



COMPLEX PROJECTS
REQUIRE RESOLVE
THRASHER'S GOT IT

**BARRACKVILLE SANITARY SEWER BOARD
MARION COUNTY, WEST VIRGINIA**

FORCE MAIN REPLACEMENT PROJECT

ADDENDUM #1

March 15, 2023

THRASHER PROJECT #T20-11008

TO WHOM IT MAY CONCERN:

A Pre-Bid Conference was held on Thursday, March 2, 2023, on the above-referenced project, a copy of the sign in sheet is included in this Addendum. The following are clarifications and responses to questions posed by contractors for the above reference project.

A. SPECIFICATIONS

Specification Section 312323.33 – Flowable Fill has been added and is attached to this Addendum.

Specification Section 330507.10 – Pipe Bursting has been added and is attached to this Addendum.

Specification Section 330523.13 – Utility Horizontal Direction Drilling has been added and is attached to this Addendum.

B. DRAWINGS

N/A

C. QUESTIONS AND RESPONSES

1. QUESTION

Is horizontal direction drill of the force main allowed?

RESPONSE

Yes.

2. QUESTION

Does the 600 ft section on CSX rights-of-way need to be removed and replaced?

RESPONSE

The width of the rights-of-way is not defined in the Agreement between the Owner and CSX. The line needs to be replaced in the same location in the CSX rights-of-way. Pipe bursting techniques may also be used for this section. Refer to Specification Section 330507.10 – Pipe Bursting included in this Addendum.

3. QUESTION

Have all Rights-of-Way been acquired?

RESPONSE

Yes, the project is being preformed under existing of Right-of-Way agreements.

4. QUESTION

Is a project trailer required?

RESPONSE

No.

5. QUESTION

Is a Contractor's license from the Town required?

RESPONSE

No.

D. CLARIFICATIONS

1. Per the Agreement between CSX and the Owner, "Licensee shall purchase, or shall cause its contractor to purchase, and maintain in force and effect, during any period of construction (including preliminary surveys and inspections) Railroad Protective Insurance naming Licensor as the insured. The policy shall be written on the form prescribed in the Federal Aid Highway Program Manual, Volume 6, Chapter 6, Section 2, Subsection 2, as amended from time to time, and shall provide a limit of \$2,000,000 per occurrence for bodily injury and property damage, subject to an

aggregate limit of \$6,000,000 per annum.” The cost of this insurance is the Contractor’s responsibility.

2. Davis Bacon Wage Rates are applicable to this project and have been included as an attachment to this Addendum.
3. The Engineer’s estimate for this project is \$220,000.
4. Construction is anticipated to begin 45-60 days after the Bid Opening due to processing an Outside Party Number Request Form through the CSX Property Portal. The Contractor will be responsible to initiate the Outside Party Number Request Form and the associated costs for processing after Notice of Award has been issued.
5. The Contractor will not be responsible for flagging or inspection fees while performing construction activities in CSX rights-of-way.
6. The contract time is being extended to 90 days to substantial completion and 120 days to final completion.
7. B&O Taxes for the project are 1.2% of gross.

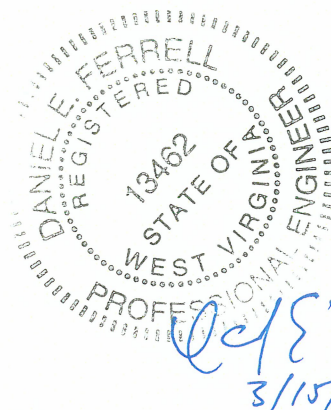
As a reminder, bids will be received until 2:00 p.m. on Tuesday, March 21, 2023 at Town of Barrackville Town Hall located at 716 Pike Street, Barrackville, WV 26559. Good luck to everyone and thank you for your interest in the project.

Sincerely,

THE THRASHER GROUP, INC.

DANIEL E. FERRELL, P.E.
Project Manager

Enclosures: Pre Bid Sign In Sheet
Index
Davis Bacon Wage Rates
Specification Section 312323.33 – Flowable Fill
Specification Section 330523.13 – Utility Horizontal Directional Drilling
Specification Section 330507.10 – Pipe Bursting



**Barrackville Sanitary Sewer Board
Marion COUNTY, WEST VIRGINIA
Force Main Replacement Project**

**PRE-BID CONFERENCE
Thursday, March 2, 2023**

Thrasher Project #T20-11008

Name	Representing	Phone #	Email Address
Steve Calvert	Green River Geop LLC	304-288-1817	Salvert@greenriver-geop.com
Kurt Collins	Monco Constructors	304-914-5253	KCollins@moncoconstructors.com
Andrew Furbie	Blue Gold development	304-376-3137	bluegolddevelopmentllc.com
Brenda Hull	Blue Ridge Construction Co.	304-613-6662	hullscon@yahoo.com
Dakota Hanner	ADA USG	2443 749 0987	dhunter@rdusg.com
Jerry Datt	Hoffman Excavating	304-376-9151	Jerry.wines04@gmail.com
Colby Gobstom	Brian Vanderwerker Co	304-376-3109	colbyg@bcallenco.com
Colenn Vandergrift	G.E. Excavating LLC	(304) 612-4214	vandergrift@yahoo.com
Eric Sprouse	Bear Contracting	304-326-0160	estimating@bear-contracting.com

**BARRICKVILLE SANITARY SEWER BOARD
MARION COUNTY, WEST VIRGINIA
PROPOSED
FORCE MAIN REPLACEMENT PROJECT**

- I N D E X -

BIDDING DOCUMENTS

Advertisement for Bids	AFB
Instructions to Bidders	C-200
Bid Opening Requirements	BOR
Bid Forms	C-410

CONDITIONS OF WORK

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Payment Bond	C-615
Notice to Proceed	C-550
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Certificate of Substantial Completion	C-625
Notice of Acceptability	C-626
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Additional Supplementary General Conditions	ASGC
Davis Bacon Contract Requirements	DB
Wage Rates	WR

TECHNICAL SPECIFICATIONS

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Submittal Procedures	013300
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Trenching	312316.13
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Rubble-Stone Riprap	313716.13
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Landscaping	329119
Seeding and Mulching Table	329119.01
Sewer and Manhole Testing	330130.13
Pipe Bursting	330507.10
Utility Horizontal Directional Drilling	330523.13
Utility Identification	330526
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Sanitary Utility Sewerage Force Mains	333400
Plug and Gate Valves	400562
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Davis Bacon Contract Requirements

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the **subrecipient(s)** shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.wdol.gov.

(ii)(A) The **subrecipient(s)**, on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The EPA award official shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the **subrecipient(s)** agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the **subrecipient(s)** to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the **subrecipient(s)** do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the questions, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The **subrecipient(s)**, shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the **subrecipient**, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the **subrecipient** shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the **subrecipient** (s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the **subrecipient** (s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator

determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7.

Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and **Subrecipient(s)**, State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The **subrecipient** shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFF 4.6 . As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The **subrecipient**, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these

clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the **Subrecipient** shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the **Subrecipient** shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

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WAGE RATES

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"General Decision Number: WV20230015 02/17/2023

Superseded General Decision Number: WV20220015

State: West Virginia

Construction Type: Building

County: Marion County in West Virginia.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023
1	01/27/2023

2 02/03/2023
3 02/17/2023

ASBE0002-002 08/01/2022

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 44.50	28.43

BOIL0667-005 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 41.63	26.38

BRWV0015-004 06/01/2021

	Rates	Fringes
BRICKLAYER Bricklayer & Brick Pointer/Caulker/Cleaner.....	\$ 30.25	24.58

BRWV0015-010 06/01/2021

	Rates	Fringes
MASON - STONE.....	\$ 30.25	24.58

* CARP0436-003 12/01/2022

	Rates	Fringes
CARPENTER (Including Drywall Hanging, Drywall Finishing and Form Work).....	\$ 30.96	25.79

CARP0443-009 05/01/2021

	Rates	Fringes
MILLWRIGHT.....	\$ 35.50	26.75

ELEC0596-006 06/01/2022

	Rates	Fringes
ELECTRICIAN.....	\$ 37.21	26.42

ENGI0132-006 12/01/2022

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
GROUP 1.....	\$ 44.56	21.15
GROUP 2.....	\$ 44.21	21.15
GROUP 3.....	\$ 43.21	21.15
GROUP 4.....	\$ 32.71	21.15

GROUP 1: All Friction Cranes, Tower Cranes and all Cranes
with 180 ft. or more of boom including mast and jibs or
lifting capacity of 100 tons or more and hoists with 30,000
pound line pull or more

GROUP 2: Operating Cranes and Tower Cranes with a lifting capacity of 15 tons and over

GROUP 3: Backhoe, Excavator, Bulldozer, all other Cranes

GROUP 4: Bobcat/Skid Steer/Skid Loader, Oiler

IRON0549-008 12/01/2022

	Rates	Fringes
IRONWORKER (Ornamental, Reinforcing, and Structural).....	\$ 35.19	25.66

LAB00379-008 06/01/2017

	Rates	Fringes
LABORER		
Carpenter Tender.....	\$ 21.94	15.75
Common or General.....	\$ 21.58	15.75
Concrete Worker.....	\$ 21.94	15.75
Mason Tender -		
Cement/Concrete.....	\$ 21.94	15.75

LAB00984-007 12/01/2020

	Rates	Fringes
LABORER		
Group 1.....	\$ 21.58	15.75
Group 2.....	\$ 21.94	15.75

LABORER CLASSIFICATIONS

GROUP 1: Water Boy

GROUP 2: Dewatering, Grade Checker, Mason Tender-Brick, Mortar Mixer, Rigging and Signaling, Scaffold Builder (Brick and Masonry), Skytrak Forklift Operator

LAB01149-004 12/01/2020

	Rates	Fringes
LABORER		
Asphalt Raker.....	\$ 21.72	16.25

PAIN0091-012 12/01/2022

	Rates	Fringes
PAINTER (Brush, Roller and Spray).....	\$ 28.07	18.17

PAIN1195-002 12/01/2022

	Rates	Fringes
GLAZIER.....	\$ 32.00	12.22

PLAS0926-007 06/01/2018

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 31.63	21.26

PLUM0152-009 11/01/2022

	Rates	Fringes
PLUMBER.....	\$ 32.54	38.49

PLUM0152-010 11/01/2022

	Rates	Fringes
PIPEFITTER (Includes HVAC Pipe Installation).....	\$ 32.54	38.49

SFWV0669-003 01/01/2023

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 36.64	27.73

SHEE0033-003 12/05/2022

	Rates	Fringes
SHEET METAL WORKER (Includes HVAC Duct Installation).....	\$ 32.51	27.11

* UAVG-WV-0004 01/01/2019

	Rates	Fringes
LABORER (Pipelayer).....	\$ 24.06	16.34

SUWV2012-013 08/13/2012

	Rates	Fringes
OPERATOR: Forklift.....	\$ 33.09	3.00
ROOFER.....	\$ 24.28	9.32

Truck Driver: Single and Double Axle Dump Trucks.....	\$ 28.52	3.00
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WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other

health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

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"General Decision Number: WV20230056 01/27/2023

Superseded General Decision Number: WV20220056

State: West Virginia

Construction Type: Heavy

County: Marion County in West Virginia.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023
1	01/27/2023

* ELEC0307-008 11/28/2022

	Rates	Fringes
ELECTRICIAN.....	\$ 37.00	18.77

ENGI0132-015 12/01/2022		

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
GROUP 1.....	\$ 39.95	19.55
GROUP 2.....	\$ 37.19	19.55
GROUP 3.....	\$ 36.08	19.55
GROUP 4.....	\$ 32.62	19.55

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Cranes (All types), Boom trucks, Loaders of six (6) cubic yard capacity and over, Excavators and shovels with an operating weight of one hundred ten thousand (110,000) pounds and over.

GROUP 2: Loaders up to six (6) cubic yard capacity, Bulldozers, Bobcat/Skid Steer/Skid Loader, Forklift, Drill, Excavators and shovels with an operating weight of up to one hundred ten thousand (110,000) pounds.

GROUP 3: Roller.

GROUP 4: Oiler

IRON0549-012 12/01/2022

	Rates	Fringes
IRONWORKER, ORNAMENTAL, REINFORCING AND STRUCTURAL.....	\$ 35.19	25.66

LABO0379-021 12/01/2020		

	Rates	Fringes
LABORER:		
GROUP 1.....	\$ 26.32	16.50
GROUP 2.....	\$ 25.26	16.50

GROUP 1: Chain Saw, Concrete Worker, Hand Held Drill, Form Work, Grade Checker, Signal Man.

GROUP 2: Flagger

PLAS0926-001 06/01/2018

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 31.63	21.26

* UAVG-WV-0010 01/01/2019		

	Rates	Fringes
LABORER (Mason Tender - Cement/Concrete).....	\$ 26.17	16.50

* UAVG-WV-0012 01/01/2019

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Mechanic).....	\$ 35.45	18.30

SUWV2012-054 08/13/2012		

	Rates	Fringes
LABORER: Common or General.....	\$ 22.59	10.14
LABORER: Pipelayer.....	\$ 17.79	5.93
OPERATOR: Backhoe.....	\$ 24.39	15.50
Truck Driver: Single and Double Axle Dump Trucks.....	\$ 23.44	12.52

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

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- * a survey underlying a wage determination
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Wage and Hour Division
U.S. Department of Labor
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Washington, DC 20210

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U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

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"General Decision Number: WV20230080 01/06/2023

Superseded General Decision Number: WV20220080

State: West Virginia

Construction Type: Highway

Counties: West Virginia Statewide.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number Publication Date
0 01/06/2023

SUWV2015-001 01/01/2014

	Rates	Fringes
BRICKLAYER		
Barbour, Berkeley, Doddridge, Gilmer, Grant, Hampshire, Hardy, Harrison, Jefferson, Lewis, Marion, Mineral, Monongalia, Morgan, Pendleton, Pocahontas, Preston, Randolph, Taylor, Tucker, Upshur, Webster.....	\$ 30.74	18.21
Boone, Braxton, Clay, Fayette, Greenbrier, Kanawha, Logan, McDowell, Mercer, Monroe, Nicholas, Putnam, Raleigh, Summers, Wyoming.....	\$ 29.66	20.20
Brooke, Hancock.....	\$ 29.94	16.22
Cabell, Lincoln, Mason, Mingo, Wayne.....	\$ 30.61	20.88
Calhoun, Jackson, Pleasants, Ritchie, Roane, Wirt, Wood.....	\$ 30.33	15.27
Marshall, Ohio, Tyler, Wetzel.....	\$ 30.01	16.26
CARPENTER		
Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton.....	\$ 31.26	15.90
Brooke, Hancock, Marshall, Ohio.....	\$ 27.86	19.30
Remaining Counties.....	\$ 27.72	19.44
CEMENT MASON/CONCRETE FINISHER		
All Counties.....	\$ 28.67	18.85
DIVER		
Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton Diver Tender.....	\$ 31.26	15.90
Diver.....	\$ 32.25	15.90
Brooke, Hancock, Marshall, Monongalia, Ohio, Wetzel Diver Tender.....	\$ 32.01	16.76
Diver.....	\$ 48.02	16.76
Remaining Counties Diver Tender.....	\$ 27.72	19.44
Diver.....	\$ 28.27	19.44
ELECTRICIAN (SIGNAL & LIGHTING)		
Equipment Operator.....	\$ 23.30	17.99
Flagger.....	\$ 17.00	7.39
Groundman/Truck Driver.....	\$ 20.79	17.89
Installer.....	\$ 26.21	18.11

Technician.....\$ 29.12 18.22

ELECTRICIAN

Barbour, Doddridge,
Harrison, Lewis, Marion,
Monongalia, Pendleton,
Pocahontas, Preston,
Randolph, Taylor, Tucker,
Upshur.....\$ 30.14 21.14
Berkeley, Grant,
Hampshire, Hardy,
Jefferson, Mineral, Morgan..\$ 30.50 15.78
Boone, Braxton, Calhoun,
Clay, Fayette, Gilmer,
Kanawha, Nicholas, Putnam,
Raleigh, Roane, Summers,
Webster, Wyoming.....\$ 35.34 16.62
Brooke, Marshall, Ohio,
Wetzel.....\$ 28.35 22.74
Cabell, Lincoln, Logan,
Mason, Mingo, Wayne.....\$ 32.62 21.70
Greenbrier, McDowell,
Mercer, Monroe.....\$ 25.05 16.32
Hancock.....\$ 34.00 29.10
Jackson, Pleasants,
Ritchie, Tyler, Wirt, Wood..\$ 31.56 21.43

IRONWORKER

Barbour, Brooke, Hancock,
Harrison, Marion,
Marshall, Monongalia,
Ohio, Taylor, Tyler, Wetzel.\$ 35.74 22.84
Berkeley, Grant,
Hampshire, Hardy,
Jefferson, Mineral,
Morgan, Pendleton,
Preston, Tucker.....\$ 33.29 17.39
Boone, Braxton, Clay,
Fayette, Kanawha, Lincoln,
Logan, McDowell, Mingo,
Nicholas, Putnam, Raleigh,
Randolph, Webster, Wyoming..\$ 34.87 19.50
Cabell, Wayne.....\$ 33.89 21.98
Calhoun, Doddridge,
Gilmer, Jackson, Lewis,
Mason, Pleasants, Ritchie,
Roane, Upshur, Wirt, Wood...\$ 33.02 20.10
Greenbrier, Mercer,
Monroe, Pocahontas, Summers.\$ 35.43 16.13

LABORER

Class 1.....\$ 26.95 16.30
Class 2.....\$ 25.92 16.30
Class 3.....\$ 24.86 16.30

LABORER CLASSIFICATIONS:

GROUP 1: Powderman, Laser Screed Operator, and GPS Operator.
GROUP 2: Pipelayer (Including Laser Beam Set Up), Form Setter
(Road), Drill Operator, Air Tool Operator, Grade Checker and
Asphalt Raker, Vibrator Man, Whacker, Chainsaw Operator,
Mortarman, Brick Mason Tender, Cement Finisher Tender, Drill
Tender, Powderman Tender, Water Proofer, Sheeter & Shorer,
Placement of Lagging, Pipelayer Tender, Bull-Float Man,
Pavement Reinforcing Placer, Handyman, Signal Man,
Greencutter, Georgia Power Buggy, Burner, Cement Blower Man,
Bituminous Hand Sprayer, Bork 250 Remote Control Ditch Witch

and Walk Behind Concrete Saw, Mulcher and Seeder (hand and machine), Installation of Ground Mounted Beams and Signs including Concrete Footers, Installation of Overhead Sign Supports and Signs including Concrete Footers, Installation of Guardrail and Anchors Assemblies, Tree Trimmer, Caisson Bottom Man, Bush Hammering, Core Drilling, Placement and Mixing of Grout and Bridge Demolition Specialist.**
GROUP 3: Flag Person, Traffic Control Maintenance Person, Carpenter's Tender, and General Laborer.

PAINTER

Barbour, Berkeley,		
Doddridge, Gilmer, Grant,		
Hampshire, Hardy,		
Harrison, Jefferson,		
Lewis, Marion, Mineral,		
Monongalia, Morgan,		
Pendleton, Preston,		
Randolph, Taylor, Tucker,		
Upshur, Webster.....\$ 31.87		14.20
Boone, Braxton, Cabell,		
Calhoun, Clay, Fayette,		
Greenbrier, Kanawha,		
Lincoln, Logan, Mason,		
McDowell, Mercer, Mingo,		
Monroe, Nicholas,		
Pocahontas, Putnam,		
Raleigh, Summers, Wayne,		
Wyoming.....\$ 32.05		14.30
Brooke, Hancock, Marshall,		
Ohio, Wetzel.....\$ 30.95		14.36
Jackson, Pleasants,		
Ritchie, Roane, Tyler,		
Wirt, Wood.....\$ 30.84		14.30

PILEDRIVERMAN

Berkeley, Grant,		
Hampshire, Hardy,		
Jefferson, Mineral,		
Morgan, Pendleton.....\$ 32.25		15.90
Brooke, Hancock, Marshall,		
Monongalia, Ohio, Wetzel....\$ 32.01		16.76
Remaining Counties.....\$ 28.27		19.44

POWER EQUIPMENT OPERATOR:

Class 1.....\$ 33.25	18.60
Class 2.....\$ 30.49	18.60
Class 3.....\$ 29.38	18.60
Class 4.....\$ 25.92	18.60
Class 5A.....\$ 26.04	18.60
Class 5B.....\$ 28.64	18.60
Class 5C.....\$ 26.94	18.60

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: Cranes, tower cranes, derricks, derrick boats, draglines, clamshells, cableways, boom truck, loaders of 6 cubic yard capacity and over, excavators and shovels with an operating weight of 110,000 pounds and over.

GROUP 2: Loaders up to 6 cubic yard capacity, gradall, hoist 2 drums or more, mixer plant (2 or more mixers including batch control), pile driver operator, core drill, trencher, backhoe, asphalt paver, cement paver, rotary drill, bulldozers, concrete pump, controlled fine grade machine, slip form paver, log loader, log skidder, motor grader, rubber tired scraper, tractor pan, Roto Miller, tow or work boat, mobile conveyor, transloader, articulating equipment, material hauler, carry

deck, compactor with blade, skidsteer including attachments, fork lift, self-propelled concrete spreader, concrete finishing machine, derrick (single drum), hoist (single drum), single drum paver, air tugger, Ross Carrier, multiple concrete saw, hydraulic post driver, horizontal road-boring machine, tie distributor, track lining machine, ballast tamper, anchor application machine, ribbon rail puller, ballast regulator, auto sled, turn table, pavement breaker, asphalt batch plant, concrete batch plant, crushing plant, compactor with blade, power broom, vac-all truck, self-propelled concrete spreader and concrete finishing machine, mechanics with tools and greasers, excavators, and shovels with an operating weight of up to 110,000 pounds.

GROUP 3: Asphalt roller

GROUP 4: Air compressor, concrete mixer (under 1 cubic yard), light plant, mechanic's tender, assistant engineer, screedman, spreader box man, joint sealer and pump, steam jenny, stationary conveyor (belt or bucket), A-frame, tire man, screening and washing plant, form sub-grader, power form handling equipment, burlap and curing machine, form grader, bull float, bar and joint installing machine, roller and compactor, hydroblaster, concrete mixer (single drum, 1 cu. yd. or over), portable concrete saw and highway striping operator. Utility operators shall be paid Group 2 rate when operating 1 to 5 air compressors, pumps, stationary conveyors (belt or bucket), light plants, and gasoline or diesel powered welders and all farm type tractors.

GROUP 5A: Those operating off-road trucks in the following counties: Barbour, Braxton, Boone, Calhoun, Clay, Doddridge, Fayette, Gilmer, Greenbrier, Harrison, Jackson, Kanawha, Lewis, Marion, Mercer, McDowell, Monongalia, Monroe, Nicholas, Pleasants, Pocohontas, Preston, Putnam, Raleigh, Randolph, Roane, Ritchie, Summers, Taylor, Tucker, Tyler, Upshur, Webster, Wirt, Wood, and Wyoming.

GROUP 5B: Those operating off-road trucks in the following counties: Cabell, Lincoln, Logan, Mason, Mingo, and Wayne.

GROUP 5C: Those operating off-road trucks in the following counties: Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan and Pendleton.

FOOTNOTE: \$2.00 per hour shall be added to the Group 1 rate for individuals operating a lattice boom crane with a fixed boom of 150 feet or more. \$0.25 per hour shall be added to all of the above schedules for underground work.

TRUCK DRIVER

Berkeley, Grant,
Hampshire, Hardy,
Jefferson, Mineral,
Morgan, Pendleton

Class 1.....	\$ 25.72	18.11
Class 2.....	\$ 26.61	18.11
Class 3.....	\$ 27.38	18.11

Brooke, Hancock

Class 1.....	\$ 29.17	13.86
Class 2.....	\$ 30.92	13.86
Class 3.....	\$ 31.71	13.86

Cabell, Lincoln, Logan,
Mason, Mingo, Wayne

Class 1.....	\$ 29.79	15.60
Class 2.....	\$ 30.76	15.60
Class 3.....	\$ 31.55	15.60

Marshall, Ohio, Wetzel

Class 1.....	\$ 26.26	16.81
Class 2.....	\$ 27.16	16.81
Class 3.....	\$ 27.76	16.81

Remaining Counties

Class 1.....	\$ 26.97	16.15
Class 2.....	\$ 27.76	16.15
Class 3.....	\$ 28.44	16.15

TRUCK DRIVER CLASSIFICATIONS:

GROUP 1: Single Axle Trucks used as Dumps, Supply, Fuel, Water, Van, Flatbody, Monorail, Distributor (other than Bituminous Distributors) including Towed Single Units, Material Checkers and Receivers, Greasers, Tireman and Mechanic Tenders (Trucks), Warehouse, Yardmen and Pick-up trucks.

GROUP 2: Tandem and Tri-Axle Trucks used as Dumps, Supply, Fuel, Water, Van, Flatbody, Monorail and including Towed Single Units, Truck Tractors used in combination with Dump, Van, Tank, Flatbed, Low platform or Pole Trailers, Bituminous Distributors, Agitator or Mixer Trucks (up to 20 cubic-yards), Rubber-tired tractors (towing and pushing), Drag and Tag-alongs.

GROUP 3: Mobile Metered Mixer, Agitator or Mixer Trucks (over 20 cubic yards), & Mechanic Truck.

A. Double Hitch equipment operated by 1 driver shall pay 50% more than the wages set out above.

B. \$0.25 per hour shall be added for tunneling and all other underground work.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local),
WR - 22

a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

SECTION 312323.33 - FLOWABLE FILL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract Documents, including General and Supplementary Conditions, and all related Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Flowable fill for:
 - a. Structure backfill.
 - b. Utility bedding.
 - c. Utility backfill.
 - d. Filling abandoned utilities.

- B. Related Requirements:

- 1. Section 312316.13 - Trenching: Soil and aggregate backfill for utility trenches.

1.3 DEFINITIONS

- A. Utility: Any buried pipe, duct, conduit, manhole, tank, or cable.
- B. Excavatable Flowable Fill: Lean cement concrete fill used where future excavation may be required, such as fill for utility trenches, bridge abutments, and culverts.
- C. Non-excavatable Flowable Fill: Lean cement concrete fill used where future excavation is not anticipated, such as fill below structure foundations and filling abandoned utilities.

1.4 REFERENCE STANDARDS

- A. ASTM International:

- 1. ASTM C33 - Standard Specification for Concrete Aggregates.
- 2. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
- 3. ASTM C150 - Standard Specification for Portland Cement.
- 4. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
- 5. ASTM C403/C403M - Standard Test Method for Time of Setting of Concrete Mixtures by Penetration Resistance.
- 6. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.

7. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete.
8. ASTM C1017/C1017M - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
9. ASTM C1040 - Standard Test Methods for Density of Unhardened and Hardened Concrete in Place by Nuclear Methods.
10. ASTM D4832 - Standard Test Method for Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders.

1.5 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Requirements for submittals.
- B. Field Quality-Control Submittals:
 1. Mix Design:
 - a. Furnish flowable fill mix design for each specified strength.
 - b. Furnish separate mix designs when admixtures are required for the following:
 - 1) Flowable fill Work during hot and cold weather.
 - 2) Air entrained flowable fill Work.
 - c. Identify design mix ingredients, proportions, properties, admixtures, and tests.
 2. Furnish test results to certify flowable fill mix design properties meet or exceed specified requirements.
- C. Delivery Tickets:
 1. Furnish duplicate delivery tickets indicating actual materials delivered to Project Site.
- D. Qualifications Statements:
 1. Submit qualifications for supplier.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Section 015000 - Temporary Facilities and Controls specifies ambient condition control facilities for product storage and installation.
- B. Minimum Conditions: Do not install flowable fill during inclement weather or when ambient temperature is less than 40 degrees F.

1.7 FIELD MEASUREMENTS

- A. Verify field measurements before installing flowable fill to establish quantities required to complete the Work.

PART 2 - PRODUCTS

2.1 FLOWABLE FILL

- A. Furnish materials according to WVDOH standards.

2.2 MIXES

- A. Mix and deliver flowable fill according to ASTM C94/C94M, Option C.

- B. Flowable Fill Design Mix:

1. Cement Content:

- a. Excavatable: 75 to 100 lb/cu yd
- b. Non-Excavatable: 100 to 150 lb/cu yd

2. Fly Ash Content:

- a. Excavatable: None.
- b. Non-Excavatable: 150-600 pcf.

3. Water Content:

- a. Excavatable: As specified.
- b. Non-Excavatable: As specified.

4. Air Entrainment:

- a. Excavatable: 5 to 35 percent.
- b. Non-Excavatable: 5 to 15 percent.

5. 28-Day Compressive Strength:

- a. Excavatable: Maximum 100 psi.
- b. Non-Excavatable: Minimum 125 psi.

6. Unit Mass (Wet):

- a. Excavatable: 80 to 110 pcf.
- b. Non-Excavatable: 100 to 125 pcf.

7. Temperature, Minimum, at Point of Delivery:

- a. Excavatable: 50 degrees F
- b. Non-Excavatable: 50 degrees F

- C. Provide water content in design mix to produce self-leveling, flowable fill material at time of placement.

- D. Design mix air entrainment and unit mass are for laboratory design mix and source quality control only.

2.3 SOURCE QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Testing, inspection and analysis requirements.
- B. Test properties of flowable fill design mix and certify results for the following:
 - 1. Design mix proportions by weight of each material.
 - 2. Aggregate: ASTM C33 for material properties and gradation.
 - 3. Properties of plastic flowable fill design mix including:
 - a. Temperature.
 - b. Slump.
 - c. Air entrainment.
 - d. Wet unit mass.
 - e. Yield.
 - f. Cement factor.
 - 4. Properties of hardened flowable fill design mix including:
 - a. Compressive strength at 1 day, 7 days, and 28 days. Report compressive strength of each specimen and average specimen compressive strength.
 - b. Unit mass for each specimen and average specimen unit mass at time of compressive strength testing.
- C. Prepare delivery tickets containing the following information:
 - 1. Project designation.
 - 2. Date.
 - 3. Time.
 - 4. Class and quantity of flowable fill.
 - 5. Actual batch proportions.
 - 6. Free moisture content of aggregate.
 - 7. Quantity of water withheld.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Section 017000 - Execution and Closeout Requirements: Requirements for installation preparation.
- B. Support and restrain utilities to prevent movement and flotation during installation of flowable fill.
- C. Protect structures and utilities from damage caused by hydraulic pressure of flowable fill before fill hardens.

- D. Protect utilities to prevent intrusion of flowable fill.

3.2 INSTALLATION - FILL, BEDDING, AND BACKFILL

- A. Place flowable fill by chute, pumping or other methods.
 - 1. When required, place flowable fill under water using tremie procedure.
 - 2. Do not place flowable fill through flowing water.
- B. Place flowable fill in lifts to prevent lateral pressures from exceeding structural capacity of structures and utilities.
- C. Place flowable fill evenly on both sides of utilities to maintain alignment.
- D. Place flowable fill to elevations indicated on Drawings without vibration or other means of compaction.

3.3 INSTALLATION - FILLING ABANDONED UTILITIES

- A. Verify pipes and conduits are not clogged and are sufficiently empty to permit gravity installation of flowable fill for entire length indicated to be filled.
- B. Seal lower end of pipes and conduits by method to contain flowable fill and to vent trapped air caused by filling operations.
- C. Place flowable fill using method to ensure there are no voids.
 - 1. Fill pipes and conduits from high end.
 - 2. Fill manholes, tanks, and other structures from grade level access points.
- D. After filling pipes and conduits seal both ends.

3.4 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Requirements for inspecting and testing.

3.5 CLEANING

- A. Section 017000 - Execution and Closeout Requirements: Requirements for cleaning.
- B. Remove spilled and excess flowable fill from Project Site.
- C. Restore facilities and Site areas damaged or contaminated by flowable fill installation to existing condition before installation.

END OF SECTION 312323.33

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SECTION 330507.10 – PIPE BURSTING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This specification shall cover the rehabilitation of existing sanitary sewers using the pipe bursting method. Pipe bursting is a system by which the pneumatic burster unit splits the existing pipe while simultaneously installing a new Polyethylene pipe of the same size of larger size pipe where the old pipe existed. The existing forcemain is ductile iron.

1.2 QUALIFICATIONS

- A. The Contractor shall be certified by the particular pipe bursting system manufacturer that such Contractor is fully trained user of the pipe bursting system.
- B. Polyethylene pipe jointing shall be performed by personnel trained in the use of butt-fusion equipment and recommended methods for new pipe connections. Personnel directly involved with installing the new pipe shall receive training in the proper methods for handling and installing the polyethylene pipe. Training shall be performed by qualified representative.

1.3 SUBMITTALS

- A. Submit the following in accordance with Section 013300:
 - 1. Submit technical data for equipment, method of installation, and proposed sequence of construction.
 - 2. Certification of workmen training for installing pipe.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Transport, handle and store pipe and fittings as recommended by manufacturer.
- B. If new pipe and fittings become damaged before or during installation, it shall be repaired by the manufacturer or replaced as required by the Engineer at the Contractor's expense, before proceeding further.

1.5 METHODS FOR NEW PIPE INSTALLATION

- A. The methods approved for rehabilitation of existing sanitary sewers by pipe bursting and installation of new polyethylene pipe are Vermeer HAMMERHEAD Pipe Bursting System, (800-331-6653) or TT Technologies, Inc. (800-533-2078) or approved equal.

B. Materials

1. Polyethylene Plastic Pipe shall be high density polyethylene pipe and meet the applicable requirements of ASTM F714 Polyethylene (PE) Plastic Pipe (SDR-PR). Based on outside diameter, ASTM D1248, ASTM D3550.
2. All pipe shall be made of virgin material. No rework except that obtained from the manufacturer's own production of the same formulation shall be used.
3. The pipe shall be true in dimension throughout and shall be free of visible cracks, holes, foreign material, blisters, or other deleterious faults.
4. Dimension Ratios: The minimum wall thickness of the polyethylene pipe shall be as shown in drawings.

1.6 TESTS

- A. Tests for compliance with this specification shall be made as specific herein and in accordance with the applicable ASTM specification. A certificate with this specification shall be furnished, upon request, by the manufacturer for all material furnished under this specification.

1.7 EQUIPMENT

- A. The pipe bursting tool shall be designed and manufactured to force its way through existing pipe material by cutting the pipe and compressing the old pipe into the surrounding soil as it progresses. The bursting unit shall be pneumatic and shall generate sufficient force to burst and compact the existing pipe line. See manufacturers specifications for what size tool should be used in what diameter of pipe, as well as parameters of what size tool for percentage of upsize allowed.
- B. The pipe bursting tool shall be pulled through the sewer by a winch located at the upstream manhole. The bursting unit shall pull the polyethylene pipe with it as it moves forward.
- C. The pipe bursting tool shall be pneumatic, and must have the ability to go into reverse by turning the external whip hose. The bursting action of the tool shall increase the external dimensions sufficiently, causing breakage of the pipe at the same time expanding the surrounding ground. This action shall not only break the pipe but also create the void into which the burster can be winched and enables forward progress to be made. At the same time the polyethylene pipe, directly attached to the bursting head, on the front of the pneumatic tool, shall also move forward.
- D. The burster shall have its own forward movement while being assisted by winching. A hydrostatic winch shall give the burster friction by which it can be moved forward. To form a complete operating system, the burster must be matched to a constant tension hydrostatic winching system.

1.8 WINCH UNIT

- A. A winch shall be attached to the front of the bursting unit. The winch shall provide a constant tension to the burster in order that it may operate in an efficient manner. The winch shall ensure directional stability in keeping the unit on line.
- B. The winch shall be hydrostatically operated providing a constant tension throughout the operation. The winch shall be of the constant tension type but shall be fitted with a direct reading load gauge to measure the winching load.
- C. The constant tension winch shall supply sufficient cable in one continuous length so that the pull may be continuous between approved winching points.
- D. The winch, cable and cable drum must be provided with safety cage and supports so that it may be operated safely without injury to persons or property.
- E. The supports to the trench shoring in the insertion pit shall remain completely separate from the winch boom support system and shall be so designed that neither the pipe nor the winch cable shall be in contact with them.

PART 3 - EXECUTION

3.1 CONSTRUCTION METHOD

- A. Equipment used to perform the work shall be located away from buildings so as not to create noise impact. Provide a silent engine compartment with the winch to reduce machine noise as required to meet local requirements.
- B. The Contractor shall install all pulleys, rollers, bumpers, alignment control devices and other equipment required to protect the pipe from damage during installation. Lubrication may be used as recommended by the manufacturer. Under no circumstances will the pipe be stressed beyond its elastic limit. Winch line is to be centered in pipe to be burst with adjustable boom.

3.3 PIPE JOINING

- A. The polyethylene pipe shall be assembled and joined at the site using the butt-fusion method to provide a leak proof joint. Threaded or solvent-cement joints and connections are not permitted. All equipment and procedures shall be used in strict compliance with the manufacturer's recommendations. Fusing shall be accomplished by personnel certified as fusion technicians by a manufacturer of polyethylene pipe and/or fusing equipment.
- B. The butt-fused joint shall be true alignment and shall have uniform roll-back beads resulting from the use of proper temperature and pressure. The joint shall be allowed adequate cooling time before removal of pressure. The fused joint shall be watertight and shall have tensile strength equal to that of the pipe. All joints shall be subject to acceptance by the Engineer and/or his representative prior to insertion. All defective joints shall be cut out and replaced at no cost to the Owner. Any section of the pipe with a gash, blister, abrasion, nick, scar, or other deleterious fault greater in depth than ten percent of the wall thickness, shall not be used and must be removed from the site.

However, a defective area of the pipe may be cut out and the joint fused in accordance with the procedures stated above. In addition, any section of pipe having other defects such as concentrated ridges, discoloration, excessive spot roughness, pitting, variable wall thickness or any other defect of manufacturing or handling as determined by the Engineer and/or his representative shall be discarded and not used.

- C. Terminal sections of pipe that are joined within the insertion pit shall be connected with electrofusion couplings or connectors with tensile strength equivalent to that of the pipe being joined.

END OF SECTION 330507.10

SECTION 330523.13 - UTILITY HORIZONTAL DIRECTIONAL DRILLING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract Documents, including General and Supplementary Conditions, and all related Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Excavation for approach trenches and pits.
 - 2. Horizontal directional drilling.
 - 3. Pipe.
 - 4. Drilling fluid system.

- B. Related Requirements:

- 1. Section 312316 – Excavation.
 - 2. Section 312316.13 – Trenching.
 - 3. Section 312319 – Dewatering.
 - 4. Section 333400 – Sanitary Utility Sewerage Force Mains.

1.3 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials:

- 1. AASHTO T 180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

- B. ASTM International:

- 1. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³).
 - 2. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³).
 - 3. ASTM D1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
 - 4. ASTM D1785 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
 - 5. ASTM D2239 - Standard Specification for Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter.
 - 6. ASTM D2241 - Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series).

7. ASTM D2464 - Standard Specification for Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
8. ASTM D2466 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.
9. ASTM D2467 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
10. ASTM D2683 - Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing.
11. ASTM D2837 - Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure Design Basis for Thermoplastic Pipe Products.
12. ASTM D2855 - Standard Practice for Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings.
13. ASTM D3035 - Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter.
14. ASTM D3139 - Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.
15. ASTM D3261 - Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing.
16. ASTM D3350 - Standard Specification for Polyethylene Plastics Pipe and Fittings Materials.
17. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).
18. ASTM F714 - Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter.
19. ASTM F1056 - Standard Specification for Socket Fusion Tools for Use in Socket Fusion Joining Polyethylene Pipe or Tubing and Fittings.
20. ASTM F1962 - Standard Guide for Use of Maxi-Horizontal Directional Drilling for Placement of Polyethylene Pipe or Conduit Under Obstacles, Including River Crossings.

C. American Water Works Association:

1. AWWA C111 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
2. AWWA C900 - Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 In. Through 12 In. (100 mm Through 300 mm), for Water Transmission and Distribution.
3. AWWA C901 - Polyethylene (PE) Pressure Pipe and Tubing, 1/2 In. (13 mm) Through 3 In. (76 mm), for Water Service.
4. AWWA C906 - Polyethylene (PE) Pressure Pipe and Fittings, 4 In. (100 mm) Through 63 In. (1,600 mm), for Water Distribution and Transmission.

D. National Utility Contractors Association:

1. NUCA - Horizontal Directional Drilling Good Practices Guidelines.

E. Plastics Pipe Institute:

1. PPI TR-46 - Guidelines for Use of Mini-Horizontal Directional Drilling for Placement of High-Density Polyethylene Pipe.

1.4 COORDINATION

- A. Coordinate Work of this Section with State of West Virginia Highways and utilities within construction area.

1.5 PREINSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing Work of this Section.

1.6 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Requirements for submittals.
- B. Product Data:
 - 1. Identify source of water used for drilling.
 - 2. Submit copy of approvals and permits for use of water source.
- C. Shop Drawings:
 - 1. Submit technical data for equipment, method of installation, and proposed sequence of construction.
 - 2. Include information pertaining to pits, dewatering, method of spoils removal, and equipment size, capacity, and capabilities, including installing pipe on radius, type of drill bit, drilling fluid, method of monitoring line and grade, detection of surface movement, name plate data for drilling equipment, and mobile spoils removal unit.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- F. Qualifications Statement:
 - 1. Submit qualifications for driller.
- G. Submit State of West Virginia Highways occupancy permit for installations along, and/or under public thoroughways and lands.

1.7 CLOSEOUT SUBMITTALS

- A. Section 017000 - Execution and Closeout Requirements: Requirements for submittals.
- B. Project Record Documents: Record actual locations of pipe and invert elevations.
- C. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.
- D. Record actual depth of pipe at 25-foot intervals.

- E. Record actual horizontal location of installed pipe.
- F. Show depth and location of abandoned bores.
- G. Record depth and location of drill bits and drill stems not removed from bore.

1.8 QUALITY ASSURANCE

- A. Perform Work according to following:
 - 1. NUCA HDD Good Practices Guidelines.
 - 2. ASTM F1962.
 - 3. PPI TR-46.
- B. Maintain one copy of each standard affecting Work of this Section on Site.

1.9 QUALIFICATIONS

- A. Driller: Company specializing in performing Work of this Section with minimum three years' documented experience.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Provide temporary end caps and closures on piping and fittings until pipe is installed.
- B. Protect pipe from entry of foreign materials and water by installing temporary covers, completing sections of Work, and isolating parts of completed system.
- C. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
- D. Use shipping braces between layers of stacked pipe.
- E. Stack piping lengths no more than three layers high.
- F. Store field joint materials in original shipping containers in dry area indoors.
- G. Support pipes with nylon slings during handling.

1.11 AMBIENT CONDITIONS

- A. Section 015000 - Temporary Facilities and Controls: Requirements for ambient condition control facilities for product storage and installation.
- B. Maintain storage temperature of 60 to 85 degrees F.

1.12 EXISTING CONDITIONS

A. Field Measurements:

1. Verify field measurements prior to fabrication.
2. Indicate field measurements on Shop Drawings.

PART 2 - PRODUCTS

2.1 HORIZONTAL DIRECTIONAL DRILLING

A. Performance and Design Criteria:

1. Drilling Steering System: Remote with continuous electronic monitoring of boring depth and location.
2. Directional Change Capability: 90 degrees with 35-foot radius curve.
3. Ratio of Reaming Diameter to Pipe Outside Diameter:
 - a. Nominal Pipe Diameter of 6 Inches and Smaller: Maximum of 1.5.
 - b. Nominal Pipe Diameter Larger than 6 Inches: Submit recommended ratio and reaming procedures for review.
4. A drilling plan for gravity sewer installation shall be required. The contractor shall submit a certified plan to the Engineer for review prior to any construction. This shall be considered a Shop Drawing.

2.2 WATER SOURCE

- #### A. Water: Potable, obtained from utility source.

2.3 UNDERGROUND PIPE MARKERS

A. Trace Wire: Electronic detection materials for nonconductive piping products.

1. Unshielded 10 AWG THWN-insulated copper wire.
2. Conductive tape.

2.4 MATERIALS

A. Drilling Fluid:

1. Liquid bentonite clay slurry; totally inert with no environmental risk.

B. PVC Piping:

1. Pipe: Comply with AWWA C900, Class 235.
2. Fittings: Comply with AWWA C111, cast iron.

3. Joints: Comply with ASTM D3139, compression gasket ring.
 4. Materials: Comply with ASTM D1784, minimum cell classification 12545-C.
- C. Polyethylene (PE) Piping:
1. Pipe: Comply with AWWA C901, AWWA C906.
 2. Fittings: Comply with AWWA C901, AWWA C906, molded or fabricated.
 3. Joints: Compression or butt fusion.
 4. Materials: Comply with ASTM D3350, minimum cell classification 324433-C.
- D. High Density Polyethylene (HDPE) Piping:
1. Pipe: Comply with AWWA C906.
 2. Fittings: Comply with AWWA C906, molded or fabricated, butt fused, thermos fused to match pressure rating.
 3. Joints:
 - a. Joined with butt, heat fusion joints per ASTM D2657.
 - b. Dimension Ratio and/or Pressure Class as shown in Plans or described in Pay Item(s).
- E. Subsoil Fill: Type, as specified in Section 312316.13 - Trenching; excavated and reused soil with no rocks over 6 inches in diameter, frozen earth, or foreign matter.

2.5 MIXES

- A. Grout: one (1) part Portland Cement (ASTM C150) and six (6) part mortar sand with water to a consistency applicable per pressure grout.
- B. Flowable Fill: As specified in Section 312323.33 - Flowable Fill.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017000 - Execution and Closeout Requirements: Requirements for installation examination.
- B. Verify that connections to existing piping system, pipe sizes, locations, and elevations are according to Drawings.

3.2 PREPARATION

- A. Section 017000 - Execution and Closeout Requirements: Requirements for installation preparation.
- A. Call Miss Utility/One Call and Local Utility Companies no less than five (5) working days before performing Work.

1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Maintain access to existing facilities and services and indicated to remain; modify pipe installation to maintain access to existing facilities.
- C. Locate and identify utilities indicated to remain and protect from damage.
- D. Identify required lines, levels, contours, and data locations.
- E. Protect plant life, lawns, rock outcroppings, and other features remaining as portion of final landscaping.
- F. Protect benchmarks such as existing structures, fences, sidewalks, paving, curbs and survey control points from excavating equipment and vehicular traffic.
- G. Establish pipe elevations with not less than three (3) feet of cover.
- H. Establish minimum separation between existing utilities and, according to applicable code.

3.3 INSTALLATION

A. Dewatering:

1. See Section 312319 – Dewatering for further information.
2. Intercept and divert surface drainage, precipitation, and groundwater away from excavation using dikes, curb walls, ditches, pipes, sumps, or other approved means.
3. Develop and maintain substantially dry subgrade during drilling and pipe installation.
4. Comply with State and Federal requirements for discharging water to watercourse, preventing stream degradation, and controlling erosion and sediment.

B. Excavation:

1. Excavate subsoil as specified in Section 312316 - Excavation.
2. Excavate approach trenches and pits according to Shop Drawings and as Site conditions require; minimize number of access pits.
3. Provide sump areas to contain drilling fluids.
4. Install excavation supports as specified in Section 312316 - Excavation.
5. Restore areas after completion of drilling and carrier pipe installation.

C. Drilling:

1. Drill pilot bore with vertical and horizontal alignment as indicated on Drawings.
2. Survey entire drill path and mark entry and exit locations with stakes. If a magnetic guidance system is used, survey drill path for surface geomagnetic variations or anomalies.
3. Guide drill remotely from ground surface to maintain alignment by monitoring signals transmitted from drill bit.
 - a. Monitor depth, pitch, and position.
 - b. Adjust drill head orientation to maintain correct alignment.

4. Inject drilling fluid into bore to stabilize hole, remove cuttings, and lubricate drill bit and pipe.
 5. Continuously monitor drilling fluid pumping rate, pressure, viscosity, and density while drilling pilot bore, back reaming, and installing pipe to ensure adequate removal of soil cuttings and stabilization of bore.
 - a. Provide relief holes when required to relieve excess pressure.
 - b. Minimize heaving during pullback.
 6. Verification of Accuracy:
 - a. Calibrate and verify electronic monitor accuracy during first 50 feet of bore in presence of Engineer before proceeding with other drilling.
 - b. Excavate minimum of four test pits spaced along first 50 feet of bore to verify required accuracy.
 - c. If required accuracy is not met, adjust equipment, or provide new equipment capable of meeting required accuracy.
 7. After completing pilot bore, remove drill bit.
- D. Drilling Obstructions:
1. If obstructions are encountered during drilling, notify Engineer immediately. Do not proceed around obstruction without Engineer's approval.
 2. For conditions requiring more than 3 feet of deviation in horizontal alignment, submit revised Shop Drawings to Engineer for review before resuming Work.
 3. Maintain adjusted bore alignment within easement or right-of-way.
- E. Pipe:
1. Install reamer and pipe pulling head; select reamer with minimum bore diameter required for pipe installation.
 2. Attach pipe to pipe pulling head and pull reamer and pipe to entry pit along pilot bore.
 3. Inject drilling fluid through reamer to stabilize bore and lubricate pipe.
 4. Install piping with horizontal and vertical alignment as shown on Drawings.
 5. Protect and support pipe being pulled into bore such that pipe moves freely and is not damaged during installation.
 6. Do not exceed pipe manufacturer's recommended pullback forces.
 7. Trace Wire:
 - a. Install trace wire continuous with each bore.
 - b. Splice trace wire only at intermediate bore pits.
 - c. Tape or insulate trace wire to prevent corrosion and maintain integrity of pipe detection.
 - d. Terminate trace wire for each pipe run at structures along pipe system.
 - e. Provide extra length of trace wire at each structure such that trace wire can be pulled 3 feet out top of structure for connection to detection equipment.
 - f. Test trace wire for continuity for each bore before acceptance.
 8. Provide sufficient length of pipe to extend past termination point to allow connection to other pipe sections.

9. Allow minimum of 24 hours for stabilization after installing pipe before making connections to pipe.
10. Mark location and depth of bore with spray paint on paved surfaces and on wooden stakes on non-paved surfaces at 25-foot intervals.

F. Slurry Removal and Disposal:

1. Contain excess drilling fluids at entry and exit points until recycled or removed from Site; provide recovery system to remove drilling spoils from access pits.
2. Drilling Spoils:
 - a. Remove, transport, and legally dispose of drilling spoils.
 - b. Do not discharge drilling spoils in sanitary sewers, storm sewers, or other drainage systems.
 - c. When drilling in suspected contaminated soil, test drilling fluid for contamination before disposal.
3. If drilling fluid leaks to surface, immediately contain leak and barricade area from vehicular and pedestrian travel before resuming drilling operations.
4. Complete cleanup of drilling fluid at end of each working day.

G. Backfilling:

1. Install backfill as specified in Section 312316.13 - Trenching
2. Backfill approach trenches and pits with subsoil fill to contours and elevations of surrounding existing grade.
3. Compact subsoil fill as specified in Section 312316.13 - Trenching.

3.4 TOLERANCES

- A. Section 014000 - Quality Requirements: Requirements for tolerances.
- B. Maximum Variation from Horizontal Position: 12 inches.
- C. Maximum Variation from Vertical Elevation: 2 inches.
- D. Minimum Horizontal and Vertical Clearance from Other Utilities: 12 inches.
- E. Deviation:
 1. When pipe installation deviates beyond specified tolerances, abandon bore, remove installed pipe, rebore, and reinstall pipe in correct alignment.
 2. Fill abandoned bores with grout or flowable fill material.

3.5 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Requirements for inspecting and testing.
- B. Upon completion of pipe installation, test pipe according to Section 330130.13 – Sewer and Manhole Testing.

- C. Compaction Testing: As specified in Section 312316.13 - Trenching
- D. If tests indicate Work does not meet specified requirements, remove Work, replace, and retest.
- E. Frequency of Compaction Testing: One for each lift.
- F. Certify that equipment for drilling has been properly set up and is ready for drilling.

3.6 CLEANING

- A. Section 017000 - Execution and Closeout Requirements: Requirements for cleaning.
- B. Upon completion of drilling and pipe installation, remove drilling spoils, debris, and unacceptable material from approach trenches and pits. Clean up excess slurry from ground.
- C. Restore approach trenches and pits to original condition.

END OF SECTION 330523.13