface, free of obstruction and debris. With the long dimension parallel to the flow direction, loosely place the fabric without wrinkles and creases. Where joints are necessary, provide a 12-inch minimum overlap, with the upstream strip overlapping the downstream strip. Place securing pins with washers at a minimum distance apart of 2 feet along the joints and at a minimum distance apart of 5 feet everywhere else.

3.3 GEOTEXTILE REPAIR:

- A. Any holes or tears in the fabric shall be repaired as follows:

1. On slopes: A fabric patch shall be sewn into place using a double sewn lock stitch (1/4-inch to 3/4-inch apart and no closer than 1-inch from any edge). Should any tear exceed ten percent of the width of the roll, that roll shall be removed from the slope and replaced.
2. Non-slopes: A fabric patch shall be spot-seamed in place with a minimum of 24-inches of overlap in all directions.

3.4 PLACEMENT OF COVER MATERIALS:

- A. Contractor shall place all cover materials in such a manner to ensure the geotextile is not damaged; minimal slippage of the geotextile on underlying layers; and no excess tensile stresses in the geotextile.

END OF SECTION 310519.13

SECTION 310519.33 – TIED CONCRETE BLOCK MATS

PART 1 - GENERAL

1.1 DESCRIPTION:

- A. Contractor shall provide all labor, materials, equipment, and services required to provide tied concrete block mats as shown and specified.

1.2 REFERENCES:

- A. American Society for Testing and Materials, (ASTM).
 1. ASTM C150, Standard Specification for Portland Cement.
 2. ASTM C33, Standard Specification for Concrete Aggregates.
 3. ASTM D792, Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
 4. ASTM D4355, Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc-Type Apparatus
 5. ASTM D6475, Standard Test Method for Measuring Mass per Unit Area of Erosion Control Blankets
 6. ASTM D6524, Standard Test Method for Measuring the Resiliency of Turf Reinforcement Mats (TRMs)
 7. ASTM D6525, Standard Test Method for Measuring Nominal Thickness of Rolled Erosion Control Products
 8. ASTM D6566, Standard Test Method for Measuring Mass Per Unit Area of Turf Reinforcement Mats
 9. ASTM D6567, Standard Test Method for Measuring the Light Penetration of a Rolled Erosion Control Product (RECP)
 10. ASTM D6818, Standard Test Method for Ultimate Tensile Properties of Rolled Erosion Control Products
- B. Erosion Control Technology Council (ECTC).
 1. Current Standards.

1.3 QUALITY ASSURANCE:

- A. Product shall be listed on the Ohio Department of Transportation Qualified Products List.

1.4 SUBMITTALS:

- A. Action Submittals: Submit the following:
 1. Product Data:
 - a. Submit manufacturer's data, specifications, manufacturer approved mat layout design including location and type of joints, installation instructions and dimensions.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Each roll of geotextile delivered to the Site shall be labeled by the manufacturer identifying the manufacturer's name, product identification, lot number, roll number and roll dimensions.

- B. All rolls and packages shall be inspected by Contractor upon delivery to the Site. Contractor shall notify Engineer if any loss or damage exists to geotextile filter fabric. Replace loss and repair damage to new condition, in accordance with manufacturer's instructions.
- C. Chipping or missing concrete resulting in a weight loss exceeding 15% of the average weight of a concrete unit is grounds for rejection by the Engineer. Replace, repair, or patch the damaged areas per the manufacturer's recommendations.
- D. Cover the mat or otherwise protect it during long periods of storage to protect against degradation of the backing material as recommended by the manufacturer.

PART 2 - PRODUCTS

2.1 GENERAL:

- A. Tied concrete block mats shall be manufactured from individual concrete blocks tied together with high strength polypropylene bi-axial geogrid. Each block is tapered, beveled and interlocked, and includes connections that prevent lateral displacement of the blocks within the mats when they are lifted for placement.
- B. Tied concrete block mats shall be Flexamat, manufactured by Motz Enterprises, Inc. or approved equal.

2.2 BLOCKS:

- A. Furnish blocks manufactured with concrete conforming to the cement requirements of ASTM C150 and to the aggregate requirements of ASTM C33. Meet a minimum compressive strength of 5,000 psi at 28 days. Furnish blocks that have a minimum weight of 3 lb. per block. Blocks shall be placed no further than 2 in. apart.

2.3 POLYPROPYLENE BI-AXIAL GEOGRID:

- A. Provide revetment mat that is constructed of a high tenacity, low elongating, and continuous filament polypropylene fibers that is securely cast into and embedded within the base of the concrete blocks and obtains connection strength greater than that of the geogrid. The geogrid shall meet the following requirements:
 - 1. UV Stabilization: 2% Carbon Black
 - 2. Ultimate Tensile Strength: 2055 lb/ft

2.4 UNDERLAYMENT:

- A. Degradable erosion control blanket
 - 1. Provide a degradable erosion control blanket in accordance with the following requirements:
 - a. Thickness: 0.418 in, ASTM D6525
 - b. Light Penetration: 34.6 %, ASTM D6567
 - c. Resiliency: 64%, ASTM D6524
 - d. Mass per Unit Area: 0.57 lb/yd², ASTM D6475
 - e. MD-Tensile Strength, Max: 127.0 lb/ft, ASTM D6818
 - f. TD-Tensile Strength, Max: 50.9 lb/ft, ASTM D6818
 - g. Swell: 89%, ECTC Procedure

- h. Bench-Scale Rain Splash: Soil Loss Ratio = 6.84 @ 2 in/hr, ECTC Method 2
- i. Bench-Scale Rain Splash: Soil Loss Ratio = 7.19 @ 4 in/hr, ECTC Method 2
- j. Bench-Scale Rain Splash: Soil Loss Ratio = 7.56 @ 6 in/hr, ECTC Method 2
- k. Bench-Scale Shear: 2.6 lb/ft² @ 0.5 in soil loss, ECTC Method 3
- l. Germination Improvement: 645% ECTC Method 4

B. Non-degradable erosion control blanket

- 1. Provide a degradable erosion control blanket in accordance with the following requirements:
 - a. Thickness: 0.294 in, ASTM D6525
 - b. Light Penetration: 57%, ASTM D6567
 - c. Resiliency: 86%, ASTM D6524
 - d. Mass per Unit Area: 0.50 lb/yd², ASTM D6566
 - e. MD-Tensile Strength Max: 295.2 lb/ft, ASTM D6818
 - f. TD-Tensile Strength Max: 194.4 lb/ft, ASTM D6818
 - g. MD-Elongation: 32.2%, ASTM D6818
 - h. TD-Elongation: 40.8%, ASTM D6818
 - i. Swell: 8%, ECTC Procedure
 - j. Specific Gravity: 1.21, ASTM D792
 - k. UV Stability: 80% minimum, ASTM D4355 (1,000 hr)
 - l. Bench-Scale Rain Splash: SLR = 5.86 @ 2 in/hr, ECTC Method 2
 - m. Bench-Scale Rain Splash: E SLR = 5.00 @ 4 in/hr, CTC Method 2
 - n. Bench-Scale Rain Splash: SLR = 6.33 @ 6 in/hr, ECTC Method 2
 - o. Bench-Scale Shear: 2.41 lb/ft² @ 0.5 in soil loss, ECTC Method 3
 - p. Germination Improvement: 432%, ECTC Method 4

PART 3 - EXECUTION

3.1 INSPECTION:

- A. Contractor shall examine the conditions under which the Work is to be installed and notify the Engineer, in writing, of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected.

3.2 INSTALLATION – GENERAL:

- A. Install tied concrete block mats in accordance with manufacturer's installation instructions.
- B. Prior to installing tied concrete block mats, prepare the subgrade as detailed in the plans. All subgrade surfaces to be smooth and free of all rocks, stones, sticks, roots, and other protrusions or debris of any kind that would result in an individual block being raised more than 3/4 in. above the adjoining blocks. When seeding is shown on the plans, provide subgrade material that can sustain growth.
- C. Ensure the prepared subgrade provides a smooth, firm, and unyielding foundation for the mats. The subgrade shall be graded into a parabolic or trapezoidal shape to concentrate flow to middle of mat or mats.
- D. When vegetation is required, distribute seed on the prepared topsoil subgrade before installation of the concrete mats in accordance with the specifications.

- E. Install mats to the line and grade shown on the plans and per the manufacturer's guidelines. The manufacturer or authorized representative will provide technical assistance during the slope preparation and installation of the concrete block mats as needed.
- F. Provide a minimum 18 in. deep concrete mat embedment toe trench at all edges exposed to concentrated flows. Recess exterior edges subject to sheet flow a minimum of 3 in.
- G. When needed, provide fastening or anchoring as recommended by the manufacturer or engineer for the site conditions.
- H. All geotextiles shall be weighted with sandbags or the equivalent when required. Such sandbags shall be installed during placement and shall remain until replaced with cover material or geomembrane.
- I. For seams parallel to the flow line in ditch or channel applications, center a minimum 3 ft. wide strip of soil retention blanket under the seam. Fasten along the seam at 5 ft. maximum spacing. Parallel seams in the center of the ditch shall be avoided when possible.
- J. Shingle seams perpendicular to the flow line with the downstream mat recessed a minimum of 2 blocks or 12 inches of extended underlayment under the upstream mat and fastened together along the seam at 2 ft. maximum spacing if required by manufacturer or engineer.

END OF SECTION 31 0519.33

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Removing above- and below-grade site improvements.
5. Temporary erosion and sedimentation control.

- B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for temporary erosion- and sedimentation-control measures.

1.3 DEFINITIONS

- A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow.
- D. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.
- E. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 PREINSTALLATION MEETINGS – NOT USED

1.5 MATERIAL OWNERSHIP

- A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.6 INFORMATIONAL SUBMITTALS

- A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
 - 1. Use sufficiently detailed photographs or video recordings.
 - 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plant designated to remain.

1.7 QUALITY ASSURANCE – NOT USED

1.8 FIELD CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed trafficways if required by Owner or authorities having jurisdiction.
- B. Utility Locator Service: Notify Call Before You Dig for area before site clearing.
- C. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.
- D. Tree- and Plant-Protection Zones: Protect according to requirements in Section 015639 "Temporary Tree and Plant Protection."

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 312000 "Earth Moving."
 - 1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed according to requirements in Section 015639 "Temporary Tree and Plant Protection."
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
- B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- D. Remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

- A. Protect trees and plants remaining on-site according to requirements in Section 015639 "Temporary Tree and Plant Protection."
- B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.4 EXISTING UTILITIES

- A. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Architect not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Architect's written permission.

3.5 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
 - 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 - 2. Grind down stumps and remove roots larger than 3 inches in diameter, obstructions, and debris to a depth of 18 inches below exposed subgrade.
 - 3. Use only hand methods or air spade for grubbing within protection zones.
 - 4. Chip removed tree branches and dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 - 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.

3.6 TOPSOIL STRIPPING – NOT USED

3.7 STOCKPILING ROCK – NOT USED

3.8 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 - 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
 - 2. Paint cut ends of steel reinforcement in concrete to remain with two coats of antirust coating, following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.

3.9 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

END OF SECTION 311000

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Preparing subgrades for walks, pavements, turf and grasses.
2. Subbase course for concrete walks and pavements.
3. Subbase course for asphalt paving.
4. Excavating and backfilling trenches for utilities and pits for buried utility structures.

- B. Related Requirements:

1. Section 013200 "Construction Progress Documentation" for recording preexcavation and earth-moving progress.
2. Section 311000 "Site Clearing" for site stripping, grubbing, stripping topsoil, and removal of above- and below-grade improvements and utilities.
3. Section 315000 "Excavation Support and Protection" for shoring, bracing, and sheet piling of excavations.
4. Section 329200 "Turf and Grasses" for finish grading in turf and grass areas, including preparing and placing planting soil for turf areas.

1.3 UNIT PRICES – NOT USED

1.4 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.
- C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

- E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 - 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 - 2. Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
 - 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be without additional compensation.
- G. Fill: Soil materials used to raise existing grades.
- H. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceed 1 cu. yd. for bulk excavation or 3/4 cu. yd. for footing, trench, and pit excavation that cannot be removed by rock-excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting, when permitted:
 - 1. Equipment for Footing, Trench, and Pit Excavation: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch- maximum-width, short-tip-radius rock bucket; rated at not less than 138-hp flywheel power with bucket-curling force of not less than 28,700 lbf and stick-crowd force of not less than 18,400 lbf with extra-long reach boom.
- I. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- J. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- K. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- L. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.

1.5 PREINSTALLATION MEETINGS – NOT USED

1.6 ACTION SUBMITTALS

- A. Product Data: For each type of the following manufactured products required:

1. Geotextiles.
2. Controlled low-strength material, including design mixture.
3. Warning tapes.

B. Samples for Verification: For the following products, in sizes indicated below:

1. Geotextile: 12 by 12 inches.
2. Warning Tape: 12 inches long; of each color.

1.7 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified testing agency.

B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:

1. Classification according to ASTM D2487.
2. Laboratory compaction curve according to ASTM D698.

C. Preexcavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by earth-moving operations. Submit before earth moving begins.

1.8 QUALITY ASSURANCE

A. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E329 and ASTM D3740 for testing indicated.

1.9 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth-moving operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.

B. Improvements on Adjoining Property: Authority for performing earth moving indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.

1. Do not proceed with work on adjoining property until directed by Architect.

C. Utility Locator Service: Notify "Call Before You Dig" for area where Project is located before beginning earth-moving operations.

D. Do not commence earth-moving operations until temporary site fencing and erosion- and sedimentation-control measures specified in Section 311000 "Site Clearing" are in place.

- E. Do not commence earth-moving operations until plant-protection measures specified in Section 015639 "Temporary Tree and Plant Protection" are in place.
- F. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Erection of sheds or structures.
 - 4. Impoundment of water.
 - 5. Excavation or other digging unless otherwise indicated.
- G. Do not direct vehicle or equipment exhaust towards protection zones.
- H. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D2487, Groups A-1, A-2-4, A-2-5, and A-3 according to AASHTO M 145, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D2487, Groups A-2-6, A-2-7, A-4, A-5, A-6, and A-7 according to AASHTO M 145, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.
- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.

- H. Drainage Course: Narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; ASTM D448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and zero to 5 percent passing a No. 8 sieve.
- I. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and zero to 5 percent passing a No. 4 sieve.
- J. Sand: ASTM C33/C33M; fine aggregate.
- K. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

2.2 GEOTEXTILES –NOT USED

2.3 CONTROLLED LOW-STRENGTH MATERIAL

- A. Controlled Low-Strength Material: Self-compacting, flowable concrete material produced from the following:
 - 1. Portland Cement: ASTM C150/C150M, **Type I Type II or Type III**.
 - 2. Fly Ash: ASTM C618, Class C or F.
 - 3. Normal-Weight Aggregate: ASTM C33/C33M, **3/4-inch (19-mm)** nominal maximum aggregate size.
 - 4. Water: ASTM C94/C94M.
 - 5. Air-Entraining Admixture: ASTM C260/C260M.
- B. Produce conventional-weight, controlled low-strength material with **80-psi** compressive strength when tested according to ASTM C495/C495M.

2.4 GEOFOAM –NOT USED

2.5 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:
 - 1. Red: Electric.
 - 2. Yellow: Gas, oil, steam, and dangerous materials.
 - 3. Orange: Telephone and other communications.
 - 4. Blue: Water systems.
 - 5. Green: Sewer systems.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth-moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 DEWATERING

- A. Provide dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed on dry, stable subgrades.
- B. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- C. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
- D. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water and sediment in a manner that avoids inconvenience to others.

3.3 EXPLOSIVES – NOT USED

3.4 EXCAVATION, GENERAL

- A. Classified Excavation: Excavate to subgrade elevations. Material to be excavated will be classified as earth and rock. Do not excavate rock until it has been classified and cross sectioned by Architect. The Contract Sum will be adjusted for rock excavation according to unit prices included in the Contract Documents. Changes in the Contract Time may be authorized for rock excavation.
 - 1. Earth excavation includes excavating pavements and obstructions visible on surface; underground structures, utilities, and other items indicated to be removed; and soil, boulders, and other materials not classified as rock or unauthorized excavation.
 - a. Intermittent drilling; blasting, if permitted; ram hammering; or ripping of material not classified as rock excavation is earth excavation.

2. Rock excavation includes removal and disposal of rock. Remove rock to lines and subgrade elevations indicated to permit installation of permanent construction without exceeding the following dimensions:
 - a. 24 inches outside of concrete forms other than at footings.
 - b. 12 inches outside of concrete forms at footings.
 - c. 6 inches outside of minimum required dimensions of concrete cast against grade.
 - d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
 - e. 6 inches beneath bottom of concrete slabs-on-grade.
 - f. 6 inches beneath pipe in trenches and the greater of 24 inches wider than pipe or 42 inches wide.

3.5 EXCAVATION FOR STRUCTURES – NOT USED

3.6 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
 1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
 1. Clearance: 12 inches each side of pipe or conduit.
- C. Trench Bottoms: Excavate trenches 4 inches deeper than bottom of pipe and conduit elevations to allow for bedding course. Hand-excavate deeper for bells of pipe.
 1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.8 EXCAVATION FOR ELEVATOR CYLINDER – NOT USED

3.9 SUBGRADE INSPECTION

- A. Notify Architect when excavations have reached required subgrade.
- B. If Architect determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.

- C. Authorized additional excavation and replacement material will be paid for according to Contract provisions for **changes in the Work**.
- D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.10 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Architect.
 - 1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

3.11 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.12 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 - 1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
 - 2. Surveying locations of underground utilities for Record Documents.
 - 3. Testing and inspecting underground utilities.
 - 4. Removing concrete formwork.
 - 5. Removing trash and debris.
 - 6. Removing temporary shoring, bracing, and sheeting.
 - 7. Installing permanent or temporary horizontal bracing on horizontally supported walls.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.13 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

- C. Trenches under Roadways: Provide 4-inch-thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course. Concrete is specified in Section 033000 "Cast-in-Place Concrete."
- D. Backfill voids with satisfactory soil while removing shoring and bracing.
- E. Initial Backfill:
 - 1. Soil Backfill: Place and compact initial backfill of satisfactory soil, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.
 - a. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
 - 2. Controlled Low-Strength Material: Place initial backfill of controlled low-strength material to a height of 12 inches over the pipe or conduit. Coordinate backfilling with utilities testing.
- F. Final Backfill:
 - 1. Soil Backfill: Place and compact final backfill of satisfactory soil to final subgrade elevation.
 - 2. Controlled Low-Strength Material: Place final backfill of controlled low-strength material to final subgrade elevation.
- G. Warning Tape: Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.14 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 - 1. Under grass and planted areas, use satisfactory soil material.
 - 2. Under walks and pavements, use satisfactory soil material.
 - 3. Under steps and ramps, use engineered fill.
- C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.15 GEOFOAM FILL – NOT USED

3.16 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.17 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D698:
 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
 3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 4. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

3.18 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:
 1. Turf or Unpaved Areas: Plus or minus 1 inch (25 mm)

3.19 SUBSURFACE DRAINAGE – NOT USED

3.20 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

- A. Place subbase course on subgrades free of mud, frost, snow, or ice.

- B. On prepared subgrade, place subbase course under pavements and walks as follows:
 - 1. Shape subbase course to required crown elevations and cross-slope grades.
 - 2. Place subbase course 6 inches or less in compacted thickness in a single layer.
 - 3. Place subbase course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
 - 4. Compact subbase course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D698.
- C. Pavement Shoulders: Place shoulders along edges of subbase course to prevent lateral movement. Construct shoulders, at least 12 inches wide, of satisfactory soil materials and compact simultaneously with each subbase layer to not less than 95 percent of maximum dry unit weight according to ASTM D698.

3.21 DRAINAGE COURSE UNDER CONCRETE SLABS-ON-GRADE – NOT USED

3.22 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified special inspector to perform the following special inspections:
 - 1. Determine prior to placement of fill that site has been prepared in compliance with requirements.
 - 2. Determine that fill material classification and maximum lift thickness comply with requirements.
 - 3. Determine, during placement and compaction, that in-place density of compacted fill complies with requirements.
- B. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.
- C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- D. Testing agency will test compaction of soils in place according to ASTM D1556, ASTM D2167, ASTM D2937, and ASTM D6938, as applicable. Tests will be performed at the following locations and frequencies:
 - 1. Trench Backfill: At each compacted initial and final backfill layer, at least one test for every **150 feet (46 m)** or less of trench length but no fewer than two tests.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.23 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by Architect; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.24 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 312000

SECTION 315000 - EXCAVATION SUPPORT AND PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes temporary excavation support and protection systems.
- B. Related Requirements:
 - 1. Section 013233 "Photographic Documentation" for recording preexisting conditions and excavation support and protection system progress.
 - 2. Section 312000 "Earth Moving" for excavating and backfilling, for controlling surface-water runoff and ponding, and for dewatering excavations.

1.3 PREINSTALLATION MEETINGS – NOT USED

1.4 ACTION SUBMITTALS

- A. Delegated-Design Submittal: For excavation support and protection systems, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For the following:
 - 1. Land surveyor.
 - 2. Professional Engineer: Experience with providing delegated-design engineering services of the type indicated, including documentation that engineer is licensed in the state in which Project is located.
- B. Contractor Calculations: For excavation support and protection system. Include analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Existing Conditions: Using photographs, show existing conditions of adjacent construction and site improvements that might be misconstrued as damage caused by inadequate performance of excavation support and protection systems. Submit before Work begins.

1.6 CLOSEOUT SUBMITTALS

- A. Record Drawings: Identify locations and depths of capped utilities, abandoned-in-place support and protection systems, and other subsurface structural, electrical, or mechanical conditions.

1.7 FIELD CONDITIONS

- A. Interruption of Existing Utilities: Do not interrupt any utility-serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility according to requirements indicated:
 - 1. Notify **Owner** no fewer than two] days in advance of proposed interruption of utility.
 - 2. Do not proceed with interruption of utility without **Owner's** written permission.
- B. Survey Work: Engage a qualified land surveyor or professional engineer to survey adjacent existing buildings, structures, and site improvements; establish exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks, and record existing elevations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design excavation support and protection systems to resist all lateral loading and surcharge, including but not limited to, retained soil, groundwater pressure, adjacent building loads, adjacent traffic loads, construction traffic loads, material stockpile loads, and seismic loads, based on the following:
 - 1. Compliance with OSHA Standards and interpretations, 29 CFR 1926, Subpart P.
 - 2. Compliance with AASHTO Standard Specification for Highway Bridges or AASHTO LRFD Bridge Design Specification, Customary U.S. Units.
 - 3. Compliance with requirements of authorities having jurisdiction.
 - 4. Compliance with utility company requirements.
 - 5. Compliance with railroad requirements.

2.2 MATERIALS – NOT USED

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during excavation support and protection system operations.
 - 1. Shore, support, and protect utilities encountered.

3.2 INSTALLATION - GENERAL

- A. Locate excavation support and protection systems clear of permanent construction, so that construction and finishing of other work is not impeded.
- B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- C. Install excavation support and protection systems without damaging existing buildings, structures, and site improvements adjacent to excavation.

3.3 SOLDIER PILES AND LAGGING

- A. Install steel soldier piles before starting excavation.
 - 1. Extend soldier piles below excavation grade level to depths adequate to prevent lateral movement.
 - 2. Space soldier piles at regular intervals not to exceed allowable flexural strength of wood lagging.
 - 3. Accurately align exposed faces of flanges to vary not more than 2 inches from a horizontal line and not more than 1:120 out of vertical alignment.
- B. Install wood lagging within flanges of soldier piles as excavation proceeds.
 - 1. Trim excavation as required to install lagging.
 - 2. Fill voids behind lagging with soil, and compact.
- C. Install wales horizontally at locations indicated on Drawings and secure to soldier piles.

3.4 SHEET PILING

- A. Before starting excavation, install one-piece sheet piling lengths and tightly interlock vertical edges to form a continuous barrier.
- B. Accurately place the piling using templates and guide frames unless otherwise recommended in writing by the sheet piling manufacturer.
 - 1. Limit vertical offset of adjacent sheet piling to 60 inches (1500 mm).
 - 2. Accurately align exposed faces of sheet piling to vary not more than 2 inches from a horizontal line and not more than 1:120 out of vertical alignment.
- C. Cut tops of sheet piling to uniform elevation at top of excavation.

3.5 TIEBACKS

- A. Drill, install, grout, and tension tiebacks.
- B. Test load-carrying capacity of each tieback, and replace and retest deficient tiebacks.
 - 1. Have test loading observed by a qualified professional engineer responsible for design of excavation support and protection system.
- C. Maintain tiebacks in place until permanent construction is able to withstand lateral earth and hydrostatic pressures.

3.6 BRACING

- A. Locate bracing to clear columns, floor framing construction, and other permanent work. If necessary to move brace, install new bracing before removing original brace.
 - 1. Do not place bracing where it will be cast into or included in permanent concrete work unless otherwise approved by Engineer.
 - 2. Install internal bracing if required to prevent spreading or distortion of braced frames.
 - 3. Maintain bracing until structural elements are supported by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.

3.7 MAINTENANCE

- A. Monitor and maintain excavation support and protection system.
- B. Prevent surface water from entering excavations by grading, dikes, or other means.
- C. Continuously monitor vibrations, settlements, and movements to ensure stability of excavations and constructed slopes and to ensure that damage to permanent structures is prevented.

3.8 FIELD QUALITY CONTROL

- A. Survey-Work Benchmarks: Resurvey benchmarks regularly during installation of excavation support and protection systems, excavation progress, and for as long as excavation remains open.
 - 1. Maintain an accurate log of surveyed elevations and positions for comparison with original elevations and positions.
 - 2. Promptly notify Engineer if changes in elevations or positions occur or if cracks, sags, or other damage is evident in adjacent construction.
- B. Promptly correct detected bulges, breakage, or other evidence of movement to ensure that excavation support and protection system remains stable.
- C. Promptly repair damages to adjacent facilities caused by installation or faulty performance of excavation support and protection systems.

3.9 REMOVAL AND REPAIRS

- A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and earth and hydrostatic pressures.
 - 1. Remove in stages to avoid disturbing underlying soils and rock or damaging structures, pavements, facilities, and utilities.
 - 2. Remove excavation support and protection systems to a minimum depth of 48 inches below overlying construction, and abandon remainder.
 - 3. Fill voids immediately with approved backfill compacted to density specified in Section 312000 "Earth Moving."
 - 4. Repair or replace, as approved by Engineer, adjacent work damaged or displaced by removing excavation support and protection systems.

- B. Leave excavation support and protection systems permanently in place.

END OF SECTION 315000

SECTION 317000 – TRENCHLESS PIPE INSTALLATION

PART 1 - GENERAL

1.01 SCOPE

- A. Surface Disruption
- B. Existing Utilities
- C. Subsurface Conditions
- D. Jack and Bore
- E. Directional Drill

1.02 SURFACE DISTRUPTION

- A. Unless otherwise noted in the Contract Documents, settlement or heave at the ground surface during and after construction shall not exceed 1/2 inch unless otherwise specified as measured along the centerline of the conduit being installed.

1.03 EXISTING UTILITIES

- A. Existing utilities are to be located in the field prior to construction, and shall be protected and/or relocated in accordance with the requirements of the COUNTY of the utility. Before any excavation is performed, CONTRACTOR shall call Ohio Utility Protection Service (OUPS) to have underground utilities located and marked. It shall be the CONTRACTOR's responsibility to verify utility locations and allow for their locations. The CONTRACTOR shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage done to utilities shall be immediately and completely repaired at the CONTRACTOR's expense.
- B. All utilities crossed by trenchless pipe installation shall be potholed or the CONTRACTOR shall provide a letter from the utility stating the depth of their utility. Costs for this work shall be included with the applicable trenchless pipe installation bid item.

1.04 SUBSURFACE CONDITIONS

- A. Available geotechnical data (boring logs and test reports) are provided in the document prepared by _____, titled " _____ " dated _____.

1.05 JACK AND BORE

- A. This item shall be constructed in accordance with the applicable sections of Item 603 of the Ohio Department of Transportation (ODOT) Construction and Material Specifications (CMS) and according to the notes and details shown on the Drawings.
- B. The bore shall be reasonably close to the proposed grade (no pockets or bellies will be permitted) and large enough to accommodate not only the pipe, but also some means of introducing the backfill. The annular space between the outside of the pipe and the bore shall be completely filled with a lean (1 to 8) mixture of cement and sand, or cement, sand, and pea gravel rammed or blown into place dry. Cellular concrete mix designs, to fill the annular space, may be proposed by CONTRACTOR for COUNTY approval. Mix designs must achieve a minimum compressive strength of 150 psi. Do not use foam or admixtures that promote steel corrosion. Some positive means to insure that the space is completely filled shall be used.

- C. The length of conduit to be paid shall be the actual number of linear feet measured from one end of the bored casing to the other end of the bored casing. The maximum footage that will be paid under this item will be that shown on the plans, unless otherwise directed by the COUNTY.
- D. PVC, as shown on the Drawings and in accordance with Section 33 30 00 “Sanitary Sewerage Utilities”, shall be installed inside the steel casing pipe within the limits of the Jack and Bore.
- E. Jacking and receiving pits will not be paid for as a separate pay item. All associated costs for jacking and receiving pits shall be included in the price bid for this item. The location and dimensions of the jacking and receiving pits, as determined by the CONTRACTOR, shall be approved by the COUNTY prior to any excavation operations.

1.06 DIRECTIONAL DRILL (Option for Clear Creek Crossing Only)

- A. This item covers the requirements for furnishing all labor, equipment, and materials associated with the installation of a high-density polyethylene (HDPE) gravity sanitary sewer pipe by directional drilling method. The Work specified herein shall include:
 - 1. Excavation of a pilot hole at prescribed line and grade.
 - 2. Excavation of drilling and receiving pits.
 - 3. Pre-reaming of the hole.
 - 4. Pullback of the HDPE pipe through the hole.
 - 5. Pressure testing of the HDPE pipe.
 - 6. Grouting of the annulus void between excavation and pipe.
 - 7. All incidental work such as horizontal and vertical control points, grids, permits, slurry treatment and disposal, shoring and casing of the pits if required, and all else necessary for the complete installation of the pipe in accordance with these specifications and Drawings.

B. The CONTRACTOR shall be responsible for providing access to each pit. CONTRACTOR shall receive approval from the COUNTY prior to starting excavation for each pit. The CONTRACTOR is responsible for getting approval to use the any water required for drilling operations and for storage, safety, and security of all pipe and equipment on the Site

C. Guidance System

1. The directional drilling guidance system shall have the capability of measuring vertical and horizontal positions and roll. The guidance system must meet the following accuracy levels:

a.	Vertical position	± 1 inch at	1.5 to 8	feet of depth
b.		± 2 inches at	8 to 12	feet of depth
c.		± 4 inches at	12 to 15	feet of depth
d.		± 6 inches at	15 to 25	feet of depth
e.		± 10 inches at	more than 25	feet of depth
f.	Horizontal position	± 2 inches at	1.5 to 8	feet of depth
g.		± 4 inches at	8 to 12	feet of depth
h.		± 6 inches at	12 to 15	feet of depth
i.		± 12 inches at	15 to 25	feet of depth
j.		± 24 inches at	more than 25	feet of depth
k.	Roll	± 0.1° over a range of 0° to 360°		

2. Sewer grade transmitters must give pitch in 0.1 percent increments. Contractor shall use pitch reading as the primary tool with depth readings as a backup. Pitch readings shall be taken at the same clock reading.
3. Furnish manufacturer's certificate that the guidance system meets these requirements.
4. The CONTRACTOR shall demonstrate a viable method to eliminate error.
5. The guidance system shall be capable of generating a plot of the bore hole survey for the purpose of an as-built drawing.

D. Carrier Pipe

1. Tolerance requirements for the installed carrier pipe are performance oriented. Tolerances specified herein are the minimum requirements. It is the sole responsibility of the CONTRACTOR to select the appropriate types of equipment, work methods, and procedures to meet the tolerance requirements specified herein.
2. The carrier pipe is to convey sewer by gravity, therefore, it is essential that no changes in the pipe slope occur and that a downward slope be maintained throughout the entire length of the pipe. The ends of the pipe shall be located (horizontally and vertically) such that the pipe can be tied to other segments of the sewer line without backpitch, bellies (poor vertical alignment) or ponding water.
3. Pipes installed not meeting the tolerance requirement specified herein will be rejected. It will be the responsibility of the CONTRACTOR to replace it with a pipe meeting these requirements.
4. Line and grade deviations at the upstream end shall not exceed twelve (12) and six (6) inches, respectively.
5. Deviation from horizontal alignment of either end shall not exceed five (5) feet. Deviation from grade at both ends of pipe shall not exceed one (1) foot.
6. No ten (10) foot long segment of pipe shall have a slope less than 1.3 percent nor greater than 1.4 percent.

E. Qualifications

1. Directional drilling CONTRACTOR shall have actively engaged in the installation of pipe using guided boring for a minimum of three years, with at least three projects in similar ground with similar size and length.
2. Field supervisory personnel employed by the directional drilling contractor shall have at least five years experience in the performance of the work.

F. Submittals

1. Submit documentation showing three years of directional drilling experience with projects similar in scope and value to the project specified in the Contract Documents. Information must include, but not limited to, date and duration of work, location, pipe information (i.e., length, diameter, depth of installation, pipe material, etc.), project owner information, (i.e., name, address, telephone number, contact person), and the contents handled by the pipeline (water, wastewater, etc.).
2. Submit a list of field supervisory personnel and their experience with guided boring operations. At least one of the field supervisors listed must be at the site and be responsible for all work at all times when guided boring operations are in progress. Guided boring operations will not proceed until the resume(s) of the CONTRACTOR'S field supervisory personnel have been received and reviewed by the COUNTY.

3. Submit an as-built survey of the pilot hole prior to pre-reaming and an as-built survey of the carrier pipe upon completion of the Work, indicating conformance with the specified requirements.
4. Submit the following drawings and documents:
 - a. Working drawings and written procedure describing in detail the proposed method of installation. This shall include, but not be limited to, size, capacity and setup requirements of equipment, location and siting of drilling and receiving pits, dewatering if applicable, method of fusion and type of equipment for joining pipe, type of cutting tool head, and the method of monitoring and controlling line and grade. Submit the required certifications. If the CONTRACTOR determines that the modifications to the method and equipment as stated in the submittal is necessary during construction, the contractor shall submit a plan describing such modifications, including the reasons for the modification. Work shall not start until the COUNTY reviews submittals.
 - b. Bentonite drilling mud products information (MSDS); special precautions necessary, method of mixing and application, and method of capture, removing and disposal of the spoils.
5. Furnish manufacturer's certificate stating that the guidance system meets the tolerances specified in Item C of this specification.

G. Site Conditions

1. Drilling operations must not interfere with, or endanger surface and activity upon the surface. Areas outside designated work areas should not be disturbed.
2. CONTRACTOR must comply with all applicable jurisdictional codes and OSHA requirements.

H. Pipe and Fitting:

1. The pipe supplied under this specification shall be higher performance, high molecular weight, high-density polyethylene pipe. The pipe material shall be a Type III, Class C, Category 5, PE33 material as described in ASTM D 3350. Minimum cell classification values of the pipe material shall be (3 4 5 4 3 4 C) as referenced in ASTM D 3350. The SDR shall be as specified on the Drawings. The fittings supplied under this specification shall be molded from a polyethylene compound having a cell classification equal to or exceeding the cell classification of the pipe supplied under this specification.

I. Physical Properties of Pipe and Pipe Compound:

1. Density-The density shall be 0.941-0.957 gms/cm when tested in accordance with ASTM D 1505.
2. Melt Flow- Melt Flow shall be no greater than 0.11 gms/10 min. When tested in accordance with ASTM D 1238- Condition E.
3. Flex Modulus- Flex Modulus shall be 110,000 psi to less than 160,000 psi when tested in accordance with ASTM D 790.
4. Tensile Strength at Yield- Tensile strength at yield shall be 3,200 PSI to less than 3,500 PSI when tested in accordance with ASTM D 638.
5. ESCR- Environmental Stress Crack Resistance shall be in excess of 5,000 hours with zero failures when tested in accordance with ASTM D 1693- Condition C.
6. Hydrostatic Design Basic shall be 1,600 psi at 23-C when tested in accordance with ASTM D 2837.

- J. Backfill grout shall be pumped into the void between the pipe and the hole. The grout mix shall be submitted to the COUNTY for review.
- K. If the CONTRACTOR chooses to submit a bid, which does not meet all requirements of this specification, the bid shall include a written description of the deviation with data, which shows the magnitude of the deviation and the justification for the deviation from this specification.
- L. Submit certified lab data or manufacturer's written certifications to verify the physical properties of the materials supplied under this specification.
- M. Polyethylene pipe and fittings may be rejected for failure to meet any of the requirements of this specification.
- N. Pipe supplied under this specification shall be a nominal DIPS (Ductile Iron Pipe Size). The SDR (Standard Dimension Ratio) of the pipe supplied shall have a **minimum** wall thickness provided by SDR 11. The CONTRACTOR shall submit for **review** the pipe material, final inside diameter and final SDR thickness to be used on the project, including supporting design and performance data that demonstrates the pipe will be able to withstand all anticipated loads, including construction loads. The inside pipe diameter chosen shall be reviewed and approved by the COUNTY prior to ordering the pipe.
- O. It is the responsibility of the CONTRACTOR to implement means and procedures compatible with anticipated ground conditions.
- P. The COUNTY must be notified immediately if any condition is encountered that stops the forward progress of drilling operations. The CONTRACTOR and COUNTY must review the situation and jointly determine the feasibility of continuing drilling operations. When it is determined that it is impossible to continue drilling operations, the CONTRACTOR will be allowed to abandon the completed portion in place and start a new hole as directed by the COUNTY.
- Q. The CONTRACTOR shall follow the pipeline alignment as shown on the Drawings, within the specified tolerances. If adjustments are required, the CONTRACTOR shall notify the COUNTY for approval prior to making the adjustments.
- R. In the event of difficulties at any time during boring operations requiring the complete withdrawal from the tunnel, the CONTRACTOR shall be allowed to withdraw and abandon the tunnel and begin a second attempt at a location approved by the COUNTY. The abandoned tunnel shall be filled with Controlled Low Strength Material (CLSM).
- S. Installation of the product pipe shall be in accordance with the following:
 - 1. After the pilot hole is completed, the CONTRACTOR shall enlarge the hole by pre-reaming, and install a swivel to the reamer and commence pullback operations.
 - 2. Reaming diameter shall not exceed 1.5 times the diameter of the product pipe being installed, and shall be kept as small as possible.
 - 3. The product pipe being pulled into the tunnel shall be protected and supported so that it moves freely and is not damaged by debris on the ground during installation.
 - 4. Pullback forces shall not exceed the allowable pulling forces for the product pipe. The thickness of the pipe is to be increased, at no additional costs, if pullback forces are anticipated to exceed the allowable pulling force on the specified pipe.

5. The CONTRACTOR shall allow sufficient lengths of product pipe to extend pass the termination point to allow connections to adjacent pipe sections or manholes. Pulled pipe shall be allowed 7 days of stabilization prior making tie-ins. The length of extra product pipe shall be at the CONTRACTOR'S discretion and cost.
6. Restraint of pipe ends shall be achieved by means of Central Plastics (800) 654-3872 Electrofusion Flex Restraints, or approved equal. There is no guarantee that an equal is available. The Electrofusion Restraints shall be slipped over pipe ends against manhole wall and fused in place. Installation of Electrofusion Restraints shall be done in accordance with the manufacturer's procedures.

T. Drilling fluid shall be in accordance with the following:

1. Drilling fluid shall be a mixture of water and Bentonite clay. The fluid shall be inert.
2. Disposal of excess drilling fluid and spoils will be the responsibility of the CONTRACTOR who shall comply with all relevant regulations, right-of-way, work space and permit agreements. Excess drilling fluid and spoils shall be disposed at an approved location. The CONTRACTOR is responsible for transporting all excess drilling fluid and spoils to the disposal site and paying any disposal costs. Excess drilling fluid and spoils shall be transported in a manner that prevents accidental spillage onto roadways. Excess drilling fluid and spoils shall not be discharged into sanitary or storm systems, ditches or waterways.
3. Drilling fluid returns (caused by fracturing of formations) at locations other than the entry and exit points shall be minimized. The CONTRACTOR shall immediately clean up any drilling fluid that surfaces through fracturing.
4. The CONTRACTOR shall be responsible for making provisions for a clean water supply for mixing of drilling fluid.

U. Construction practices shall be in accordance with the following:

1. Handling of Pipe: Pipe shall be stored on clean, level ground to prevent undue scratching or gouging of the pipe. If the pipe must be stacked for storage, such stacking should be in accordance with the pipe manufacturer's recommendations. The pipe should be handled in such that it is not damaged by being dragged over sharp objects or cut by chokers of lifting equipment.
2. Repair of Damaged Sections: Segments of pipe having cuts or gouges on the exterior of the pipe in excess of 10 % of the wall thickness of the pipe shall be cut out and removed. The undamaged portions of the pipe shall be rejoined using the butt fusion joining method.
3. Pipe Joining: Sections of polyethylene pipe should be joined into continuous lengths on the Job Site above ground. The joining method shall be performed in strict accordance with the pipe manufacturer's recommendations. The butt fusion equipment used in the joining procedure shall be capable of meeting all conditions alignment, and fusion pressure. The internal fusion bead should be trimmed out by a knifing action. Grinding, sawing, or tearing of the internal bead shall not be acceptable. Proper internal bead removal should extract a complete internal fusion bead for inspection. The extracted internal bead should have the double roll back appearance. Along with a smooth root cut of the wall area, this may include wall mass, but shall not exceed 1/10th of the wall thickness of the pipe itself.
4. Handling of Fused Pipe: Fused segments of pipe shall be handled to avoid damage to the pipe. When lifting fused sections of pipe, chains or cable type chokers should be avoided. Nylon slings preferred. Care should be exercised to avoid cutting or gouging the pipe.
5. The machine shall have the following minimum design features:
 - a. Downhole tools, including bits, housing, and reamers shall be specifically designed for gravity installations.

- b. Guide rods: shall be in a plane that passes through the centerline of the pipe thus canceling the bending forces in the machine caused by the fusion forces.
- c. The Clamps: shall be mechanically or hydraulically operated and have the strength to “round up” the pipe close to the fused joint, be adjustable for “high/low” of the pipe, and clamp each piece of pipe on continuing straight centerline. The jaws shall be designed for quick installation and removal of inserts for smaller pipe sizes.
- d. The Heater Plate: shall be electrically heated, and thermostatically temperature controlled. The surface shall be smooth with a high quality Ryton coating. The machine shall be capable of maintaining the surface temperature set at pipe manufacturer’s recommended temperature range. The heater plate shall be equipped with an indicating thermometer but surface temperatures should be checked with a pyrometer occasionally. The heater surface shall be kept clean and free from plastic accumulation.
- e. The Hydraulically Operated Machines: shall have a pressure regulator to preset the correct pressure for the desired fusion force, and there shall be an auxiliary system to control “feed” rate for the pipe face-off. Each machine shall be permanently equipped with a chart showing correct fusion pressure for each pipe size and wall thickness (SDR).

V. Hydrostatic Pressure Testing

- 1. At the CONTRACTOR’S option, hydrostatic pressure testing of the pipe may be done each time after fusing several segments of the HDPE pipe segments together on the surface. The testing is intended to verify proper fusion of the pipe segments prior to pulling the pipe through the hole, but will not verify proper fusion of these segments to those previously pulled through the hole. The test shall be conducted at a minimum 25 psi.
- 2. Once the pipe is pulled through the hole, it shall be tested at a minimum pressure of 25 psi at the invert of the upstream manhole for 4 hours to verify that the pipe or pipe joints have no cracks because of the pullback.
- 3. Air testing is not acceptable for the HDPE sewer.
- 4. Pipe not holding the specified pressure for the test duration shall be removed from the hole, repaired, and installed and tested again.
- 5. The cost of the hydrostatic test shall be included in the bid price for the appropriate sections of conduit.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 SAFETY

- A. Perform work in accordance with the current applicable regulations of the Federal, State, and Local Agencies, including, but not limited to, CFR 29 Part 1926, Subpart S, Underground Construction.

3.02 AS-BUILT-PLANS

- A. Provide the COUNTY with a complete set of As-Built-Plans showing all trenchless installations within 30 calendar days of completion of the Work. Plans must be dimensionally correct copies of the Contract plans. Include notes on the plans stating the final pipe path diameter, casing diameter (if applicable), drilling fluid composition, composition of any other materials used to fill the annular void between the bore path and the casing. Note the size and type of carrier pipes to be placed within the casing as part of the Work.

END OF SECTION 317000

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Hot-mix asphalt paving.
2. Hot-mix asphalt overlay.
3. Cold milling of existing asphalt pavement.
4. Hot-mix asphalt patching.
5. Asphalt surface treatments.

B. Related Requirements:

1. Section 024116 "Structure Demolition" and Section 024119 "Selective Demolition"]for demolition and removal of existing asphalt pavement.
2. Section 312000 "Earth Moving" for subgrade preparation, fill material, separation geotextiles, unbound-aggregate subbase and base courses, and aggregate pavement shoulders.
3. Section 321313 "Concrete Paving" for concrete pavement and for separate concrete curbs, gutters, and driveway aprons.

1.3 UNIT PRICES – NOT USED

1.4 PREINSTALLATION MEETINGS – NOT USED

1.5 ACTION SUBMITTALS

- A. Product Data: Include technical data and tested physical and performance properties.

1. Herbicide.
2. Paving geotextile.
3. Joint sealant.

B. Hot-Mix Asphalt Designs:

1. For each hot-mix asphalt design proposed for the Work.

- C. Samples for Verification: For the following product, in manufacturer's standard sizes unless otherwise indicated:

- 1. Paving Geotextile: 12 by 12 inches minimum.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For paving-mix manufacturer and testing agency.
- B. Material Certificates: Include statement that mixes containing recycled materials will perform equal to mixes produced from all new materials.
 - 1. Aggregates.
 - 2. Asphalt binder.
 - 3. Asphalt cement.
 - 4. Cutback prime coat.
 - 5. Emulsified asphalt prime coat.
 - 6. Tack coat.
 - 7. Fog seal.
 - 8. Undersealing asphalt.
- C. Field quality-control reports.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by authorities having jurisdiction or the DOT of state in which Project is located.
- B. Testing Agency Qualifications: Qualified in accordance with ASTM D3666 for testing indicated.
- C. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of Ohio Department of Transportation (ODOT) for asphalt paving work.
 - 1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

1.8 FIELD CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
 - 1. Prime Coat: Minimum surface temperature of 60 deg F.
 - 2. Tack Coat: Minimum surface temperature of 60 deg F.
 - 3. Slurry Coat: Comply with weather limitations in ASTM D3910.
 - 4. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
 - 5. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.
- B. Coarse Aggregate: ASTM D692/D692M, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.
- C. Fine Aggregate: ASTM D1073 or AASHTO M 29, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag, or combinations thereof.
 - 1. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.
- D. Mineral Filler: ASTM D242/D242M or AASHTO M 17, rock or slag dust, hydraulic cement, or other inert material.

2.2 ASPHALT MATERIALS

- A. Asphalt Binder: ASTM D6373 or AASHTO M 320 binder designation PG 64-22.
- B. Asphalt Cement: ASTM D3381/D3381M for viscosity-graded material.
- C. Cutback Prime Coat: ASTM D2027/D2027M, medium-curing cutback asphalt, MC-30 or MC-70.
- D. Emulsified Asphalt Prime Coat: ASTM D977 or AASHTO M 140 emulsified asphalt, or ASTM D2397/D2397M or AASHTO M 208 cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.
- E. Tack Coat: ASTM D977 or AASHTO M 140 emulsified asphalt, or ASTM D2397/D2397M or AASHTO M 208 cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.
- F. Fog Seal: ASTM D977 or AASHTO M 140 emulsified asphalt, or ASTM D2397/D2397M or AASHTO M 208 cationic emulsified asphalt, slow setting, factory diluted in water, of suitable grade and consistency for application.
- G. Water: Potable.
- H. Undersealing Asphalt: ASTM D3141/D3141M; pumping consistency.

2.3 AUXILIARY MATERIALS

- A. Recycled Materials for Hot-Mix Asphalt Mixes: Reclaimed asphalt pavement; reclaimed, unbound-aggregate base material; and recycled tires, asphalt shingles, or glass from sources and

gradations that have performed satisfactorily in previous installations, equal to performance of required hot-mix asphalt paving produced from all new materials.

- B. Herbicide: Commercial chemical for weed control, registered by the EPA, and not classified as "restricted use" for locations and conditions of application. Provide in granular, liquid, or wettable powder form.
- C. Sand: ASTM D1073 or AASHTO M 29, Grade No. 2 or No. 3.
- D. Paving Geotextile: AASHTO M 288 paving fabric; nonwoven polypropylene; resistant to chemical attack, rot, and mildew; and specifically designed for paving applications.
- E. Joint Sealant: ASTM D6690, **Type II or III**, hot-applied, single-component, polymer-modified bituminous sealant.

2.4 MIXES

A. Recycled Content

1. Surface Course Limit: Recycled content no more than 10 percent by weight.

B. Hot-Mix Asphalt: Dense-graded, hot-laid, hot-mix asphalt plant mixes [approved by authorities having jurisdiction] [; designed in accordance with procedures in AI MS-2, "Asphalt Mix Design Methods";] and complying with the following requirements:

- 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.
- 2. Base Course: Ohio DOT Item 301.
- 3. Binder Course: Ohio DOT Item 441 Intermediate, Type 2.
- 4. Surface Course: Ohio DOT Item 441 Surface, Type 1.

C. Emulsified-Asphalt Slurry: ASTM D3910, [**Type 2**] or [**Type 3**].

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that subgrade is dry and in suitable condition to begin paving.
- B. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protection: Provide protective materials, procedures, and worker training to prevent asphalt materials from spilling, coating, or building up on curbs, driveway aprons, manholes, and other surfaces adjacent to the Work.

- B. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 - 1. Completely proof-roll subgrade in one direction. Limit vehicle speed to 3 mph.
 - 2. Proof-roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons.
 - 3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.

3.3 COLD MILLING – NOT USED

3.4 PATCHING

- A. Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into perimeter of adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.
- B. Portland Cement Concrete Pavement: Break cracked slabs and roll as required to reseal concrete pieces firmly.
 - 1. Undersealing: Pump hot undersealing asphalt under rocking slab until slab is stabilized or, if necessary, crack slab into pieces and roll to reseal pieces firmly.
 - 2. Remove disintegrated or badly cracked pavement. Excavate rectangular or trapezoidal patches, extending into perimeter of adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Recompact existing unbound-aggregate base course to form new subgrade.
- C. Tack Coat: Before placing patch material, apply tack coat uniformly to vertical asphalt surfaces abutting the patch. Apply at a rate of 0.05 to 0.15 gal./sq. yd.
 - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.
- D. Placing Two-Course Patch Material: Partially fill excavated pavements with hot-mix asphalt base course mix and, while still hot, compact. Cover asphalt base course with compacted layer of hot-mix asphalt surface course, finished flush with adjacent surfaces.

3.5 REPAIRS

- A. Leveling Course: Install and compact leveling course consisting of hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch in existing pavements.
 - 1. Install leveling wedges in compacted lifts not exceeding 3 inches thick.
- B. Crack and Joint Filling: Remove existing joint filler material from cracks or joints to a depth of 1/4 inch.

1. Clean cracks and joints in existing hot-mix asphalt pavement.
2. Use emulsified-asphalt slurry to seal cracks and joints less than 1/4 inch wide. Fill flush with surface of existing pavement and remove excess.
3. Use hot-applied joint sealant to seal cracks and joints more than 1/4 inch wide. Fill flush with surface of existing pavement and remove excess.

3.6 SURFACE PREPARATION

- A. Ensure that prepared subgrade has been proof-rolled and is ready to receive paving. Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces.
- B. Herbicide Treatment: Apply herbicide in accordance with manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.
 1. Mix herbicide with prime coat if formulated by manufacturer for that purpose.
- C. Cutback Prime Coat: Apply uniformly over surface of compacted unbound-aggregate base course at a rate of 0.15 to 0.50 gal./sq. yd. Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure.
 1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
 2. Protect primed substrate from damage until ready to receive paving.
- D. Emulsified Asphalt Prime Coat: Apply uniformly over surface of compacted unbound-aggregate base course at a rate of 0.10 to 0.30 gal./sq. yd. per inch depth. Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure.
 1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
 2. Protect primed substrate from damage until ready to receive paving.
- E. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd.
 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.7 INSTALLATION OF PAVING GEOTEXTILE – NOT USED

3.8 HOT-MIX ASPHALT PLACEMENT

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
 - 1. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
 - 2. Place hot-mix asphalt surface course in single lift.
 - 3. Spread mix at a minimum temperature of 250 deg F.
 - 4. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
 - 5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.
 - 1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Overlap mix placement about 1 to 1-1/2 inches from strip to strip to ensure proper compaction of mix along longitudinal joints.
 - 2. Complete a section of asphalt base course before placing asphalt surface course.
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.9 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
 - 1. Clean contact surfaces and apply tack coat to joints.
 - 2. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
 - 3. Offset transverse joints, in successive courses, a minimum of 24 inches.
 - 4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method in accordance with AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."
 - 5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
 - 6. Compact asphalt at joints to a density within 2 percent of specified course density.

3.10 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
 - 1. Complete compaction before mix temperature cools to 185 deg F.
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
 - 1. Average Density, Marshall Test Method: 96 percent of reference laboratory density in accordance with ASTM D6927 or AASHTO T 245, but not less than 94 percent or greater than 100 percent.
 - 2. Average Density, Rice Test Method: 92 percent of reference maximum theoretical density in accordance with ASTM D2041/D2041M, but not less than 90 percent or greater than 96 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.11 ASPHALT CURBS – NOT USED

3.12 ASPHALT TRAFFIC-CALMING DEVICES – NOT USED

3.13 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce thickness indicated within the following tolerances:
 - 1. Base Course and Binder Course: Plus or minus 1/2 inch.

2. Surface Course: Plus 1/4 inch, no minus.
- B. Pavement Surface Smoothness: Compact each course to produce surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
1. Base Course and Binder Course: 1/4 inch.
 2. Surface Course: 1/8 inch.
 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch.

3.14 SURFACE TREATMENTS

- A. Fog Seals: Apply fog seal at a rate of 0.10 to 0.15 gal./sq. yd. to existing asphalt pavement and allow to cure. With fine sand, lightly dust areas receiving excess fog seal.
- B. Slurry Seals: Apply slurry coat in a uniform thickness in accordance with ASTM D3910 and allow to cure.
1. Roll slurry seal to remove ridges and provide a uniform, smooth surface.

3.15 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined in accordance with ASTM D3549/D3549M.
- C. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.
- D. In-Place Density: Testing agency will take samples of uncompacted paving mixtures and compacted pavement in accordance with ASTM D979/D979M or AASHTO T 168.
1. Reference maximum theoretical density will be determined by averaging results from four samples of hot-mix asphalt-paving mixture delivered daily to site, prepared in accordance with ASTM D2041/D2041M, and compacted in accordance with job-mix specifications.
 2. In-place density of compacted pavement will be determined by testing core samples in accordance with ASTM D1188 or ASTM D2726/D2726M.
 - a. One core sample will be taken for every 1000 sq. yd. or less of installed pavement, with no fewer than three cores taken.
 - b. Field density of in-place compacted pavement may also be determined by nuclear method in accordance with ASTM D2950/D2950M and coordinated with ASTM D1188 or ASTM D2726/D2726M.
- E. Replace and compact hot-mix asphalt where core tests were taken.

- F. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.16 WASTE HANDLING

- A. General: Handle asphalt-paving waste in accordance with approved waste management plan required in Section 017419 "Construction Waste Management and Disposal."

END OF SECTION 321216

SECTION 321313 - CONCRETE PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes Concrete Paving:

1. Driveways.
2. Roadways.
3. Parking lots.
4. Curbs and gutters.
5. Walks.

- B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete"] for general building applications of concrete.

1.3 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash, slag cement, and other pozzolans.
- B. W/C Ratio: The ratio by weight of water to cementitious materials.

1.4 PREINSTALLATION MEETINGS – NOT USED

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples for Initial Selection: For each type of product, ingredient, or admixture requiring color selection.
- C. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer of stamped detectable warnings, ready-mix concrete manufacturer, and testing agency.
- B. Material Certificates: For the following, from manufacturer:
 - 1. Cementitious materials.
 - 2. Steel reinforcement and reinforcement accessories.
 - 3. Fiber reinforcement.
 - 4. Admixtures.
 - 5. Curing compounds.
 - 6. Applied finish materials.
 - 7. Bonding agent or epoxy adhesive.
 - 8. Joint fillers.
- C. Material Test Reports: For each of the following:
 - 1. Aggregates: Include service-record data indicating absence of deleterious expansion of concrete due to alkali-aggregate reactivity.
- D. Field quality-control reports.

1.7 QUALITY ASSURANCE

- A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.
 - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control Manual - Section 3, "Plant Certification Checklist").
- B. Testing Agency Qualifications: Qualified according to ASTM C1077 and ASTM E329 for testing indicated.
 - 1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.

1.8 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Engage a qualified independent testing agency to perform preconstruction testing on concrete paving mixtures.

1.9 FIELD CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

- B. Cold-Weather Concrete Placement: Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing, or low temperatures. Comply with ACI 306.1 and the following:
 - 1. When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in design mixtures.

- C. Hot-Weather Concrete Placement: Comply with ACI 301 and as follows when hot-weather conditions exist:
 - 1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated in total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 - 2. Cover steel reinforcement with water-soaked burlap, so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
 - 3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

- A. ACI Publications: Comply with ACI 301 unless otherwise indicated.

2.2 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, and smooth exposed surfaces.
 - 1. Use flexible or uniformly curved forms for curves with a radius of 100 feet or less.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and that will not impair subsequent treatments of concrete surfaces.

2.3 STEEL REINFORCEMENT

- A. Plain-Steel Welded-Wire Reinforcement: ASTM A1064/A1064M, fabricated from galvanized-steel wire into flat sheets.
- B. Deformed-Steel Welded-Wire Reinforcement: ASTM A1064/A1064M, flat sheet.
- C. Epoxy-Coated Welded-Wire Reinforcement: ASTM A884/A884M, Class A, plain steel.

- D. Reinforcing Bars: ASTM A615/A615M, Grade 60; deformed.
- E. Galvanized Reinforcing Bars: ASTM A767/A767M, Class II zinc coated, hot-dip galvanized after fabrication and bending; with ASTM A615/A615M, Grade 60 deformed bars.
- F. Epoxy-Coated Reinforcing Bars: ASTM A775/A775M or ASTM A934/A934M; with ASTM A615/A615M, Grade 60 deformed bars.
- G. Steel Bar Mats: ASTM A184/A184M; with ASTM A615/A615M, Grade 60 deformed bars; assembled with clips.
- H. Plain-Steel Wire: ASTM A1064/A1064M, galvanized.
- I. Deformed-Steel Wire: ASTM A1064/A1064M.
- J. Epoxy-Coated-Steel Wire: ASTM A884/A884M, Class A; coated, plain.
- K. Joint Dowel Bars: ASTM A615/A615M, Grade 60 plain-steel bars; zinc coated (galvanized) after fabrication according to ASTM A767/A767M, Class I coating. Cut bars true to length with ends square and free of burrs.
- L. Epoxy-Coated, Joint Dowel Bars: ASTM A775/A775M; with ASTM A615/A615M, **Grade 60** plain-steel bars.
- M. Tie Bars: ASTM A615/A615M, Grade 60; deformed.
- N. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded-wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete specified, and as follows:
 - 1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.
 - 2. For epoxy-coated reinforcement, use epoxy-coated or other dielectric-polymer-coated wire bar supports.
- O. Epoxy Repair Coating: Liquid, two-part, epoxy repair coating, compatible with epoxy coating on reinforcement.
- P. Zinc Repair Material: ASTM A780/A780M.

2.4 CONCRETE MATERIALS

- A. Cementitious Materials: Use the following cementitious materials, of same type, brand, and source throughout Project:
 - 1. Portland Cement: ASTM C150/C150M, **gray** portland cement **Type I/II**.
 - 2. Fly Ash: ASTM C618, Class C or Class F.
 - 3. Slag Cement: ASTM C989/C989M, Grade 100 or 120.
 - 4. Blended Hydraulic Cement: ASTM C595/C595M, **Type II, Portland-limestone** cement.

- B. Normal-Weight Aggregates: ASTM C33/C33M, **Class 4S** , uniformly graded. Provide aggregates from a single source with documented service-record data of at least 10 years' satisfactory service in similar paving applications and service conditions using similar aggregates and cementitious materials.
 - 1. Maximum Coarse-Aggregate Size: [1-1/2 inches] nominal.
 - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Exposed Aggregate: Selected, hard, and durable; washed; free of materials with deleterious reactivity to cement or that cause staining; from a single source, with gap-graded coarse aggregate as follows:
 - 1. Aggregate Sizes: 3/4 to 1 inch nominal.
- D. Air-Entraining Admixture: ASTM C260/C260M.
- E. Chemical Admixtures: Admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.
 - 1. Water-Reducing Admixture: ASTM C494/C494M, Type A.
 - 2. Retarding Admixture: ASTM C494/C494M, Type B.
 - 3. Water-Reducing and Retarding Admixture: ASTM C494/C494M, Type D.
 - 4. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.
 - 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C494/C494M, Type G.
 - 6. Plasticizing and Retarding Admixture: ASTM C1017/C1017M, Type II.
- F. Color Pigment: ASTM C979/C979M, synthetic mineral-oxide pigments or colored water-reducing admixtures; color stable, free of carbon black, nonfading, and resistant to lime and other alkalis.
 - 1. Color: As indicated by manufacturer's designation.
- G. Water: Potable and complying with ASTM C94/C94M.

2.5 FIBER REINFORCEMENT

- A. Synthetic Fiber: Monofilament polypropylene fibers engineered and designed for use in decorative concrete paving, complying with ASTM C1116/C1116M, Type III, 1/2 to 1-1/2 inches long.
- B. Synthetic Fiber: Fibrillated polypropylene fibers engineered and designed for use in decorative concrete paving, complying with ASTM C1116/C1116M, Type III, 1/2 to 1-1/2 inches long.

2.6 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry or cotton mats.
- B. Moisture-Retaining Cover: ASTM C171, polyethylene film or white burlap-polyethylene sheet.

- C. Water: Potable.
- D. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete.

2.7 RELATED MATERIALS

- A. Joint Fillers: ASTM D1751, asphalt-saturated cellulosic fiber or ASTM D1752, cork or self-expanding cork in preformed strips.
- B. Slip-Resistive Aggregate Finish: Factory-graded, packaged, rustproof, nonglazing, abrasive aggregate of fused aluminum-oxide granules or crushed emery aggregate containing not less than 50 percent aluminum oxide and not less than 20 percent ferric oxide; unaffected by freezing, moisture, and cleaning materials.
- C. Bonding Agent: ASTM C1059/C1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
- D. Epoxy-Bonding Adhesive: ASTM C881/C881M, two-component epoxy resin capable of humid curing and bonding to damp surfaces; of class suitable for application temperature, of grade complying with requirements, and of the following types:
 - 1. Types I and II, nonload bearing or Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.
- E. Chemical Surface Retarder: Water-soluble, liquid, set retarder with color dye, for horizontal concrete surface application, capable of temporarily delaying final hardening of concrete to a depth of 1/8 to 1/4 inch.
- F. Pigmented Mineral Dry-Shake Hardener: Factory-packaged, dry combination of portland cement, graded quartz aggregate, color pigments, and plasticizing admixture. Use color pigments that are finely ground, nonfading mineral oxides interground with cement.
 - 1. Color: As indicated by manufacturer's designation
- G. Rock Salt: Sodium chloride crystals, kiln dried, coarse gradation with 100 percent passing 3/8-inch sieve and 85 percent retained on a No. 8 sieve.

2.8 STAMPED DETECTABLE WARNING MATERIALS – NOT USED

2.9 CONCRETE MIXTURES

- A. Prepare design mixtures, proportioned according to ACI 301, for each type and strength of normal-weight concrete, and as determined by either laboratory trial mixtures or field experience.
 - 1. Use a qualified independent testing agency for preparing and reporting proposed concrete design mixtures for the trial batch method.
 - 2. When automatic machine placement is used, determine design mixtures and obtain laboratory test results that comply with or exceed requirements.

- B. Cementitious Materials: Use fly ash, pozzolan, slag cement, and silica fume as needed to reduce the total amount of portland cement, which would otherwise be used, by not less than 40 percent.
- C. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows:
 - 1. Air Content: **5-1/2** percent plus or minus 1-1/2 percent for 1-1/2-inch nominal maximum aggregate size.
- D. Limit water-soluble, chloride-ion content in hardened concrete to [0.15] [0.30] percent by weight of cement.
- E. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use water-reducing admixture in concrete as required for placement and workability.
 - 2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
- F. Synthetic Fiber: Uniformly disperse in concrete mixture at manufacturer's recommended rate, but not less than [1.0 lb/cu. yd.] [1.5 lb/cu. yd.].
- G. Color Pigment: Add color pigment to concrete mixture according to manufacturer's written instructions and to result in hardened concrete color consistent with approved mockup.
- H. Concrete Mixtures: Normal-weight concrete.
 - 1. Compressive Strength (28 Days): [4000 psi .
 - 2. Maximum W/C Ratio at Point of Placement: 0.45 .
 - 3. Slump Limit: 5 inches >, plus or minus 1 inch.

2.10 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C94/C94M and ASTM C1116/C1116M. Furnish batch certificates for each batch discharged and used in the Work.
 - 1. When air temperature is between 85 and 90 deg F , reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.
- B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C94/C94M. Mix concrete materials in appropriate drum-type batch machine mixer.
 - 1. For concrete batches of 1 cu. yd. or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
 - 2. For concrete batches larger than 1 cu. yd., increase mixing time by 15 seconds for each additional 1 cu. yd.

3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixing time, quantity, and amount of water added.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove loose material from compacted subbase surface immediately before placing concrete.

3.3 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.4 STEEL REINFORCEMENT INSTALLATION

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Install welded-wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
- E. Zinc-Coated Reinforcement: Use galvanized-steel wire ties to fasten zinc-coated reinforcement. Repair cut and damaged zinc coatings with zinc repair material.
- F. Epoxy-Coated Reinforcement: Use epoxy-coated steel wire ties to fasten epoxy-coated reinforcement. Repair cut and damaged epoxy coatings with epoxy repair coating according to ASTM D3963/D3963M.

- G. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2-inch overlap of adjacent mats.

3.5 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.
 - 1. When joining existing paving, place transverse joints to align with previously placed joints unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.
 - 1. Continue steel reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of paving strips unless otherwise indicated.
 - 2. Provide tie bars at sides of paving strips where indicated.
 - 3. Butt Joints: Use bonding agent or epoxy-bonding adhesive at joint locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
 - 4. Keyed Joints: Provide preformed keyway-section forms or bulkhead forms with keys unless otherwise indicated. Embed keys at least 1-1/2 inches into concrete.
 - 5. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.
 - 1. Locate expansion joints at intervals of 50 feet unless otherwise indicated.
 - 2. Extend joint fillers full width and depth of joint.
 - 3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
 - 4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
 - 5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
 - 6. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows, to match jointing of existing adjacent concrete paving:
 - 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4-inch radius. Repeat grooving of contraction

joints after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.

- a. Tolerance: Ensure that grooved joints are within 3 inches either way from centers of dowels.
 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.
 - a. Tolerance: Ensure that sawed joints are within 3 inches either way from centers of dowels.
 3. Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.
- E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 3/8-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.

3.6 CONCRETE PLACEMENT

- A. Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast-in.
- B. Remove snow, ice, or frost from subbase surface and steel reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- D. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.
- E. Do not add water to concrete during delivery or at Project site. Do not add water to fresh concrete after testing.
- F. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- G. Consolidate concrete according to ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.
 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.
- H. Screed paving surface with a straightedge and strike off.

- I. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleedwater appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- J. Curbs and Gutters: Use design mixture for automatic machine placement. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing.
- K. Slip-Form Paving: Use design mixture for automatic machine placement. Produce paving to required thickness, lines, grades, finish, and jointing.
 - 1. Compact subbase and prepare subgrade of sufficient width to prevent displacement of slip-form paving machine during operations.

3.7 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleedwater sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
 - 1. Burlap Finish: Drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.
 - 2. Medium-to-Fine-Textured Broom Finish: Draw a soft-bristle broom across float-finished concrete surface, perpendicular to line of traffic, to provide a uniform, fine-line texture.
 - 3. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

3.8 SPECIAL FINISHES – NOT USED

3.9 DETECTABLE WARNING INSTALLATION – NOT USED

3.10 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing.

- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
 - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears occurring during installation or curing period, using cover material and waterproof tape.
 - 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating, and repair damage during curing period.

3.11 PAVING TOLERANCES

- A. Comply with tolerances in ACI 117 and as follows:
 - 1. Elevation: 3/4 inch.
 - 2. Thickness: Plus 3/8 inch, minus 1/4 inch.
 - 3. Surface: Gap below 10-feet-long; unlevelled straightedge not to exceed 1/2 inch.
 - 4. Alignment of Tie-Bar End Relative to Line Perpendicular to Paving Edge: 1/2 inch per 12 inches of tie bar.
 - 5. Lateral Alignment and Spacing of Dowels: 1 inch.
 - 6. Vertical Alignment of Dowels: 1/4 inch.
 - 7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Paving Edge: 1/4 inch per 12 inches of dowel.
 - 8. Joint Spacing: 3 inches.
 - 9. Contraction Joint Depth: Plus 1/4 inch, no minus.
 - 10. Joint Width: Plus 1/8 inch, no minus.

3.12 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Testing Services: Testing and inspecting of composite samples of fresh concrete obtained according to ASTM C172/C172M shall be performed according to the following requirements:
 - 1. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. or 5000 sq. ft. or fraction thereof of each concrete mixture placed each day.

- a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
2. Slump: ASTM C143/C143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C231/C231M, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C1064/C1064M; one test hourly when air temperature is 40 deg F and below and when it is 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C31/C31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
6. Compressive-Strength Tests: ASTM C39/C39M; test one specimen at seven days and two specimens at 28 days.
 - a. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at 28 days.
- C. Strength of each concrete mixture will be satisfactory if average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
- D. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- E. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
- F. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.
- G. Concrete paving will be considered defective if it does not pass tests and inspections.
- H. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- I. Prepare test and inspection reports.

3.13 REPAIR AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.
- B. Drill test cores, where directed by Architect, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory paving areas with portland cement concrete bonded to paving with epoxy adhesive.
- C. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 321313

SECTION 329200 - TURF AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Seeding.
- 2. Hydroseeding.
- 3. Erosion-control materials.

- B. Related Requirements:

- 1. Section 329300 "Plants" for trees, shrubs, ground covers, and other plants as well as border edgings and mow strips.

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- D. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- E. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.4 PREINSTALLATION MEETINGS – NOT USED

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For landscape Installer.

- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture, stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of turf during a calendar year. Submit before expiration of required maintenance periods.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful turf establishment.
 - 1. Experience: Three years' experience in turf installation in addition to requirements in Section 014000 "Quality Requirements."
 - 2. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws, as applicable.
- B. Bulk Materials:
 - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 - 3. Accompany each delivery of bulk materials with appropriate certificates.

1.9 FIELD CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of planting completion.
 - 1. Spring Planting: March 15 to April 15.
 - 2. Fall Planting: August 15 to October 31.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species:
 - 1. Quality, Non-State Certified: Seed of grass species as listed below for solar exposure, with not less than 85 percent germination, not less than 95 percent pure seed, and not more than 0.5 percent weed seed:
 - 2. Full Sun, Cool-Season Grass: Kentucky bluegrass (*Poa pratensis*), a minimum of three cultivars.
 - 3. Sun and Partial Shade, Cool-Season Grass: Proportioned by weight as follows:
 - a. 50 percent Kentucky bluegrass (*Poa pratensis*).
 - b. 30 percent chewings red fescue (*Festuca rubra* variety).
 - c. 10 percent perennial ryegrass (*Lolium perenne*).
 - d. 10 percent redtop (*Agrostis alba*).
 - 4. Shade, Cool-Season Grass: Proportioned by weight as follows:
 - a. 50 percent chewings red fescue (*Festuca rubra* variety).
 - b. 35 percent rough bluegrass (*Poa trivialis*).
 - c. 15 percent redtop (*Agrostis alba*).

2.2 TURFGRASS SOD – NOT USED

2.3 PLUGS – NOT USED

2.4 SPRIGS – NOT USED

2.5 MEADOW GRASSES AND WILDFLOWERS: NOT USED

2.6 FERTILIZERS

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - 1. Composition:
 - a. 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
 - b. Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

2.7 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
- C. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.

2.8 PESTICIDES

- A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

2.9 EROSION-CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches long.
- B. Erosion-Control Fiber Mesh: Biodegradable burlap or spun-coir mesh, a minimum of 0.92 lb/sq. yd., with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples, 6 inches long.
- C. Erosion-Control Mats: Cellular, nonbiodegradable slope-stabilization mats designed to isolate and contain small areas of soil over steeply sloped surface, of [3-inch] [4-inch] [6-inch] nominal mat thickness. Include manufacturer's recommended anchorage system for slope conditions.

2.10 GRASS-PAVING MATERIALS: NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.

1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

3.2 PREPARATION

- A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
 2. Protect grade stakes set by others until directed to remove them.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 TURF AREA PREPARATION

- A. General: Prepare planting area for soil placement and mix planting soil according to Section 329113 "Soil Preparation."
- B. Placing Planting Soil: **Blend planting soil in place.**
- C. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- D. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 PREPARATION FOR EROSION-CONTROL MATERIALS

- A. Prepare area as specified in "Turf Area Preparation" Article.
- B. For erosion-control mats, install planting soil in two lifts, with second lift equal to thickness of erosion-control mats. Install erosion-control mat and fasten as recommended by material manufacturer.
- C. Fill cells of erosion-control mat with planting soil and compact before planting.

- D. For erosion-control blanket or mesh, install from top of slope, working downward, and as recommended by material manufacturer for site conditions. Fasten as recommended by material manufacturer.
- E. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

3.5 PREPARATION FOR GRASS-PAVING MATERIALS – NOT USED

3.6 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph.
 - 1. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
 - 2. Do not use wet seed or seed that is moldy or otherwise damaged.
 - 3. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 2 lb/1000 sq. ft..
- C. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:4 with erosion-control blankets and 1:6 with erosion-control fiber mesh installed and stapled according to manufacturer's written instructions.
- E. Protect seeded areas with erosion-control mats where indicated on Drawings; install and anchor according to manufacturer's written instructions.
- F. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.
 - 1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.

3.7 HYDROSEEDING

- A. Hydroseeding: Mix specified seed, **commercial fertilizer**, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
 - 1. Mix slurry with **fiber-mulch manufacturer's recommended** tackifier.
 - 2. Spray-apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than **1500-lb/acre** dry weight, and seed component is deposited at not less than the specified seed-sowing rate.

3.8 SODDING – NOT USED

3.9 PLUGGING – NOT USED

3.10 SPRIGGING – NOT USED

3.11 TURF RENOVATION: NOT USED

3.12 TURF MAINTENANCE

A. General: Maintain and establish turf by fertilizing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.

1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.

B. Turf Postfertilization: Apply **commercial fertilizer** after initial mowing and when grass is dry.

1. Use fertilizer that provides actual nitrogen of at least **1 lb/1000 sq. ft.** to turf area.

3.13 SATISFACTORY TURF

A. Turf installations shall meet the following criteria as determined by Architect:

1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.

B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.

3.14 MEADOW: NOT USED

3.15 MEADOW MAINTENANCE: NOT USED

3.16 PESTICIDE APPLICATION

A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations.

Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

- B. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.17 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.
- C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- D. Remove nondegradable erosion-control measures after grass establishment period.

3.18 MAINTENANCE SERVICE

- A. Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:
 - 1. Seeded Turf: **60** days from date of **planting completion**.
 - a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.

END OF SECTION 329200

SECTION 333000 - SANITARY SEWERAGE UTILITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Pipe and fittings.
 - 2. Pressure pipe couplings.
 - 3. Expansion joints and deflection fittings.
 - 4. Cleanouts.
 - 5. Encasement for piping.
 - 6. Manholes.
 - 7. Pipe outlets.

1.3 DEFINITIONS

- A. FRP: Fiberglass-reinforced plastic.
- B. HDPE: High-density polyethylene.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings:
 - 1. Manholes: Include plans, elevations, sections, details, frames, and covers.

1.5 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of pipe and fitting, from manufacturer.
- B. Field quality-control reports.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic manholes, pipe, and fittings in direct sunlight.

- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle manholes according to manufacturer's written rigging instructions.
- D. Handle according to manufacturer's written rigging instructions.

1.7 PROJECT CONDITIONS – NOT USED

PART 2 - PRODUCTS

2.1 HUB-AND-SPIGOT, CAST-IRON SOIL PIPE AND FITTINGS – NOT USED

2.2 HUBLESS CAST-IRON SOIL PIPE AND FITTINGS – NOT USED

2.3 DUCTILE-IRON, CULVERT PIPE AND FITTINGS – NOT USED

2.4 DUCTILE-IRON, PRESSURE PIPE AND FITTINGS – NOT USED

2.5 STEEL PIPE AND FITTINGS – NOT USED

2.6 ALUMINUM PIPE AND FITTINGS – NOT USED

2.7 ABS PIPE AND FITTINGS – NOT USED

2.8 PE PIPE AND FITTINGS

A. Pressure-rated High Density Polyethylene (HDPE) Pipe and Fittings DR11 to DR21

1. Pipe: Conform to AWWA C901/906.
2. Dimension Ratio: DR-17 (unless noted otherwise on Drawings).
3. Pressure Class: 125 psi (unless noted otherwise on Drawings).
4. Joints: Heat fusion per ASTM D2657.
5. Resin: PPI TR-4 PE 4710, per ASTM D3350 Cell Class 445574 C/E.
6. Color: Black with green stripes.
7. Manufacturer/Product name: JM Eagle or equal.

2.9 PVC PIPE AND FITTINGS

A. PVC Gravity Sewer Piping:

1. Pipe and Fittings: ASTM F 679, **T-1** wall thickness, PVC gravity sewer pipe with bell-and-spigot ends and with integral ASTM F 477, elastomeric seals for gasketed joints.

B. PVC Pressure Piping:

1. Pipe: Conform to AWWA C900.
2. Dimension Ratio: DR-18 (unless noted otherwise on Drawings).
3. Pressure Class: 150 psi (unless noted otherwise on Drawings).
4. Joints: Flexible elastomeric, conform to ASTM D3139.
5. Gaskets: Conform to ASTM F477.

6. Fittings: Fully restrained ductile iron.
7. PVC Resin: Meet or exceed cell class 12454 as defined in ASTM D1784.
8. Pipe shall be homogeneous throughout; free from voids, cracks, inclusions or other defects. Surfaces shall be free from nicks, scoring, scratches, and other blemishes.
9. Color: Green
10. Manufacturer/Product name: JM Eagle/Blue Brute or equal.

2.10 FIBERGLASS PIPE AND FITTINGS – NOT USED

2.11 CONCRETE PIPE AND FITTINGS – NOT USED

2.12 NONPRESSURE TRANSITION COUPLINGS – NOT USED

2.13 PRESSURE PIPE COUPLINGS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 1. JM Eagle.
 2. Dresser, Inc.
 3. Ford Meter Box Company, Inc. (The); Pipe Products Div.
 4. JCM Industries, Inc.
 5. Romac Industries, Inc.
 6. Smith-Blair, Inc.; a Sensus company.
 7. Victaulic Depend-O-Lok, Inc.
 8. Viking Johnson.
- C. Description: AWWA C219, tubular-sleeve coupling, with center sleeve, gaskets, end rings, and bolt fasteners.
- D. Metal, bolted, sleeve-type, reducing or transition coupling, for joining underground pressure piping. Include 150-psig (1035-kPa) minimum pressure rating and ends sized to fit adjoining pipes.
- E. Center-Sleeve Material: **Manufacturer's standard.**
- F. Gasket Material: Natural or synthetic rubber.
- G. Metal Component Finish: Corrosion-resistant coating or material.

2.14 EXPANSION JOINTS AND DEFLECTION FITTINGS – NOT USED

2.15 BACKWATER VALVES – NOT USED

2.16 CLEANOUTS

A. Plastic Cleanouts:

1. Basis-of-Design Product: Subject to compliance with requirements, product by one of the following:
 - a. Canplas LLC.
 - b. IPS Corporation.
 - c. NDS Inc.
 - d. Plastic Oddities; a division of Diverse Corporate Technologies, Inc.
 - e. Sioux Chief Manufacturing Company, Inc.
2. Description: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to cleanout of same material as sewer piping.

2.17 ENCASUREMENT FOR PIPING – NOT USED

2.18 MANHOLES

A. Standard Precast Concrete Manholes:

1. Description: ASTM C 478 (ASTM C 478M), precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Diameter: 48 inches (1200 mm) minimum unless otherwise indicated.
3. Ballast: Increase thickness of precast concrete sections or add concrete to base section as required to prevent flotation.
4. Base Section: 6-inch (150-mm) minimum thickness for floor slab and 4-inch (102-mm) minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
5. Riser Sections: 4-inch (102-mm) minimum thickness, and lengths to provide depth indicated.
6. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated, and top of cone of size that matches grade rings.
7. Joint Sealant: ASTM C 990 (ASTM C 990M), bitumen or butyl rubber.
8. Resilient Pipe Connectors: ASTM C 923 (ASTM C 923M), cast or fitted into manhole walls, for each pipe connection.
9. Steps: Individual FRP steps; FRP ladder; or ASTM A 615/A 615M, deformed, 1/2-inch (13-mm) steel reinforcing rods encased in ASTM D 4101, PP, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch (300- to 400-mm) intervals. Omit steps if total depth from floor of manhole to finished grade is less than 60 inches.

10. Adjusting Rings: Interlocking HDPE rings with level or sloped edge in thickness and diameter matching manhole frame and cover, and of height required to adjust manhole frame and cover to indicated elevation and slope. Include sealant recommended by ring manufacturer.

B. Designed Precast Concrete Manholes:

1. Description: ASTM C 913; designed according to ASTM C 890 for A-16 (AASHTO HS20-44), heavy-traffic, structural loading; of depth, shape, and dimensions indicated, with provision for sealant joints.
2. Ballast: Increase thickness of one or more precast concrete sections or add concrete to manhole as required to prevent flotation.
3. Joint Sealant: ASTM C 990 (ASTM C 990M), bitumen or butyl rubber.
4. Resilient Pipe Connectors: ASTM C 923 (ASTM C 923M), cast or fitted into manhole walls, for each pipe connection.
5. Steps: Individual FRP steps; FRP ladder; or ASTM A 615/A 615M, deformed, 1/2-inch (13-mm) steel reinforcing rods encased in ASTM D 4101, PP, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch (300- to 400-mm) intervals. Omit steps if total depth from floor of manhole to finished grade is less than 60 inches (1500 mm).
6. Adjusting Rings: Interlocking HDPE rings with level or sloped edge in thickness and diameter matching manhole frame and cover, and of height required to adjust manhole frame and cover to indicated elevation and slope. Include sealant recommended by ring manufacturer.

C. Manhole Frames and Covers:

1. Description: Ferrous; 24-inch (610-mm) ID by 7- to 9-inch (175- to 225-mm) riser with 4-inch- (102-mm-) minimum width flange and 26-inch- (660-mm-) diameter cover. Include indented top design with lettering cast into cover, using wording equivalent to "SANITARY SEWER."
2. Material: ASTM A 536, Grade 60-40-18 ductile iron unless otherwise indicated.

2.19 CONCRETE

A. General: Cast-in-place concrete according to ACI 318, ACI 350/350R (ACI 350M/350RM), and the following:

1. Cement: ASTM C 150, Type II.
2. Fine Aggregate: ASTM C 33, sand.
3. Coarse Aggregate: ASTM C 33, crushed gravel.
4. Water: Potable.

B. Portland Cement Design Mix: 4000 psi (27.6 MPa) minimum, with 0.45 maximum water/cementitious materials ratio.

1. Reinforcing Fabric: ASTM A 185/A 185M, steel, welded wire fabric, plain.
2. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (420 MPa) deformed steel.

- C. Manhole Channels and Benches: Factory or field formed from concrete. Portland cement design mix, 4000 psi (27.6 MPa) minimum, with 0.45 maximum water/cementitious materials ratio. Include channels and benches in manholes.
 - 1. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to three-fourths of pipe diameter. Form curved channels with smooth, uniform radius and slope.
 - a. Invert Slope: **1** percent through manhole.
 - 2. Benches: Concrete, sloped to drain into channel.
 - a. Slope: **4** percent.
- D. Ballast and Pipe Supports: Portland cement design mix, 3000 psi (20.7 MPa) minimum, with 0.58 maximum water/cementitious materials ratio.
 - 1. Reinforcing Fabric: ASTM A 185/A 185M, steel, welded wire fabric, plain.
 - 2. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (420 MPa) deformed steel.

2.20 PIPE OUTLETS

- A. Head Walls: Cast-in-place reinforced concrete, with apron and tapered sides.
- B. Riprap Basins: Broken, irregularly sized and shaped, graded stone according to NSSGA's "Quarried Stone for Erosion and Sediment Control."
 - 1. Average Size: NSSGA No. R-3, screen opening 2 inches (51 mm).
- C. Filter Stone: According to NSSGA's "Quarried Stone for Erosion and Sediment Control," No. FS-2, No. 4 screen opening, average-size graded stone.
- D. Energy Dissipaters: According to NSSGA's "Quarried Stone for Erosion and Sediment Control," No. A-1, 3-ton (2721-kg) average weight armor stone, unless otherwise indicated.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavation, trenching, and backfilling are specified in Section 312000 "Earth Moving."

3.2 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.

- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- C. Install manholes for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. When installing pipe under streets or other obstructions that cannot be disturbed, use pipe-jacking process of microtunneling.
- F. Install gravity-flow, nonpressure drainage piping according to the following:
 - 1. Install piping pitched down in direction of flow.
 - 2. Install piping NPS 6 and larger with restrained joints at tee fittings and at changes in direction. Use corrosion-resistant rods, pipe or fitting manufacturer's proprietary restraint system, or cast-in-place concrete supports or anchors.
 - 3. Install piping with 36-inch (915-mm) minimum cover.
 - 4. Install PE corrugated sewer piping according to ASTM D 2321.
 - 5. Install PVC sewer piping according to ASTM D 2321 and ASTM F 1668.
 - 6. Install PVC profile gravity sewer piping according to ASTM D 2321 and ASTM F 1668.
- G. Install force-main pressure piping according to the following:
 - 1. Install piping with restrained joints at tee fittings and at horizontal and vertical changes in direction. Use corrosion-resistant rods, pipe or fitting manufacturer's proprietary restraint system, or cast-in-place concrete supports or anchors.
 - 2. Install piping with 36-inch (915-mm) minimum cover.
 - 3. Install PVC pressure piping according to AWWA M23, or ASTM D 2774 and ASTM F 1668.
 - 4. Install PVC water-service piping according to ASTM D 2774 and ASTM F 1668.
- H. Install corrosion-protection piping encasement over the following underground metal piping according to ASTM A 674 or AWWA C105:
 - 1. Hub-and-spigot, cast-iron soil pipe and fittings.
 - 2. Hubless cast-iron soil pipe and fittings.
 - 3. Ductile-iron pipe and fittings.
 - 4. Expansion joints and deflection fittings.

3.3 PIPE JOINT CONSTRUCTION

- A. Join gravity-flow, nonpressure drainage piping according to the following:
 - 1. Join HDPE piping according to ASTM D 3212 for push-on joints.
 - 2. Join PVC sewer piping according to ASTM D 2321 and ASTM D 3034 for elastomeric-seal joints or ASTM D 3034 for elastomeric-gasketed joints.
 - 3. Join dissimilar pipe materials with nonpressure-type flexible couplings.

- B. Join force-main pressure piping according to the following:
 - 1. Join PVC pressure piping according to AWWA M23 for gasketed joints.
 - 2. Join HDPE according to AWWA C906, AWWA M23 for gasketed joints.
 - 3. Join dissimilar pipe materials with pressure-type couplings.

3.4 CLEANOUT INSTALLATION

- A. Install cleanouts and riser extensions from sewer pipes to cleanouts at grade. Use cast-iron soil pipe fittings in sewer pipes at branches for cleanouts and cast-iron soil pipe for riser extensions to cleanouts. Install piping so cleanouts open in direction of flow in sewer pipe.
 - 1. Use Light-Duty, top-loading classification cleanouts in earth or unpaved foot-traffic areas.
 - 2. Use Medium-Duty, top-loading classification cleanouts in paved foot-traffic areas.
 - 3. Use Heavy-Duty, top-loading classification cleanouts in vehicle-traffic service areas.
 - 4. Use Extra-Heavy-Duty, top-loading classification cleanouts in roads.
- B. Set cleanout frames and covers in earth in cast-in-place concrete block, 18 by 18 by 12 inches deep. Set with tops 1 inch (25 mm) above surrounding earth grade.
- C. Set cleanout frames and covers in concrete pavement and roads with tops flush with pavement surface.

3.5 MANHOLE INSTALLATION

- A. General: Install manholes, complete with appurtenances and accessories indicated.
- B. Install precast concrete manhole sections with sealants according to ASTM C 891.
- C. Where specific manhole construction is not indicated, follow manhole manufacturer's written instructions.
- D. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops 3 inches (76 mm) above finished surface elsewhere unless otherwise indicated.

3.6 OUTLET INSTALLATION

- A. Construct inlet head walls, aprons, and sides of reinforced concrete, as indicated.
- B. Construct riprap of broken stone, as indicated.
- C. Install outlets that spill onto grade, anchored with concrete, where indicated.
- D. Install outlets that spill onto grade, with flared end sections that match pipe, where indicated.
- E. Construct energy dissipaters at outlets, as indicated.

3.7 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318.

3.8 CONNECTIONS

- A. Make connections to existing piping and underground manholes.
 - 1. Use commercially manufactured wye fittings for piping branch connections. Remove section of existing pipe; install wye fitting into existing piping; and encase entire wye fitting, plus 6-inch (150-mm) overlap, with not less than 6 inches (150 mm) of concrete with 28-day compressive strength of 3000 psi (20.7 MPa).
 - 2. Make branch connections from side into existing piping, NPS 4 to NPS 20 (DN 100 to DN 500). Remove section of existing pipe, install wye fitting into existing piping, and encase entire wye with not less than 6 inches (150 mm) of concrete with 28-day compressive strength of 3000 psi (20.7 MPa).
 - 3. Make branch connections from side into existing piping, NPS 21 (DN 525) or larger, or to underground manholes and structures by cutting into existing unit and creating an opening large enough to allow 3 inches (76 mm) of concrete to be packed around entering connection. Cut end of connection pipe passing through pipe or structure wall to conform to shape of and be flush with inside wall unless otherwise indicated. On outside of pipe, manhole, or structure wall, encase entering connection in 6 inches (150 mm) of concrete for minimum length of 12 inches (300 mm) to provide additional support of collar from connection to undisturbed ground.
 - a. Use concrete that will attain a minimum 28-day compressive strength of 3000 psi (20.7 MPa) unless otherwise indicated.
 - b. Use epoxy-bonding compound as interface between new and existing concrete and piping materials.
 - 4. Protect existing piping, manholes, and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.
- B. Connect to sediment interceptors specified in Section 221323 "Sanitary Waste Interceptors."
- C. Pipe couplings, expansion joints, and deflection fittings with pressure ratings at least equal to piping rating may be used in applications below unless otherwise indicated.
 - 1. Use nonpressure-type flexible couplings where required to join gravity-flow, nonpressure sewer piping unless otherwise indicated.
 - a. Shielded flexible couplings for same or minor difference OD pipes.
 - b. Unshielded, increaser/reducer-pattern, flexible couplings for pipes with different OD.
 - c. Ring-type flexible couplings for piping of different sizes where annular space between smaller piping's OD and larger piping's ID permits installation.
 - 2. Use pressure-type pipe couplings for force-main joints.

3.9 IDENTIFICATION

- A. Materials and their installation are specified in Section 312000 "Earth Moving." Arrange for installation of green warning tape directly over piping and at outside edge of underground structures.
 - 1. Use warning tape or detectable warning tape over ferrous piping.
 - 2. Use detectable warning tape over nonferrous piping and over edges of underground structures.

3.10 FIELD QUALITY CONTROL

- A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches (610 mm) of backfill is in place, and again at completion of Project.
 - 1. Submit separate reports for each system inspection.
 - 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
 - 3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 - 4. Reinspect and repeat procedure until results are satisfactory.
- B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
 - 1. Do not enclose, cover, or put into service before inspection and approval.
 - 2. Test completed piping systems according to requirements of authorities having jurisdiction.
 - 3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
 - 4. Submit separate report for each test.
 - 5. Gravity-Flow Piping: Test according to requirements of authorities having jurisdiction, UNI-B-6, and the following:
 - a. Exception: Piping with soiltight joints unless required by authorities having jurisdiction.
 - b. Option: Test plastic piping according to ASTM F 1417.
 - c. Option: Test concrete piping according to ASTM C 924 (ASTM C 924M).
 - 6. Force-Main Piping: Perform hydrostatic test after thrust blocks, supports, and anchors have hardened. Test at pressure not less than 1-1/2 times the maximum system operating pressure, but not less than 150 psig (1035 kPa).

- a. Ductile-Iron Piping: Test according to AWWA C600, "Hydraulic Testing" Section.
 - b. PVC Piping: Test according to AWWA M23, "Testing and Maintenance" Chapter.
- C. Leaks and loss in test pressure constitute defects that must be repaired.
- D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.
- E. Televised Inspection:
- 1. Televisе completed sewer and appurtenant structures, including manholes and chambers, and provide to Engineer copy of video on digital video disc (DVD).
 - 2. A second televised inspection is required one year after installation.
 - 3. Repair apparent leaks in pipe Work in manner satisfactory to Engineer without additional cost to Owner and re-televisе the pipe.
 - 4. Inspection shall be performed by Subcontractor certified in Pipeline Assessment Certification Program (PACP) by National Association of Sewer Service Companies (NASSCO). Provide copy of PACP certification prior to starting inspection. Televising shall conform to coding and reporting standards and guidelines specified in PACP. Use same standards for lateral inspections, regardless of whether conducted using cleanout-launched or mainline-launched lateral camera. Identify report annotations, pipe conditions, and pipe defects in accordance with PACP. Severity ratings shall be calculated in accordance with PACP.
 - 5. Camera for main line shall be pan-and-tilt, radial viewing, pipe inspection camera that pans plus-or-minus 275 degrees and rotates 360 degrees. Use camera with an accurate footage counter that displays on television monitor exact distance of camera from center-line of starting manhole. Use camera with height adjustment so that lens is always centered at one-half inside diameter or higher, in pipe being televised. Provide lighting system that allows features and condition of pipe to be clearly seen. Camera shall operate in 100 percent humidity. Camera, television monitor, and other components of video system produce a minimum 450-line resolution colored video picture. Picture quality and definition shall be satisfactory to Engineer. Camera for lateral televising shall be fixed and capable of moving from main line 80 feet up lateral, and conform in other respects to requirements for main line camera.

3.11 CLEANING

- A. Clean interior of piping of dirt and superfluous materials Flush with water.

END OF SECTION 333000



BOARD OF COUNTY COMMISSIONERS
WARREN COUNTY, OHIO

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TOM GROSSMANN
SHANNON JONES
DAVID G. YOUNG

ADVERTISEMENT FOR BIDS

Sealed bids will be received by the Clerk of the County Commissioners, Warren County, Ohio, 406 Justice Drive, Lebanon, Ohio 45036, until 11:00 a.m., June 3, 2021, and then at said time bids will be opened and read aloud for the Franklin Area Water Treatment Plant Concentrate Discharge Lines Project.

Bid documents and specifications are available online at the Warren County's Website at <http://www.co.warren.oh.us/commissioners/Bids/Default.aspx>. Questions regarding the technical specifications should be directed to Chris Wojnicz, at the Warren County Water and Sewer Department, at (513) 695-1646.

The project generally consists of installing approximately 7,800 feet of dual 10" C-900 concentrate discharge line main along Dixie Highway, SR 73, and Baxter Drive in Franklin, Ohio. The estimated contract value is \$1,470,000.00.

Contact the Warren County Commissioners' Office at (513) 695-1250 should you need assistance in accessing the bidding information on the County's website. All contract addenda will be posted to the website prior to the bid opening. Bidders should check the website regularly to stay updated on any changes to the project.

Please be aware that if you are downloading this document to bid this project, and in order to stay updated on any change, please email Krystal Powell in the Commissioners' Office at krystal.powell@co.warren.oh.us with your contact information.

The Board of Warren County Commissioners reserves the right to accept the lowest and best bid, to reject all bids, and to waive any irregularities in bids.

By order of the Board of County Commissioners, Warren County, Ohio.

Tina Osborne, Clerk