



PROVIDENCE WATER SUPPLY BOARD

**WATER MAIN REHABILITATION PROGRAM
Replacement/Rehabilitation of Water Mains and Appurtenances within the
Providence Water Supply Board's Distribution System**

**CONTRACT 1-20 (PW Project No. 20201) – BLACKSTONE
&
CONTRACT 2-20 (PW Project No. 20202) – AUBURN
&
CONTRACT 3-20 (PW Project No. 20203) – CHARLES**

ADDENDUM NO. 3

The following changes, revisions and/or supplemental information, as applicable, are hereby issued as Addendum No. 3 in connection with the Contract Documents (Specifications) issued for the above-referenced projects.

1. Please note, the following documents are attached for record and inclusion in the Contract Documents:

“Meeting Report - 2019-12-11 - Pre-Bid Conference - ADDENDUM NO. 3”

“Response to Bidder Questions - Contracts 1-20, 2-20, & 3-20 - ADDENDUM NO. 3”
2. Replace in its entirety “Section 00410---Bid-Form (Cleaning & Lining) (Contract 1-20)” with the attached replacement section, as noted with ADDENDUM NO. 3.
3. Replace in its entirety “Section 00410---Bid-Form (Cleaning & Lining) (Contract 2-20)” with the attached replacement section, as noted with ADDENDUM NO. 3.
4. Replace in its entirety “Section 00410---Bid-Form (Cleaning & Lining) (Contract 3-20)” with the attached replacement section, as noted with ADDENDUM NO. 3.
5. Replace pages 01000-04 through 01000-15 in “Section 01000---General Requirements” with the attached replacement section, as noted with ADDENDUM NO. 3.
6. Replace in its entirety “Section 01150---Measurement & Payment” with the attached replacement section, as noted with ADDENDUM NO. 3.
7. Replace in its entirety “08200---Cold Plane / Micro-Mill Bituminous Pavement Restoration” with the attached replacement section, as noted with ADDENDUM NO. 3.

Should you have any questions, please do not hesitate to contact either Norm Ripstein at 401-521-6300 ext. 7212 or Roger Biron at ext. 7285.

Respectfully,

PROVIDENCE WATER SUPPLY BOARD



PROVIDENCE WATER SUPPLY BOARD

WATER MAIN REHABILITATION PROGRAM Replacement/Rehabilitation of Water Mains and Appurtenances within the Providence Water Supply Board's Distribution System

Attachments:

1. Meeting Report - 2019-12-11 - Pre-Bid Conference - ADDENDUM NO. 3
2. Response to Bidder Questions - Contracts 1-20, 2-20, & 3-20 - ADDENDUM NO. 3.
3. 00410---Bid-Form (Cleaning & Lining) (Contract 1-20) - ADDENDUM NO. 3
4. 00410---Bid-Form (Cleaning & Lining) (Contract 2-20) - ADDENDUM NO. 3
5. 00410---Bid-Form (CI Replacement) (Contract 3-20) - ADDENDUM NO. 3
6. Pages 4 through 15, 01000---General Requirements - ADDENDUM NO. 3
7. 01150---Measurement & Payment - ADDENDUM NO. 3
8. 08200---Cold Plane / Micro-Mill Bituminous Pavement Restoration - ADDENDUM NO. 3



PROVIDENCE WATER SUPPLY BOARD
2020 CONTRACTS
FOR
REPAIRS, REPLACEMENT, AND REHABILITATION
OF WATER MAINS AND APPURTENANCES
WITHIN THE PROVIDENCE WATER SUPPLY BOARD'S DISTRIBUTION SYSTEM

PRE-BID CONFERENCE MEETING MINUTES

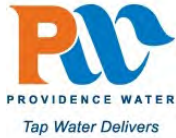
Date: December 11, 2019 Time: 9:30 AM
Location: Providence Water Central Operations Facility
125 Dupont Drive, Providence, RI

A. General Note:

It is expressly understood by all attendees that if there are any inadvertent conflicts in this Pre-Bid Conference with the project Drawings and Specifications, that the Drawings and Specifications and any issued Addenda shall govern.

B. Opening Remarks:

1. This is the Pre-Bid Conference for Providence Water's 2020 Contract's:
 - a. **CONTRACT 1-20** REPLACEMENT / REHABILITATION OF WATER MAINS AND APPURTENANCES WITHIN THE PROVIDENCE WATER SUPPLY BOARD'S DISTRIBUTION SYSTEM
 - (PW Project No. 20201)
 - **Blackstone Area**, Providence, RI
 - Rehabilitation method – **Cleaning and Lining**
 - b. **CONTRACT 2-20** REPLACEMENT / REHABILITATION OF WATER MAINS AND APPURTENANCES WITHIN THE PROVIDENCE WATER SUPPLY BOARD'S DISTRIBUTION SYSTEM
 - (PW Project No. 20202)
 - **Auburn Area**, Cranston, RI
 - Rehabilitation method – **Cleaning and Lining**
 - c. **CONTRACT 3-20** REPLACEMENT / REHABILITATION OF WATER MAINS AND APPURTENANCES WITHIN THE PROVIDENCE WATER SUPPLY BOARD'S DISTRIBUTION SYSTEM
 - (PW Project No. 20203)



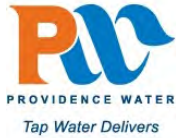
- **Charles Area**, Providence, RI
 - Rehabilitation method – **Water Main Replacement**
2. Bidders are advised that the **contract documents are not available online** and must be obtained at City Hall, as follows:

Patricia Jordan
Purchasing Dept. Room 408
Providence City Hall
25 Dorrance St
Providence, RI 02903
pjordan@providenceri.gov
401-680-5264
 3. Bids will be received by the Department of the City Clerk, City Hall, Providence, Rhode Island, until 2:00 P.M., on **Monday, January 6, 2020 (Contract 2-20), Tuesday, January 21, 2020 (Contract 1-20), and Monday, February 3, 2020 (Contract 3-20)**. At 2:15 PM, the Bids will be publicly opened and read aloud in the City Council Chambers on the Third Floor of City Hall.
 4. Project Schedule: Reference is made to Section 00100, Invitation to Bid, of the Contract Specifications, regarding the **intent to award separate one (1) year contracts for CONTRACT 1-20 and CONTRACT 2-20; and to award a two (2) year contract for CONTRACT 3-20**.
 - Bidders are not restricted from bidding on multiple contracts and may bid on all of the 2020 contracts if they so choose.
 - All water main and service related work, including **full depth temporary asphalt restoration of street excavations and permanent restoration of street excavations at intersections, sidewalks and grassy areas**, shall be completed during the 2020 construction season. **All excavations opened within a construction season must have restoration completed before the winter closeout of that construction season, and/or as directed by Providence Water.**
 - **Per Providence Water policy and per the contract specifications, all temporary by-pass must be removed prior to the winter closeout date of November 15th.**
 5. **CONTRACT 1-20, CONTRACT 2-20, and CONTRACT 3-20** will be funded through the RIDOH Drinking Water State Revolving Loan Fund.

Therefore, the following requirements apply:



- **10.20% DBE (MBE/WBE) Goal**
 - **Prevailing Wages Rates: Davis Bacon Act**
 - **American Iron and Steel Provisions**
6. The projects are subject to **MBE/WBE participation** by the City of Providence Minority Compliance Office. The City of Providence requires **20%** of the construction cost to be utilized for MBE/WBE companies (10% for each). The State of Rhode Island requires 10.2% DBE utilization. **The City of Providence 20% utilization rate shall govern.** All required MBE/WBE forms, which shall serve as the intended MBE/WBE Minority Compliance Plan for this contract, shall be completed and submitted with the Contractor's Bid ("Spec Section 00470 - Bidder Info. (MBE WBE Participation)"). Providence Water recommends that Contractors periodically contact the MBE/WBE Office and maintain records documenting their efforts to obtain and retain MBE/WBE Subcontractors for select work under these contracts.
 7. It is the responsibility of all potential bidders to make sure they have received all **Addenda** prior to bidding.
 8. Questions regarding the Contract Specifications are to be directed in writing to both Mr. Roger Biron and Mr. Norman Ripstein, by email at rogerb@provwater.com and normanr@provwater.com. **Addenda** will be issued to include the proceedings of this Pre-Bid Conference, all questions received by specified deadlines, and will address any changes or clarifications made during the bidding period. All inquiries must be submitted in writing and transmitted via e-mail. **For Contracts 1-20, Blackstone and 2-20, Auburn, the deadline for inquiries and questions from the Contractors is Wednesday, December 18, 2019, and Addenda will be issued no later than Monday, December 23, 2019. For Contract 3-20, Charles, the deadline for inquiries and questions from the Contractors is Monday, January 13, 2020, and Addenda will be issued no later than Friday, January 17, 2020.**
 9. The Attendees List and Minutes/Meeting Report for this Pre-Bid Conference will be sent via e-mail to all meeting attendees, and vendors who have taken out the contract documents from Providence City Hall, and will be issued in an addendum.
 10. Water Main Project Descriptions - General Scope of Work:
 - Reference the attached GIS color contract specific area maps.
 - The water main rehabilitation contract area for **CONTRACT 1-20** is located within the Blackstone Area of Providence, RI with approximately 16,000 LF of main rehabilitation.



- The water main rehabilitation contract area for **CONTRACT 2-20** is located within the Auburn Area of Cranston, RI with approximately 17,000 LF of main rehabilitation.
- The water main rehabilitation contract area for **CONTRACT 3-20** is located within the Charles Area of Providence, RI with approximately 30,000 LF of main rehabilitation. **The water main rehabilitation and service work for all primary roads in Charles shall be completed in the 2020 construction season. The following streets are considered primary roads: Charles St, Branch Ave, and Silver Spring St / Smithfield Ave. The drawings submitted in the contract documents at advertisement are considered to be 60% design drawings. Final 100% design drawings will be transmitted to all plan holders via addenda and will contain some changes in scope relating to water main rehabilitation on Charles St.**

C. 2020 Contracts Overview:

1. General Construction Notes:

- **Zinc Coated DI: All ductile iron pipe and fittings must be zinc coated and conform to the requirements of the American Iron and Steel Act.**
- Poly-encasement of the main will not be required in these contracts.
- The intent of all contracts is to fully rehabilitate the water mains within the contract work areas. For the cleaning and lining contracts, sections of mains that cannot be cleaned and lined must be replaced with ductile iron.
- **Full depth street paving, restoration of concrete base roadways, and permanent restoration of street excavations at intersections (including repair of traffic loops and restoration of pavement markings), sidewalks, and grassy areas, will be completed by the Contractor of each respective contract area within the same construction season. Permanent street paving will subsequently be completed in a separate restoration contract the following construction season.**
- **Limits of intersection permanent restoration shall be defined as those areas disturbed during construction measured from street property line to street property line in all directions. Where traffic loops are encountered, these areas will extend beyond the property lines to include the complete repair and restoration of these traffic control devices.**
- **The Contractor shall respond to all emergency calls immediately and commence emergency repair work at the job site within **one (1) hour** of being notified by the OWNER.**
- All valve installations and coupling connections at work limit terminations shall be restrained to the new piping for future work in adjacent areas.
- Water mains, water services, and hydrant runouts that are disconnected

from the system and **abandoned in place** shall be capped at ALL openings.

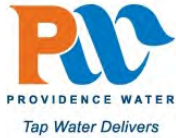
- A water facility shall be considered mismarked if its actual location is found to be greater than three feet from the DIGSAFE marked field location.
- **By-pass material components (including but not limited to temporary service hoses, couplings, adapters, valves, garden hose wyes, hose ends, and all other fittings and appurtenances) shall be manufactured in accordance with AWWA Standard C800 and shall be "Lead-Free" as defined for lead-free brass alloys in accordance with the ANSI/NSF-60 and ANSI/NSF-61 standards for components in contact with potable water. These products shall have the letters "NL" or "LF" cast into the main body for proper identification. **Contractors should carry the appropriate costs to comply with these aforementioned requirements. No additional compensation will be disbursed.****
- The successful bidder must phase his bypass plan for the work area. The entire project shall not be bypassed in one continuous system. Bypass plans are subject to review and approval by OWNER.
- 6-inch bypass piping shall be utilized where two (2) or more hydrants are located within the bypass system, unless a 4-inch bypass system has multiple feeder (supply) hydrants, or direct system connections. The Contractor shall always utilize 6-inch bypass piping for bypass systems that serve facilities with existing 6-inch fire services.
- **Both 4-inch and 6-inch domestic and fire services are shown both on the design plans and in the bid documents in Appendix H "Contract Area Distribution Map" for each respective contract. Should the contractor need clarification to the nature of these services if not already identified in these contract documents, questions shall be submitted in writing prior to the question and inquiry deadlines set herein.**
- **In terms of payment, there is no delineation between Primary and Secondary roads in the Bid Tab. Contractors should carry the appropriate costs required to work on a congested Primary Road with multiple utilities and heavy traffic. **No additional compensation will be disbursed.****

2. Municipality / DPW Notes and Requirements:

- Work may not begin before 7:00 am. If off-hours work is required, the contractor must seek permission in advance from DPW.
- All excavations must be sawcut; tearing of pavement is not allowed.
- Should a sidewalk panel be disturbed or damaged (broken, chipped, sawcut, removed, etc.) during the course of construction, the entire sidewalk panel shall be replaced as defined in the specifications. Partial sidewalk replacement or "knockouts" are not permitted. Saving the existing sidewalk panel to place back into the panel opening shall also not

be permitted. Contractor shall replace entire sidewalk panel(s) within the limits of disturbance. Limits of sidewalk replacement shall be at the existing control joints of damaged and/or disturbed panels. Sidewalks shall be replaced in full accordance with all standards, requirements, details, licenses, and permits of the municipality in which the sidewalk is located.

- Providence DPW issues road opening permits per block.
- Providence DPW will issue permits in phases to avoid construction conflicts amongst utilities.
- Providence DPW: Anytime the contractor is partially or fully closing the public sidewalk or public road they need to submit a street closing permit for review and approval. DPW requires 2 business days notice on these permits.
- Providence DPW - Charles: For the major roads Branch, Silver Spring / **Smithfield**, and Charles, DPW anticipates requiring work be done off peak (9AM to 4PM) but this will be dependent on what part of the right of way is being occupied/closed.
- Providence DPW: A traffic control plan is required to accompany the street closing permit. The exception is if you are closing the entire street on local streets. **For Contract 3-20 Charles**, the local streets will be those streets other than the major streets Branch, Silver Spring, and Charles.
- Bicycle and Pedestrian traffic must be maintained along streets in Blackstone. Bypass must be placed on the back of side walk to allow the access and egress of pedestrians.
- **Temporary Paving must be completed by the end of each work day. At the discretion and approval of the municipality, plates may be allowed overnight but must be pinned and bermed. Contact Nate Urso (Providence DPW) or Ken Mason (Cranston DPW) before plating.**
- No stockpiling of material in the public right of way.
- Equipment may not remain on roads overnight. Residents pay a premium to park along the roads. Contractors must have a storage yard offsite.
- **NO PORTAJOHNS are allowed** in the public Right-Of-Way, they must be stored offsite (Contractor may tow facilities and store off site during non-working hours).
- Lane or sidewalk closures must be coordinated with DPW traffic. Contractors must submit a traffic plan and update DPW daily on the day's work activities.
- Providence DPW issues "No Parking" signs for a fee. Contractors must use DPW's signage and may not create their own signs. Contact Nate Urso at 401-680-7518 for appropriate forms and fees.
- **Drainage basins/inlets must be protected with silt/sedimentation barrier, and not blocked by temporary bypass. Contractor will be responsible to clean drainage infrastructure if non-compliant.**



- The following streets have been identified by Cranston and Providence DPW to have concrete base: **Pontiac Ave, Cranston; Charles St, Branch Ave, Smithfield Ave, and Silver Spring St, Providence.**
- Contractor shall maintain all temporary patches in a good state. The Contractor shall repair any temporary patch at the direction of the OWNER. Failure to comply will result in permit revocation.
- Concrete truck washout shall not occur into, adjacent, or upstream of the drainage system.
- Contractor shall not park equipment on the sidewalks.
- **COMPACT** in 6 inch lifts. Patches shall not deviate more than .25” above or below adjacent road grade.
- Any sawcuts that haven’t been excavated or patched shall be crack sealed prior to winter shutdown.

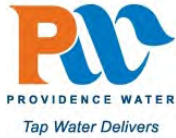
C. Construction Coordination, Phasing, & Scheduling

1. Customer Contact Information

- Through the course of construction, the Contractor may obtain contact information from property owners, residents, and/or tenants in order to facilitate construction operations (particularly in relation to bypass piping and temporary service connections). Contractor shall tabulate this information in a spreadsheet, formatted with the following headings: name, owner/resident/tenant, address, phone number, and email (if available). A digital copy of this spreadsheet shall be furnished to the OWNER by the completion of construction or at other such intervals as requested by the OWNER, so that OWNER can update contact databases with newly acquired information.

2. National Grid Construction - Coordination

- National Grid personnel will be monitoring the projects for potential encroachments and will work closely with the successful bidder to ensure compliance with their requirements. The successful bidder is required to inform the National Grid field representative of any issues encountered or foreseen within their trench excavations. Contact Chris Ferranti at 401-465-9064 or email Chris.Ferranti@nationalgrid.com for more information.
- National Grid may have abandoned gas mains (within the projects limits) that have been leased as conduits for telecommunications (fiber optics).
- National Grid will coordinate the removal of unoccupied abandoned mains that encroach upon our existing water mains at their cost.
- PW has reached out to National Grid and provided them in advance with the design plans for the 2020 project areas. They are aware of the streets in the 2020 contract’s scope of work. National Grid representative Chris Ferranti stated that Grid has planned gas infrastructure replacement within



these projects. National Grid will be invited to both the Pre-Construction meetings and bi-weekly project meetings once construction has begun.

3. **RIDOT – Coordination**

- The Contractor shall submit traffic control plans and seek permits from RIDOT for all state-maintained roads.
- Per PW coordination correspondence with RIDOT, there are no State-maintained roads within the 2020 contracts' limits. However, it is still the successful bidder's responsibility to coordinate with RIDOT to confirm state-maintained roads within their project limits. The preceding list should not be construed as complete nor binding in any fashion.
- For a complete listing of State-maintained roads please contact RIDOT or visit their website at:

www.dot.ri.gov/about/maproom/State_Maintained_Roads.php

4. **Traffic Control / Police Details**

- Contractors shall schedule the details with the respective police departments. **Police details shall be paid by the Contractor and reimbursed by PW per pay period without markup.** For reimbursement purposes, the Contractors shall submit invoices copies from the respective cities and towns with copies of daily detail vouchers for verification.
- Should a police detail be unavailable, Contractors may use flagmen. Flagmen will be compensated by Providence Water per pay application. PW will reimburse subcontractor flagging invoices as a pass through without markup. If the successful bidder chooses to use his own forces for flagging, they will be compensated based upon certified payroll wages, without markup.
- Contractors shall consult with the local police departments for pertinent traffic control needs. **The excessive use of flagging services to artificially inflate minority participation to meet contractual requirements is prohibited.**
- For purposes of bonding and award, lump sum allowances for police and flagging are included in the bid form. The invoices for these costs will be paid in monthly payment requisitions, against these allowances, as a pass-through with no markup.
- Should the bidder intend to meet a portion of MBE/WBE minority compliance goals with use of a State of Rhode Island certified MBE/WBE contractor, the use of the flagging allowance cost in the bid form in calculating compliance goals is permitted.
- Separate compensation shall not be disbursed for the costs associated with bonding, administration, and coordination of both police details and flagging services.

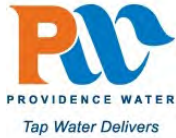


D. Private-Side LSR Installations

1. The OWNER will mail all property owners (with both lead & copper public side services) within the scope of work, a construction notification letter. Time permitting, the letter shall be sent at least 45 days prior to the public side lead service replacement work. The "45 Day Notification Letter" shall advise the property owner of the upcoming scheduled work activities, notify the property owner that a lead service potentially exists at their location, and ask the property owner if he/she is interested in a Not-To-Exceed estimate for the work, allowing the either the water main Contractor or an independent contractor to replace their private side lead service at the property owner's expense.
2. Providence Water has included Part 3 of the Bid Schedule for **CONTRACT 1-20**, **CONTRACT 2-20**, and **CONTRACT 3-20**, as a mechanism for successful bidders to complete private side lead service replacements within the contract limits of **CONTRACTS 1-20, 2-20, & 3-20**.
3. Private side lead service replacement contracts within the contract limits of **CONTRACTS 1-20, 2-20, & 3-20** may potentially be completed by Contractors that are not the Prime Contractor for **CONTRACTS 1-20, 2-20, & 3-20**; if so, the successful private side lead service Contractor must coordinate private side replacement work with the Prime Contractor for **CONTRACTS 1-20, 2-20, & 3-20**.
4. If contracted by a property owner the "Private Side" contractors performing private side lead service line replacements within the 2020 water main contract limits must coordinate their work with the prime contractors within each respective contract area. The private side contractor is responsible for the permanent restoration of the disturbed areas in the right-of-way (grassed area and sidewalk), only if their work occurs after the prime contractors of these contracts have completed permanent restoration for each respective contract area. Otherwise, restoration will be accomplished in accordance with the contract specifications by the prime contractor. The private side contractor is responsible for the permanent restoration of the disturbed areas in the right-of-way (grassed area and sidewalk), if said area is not or will not be disturbed by the prime contractor.

E. Customer & Resident Pre-Construction Notifications

1. 14-Day Letter Notification - "Construction Notification Advisory" (By Providence Water)
2. 72-hour door-hanger Notifications - "Important Notice" (Distributed by Contractor - Furnished by Providence Water)



3. 24-hour door-hanger Notifications - "Shutdown Notices" (Distributed by Contractor - Furnished by Providence Water)
4. Home/Building Service Shut-off: No earlier than 8:30 AM

F. Street and Sidewalk Restoration

1. Full Depth Temporary Asphalt Street Pavement & Permanent Sidewalk, Driveway and Intersection Pavement Restoration
 - With the exception of intersections and sidewalks, the typical 2” temporary restoration and settlement requirements will not be applicable. All paved areas disturbed in these contracts shall require full depth hotmix asphalt restoration.
 - WMR Contracts shall install full depth hotmix asphalt to match the existing street pavement thickness (minimum of four (4”) inches).
 - To account for settlement, the Contractor at his discretion (and at no additional expense to the OWNER) may install a two (2”) inch temporary pavement and then remove it to apply full depth pavement after a settlement period.
 - Temporary pavement markings shall be furnished at disturbed locations, as an interim measure until permanent markings can be installed in a separate paving contract. The Contractor shall maintain these excavations, at no additional cost, throughout the winter season. OWNER does not allow cold patch for temporary trench restoration over winter.
 - With the exception of intersections that are to be permanently restored in these contracts, the remaining permanent Street Pavement Restoration will be completed in a Separate Contract by a separate contractor.
 - WMR Contractors are responsible for the concrete base restoration (if required). Should the successful bidder choose to place 2” asphalt rather than plate before pouring concrete, he shall do so at his convenience and shall not be compensated.
 - WMR Contractors are responsible for permanent restoration of street intersections, sidewalks, driveways, and grassy areas. Intersections, sidewalks, and driveways shall be temporarily restored with 2” asphalt. After 60 days, intersections, sidewalks, and driveways will be permanently restored in kind.
2. Full Depth Temporary Asphalt Street Pavement Maintenance and Warranty: Street Intersections, Sidewalks, and Driveways



- The WMR Contractor shall be responsible for any failures due to settlement or failures associated with his water main rehabilitation work, for a period of one (1) year from the date of installation.
- The WMR Contractor shall warranty failures associated with street intersections, sidewalks, and driveways for a five (5) year period.

G. Special Bidding & Contractual Notes

1. Criminal Background Check (BCI) shall be required for all Contractor employees. PW shall provide badges for all contractor employees designated to enter into homes and buildings.
2. Polypropylene Couplings (HARCO) shall be used for all lead to copper connections at the curb stop. If the distance from curb stop to foundation is less than 10', lead free brass couplings shall be used.

NOTE: The information contained in this meeting report reflects our understanding of topics discussed and the decisions reached at the above meeting. Please contact the author within one week if you are not in agreement with any item of discussion.



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**CONTRACT 1-20 (PW Project No. 20201) – BLACKSTONE
&
CONTRACT 2-20 (PW Project No. 20202) – AUBURN
&
CONTRACT 3-20 (PW Project No. 20203) – CHARLES**

ADDENDUM NO. 3

RESPONSE TO BIDDER QUESTIONS

The following questions and responses, in reference to the 2020 water main rehabilitation projects above, are hereby issued for record.

1. Response to Question Submitted 12/04/2019 – Contracts 1-20 and 2-20:

Question Submitted:

“How will the contractor be compensated to furnish and install air release valves as shown in the contract drawings for Contracts 1-20 and 2-20?”

Response from PWSB:

Furnishing and installing air release valves, including all fittings and appurtenances required to attach to pipeline, as required and specified in the contract drawings, shall not be measured separately for payment, but the costs thereof shall be considered to be included in the unit price bid for the applicable work items under "PIPELINE SYSTEMS – PUBLIC SPACE" in section "01150 Measurement and Payment" of the bid documents.

2. Response to Question Submitted 12/04/2019 - Contract 2-20:

Question Submitted:

“What does the 6” ductile iron service feed at the intersection of High School Ave and Julia St?”

Response from PWSB:

This 6” ductile iron service is the fire service for Cranston City Hall.



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3. Response to Question Submitted 12/09/2019 - Contract 1-20:

Question Submitted:

“With respect to temporary bypass systems, can a high service feed supply low service connections on bypass?”

Response from PWSB:

Low service feeds must supply low service connections on bypass, and high service feeds must supply high service connections on bypass. There shall be no interconnection between different pressure zones.

4. Response to Question Submitted 12/13/2019 - Contracts 1-20 and 3-20:

Question Submitted:

“During the prebid it was mentioned that the due dates were as follows:

Contract 1 - 1/21/2020

Contract 3 - 2/03/2020

Please clarify, as the original Bid packets say it is the other way around.”

Response from PWSB:

The bid opening dates for Contracts 1-20 and 3-20 listed on the 12/11/2019 Prebid Agenda are correct.

“Bids will be received by the Department of the City Clerk, City Hall, Providence, Rhode Island, until 2:00 P.M., on **Monday, January 6, 2020 (Contract 2-20), Tuesday, January 21, 2020 (Contract 1-20), and Monday, February 3, 2020 (Contract 3-20)**. At 2:15 PM, the Bids will be publicly opened and read aloud in the City Council Chambers on the Third Floor of City Hall.”

The change in bid openings for Contract 1-20 and 2-20 was revised in Addendum No. 1, previously transmitted to plan holders both via email and downloaded to the City of Newport Bidding website.

5. Response to Question Submitted 12/13/2019 - Contracts 1-20, 2-20, and 3-20:

Question Submitted:

“Were the contractors for last year’s lining projects granted an apprenticeship work hour requirements reduction from the required 15%.”



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Response from PWSB:

The apprenticeship requirement in "Section 00490 Apprentice Utilization, Local Hiring Requirements, and Air Quality Protocols" is a federal mandate (29 CFR Part 29 - LABOR STANDARDS FOR THE REGISTRATION OF APPRENTICESHIP PROGRAMS). As these contracts are funded by the EPA through the State of Rhode Island State Revolving Fund (SRF), the apprentice requirement is required. Providence Water does not have the authority to grant relief of this requirement.

6. Response to Question Submitted 12/13/2019 - Contracts 1-20, 2-20, and 3-20:

Question Submitted:

“Are the costs for each of the street opening permits known, or can the relevant contact person for each municipality be provided?”

Response from PWSB:

Please contact Ken Mason, Cranston DPW at 401-780-3245 regarding permitting fees and requirements in the City of Cranston; and Craig Hochman, DPW Providence at 401-680-7515 regarding permitting fees and requirements in the City of Providence.

7. Response to Question Submitted 12/13/2019 - Contracts 1-20, 2-20, and 3-20:

Question Submitted:

“For the pavement restoration, it was mentioned that temporary pavement needs to be full depth, however the permanent pavement section 08000 - 6.2.1 calls out 3" max depth for pavement. Is it to be assumed that the max depth of pavement to be replaced is 3"? If not, are pavement thickness of the streets within the work area known?”

Response from PWSB:

The 3" pavement depth is a minimum ("NOT A MAXIMUM") depth of asphalt with a 1-1/2" wear coarse and 1-1/2" base coarse as outlined in Section 08000 Article 6.2.1 and 6.2.2. This refers to the "RIDOT Blue Book" standard of typical pavement courses on state maintained roads. However, refer to Article 5.2.3 in Section 08000, "For asphalt street restoration, or as directed by the OWNER, the Contractor shall install sufficient pavement to match the existing pavement thickness as described in Section 7.5, "Permanent Street Pavement Restoration" of "Section 01000 - General Requirements." Specifically, Article 7.5.2 states the following: "As directed by the OWNER, the Contractor shall install sufficient asphalt pavement **to match the existing pavement thickness (no less than four (4") inches of pavement shall be installed).**

The pavement thickness for side streets in the system are typically 4" in depth for major and minor arterials, and concrete base roadways the typical thickness is 6". Aside from the presence of concrete



PROVIDENCE WATER SUPPLY BOARD

**WATER MAIN REHABILITATION PROGRAM
Replacement/Rehabilitation of Water Mains and Appurtenances within the
Providence Water Supply Board's Distribution System**

base roads listed in the Prebid Agenda, the thickness of each individual street is unknown. However, the estimated quantities in the bid form for both 4" and 6" permanent asphalt restoration are based on prior contract experience in these areas.

8. Response to Question Submitted 12/16/2019 - Contract 3-20:

Question Submitted:

“On sheet 8 in Contract 3-20, the note on Grafton between Chatham and Flora reads ‘6” C&L’, is this a typographical error?”

Response from PWSB:

Yes, the call out on Grafton should read “6” CI to DI”. The intent for the entirety of Contract 3-20 Charles is to replace the existing cast iron mains with appropriately sized ductile iron pipe, fittings, and appurtenances.

Should you have any questions, please do not hesitate to contact either Norm Ripstein at 401-521-6300 ext. 7212 or Roger Biron at ext. 7285.

Respectfully,

PROVIDENCE WATER SUPPLY BOARD

CONTRACT 1-20, BLACKSTONE

SECTION 00410

BIDFORM

CLEANING & LINING

SECTION 00410

BID FORM

PROJECT IDENTIFICATION:

Replacement/Rehabilitation of Water Mains and Appurtenances

within the Providence Water Supply Board's Distribution System

(PW Project No. 20201)

CONTRACT 1-20

THIS BID IS SUBMITTED TO:

City of Providence
Board of Contract and Supply
Department of the City Clerk
City Hall
Providence, Rhode Island 02903

- 1.01** The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER, in a form to be prepared by the OWNER consistent with the Bidding Documents, to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
- 2.01** Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.
- 3.1** In submitting this Bid, Bidder represents, as set forth in the Bidding Documents and the Agreement, that:
 - A.** Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and any and all Addenda that Bidder has listed on the Bidder's Blank at the end of this Section, receipt of all of which is hereby acknowledged.
 - B.** As required to be indicated on the Bidder's Blank at the end of this Section, Bidder acknowledges by so indicating that either this Bid conforms with the requirements of the Bidding Documents, or is based on modifications/exceptions taken to the Bidding Documents; any modifications have been provided by Bidder with this Bid as required.
 - C.** Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

SECTION 00410

BID FORM

- D.** Bidder is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- E.** Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which, if any, have been identified in the Bidding Documents as provided in Paragraph 4.02 of the General Conditions (as modified by the Supplementary Conditions), and (2) reports and drawings of a Hazardous Environmental Condition, if any, which have been identified in the Bidding Documents as provided in Paragraph 4.06 of the General Conditions (as modified by the Supplementary Conditions).
- F.** Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by the Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by the Bidder, safety precautions and programs incident thereto.
- G.** Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- H.** Bidder is aware of the general nature of any work to be performed by OWNER and/or others at the Site that relates to the Work as indicated in the Bidding Documents.
- I.** Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- J.** Bidder has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the resolution thereof by OWNER is acceptable to Bidder.

SECTION 00410-1

BID FORM

- K.** The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- 4.01** Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
- 5.1** Bidder agrees that the Work will be completed and ready for final payment in accordance with Paragraph 14.07.B of the General Conditions, as modified by Paragraph 14.07.B.1 of the Supplementary Conditions, within the time frame specified for each project assignment as provided in Paragraph 2.03 of the General Conditions, as modified by Paragraph 2.03.A of the Supplementary Conditions.
- 5.2** Bidder accepts the provisions of the Bidding Documents as to liquidated damages, and in the event of failure to complete the Work within the times specified above agrees to pay **\$5,500** per calendar day that completion is late beyond the specified times.
- 6.1** The following documents are attached to and made a condition of this Bid:
- A.** Required Bid security;
 - B.** Listing of proposed Subcontractors, Suppliers, and other individuals and entities required to be identified by the Bidding Documents;
 - C.** Contractor Qualification Statement with supporting documentation required by the Bidding Documents.
- 7.1** The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.



BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND

BID FROM:

Company Name: _____

(SEAL)

If incorporated, State of Incorporation: _____

Date of Incorporation: _____

Type of Business (from incorporation papers): _____

By: _____

(Signature - attach evidence of authority to sign if not an individual submitting Bid)

Name (typed or printed): _____

Title: _____

Date: _____

Business Address: _____

Phone No. _____ Fax No. _____

Bidder State of Rhode Island License Information:

License No.

Type of License/Trade Licensed



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID FORM 1: Bidders Blank

Refer to page 6 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID FORM 2: Certification of Bidder
(Non-Discrimination/Hiring)

Refer to page 7 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"



BID FORM 3: Bidder Certification

50% Performance of Work

Refer to page 7-1 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"

Part 1

UNIT RATES

for Water Main Replacement & Rehabilitation Work

1. Furnish & Install 4-inch D.I. Water Main	80 LF ----- Est. Qty.	----- Price per LF (Figures)
----- Price per Linear Foot (Written)		----- Total Amt. Bid (Figures)
2. Furnish & Install 6-inch D.I. Water Main	1,000 LF ----- Est. Qty.	----- Price per LF (Figures)
----- Price per Linear Foot (Written)		----- Total Amt. Bid (Figures)
3. Furnish & Install 8-inch D.I. Water Main	840 LF ----- Est. Qty.	----- Price per LF (Figures)
----- Price per Linear Foot (Written)		----- Total Amt. Bid (Figures)
4. Furnish & Install 12-inch D.I. Water Main	80 LF ----- Est. Qty.	----- Price per LF (Figures)
----- Price per Linear Foot (Written)		----- Total Amt. Bid (Figures)
5. Furnish & Install 16-inch D.I. Water Main	40 LF ----- Est. Qty.	----- Price per LF (Figures)
----- Price per Linear Foot (Written)		----- Total Amt. Bid (Figures)
6. Furnish & Install 20-inch D.I. Water Main	20 LF ----- Token Qty.	----- Price per LF (Figures)
----- Price per Linear Foot (Written)		----- Total Amt. Bid (Figures)

Part 1

7. Furnish & Install Ductile-Iron Pipe Fittings	<u>8,600 LBS</u> Est. Qty.	<hr/> Price per LB (Figures)
Price per Pound (Written)		Total Amt. Bid (Figures)
8. Furnish & Install 4-Inch Gate Valve	<u>4 EA</u> Est. Qty.	<hr/> Price per Each (Figures)
Price per Each (Written)		Total Amt. Bid (Figures)
9. Furnish & Install 6-Inch Gate Valve	<u>30 EA</u> Est. Qty.	<hr/> Price per Each (Figures)
Price per Each (Written)		Total Amt. Bid (Figures)
10. Furnish & Install 8-Inch Gate Valve	<u>22 EA</u> Est. Qty.	<hr/> Price per Each (Figures)
Price per Each (Written)		Total Amt. Bid (Figures)
11. Furnish & Install 12-Inch Gate Valve	<u>2 EA</u> Est. Qty.	<hr/> Price per Each (Figures)
Price per Each (Written)		Total Amt. Bid (Figures)

Part 1

12. Furnish & Install New Fire Hydrant Assembly

a. 6" Branch

17 EA
Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

b. 8" Branch

2 EA
Token Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

13. Furnish & Install 2-Inch Blow-off Assembly

3 EA
Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

Part 1

14. Lead Service Replacement

a. Furnish and Install 1" Copper Tubing (Trenchless Technology)	2,750 LF	
	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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b. Furnish and Install 1" Copper Tubing (Open-Cut Trench)	820 LF	
	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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c. Furnish and Install 1" Corporation Stop, Curb Stop, and Service Box (Includes Corp, Curb Stop & Service Box)	217 EA	
	Est. Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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15. Lead Service Replacement

a. Furnish and Install 1-1/2" Copper Tubing (Trenchless Technology)	30 LF	
	Token Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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b. Furnish and Install 1-1/2" Copper Tubing (Open-Cut Trench)	15 LF	
	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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c. Furnish and Install 1-1/2" Corporation Stop, Service Saddle, Curb Stop, and Service Box (Includes Corp, Service Saddle, Curb Stop & Service Box)	1 EA	
	Est. Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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Part 1

16. Lead Service Replacement

**a. Furnish and Install 2" Copper Tubing
(Trenchless Technology)**

30 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**b. Furnish and Install 2" Copper Tubing
(Open-Cut Trench)**

15 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**c. Furnish and Install 2" Corporation Stop,
Service Saddle, Curb Stop, and Service Box
(Includes Corp, Service Saddle, Curb Stop & Service Box)**

1 EA
Token Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

Part 1

17. Reconnect Existing Copper Water Services

a. Reconnect Existing 3/4" Copper Service	2 EA	
(Including corporation stop, copper tubing, coupling, and appurtenances)	Token Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
--------------------------	--	--------------------------

b. Reconnect Existing 1" Copper Service	8 EA	
(Including corporation stop, copper tubing, coupling, and appurtenances)	Est. Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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c. Reconnect Existing 1-1/2" Copper Service	3 EA	
(Including corporation stop, copper tubing, coupling, and appurtenances)	Est. Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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d. Reconnect Existing 2" Copper Service	2 EA	
(Including corporation stop, copper tubing, coupling, and appurtenances)	Token Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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Part 1

18. Cleaning and Lining Water Mains

a. Clean & Line Existing 6" C.I. Water Main	8,000 LF	
(Including the removal of existing 6" valves and appurtenances during the cleaning and lining process)	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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b. Clean & Line Existing 8" C.I. Water Main	6,200 LF	
(Including the removal of existing 8" valves and appurtenances during the cleaning and lining process)	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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c. Clean & Line Existing 12" C.I. Water Main	100 LF	
(Including the removal of existing 12" valves and appurtenances during the cleaning and lining process)	Token Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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d. Obstructions	1 EA	
(Associated with the Cleaning and Lining Operations for the existing 6", 8", and 12" C.I. water mains within the contract area)	Token Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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Part 1

19. Temporary By-Pass Piping System

<p>a. Furnish and Install Temporary 2" By-Pass Piping (Including temporary services and hydrants)</p>	<p><u>13,900 LF</u> Est. Qty.</p>	<p><u>Price per LF (Figures)</u></p>
<p>_____</p> <p>Price per Linear Foot (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>
<p>b. Furnish and Install Temporary 4" By-Pass Piping (Including temporary services and hydrants)</p>	<p><u>9,330 LF</u> Est. Qty.</p>	<p><u>Price per LF (Figures)</u></p>
<p>_____</p> <p>Price per Linear Foot (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>
<p>c. Furnish and Install Temporary 6" By-Pass Piping (Including temporary services and hydrants)</p>	<p><u>1,920 LF</u> Est. Qty.</p>	<p><u>Price per LF (Figures)</u></p>
<p>_____</p> <p>Price per Linear Foot (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>

Part 1

ADDENDUM NO. 3

UNIT RATES for Earthwork and Restoration
within Public Space

ADDENDUM NO. 2

20. Earthwork

a. Gravel Borrow

3,300 TN
Est. Qty.

Price per TN (Figures)

Price per Ton (Written)

Total Amt. Bid (Figures)

b. Test Pits

50 CY
Token Qty.

Price per CY (Figures)

Price per Cubic Yard (Written)

Total Amt. Bid (Figures)

21. Temporary Restoration

a. Furnish & Place Sidewalk Pavement - 2" Bituminous

1,200 SY
Est. Qty.

Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

b. Furnish & Place Street Pavement - 2" Bituminous (Intersections)

1,300 SY
Est. Qty.

Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

c. Furnish & Place Street Pavement - 4" Bituminous

ITEM NOT APPLICABLE TO THIS CONTRACT

d. Furnish & Place Street Pavement - 6" Bituminous

ITEM NOT APPLICABLE TO THIS CONTRACT

Part 1

22. Permanent Restoration

a. Furnish & Place Street Pavement - 4" Bituminous	3,400 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
b. Furnish & Place Street Pavement - 6" Bituminous	420 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
c. Furnish & Place Street Pavement - 9" Bituminous	100 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
d. Furnish & Place Street Pavement - Concrete Base	1,200 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
e. Furnish & Place Street Pavement - Bituminous Binder Only	35 TN <hr/> Token Qty.	<hr/> Price per TN (Figures)
<hr/>		<hr/>
Price per Ton (Written)		Total Amt. Bid (Figures)
f. Furnish & Place Sidewalk (Driveway) Pavement - 3" Bit.	100 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
g. Furnish & Place Sidewalk Pavement - 4" Concrete	500 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
h. Furnish & Place Sidewalk (Driveway) Pavement - 6" Conc.	100 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)

Part 1

i. Brick / Paver Restoration

80 SY
Est. Qty.

Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

j. Cobblestone Restoration

20 SY
Token Qty.

Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

23. Select Curb Restoration

a. Furnish & Install Granite Curbing (Vertical Face)

20 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

b. Furnish & Install Precast Concrete Curbing (Vertical Face)

20 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

c. Furnish & Install Bituminous Curbing (Vertical Face)

20 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

d. Cast-in-Place Concrete Curbing

20 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

e. Reset Existing Curbing

110 LF
Est. Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

Part 1

ADDENDUM NO. 3

TOTAL BASE BID

- a. **Water Main Rehabilitation Work (Bid Item Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12a, 12b, 13, 14a to 14c, 15a to 15c, 16a to 16c, 17a to 17d, 18a to 18d, 19a to 19c)**

Total Bid Price (Written)

Total Amt. Bid (Figures)

- b. **Earth Work and Restoration (Bid Item Nos. 20a, 20b, 21a, 21b, 22a to 22j, 23a to 23e)**

Total Bid Price (Written)

Total Amt. Bid (Figures)

- c. **Traffic Control - Flaggers**

One Hundred Seventy Thousand and Zero/100 Dollars
Total Bid Price (Written)

\$170,000.00
Total Amt. Bid (Figures)

- d. **Traffic Control - Police Details**

One Hundred Seventy Thousand and Zero/100 Dollars
Total Bid Price (Written)

\$170,000.00
Total Amt. Bid (Figures)

TOTAL BASE BID (PART 1): Overall Contract Area
(Sum of a, b, c, and d above.)

Total Bid Amount (Written)

Total Bid Amount (Figures)

Part 2

UNIT RATES for Service Abandonments

24. Remove Lead Service ONLY (Not To Be Replaced - Abandoned Services)

a. Remove & Dispose of Lead Service Pipe (if required)

Price per Linear Foot (Written)

Price per LF (Figures)

b. Close Old Corporation & Cut and Crimp Old Lead Service Pipe

Price per Each (Written)

Price per EA (Figures)

c. Remove & Dispose of Old Curb Stop & Service Box

Price per Each (Written)

Price per EA (Figures)

25. Cast Iron Abandonments NOT SPECIFIED ON DESIGN PLANS

a. Remove & Dispose Abandoned 4" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

b. Remove & Dispose Abandoned 6" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

c. Remove & Dispose Abandoned 8" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

Part 3

ADDENDUM NO. 3

**UNIT RATES for Replacement of Lead Services
and Appurtenances within Private Property ONLY**

26. Install New Water Service within Private Property

a. Furnish and Install 1" Private Side Services

From Curb Stop to inside Water Meter location (Includes removal & disposal of lead service pipe, associated interior pipework, fittings, and appurtenances)

Price per Each (Written)

Price per EA (Figures)

b. Furnish and Install 2" Private Side Services

From Curb Stop to inside Water Meter location (Includes removal & disposal of lead service pipe, associated interior pipework, fittings, and appurtenances)

Price per Each (Written)

Price per EA (Figures)

Part 3

ADDENDUM NO. 3

27. Reduced Pressure Zone (RPZ) Backflow Preventers - Commercial Customers

a. Furnish, Install, and Test 3/4" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

b. Furnish, Install, and Test 1" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

c. Furnish, Install, and Test 1-1/2" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

d. Furnish, Install, and Test 2" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

MISCELLANEOUS UNIT PRICES
for WORK not specified in Parts 1, 2, and 3

28. Existing Water Main Flow Stopping Devices (Single)

a. Furnish & Install 6" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 12" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

29. Existing Water Main Flow Stopping Devices (Double)

a. Furnish & Install 6" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 12" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

ADDENDUM NO. 2

30. Tapping Sleeves and Valves

a. Furnish & Install 6" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" x 8" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 8" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

d. Furnish & Install 12" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

e. Furnish & Install 12" x 8" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

f. Furnish & Install 12" x 12" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

31. Insertion Valves

a. Furnish & Install 6" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

c. Furnish & Install 12" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

32. Butterfly Valves

a. Furnish & Install 16" Butterfly Valve

Price per Each (Written)

Price per EA (Figures)

33. Provisional Items

a. Infrared Bituminous Pavement Restoration (4" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

b. Infrared Bituminous Pavement Restoration (6" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

c. Infrared Bituminous Pavement Restoration (9" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

Part 4

ADDENDUM NO. 3

d. Cold Plane / Micro Mill Bituminous Pavement Restoration (4" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

e. Cold Plane / Micro Mill Bituminous Pavement Restoration (6" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

f. Cold Plane / Micro Mill Bituminous Pavement Restoration (9" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

g. Furnish & Place Temporary Street Pavement - 2" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

h. Furnish & Place Temporary Street Pavement - 4" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

i. Furnish & Place Temporary Street Pavement - 6" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

j. Dry-Hole Excavation and Backfilling

Two thousand and Zero/100 Dollars

\$2,000.00

Price per Each (Written)

Price per EA (Figures)

k. Exploratory Video Inspection

Fifty and Zero/100 Dollars

\$50.00

Price per Linear Foot (Written)

Price per LF (Figures)

l. Trench Rock Excavation & Removal

Two-Hundred Fifty and Zero/100 Dollars

\$250.00

Price per Cubic Yard (Written)

Price per CY (Figures)

Part 5

ADDENDUM NO. 3

LABOR RATES
for ADDITIONAL WORK not specified in Parts 1, 2, and 3

34. Labor Rates per hour - includes insurance, fringes, and overhead

(Submission of Certified Payrolls required)

a.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
b.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
c.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
d.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
e.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
f.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
g.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour

Use additional sheets if necessary

Part 5

ADDENDUM NO. 3

EQUIPMENT RATES

for ADDITIONAL WORK not specified in Parts 1, 2, and 3

35. Equipment Rates

a.	Type	Make	Year	\$	Rate per hour
b.	Type	Make	Year	\$	Rate per hour
c.	Type	Make	Year	\$	Rate per hour
d.	Type	Make	Year	\$	Rate per hour
e.	Type	Make	Year	\$	Rate per hour
f.	Type	Make	Year	\$	Rate per hour
g.	Type	Make	Year	\$	Rate per hour
h.	Type	Make	Year	\$	Rate per hour
i.	Type	Make	Year	\$	Rate per hour
j.	Type	Make	Year	\$	Rate per hour
k.	Type	Make	Year	\$	Rate per hour

Use additional sheets if necessary

Part 5

ADDENDUM NO. 3

MATERIALS & SUBCONTRACTOR COST MARKUP
for ADDITIONAL WORK not specified in Parts 1, 2, and 3

36. Materials Cost Markup Percentage

a. Contractor's Cost plus

(Submission of Original Invoices required)

Percentage (Written)

Percentage (Figures)

37. Subcontractor Cost Markup Percentage

a. Contractor's Cost plus

(Submission of Original Invoices required)

Percentage (Written)

Percentage (Figures)

CONTRACT 2-20, AUBURN

SECTION 00410

BIDFORM

CLEANING & LINING

SECTION 00410

BID FORM

PROJECT IDENTIFICATION:

Replacement/Rehabilitation of Water Mains and Appurtenances

within the Providence Water Supply Board's Distribution System

(PW Project No. 20202)

CONTRACT 2-20

THIS BID IS SUBMITTED TO:

City of Providence
Board of Contract and Supply
Department of the City Clerk
City Hall
Providence, Rhode Island 02903

- 1.01** The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER, in a form to be prepared by the OWNER consistent with the Bidding Documents, to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
- 2.01** Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.
- 3.1** In submitting this Bid, Bidder represents, as set forth in the Bidding Documents and the Agreement, that:
 - A.** Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and any and all Addenda that Bidder has listed on the Bidder's Blank at the end of this Section, receipt of all of which is hereby acknowledged.
 - B.** As required to be indicated on the Bidder's Blank at the end of this Section, Bidder acknowledges by so indicating that either this Bid conforms with the requirements of the Bidding Documents, or is based on modifications/exceptions taken to the Bidding Documents; any modifications have been provided by Bidder with this Bid as required.
 - C.** Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

SECTION 00410

BID FORM

- D.** Bidder is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- E.** Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which, if any, have been identified in the Bidding Documents as provided in Paragraph 4.02 of the General Conditions (as modified by the Supplementary Conditions), and (2) reports and drawings of a Hazardous Environmental Condition, if any, which have been identified in the Bidding Documents as provided in Paragraph 4.06 of the General Conditions (as modified by the Supplementary Conditions).
- F.** Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by the Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by the Bidder, safety precautions and programs incident thereto.
- G.** Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- H.** Bidder is aware of the general nature of any work to be performed by OWNER and/or others at the Site that relates to the Work as indicated in the Bidding Documents.
- I.** Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- J.** Bidder has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the resolution thereof by OWNER is acceptable to Bidder.

SECTION 00410-1

BID FORM

- K.** The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- 4.01** Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
- 5.1** Bidder agrees that the Work will be completed and ready for final payment in accordance with Paragraph 14.07.B of the General Conditions, as modified by Paragraph 14.07.B.1 of the Supplementary Conditions, within the time frame specified for each project assignment as provided in Paragraph 2.03 of the General Conditions, as modified by Paragraph 2.03.A of the Supplementary Conditions.
- 5.2** Bidder accepts the provisions of the Bidding Documents as to liquidated damages, and in the event of failure to complete the Work within the times specified above agrees to pay **\$5,500** per calendar day that completion is late beyond the specified times.
- 6.1** The following documents are attached to and made a condition of this Bid:
- A.** Required Bid security;
 - B.** Listing of proposed Subcontractors, Suppliers, and other individuals and entities required to be identified by the Bidding Documents;
 - C.** Contractor Qualification Statement with supporting documentation required by the Bidding Documents.
- 7.1** The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.



BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND

BID FROM:

Company Name: _____

(SEAL)

If incorporated, State of Incorporation: _____

Date of Incorporation: _____

Type of Business (from incorporation papers): _____

By: _____

(Signature - attach evidence of authority to sign if not an individual submitting Bid)

Name (typed or printed): _____

Title: _____

Date: _____

Business Address: _____

Phone No. _____ Fax No. _____

Bidder State of Rhode Island License Information:

License No.

Type of License/Trade Licensed



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID FORM 1: Bidders Blank

Refer to page 6 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID FORM 2: Certification of Bidder
(Non-Discrimination/Hiring)

Refer to page 7 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"



BID FORM 3: Bidder Certification

50% Performance of Work

Refer to page 7-1 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"

Part 1

UNIT RATES

for Water Main Replacement & Rehabilitation Work

1. Furnish & Install 4-inch D.I. Water Main	40 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
2. Furnish & Install 6-inch D.I. Water Main	2,140 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
3. Furnish & Install 8-inch D.I. Water Main	220 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
4. Furnish & Install 12-inch D.I. Water Main	60 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
5. Furnish & Install 16-inch D.I. Water Main	20 LF <hr/> Token Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
6. Furnish & Install 20-inch D.I. Water Main	20 LF <hr/> Token Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)

Part 1

7. Furnish & Install Ductile-Iron Pipe Fittings	<u>6,700 LBS</u> Est. Qty.	<hr/> Price per LB (Figures)
Price per Pound (Written)		Total Amt. Bid (Figures)
8. Furnish & Install 4-Inch Gate Valve	<u>2 EA</u> Est. Qty.	<hr/> Price per Each (Figures)
Price per Each (Written)		Total Amt. Bid (Figures)
9. Furnish & Install 6-Inch Gate Valve	<u>52 EA</u> Est. Qty.	<hr/> Price per Each (Figures)
Price per Each (Written)		Total Amt. Bid (Figures)
10. Furnish & Install 8-Inch Gate Valve	<u>5 EA</u> Est. Qty.	<hr/> Price per Each (Figures)
Price per Each (Written)		Total Amt. Bid (Figures)
11. Furnish & Install 12-Inch Gate Valve	<u>3 EA</u> Est. Qty.	<hr/> Price per Each (Figures)
Price per Each (Written)		Total Amt. Bid (Figures)

Part 1

12. Furnish & Install New Fire Hydrant Assembly

a. 6" Branch

15 EA	
Est. Qty.	Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

b. 8" Branch

2 EA	
Est. Qty.	Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

13. Furnish & Install 2-Inch Blow-off Assembly

2 EA	
Token Qty.	Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

Part 1

14. Lead Service Replacement

**a. Furnish and Install 1" Copper Tubing
(Trenchless Technology)**

420 LF
Est. Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**b. Furnish and Install 1" Copper Tubing
(Open-Cut Trench)**

130 LF
Est. Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**c. Furnish and Install 1" Corporation Stop, Curb Stop,
and Service Box**
(Includes Corp, Curb Stop & Service Box)

26 EA
Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

15. Lead Service Replacement

**a. Furnish and Install 1-1/2" Copper Tubing
(Trenchless Technology)**

30 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**b. Furnish and Install 1-1/2" Copper Tubing
(Open-Cut Trench)**

15 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**c. Furnish and Install 1-1/2" Corporation Stop,
Service Saddle, Curb Stop, and Service Box**
(Includes Corp, Service Saddle, Curb Stop & Service Box)

1 EA
Token Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

Part 1

16. Lead Service Replacement

**a. Furnish and Install 2" Copper Tubing
(Trenchless Technology)**

30 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**b. Furnish and Install 2" Copper Tubing
(Open-Cut Trench)**

15 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**c. Furnish and Install 2" Corporation Stop,
Service Saddle, Curb Stop, and Service Box
(Includes Corp, Service Saddle, Curb Stop & Service Box)**

1 EA
Token Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

Part 1

17. Reconnect Existing Copper Water Services

a. Reconnect Existing 3/4" Copper Service	12 EA	
(Including corporation stop, copper tubing, coupling, and appurtenances)	Est. Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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b. Reconnect Existing 1" Copper Service	9 EA	
(Including corporation stop, copper tubing, coupling, and appurtenances)	Est. Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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c. Reconnect Existing 1-1/2" Copper Service	2 EA	
(Including corporation stop, copper tubing, coupling, and appurtenances)	Token Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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d. Reconnect Existing 2" Copper Service	2 EA	
(Including corporation stop, copper tubing, coupling, and appurtenances)	Token Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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Part 1

18. Cleaning and Lining Water Mains

a. Clean & Line Existing 6" C.I. Water Main	12,600 LF	
(Including the removal of existing 6" valves and appurtenances during the cleaning and lining process)	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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b. Clean & Line Existing 8" C.I. Water Main	1,580 LF	
(Including the removal of existing 8" valves and appurtenances during the cleaning and lining process)	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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c. Clean & Line Existing 12" C.I. Water Main	400 LF	
(Including the removal of existing 12" valves and appurtenances during the cleaning and lining process)	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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d. Obstructions	1 EA	
(Associated with the Cleaning and Lining Operations for the existing 6", 8", and 12" C.I. water mains within the contract area)	Token Qty.	Price per Each (Figures)

Price per Each (Written)		Total Amt. Bid (Figures)
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Part 1

19. Temporary By-Pass Piping System

a. Furnish and Install Temporary 2" By-Pass Piping	14,600 LF	
(Including temporary services and hydrants)	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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b. Furnish and Install Temporary 4" By-Pass Piping	9,800 LF	
(Including temporary services and hydrants)	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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c. Furnish and Install Temporary 6" By-Pass Piping	2,000 LF	
(Including temporary services and hydrants)	Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)		Total Amt. Bid (Figures)
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Part 1

ADDENDUM NO. 3

UNIT RATES for Earthwork and Restoration
within Public Space

ADDENDUM NO. 2

20. Earthwork

a. Gravel Borrow

250 TN
Est. Qty.

Price per TN (Figures)

Price per Ton (Written)

Total Amt. Bid (Figures)

b. Test Pits

50 CY
Token Qty.

Price per CY (Figures)

Price per Cubic Yard (Written)

Total Amt. Bid (Figures)

21. Temporary Restoration

a. Furnish & Place Sidewalk Pavement - 2" Bituminous

70 SY
Est. Qty.

Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

b. Furnish & Place Street Pavement - 2" Bituminous (Intersections)

1,200 SY
Est. Qty.

Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

c. Furnish & Place Street Pavement - 4" Bituminous

ITEM NOT APPLICABLE TO THIS CONTRACT

d. Furnish & Place Street Pavement - 6" Bituminous

ITEM NOT APPLICABLE TO THIS CONTRACT

Part 1

22. Permanent Restoration

a. Furnish & Place Street Pavement - 4" Bituminous	2,100 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		
Price per Square Yard (Written)		<hr/> Total Amt. Bid (Figures)
b. Furnish & Place Street Pavement - 6" Bituminous	1,400 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		
Price per Square Yard (Written)		<hr/> Total Amt. Bid (Figures)
c. Furnish & Place Street Pavement - 9" Bituminous	300 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		
Price per Square Yard (Written)		<hr/> Total Amt. Bid (Figures)
d. Furnish & Place Street Pavement - Concrete Base	600 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		
Price per Square Yard (Written)		<hr/> Total Amt. Bid (Figures)
e. Furnish & Place Street Pavement - Bituminous Binder Only	35 TN <hr/> Token Qty.	<hr/> Price per TN (Figures)
<hr/>		
Price per Ton (Written)		<hr/> Total Amt. Bid (Figures)
f. Furnish & Place Sidewalk (Driveway) Pavement - 3" Bit.	50 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		
Price per Square Yard (Written)		<hr/> Total Amt. Bid (Figures)
g. Furnish & Place Sidewalk Pavement - 4" Concrete	100 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		
Price per Square Yard (Written)		<hr/> Total Amt. Bid (Figures)
h. Furnish & Place Sidewalk (Driveway) Pavement - 6" Conc.	50 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		
Price per Square Yard (Written)		<hr/> Total Amt. Bid (Figures)

Part 1

i. Brick / Paver Restoration

20 SY	
Token Qty.	Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

j. Cobblestone Restoration

20 SY	
Token Qty.	Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

23. Select Curb Restoration

a. Furnish & Install Granite Curbing (Vertical Face)

20 LF	
Token Qty.	Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

b. Furnish & Install Precast Concrete Curbing (Vertical Face)

20 LF	
Token Qty.	Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

c. Furnish & Install Bituminous Curbing (Vertical Face)

20 LF	
Token Qty.	Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

d. Cast-in-Place Concrete Curbing

20 LF	
Token Qty.	Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

e. Reset Existing Curbing

50 LF	
Est. Qty.	Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

Part 1

ADDENDUM NO. 3

TOTAL BASE BID

- a. **Water Main Rehabilitation Work (Bid Item Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12a, 12b, 13, 14a to 14c, 15a to 15c, 16a to 16c, 17a to 17d, 18a to 18d, 19a to 19c)**

Total Bid Price (Written)

Total Amt. Bid (Figures)

- b. **Earth Work and Restoration (Bid Item Nos. 20a, 20b, 21a, 21b, 22a to 22j, 23a to 23e)**

Total Bid Price (Written)

Total Amt. Bid (Figures)

- c. **Traffic Control - Flaggers**

One Hundred Sixty Thousand and Zero/100 Dollars
Total Bid Price (Written)

\$160,000.00
Total Amt. Bid (Figures)

- d. **Traffic Control - Police Details**

One Hundred Sixty Thousand and Zero/100 Dollars
Total Bid Price (Written)

\$160,000.00
Total Amt. Bid (Figures)

TOTAL BASE BID (PART 1): Overall Contract Area
(Sum of a, b, c, and d above.)

Total Bid Amount (Written)

Total Bid Amount (Figures)

Part 2

UNIT RATES for Service Abandonments

24. Remove Lead Service ONLY (Not To Be Replaced - Abandoned Services)

a. Remove & Dispose of Lead Service Pipe (if required)

Price per Linear Foot (Written)

Price per LF (Figures)

b. Close Old Corporation & Cut and Crimp Old Lead Service Pipe

Price per Each (Written)

Price per EA (Figures)

c. Remove & Dispose of Old Curb Stop & Service Box

Price per Each (Written)

Price per EA (Figures)

25. Cast Iron Abandonments NOT SPECIFIED ON DESIGN PLANS

a. Remove & Dispose Abandoned 4" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

b. Remove & Dispose Abandoned 6" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

c. Remove & Dispose Abandoned 8" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

Part 3

ADDENDUM NO. 3

**UNIT RATES for Replacement of Lead Services
and Appurtenances within Private Property ONLY**

26. Install New Water Service within Private Property

a. Furnish and Install 1" Private Side Services

From Curb Stop to inside Water Meter location (Includes removal & disposal of lead service pipe, associated interior pipework, fittings, and appurtenances)

Price per Each (Written)

Price per EA (Figures)

b. Furnish and Install 2" Private Side Services

From Curb Stop to inside Water Meter location (Includes removal & disposal of lead service pipe, associated interior pipework, fittings, and appurtenances)

Price per Each (Written)

Price per EA (Figures)

Part 3

ADDENDUM NO. 3

27. Reduced Pressure Zone (RPZ) Backflow Preventers - Commercial Customers

a. Furnish, Install, and Test 3/4" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

b. Furnish, Install, and Test 1" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

c. Furnish, Install, and Test 1-1/2" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

d. Furnish, Install, and Test 2" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

MISCELLANEOUS UNIT PRICES
for WORK not specified in Parts 1, 2, and 3

28. Existing Water Main Flow Stopping Devices (Single)

a. Furnish & Install 6" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 12" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

29. Existing Water Main Flow Stopping Devices (Double)

a. Furnish & Install 6" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 12" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

ADDENDUM NO. 2

30. Tapping Sleeves and Valves

a. Furnish & Install 6" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" x 8" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 8" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

d. Furnish & Install 12" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

e. Furnish & Install 12" x 8" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

f. Furnish & Install 12" x 12" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

31. Insertion Valves

a. Furnish & Install 6" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

c. Furnish & Install 12" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

32. Butterfly Valves

a. Furnish & Install 16" Butterfly Valve

Price per Each (Written)

Price per EA (Figures)

33. Provisional Items

a. Infrared Bituminous Pavement Restoration (4" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

b. Infrared Bituminous Pavement Restoration (6" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

c. Infrared Bituminous Pavement Restoration (9" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

Part 4

ADDENDUM NO. 3

d. Cold Plane / Micro Mill Bituminous Pavement Restoration (4" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

e. Cold Plane / Micro Mill Bituminous Pavement Restoration (6" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

f. Cold Plane / Micro Mill Bituminous Pavement Restoration (9" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

g. Furnish & Place Temporary Street Pavement - 2" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

h. Furnish & Place Temporary Street Pavement - 4" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

i. Furnish & Place Temporary Street Pavement - 6" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

j. Dry-Hole Excavation and Backfilling

Two thousand and Zero/100 Dollars

\$2,000.00

Price per Each (Written)

Price per EA (Figures)

k. Exploratory Video Inspection

Fifty and Zero/100 Dollars

\$50.00

Price per Linear Foot (Written)

Price per LF (Figures)

l. Trench Rock Excavation & Removal

Two-Hundred Fifty and Zero/100 Dollars

\$250.00

Price per Cubic Yard (Written)

Price per CY (Figures)

Part 5

ADDENDUM NO. 3

LABOR RATES
for ADDITIONAL WORK not specified in Parts 1, 2, and 3

34. Labor Rates per hour - includes insurance, fringes, and overhead

(Submission of Certified Payrolls required)

a.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
b.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
c.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
d.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
e.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
f.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
g.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour

Use additional sheets if necessary

Part 5

ADDENDUM NO. 3

EQUIPMENT RATES

for ADDITIONAL WORK not specified in Parts 1, 2, and 3

35. Equipment Rates

a.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
b.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
c.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
d.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
e.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
f.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
g.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
h.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
i.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
j.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour
k.	_____	_____	_____	\$	_____
	Type	Make	Year		Rate per hour

Use additional sheets if necessary

Part 5

ADDENDUM NO. 3

MATERIALS & SUBCONTRACTOR COST MARKUP
for ADDITIONAL WORK not specified in Parts 1, 2, and 3

36. Materials Cost Markup Percentage

a. Contractor's Cost plus

(Submission of Original Invoices required)

Percentage (Written)

Percentage (Figures)

37. Subcontractor Cost Markup Percentage

a. Contractor's Cost plus

(Submission of Original Invoices required)

Percentage (Written)

Percentage (Figures)

CONTRACT 3-20, CHARLES

SECTION 00410

BIDFORM

CAST IRON REPLACEMENT

SECTION 00410

BID FORM

PROJECT IDENTIFICATION:

Replacement/Rehabilitation of Water Mains and Appurtenances

within the Providence Water Supply Board's Distribution System

(PW Project No. 20203)

CONTRACT 3-20

THIS BID IS SUBMITTED TO:

City of Providence
Board of Contract and Supply
Department of the City Clerk
City Hall
Providence, Rhode Island 02903

- 1.01** The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER, in a form to be prepared by the OWNER consistent with the Bidding Documents, to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
- 2.01** Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.
- 3.1** In submitting this Bid, Bidder represents, as set forth in the Bidding Documents and the Agreement, that:
 - A.** Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and any and all Addenda that Bidder has listed on the Bidder's Blank at the end of this Section, receipt of all of which is hereby acknowledged.
 - B.** As required to be indicated on the Bidder's Blank at the end of this Section, Bidder acknowledges by so indicating that either this Bid conforms with the requirements of the Bidding Documents, or is based on modifications/exceptions taken to the Bidding Documents; any modifications have been provided by Bidder with this Bid as required.
 - C.** Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

SECTION 00410

BID FORM

- D.** Bidder is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- E.** Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which, if any, have been identified in the Bidding Documents as provided in Paragraph 4.02 of the General Conditions (as modified by the Supplementary Conditions), and (2) reports and drawings of a Hazardous Environmental Condition, if any, which have been identified in the Bidding Documents as provided in Paragraph 4.06 of the General Conditions (as modified by the Supplementary Conditions).
- F.** Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by the Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by the Bidder, safety precautions and programs incident thereto.
- G.** Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- H.** Bidder is aware of the general nature of any work to be performed by OWNER and/or others at the Site that relates to the Work as indicated in the Bidding Documents.
- I.** Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- J.** Bidder has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the resolution thereof by OWNER is acceptable to Bidder.

SECTION 00410-1

BID FORM

- K.** The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- 4.01** Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
- 5.1** Bidder agrees that the Work will be completed and ready for final payment in accordance with Paragraph 14.07.B of the General Conditions, as modified by Paragraph 14.07.B.1 of the Supplementary Conditions, within the time frame specified for each project assignment as provided in Paragraph 2.03 of the General Conditions, as modified by Paragraph 2.03.A of the Supplementary Conditions.
- 5.2** Bidder accepts the provisions of the Bidding Documents as to liquidated damages, and in the event of failure to complete the Work within the times specified above agrees to pay **\$5,500** per calendar day that completion is late beyond the specified times.
- 6.1** The following documents are attached to and made a condition of this Bid:
- A.** Required Bid security;
 - B.** Listing of proposed Subcontractors, Suppliers, and other individuals and entities required to be identified by the Bidding Documents;
 - C.** Contractor Qualification Statement with supporting documentation required by the Bidding Documents.
- 7.1** The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.



BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND

BID FROM:

Company Name: _____

(SEAL)

If incorporated, State of Incorporation: _____

Date of Incorporation: _____

Type of Business (from incorporation papers): _____

By: _____

(Signature - attach evidence of authority to sign if not an individual submitting Bid)

Name (typed or printed): _____

Title: _____

Date: _____

Business Address: _____

Phone No. _____ Fax No. _____

Bidder State of Rhode Island License Information:

License No.

Type of License/Trade Licensed



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID FORM 1: Bidders Blank

Refer to page 6 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"



BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND

BID FORM 2: Certification of Bidder
(Non-Discrimination/Hiring)

Refer to page 7 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"



BID FORM 3: Bidder Certification

50% Performance of Work

Refer to page 7-1 in Section "00000---BCS Terms & Requirements for Bidding (Instructions for Submission)"

Part 1

[ADDENDUM NO. 3](#)

UNIT RATES

[ADDENDUM NO. 2](#)

for Water Main Replacement & Rehabilitation Work

1. Furnish & Install 4-inch D.I. Water Main	80 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
2. Furnish & Install 6-inch D.I. Water Main	14,860 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
3. Furnish & Install 8-inch D.I. Water Main	9,600 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
4. Furnish & Install 12-inch D.I. Water Main	3,740 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
5. Furnish & Install 16-inch D.I. Water Main	100 LF <hr/> Est. Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)
6. Furnish & Install 20-inch D.I. Water Main	20 LF <hr/> Token Qty.	<hr/> Price per LF (Figures)
<hr/> Price per Linear Foot (Written)		<hr/> Total Amt. Bid (Figures)

CONTRACT 3-20, BID SCHEDULE

CI PIPE REPLACEMENT

Part 1

[ADDENDUM NO. 3](#)

[ADDENDUM NO. 2](#)

7. Furnish & Install Ductile-Iron Pipe Fittings

14,400 LBS

Est. Qty.

Price per LB (Figures)

Price per Pound (Written)

Total Amt. Bid (Figures)

8. Furnish & Install 4-Inch Gate Valve

4 EA

Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

9. Furnish & Install 6-Inch Gate Valve

71 EA

Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

10. Furnish & Install 8-Inch Gate Valve

33 EA

Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

11. Furnish & Install 12-Inch Gate Valve

9 EA

Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

30. f. Furnish & Install 12" x 12" Tapping Sleeve & Valve

1 EA

Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Price per EA (Figures)

Part 1

ADDENDUM NO. 2

12. Furnish & Install New Fire Hydrant Assembly

a. 6" Branch

39 EA

Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

b. 8" Branch

6 EA

Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

13. Furnish & Install 2-Inch Blow-off Assembly

3 EA

Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

Part 1

14. Lead Service Replacement

<p>a. Furnish and Install 1" Copper Tubing (Trenchless Technology)</p>	<p>3,330 LF Est. Qty.</p>	<p>_____</p> <p>Price per LF (Figures)</p>
<p>_____</p> <p>Price per Linear Foot (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>
<p>b. Furnish and Install 1" Copper Tubing (Open-Cut Trench)</p>	<p>1,200 LF Est. Qty.</p>	<p>_____</p> <p>Price per LF (Figures)</p>
<p>_____</p> <p>Price per Linear Foot (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>
<p>c. Furnish and Install 1" Corporation Stop, Curb Stop, and Service Box (Includes Corp, Curb Stop & Service Box)</p>	<p>298 EA Est. Qty.</p>	<p>_____</p> <p>Price per Each (Figures)</p>
<p>_____</p> <p>Price per Each (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>

15. Lead Service Replacement

<p>a. Furnish and Install 1-1/2" Copper Tubing (Trenchless Technology)</p>	<p>30 LF Est. Qty.</p>	<p>_____</p> <p>Price per LF (Figures)</p>
<p>_____</p> <p>Price per Linear Foot (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>
<p>b. Furnish and Install 1-1/2" Copper Tubing (Open-Cut Trench)</p>	<p>30 LF Est. Qty.</p>	<p>_____</p> <p>Price per LF (Figures)</p>
<p>_____</p> <p>Price per Linear Foot (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>
<p>c. Furnish and Install 1-1/2" Corporation Stop, Service Saddle, Curb Stop, and Service Box (Includes Corp, Service Saddle, Curb Stop & Service Box)</p>	<p>4 EA Est. Qty.</p>	<p>_____</p> <p>Price per Each (Figures)</p>
<p>_____</p> <p>Price per Each (Written)</p>		<p>_____</p> <p>Total Amt. Bid (Figures)</p>

Part 1

16. Lead Service Replacement

**a. Furnish and Install 2" Copper Tubing
(Trenchless Technology)**

30 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**b. Furnish and Install 2" Copper Tubing
(Open-Cut Trench)**

15 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

**c. Furnish and Install 2" Corporation Stop,
Service Saddle, Curb Stop, and Service Box
(Includes Corp, Service Saddle, Curb Stop & Service Box)**

1 EA
Token Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

Part 1

17. Reconnect Existing Copper Water Services

a. Reconnect Existing 3/4" Copper Service

(Including corporation stop, copper tubing, coupling, and appurtenances)

80 EA
Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

b. Reconnect Existing 1" Copper Service

(Including corporation stop, copper tubing, coupling, and appurtenances)

70 EA
Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

c. Reconnect Existing 1-1/2" Copper Service

(Including corporation stop, copper tubing, coupling, and appurtenances)

12 EA
Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

d. Reconnect Existing 2" Copper Service

(Including corporation stop, copper tubing, coupling, and appurtenances)

15 EA
Est. Qty.

Price per Each (Figures)

Price per Each (Written)

Total Amt. Bid (Figures)

Part 1

18. Cleaning and Lining Water Mains

<p>a. Clean & Line Existing 6" C.I. Water Main (Including the removal of existing 6" valves and appurtenances during the cleaning and lining process)</p>	<p>100 LF <hr style="width: 100%;"/> Token Qty.</p>	<p><hr style="width: 100%;"/></p> <p>Price per LF (Figures)</p>
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<hr style="width: 100%;"/>		<hr style="width: 100%;"/>
Price per Linear Foot (Written)		Total Amt. Bid (Figures)

<p>b. Clean & Line Existing 8" C.I. Water Main (Including the removal of existing 8" valves and appurtenances during the cleaning and lining process)</p>	<p>100 LF <hr style="width: 100%;"/> Token Qty.</p>	<p><hr style="width: 100%;"/></p> <p>Price per LF (Figures)</p>
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<hr style="width: 100%;"/>		<hr style="width: 100%;"/>
Price per Linear Foot (Written)		Total Amt. Bid (Figures)

<p>c. Clean & Line Existing 12" C.I. Water Main (Including the removal of existing 12" valves and appurtenances during the cleaning and lining process)</p>	<p>100 LF <hr style="width: 100%;"/> Token Qty.</p>	<p><hr style="width: 100%;"/></p> <p>Price per LF (Figures)</p>
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<hr style="width: 100%;"/>		<hr style="width: 100%;"/>
Price per Linear Foot (Written)		Total Amt. Bid (Figures)

<p>d. Obstructions (Associated with the Cleaning and Lining Operations for the existing 6", 8", and 12" C.I. water mains within the contract area)</p>	<p>1 EA <hr style="width: 100%;"/> Token Qty.</p>	<p><hr style="width: 100%;"/></p> <p>Price per Each (Figures)</p>
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<hr style="width: 100%;"/>		<hr style="width: 100%;"/>
Price per Each (Written)		Total Amt. Bid (Figures)

Part 1

19. Temporary By-Pass Piping System

<p>a. Furnish and Install Temporary 2" By-Pass Piping (Including temporary services and hydrants)</p>	<p><u>26,000 LF</u> Est. Qty.</p>	<p><u>\$7.00</u> Price per LF (Figures)</p>
<p><u>Seven & Zero/100 Dollars</u> Price per Linear Foot (Written)</p>		<p><u>\$182,000.00</u> Total Amt. Bid (Figures)</p>
<p>b. Furnish and Install Temporary 4" By-Pass Piping (Including temporary services and hydrants)</p>	<p><u>17,500 LF</u> Est. Qty.</p>	<p><u>\$8.00</u> Price per LF (Figures)</p>
<p><u>Eight & Zero/100 Dollars</u> Price per Linear Foot (Written)</p>		<p><u>\$140,000.00</u> Total Amt. Bid (Figures)</p>
<p>b. Furnish and Install Temporary 6" By-Pass Piping (Including temporary services and hydrants)</p>	<p><u>4,300 LF</u> Est. Qty.</p>	<p><u>\$10.00</u> Price per LF (Figures)</p>
<p><u>Ten & Zero/100 Dollars</u> Price per Linear Foot (Written)</p>		<p><u>\$43,000.00</u> Total Amt. Bid (Figures)</p>

Part 1

ADDENDUM NO. 3

UNIT RATES for Earthwork and Restoration
within Public Space

ADDENDUM NO. 2

20. Earthwork

a. Gravel Borrow

700 TN	
Est. Qty.	Price per TN (Figures)

Price per Ton (Written)

Total Amt. Bid (Figures)

b. Test Pits

100 CY	
Est. Qty.	Price per CY (Figures)

Price per Cubic Yard (Written)

Total Amt. Bid (Figures)

21. Temporary Restoration

a. Furnish & Place Sidewalk Pavement - 2" Bituminous

1,500 SY	
Est. Qty.	Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

b. Furnish & Place Street Pavement - 2" Bituminous (Intersections)

5,000 SY	
Est. Qty.	Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

c. Furnish & Place Street Pavement - 4" Bituminous

ITEM NOT APPLICABLE TO THIS CONTRACT

d. Furnish & Place Street Pavement - 6" Bituminous

ITEM NOT APPLICABLE TO THIS CONTRACT

Part 1

22. Permanent Restoration

a. Furnish & Place Street Pavement - 4" Bituminous	14,000 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
b. Furnish & Place Street Pavement - 6" Bituminous	8,500 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
c. Furnish & Place Street Pavement - 9" Bituminous	500 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
d. Furnish & Place Street Pavement - Concrete Base	4,800 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
e. Furnish & Place Street Pavement - Bituminous Binder Only	35 TN <hr/> Token Qty.	<hr/> Price per TN (Figures)
<hr/>		<hr/>
Price per Ton (Written)		Total Amt. Bid (Figures)
f. Furnish & Place Sidewalk (Driveway) Pavement - 3" Bit.	130 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
g. Furnish & Place Sidewalk Pavement - 4" Concrete	700 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)
h. Furnish & Place Sidewalk (Driveway) Pavement - 6" Conc.	250 SY <hr/> Est. Qty.	<hr/> Price per SY (Figures)
<hr/>		<hr/>
Price per Square Yard (Written)		Total Amt. Bid (Figures)

Part 1

i. Brick / Paver Restoration

20 SY
Token Qty.

Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

j. Cobblestone Restoration

20 SY
Token Qty.

Price per SY (Figures)

Price per Square Yard (Written)

Total Amt. Bid (Figures)

23. Select Curb Restoration

a. Furnish & Install Granite Curbing (Vertical Face)

20 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

b. Furnish & Install Precast Concrete Curbing (Vertical Face)

20 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

c. Furnish & Install Bituminous Curbing (Vertical Face)

20 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

d. Cast-in-Place Concrete Curbing

20 LF
Token Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

e. Reset Existing Curbing

100 LF
Est. Qty.

Price per LF (Figures)

Price per Linear Foot (Written)

Total Amt. Bid (Figures)

Part 1

ADDENDUM NO. 3

TOTAL BASE BID

- a. **Water Main Rehabilitation Work (Bid Item Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 30f, 12a, 12b, 13, 14a to 14c, 15a to 15c, 16a to 16c, 17a to 17d, 18a to 18d, 19a to 19c)**

Total Bid Price (Written)

Total Amt. Bid (Figures)

- b. **Earth Work and Restoration (Bid Item Nos. 20a, 20b, 21a, 21b, 22a to 22j, 23a to 23e)**

Total Bid Price (Written)

Total Amt. Bid (Figures)

- c. **Traffic Control - Flaggers**

Three Hundred Thousand and Zero/100 Dollars

Total Bid Price (Written)

\$300,000.00

Total Amt. Bid (Figures)

- d. **Traffic Control - Police Details**

Three Hundred Thousand and Zero/100 Dollars

Total Bid Price (Written)

\$300,000.00

Total Amt. Bid (Figures)

TOTAL BASE BID (PART 1): Overall Contract Area
(Sum of a, b, c, and d above.)

Total Bid Amount (Written)

Total Bid Amount (Figures)

Part 2

UNIT RATES for Service Abandonments

24. Remove Lead Service ONLY (Not To Be Replaced - Abandoned Services)

a. Remove & Dispose of Lead Service Pipe (if required)

Price per Linear Foot (Written)

Price per LF (Figures)

b. Close Old Corporation & Cut and Crimp Old Lead Service Pipe

Price per Each (Written)

Price per EA (Figures)

c. Remove & Dispose of Old Curb Stop & Service Box

Price per Each (Written)

Price per EA (Figures)

25. Cast Iron Abandonments NOT SPECIFIED ON DESIGN PLANS

a. Remove & Dispose Abandoned 4" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

b. Remove & Dispose Abandoned 6" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

c. Remove & Dispose Abandoned 8" Services

(Includes Removal of Existing Fittings, Piping, and Appurtenances & New Pipe & Couplings for Tie-in)

Price per Each (Written)

Price per EA (Figures)

Part 3

ADDENDUM NO. 3

**UNIT RATES for Replacement of Lead Services
and Appurtenances within Private Property ONLY**

26. Install New Water Service within Private Property

a. Furnish and Install 1" Private Side Services

From Curb Stop to inside Water Meter location (Includes removal & disposal of lead service pipe, associated interior pipework, fittings, and appurtenances)

Price per Each (Written)

Price per EA (Figures)

b. Furnish and Install 2" Private Side Services

From Curb Stop to inside Water Meter location (Includes removal & disposal of lead service pipe, associated interior pipework, fittings, and appurtenances)

Price per Each (Written)

Price per EA (Figures)

Part 3

ADDENDUM NO. 3

27. Reduced Pressure Zone (RPZ) Backflow Preventers - Commercial Customers

a. Furnish, Install, and Test 3/4" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

b. Furnish, Install, and Test 1" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

c. Furnish, Install, and Test 1-1/2" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

d. Furnish, Install, and Test 2" RPZ Backflow Preventer

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

MISCELLANEOUS UNIT PRICES
for WORK not specified in Parts 1, 2, and 3

28. Existing Water Main Flow Stopping Devices (Single)

a. Furnish & Install 6" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 12" Single Line Stop Device

Price per Each (Written)

Price per EA (Figures)

29. Existing Water Main Flow Stopping Devices (Double)

a. Furnish & Install 6" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 12" Double Line Stop Device

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

ADDENDUM NO. 2

30. Tapping Sleeves and Valves

a. Furnish & Install 6" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" x 8" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

c. Furnish & Install 8" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

d. Furnish & Install 12" x 6" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

e. Furnish & Install 12" x 8" Tapping Sleeve & Valve

Price per Each (Written)

Price per EA (Figures)

f. Furnish & Install 12" x 12" Tapping Sleeve & Valve

SEE PART 1 OF BID SCHEDULE

31. Insertion Valves

a. Furnish & Install 6" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

b. Furnish & Install 8" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

Part 4

ADDENDUM NO. 3

c. Furnish & Install 12" Insertion Valve

Price per Each (Written)

Price per EA (Figures)

32. Butterfly Valves

a. Furnish & Install 16" Butterfly Valve

Price per Each (Written)

Price per EA (Figures)

33. Provisional Items

a. Infrared Bituminous Pavement Restoration (4" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

b. Infrared Bituminous Pavement Restoration (6" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

c. Infrared Bituminous Pavement Restoration (9" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

Part 4

ADDENDUM NO. 3

d. Cold Plane / Micro Mill Bituminous Pavement Restoration (4" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

e. Cold Plane / Micro Mill Bituminous Pavement Restoration (6" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

f. Cold Plane / Micro Mill Bituminous Pavement Restoration (9" Asphalt Base)

Price per Square Yard (Written)

Price per SY (Figures)

g. Furnish & Place Temporary Street Pavement - 2" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

h. Furnish & Place Temporary Street Pavement - 4" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

i. Furnish & Place Temporary Street Pavement - 6" Bituminous

Price per Square Yard (Written)

Price per SY (Figures)

j. Dry-Hole Excavation and Backfilling

Two thousand and Zero/100 Dollars

\$2,000.00

Price per Each (Written)

Price per EA (Figures)

k. Exploratory Video Inspection

Fifty and Zero/100 Dollars

\$50.00

Price per Linear Foot (Written)

Price per LF (Figures)

l. Trench Rock Excavation & Removal

Two-Hundred Fifty and Zero/100 Dollars

\$250.00

Price per Cubic Yard (Written)

Price per CY (Figures)

Part 5

ADDENDUM NO. 3

LABOR RATES
for ADDITIONAL WORK not specified in Parts 1, 2, and 3

34. Labor Rates per hour - includes insurance, fringes, and overhead

(Submission of Certified Payrolls required)

a.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
b.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
c.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
d.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
e.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
f.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour
g.	_____	\$	_____
	Classification		Standard Rate per hour
		\$	_____
			Overtime Rate per hour

Use additional sheets if necessary

Part 5

ADDENDUM NO. 3

EQUIPMENT RATES

for ADDITIONAL WORK not specified in Parts 1, 2, and 3

35. Equipment Rates

a.	_____			\$	_____
	Type	Make	Year		Rate per hour
b.	_____			\$	_____
	Type	Make	Year		Rate per hour
c.	_____			\$	_____
	Type	Make	Year		Rate per hour
d.	_____			\$	_____
	Type	Make	Year		Rate per hour
e.	_____			\$	_____
	Type	Make	Year		Rate per hour
f.	_____			\$	_____
	Type	Make	Year		Rate per hour
g.	_____			\$	_____
	Type	Make	Year		Rate per hour
h.	_____			\$	_____
	Type	Make	Year		Rate per hour
i.	_____			\$	_____
	Type	Make	Year		Rate per hour
j.	_____			\$	_____
	Type	Make	Year		Rate per hour
k.	_____			\$	_____
	Type	Make	Year		Rate per hour

Use additional sheets if necessary

Part 5

ADDENDUM NO. 3

MATERIALS & SUBCONTRACTOR COST MARKUP
for ADDITIONAL WORK not specified in Parts 1, 2, and 3

36. Materials Cost Markup Percentage

a. Contractor's Cost plus

(Submission of Original Invoices required)

Percentage (Written)

Percentage (Figures)

37. Subcontractor Cost Markup Percentage

a. Contractor's Cost plus

(Submission of Original Invoices required)

Percentage (Written)

Percentage (Figures)

SECTION 01000 GENERAL REQUIREMENTS

1.4 DESCRIPTION OF WORK

- 1.4.1** The work covered under this contract includes (except as hereinafter otherwise specified) furnishing all labor, materials, equipment, tools, services, uniformed traffic control and flagpersons, and incidentals required for the excavation of trenches and/or pits; for the removal and disposal of existing water main pipe segments and fittings, valves, hydrants, lateral services, lead services, abandoned services, and blow-off and/or bleeder assemblies, and/or other miscellaneous items as indicated within the Contract Documents, or as otherwise directed by the OWNER; for the cleaning and cement lining of existing cast iron water mains; for the installation, testing and disinfection of new ductile-iron water main piping and fittings, valves, hydrant assemblies and blow-off assemblies associated with the overall water main replacement/rehabilitation work; for the installation of new copper services associated with replacing existing lead services within the Public Space; for copper service reconnections; for the installation, testing and disinfection of ductile-iron service laterals and valves; and/or other miscellaneous items as indicated within the Contract Documents, or otherwise directed by the OWNER; for backfilling and compaction; **for full depth temporary restoration of street excavations and permanent restoration of excavations within sidewalks, driveways and street intersections**; for interim and final clean-up; and miscellaneous, related, or incidental work required or otherwise necessary to satisfactorily complete the work in accordance with the Contract Documents or otherwise directed by the OWNER.
- 1.4.2** In the Public Space, the Contractor shall replace the designated lead water service from the water main to the curb stop, including tapping the new corporation stop; installing the new corporation stop; the new copper tubing water service; the new curb stop and box; and connection to the existing Private water service piping.
- 1.4.3** In Private Property, should the property owner execute a Private Lead Service Replacement Agreement with Providence Water (OWNER), OWNER may direct the Contractor to replace the private side lead service as part of this Contract at the unit prices bid in Part 3 of the Bid Form. Should such an agreement be made, the Contractor shall replace the lead service from the curb stop to the water meter assembly (Internal Plumbing) in the building with new, continuous copper tubing; furnish and install the internal plumbing comprised of ball valves, pressure reducing valve (if required), backflow prevention device, expansion tank (if required); all necessary copper tubing/pipe, fittings, and appurtenances; all in accordance with OWNER requirements. The Contractor shall notify OWNER at least 48 hrs. prior to the replacement work so that OWNER can schedule inspection coverage. All internal plumbing shall be installed under the direction of a licensed Master Plumber.
- 1.4.4** In Private Property, exterior obstructions such as porches, walls, landscape features, planting etc. may require tunneling by moling or hole-hogging to replace the lead service.

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- 1.4.6** For properties where OWNER directs Contractor to replace the private side lead service line, the Contractor shall accomplish both the Public and Private lead service replacement at the same time, no exceptions. Partial replacements of the public and private side lead services, at separate times, will not be allowed.

Allowances

2.1 EXTRA WORK

Work will be performed and paid for under the Contract Price, including but not limited to all submittals, permits, and services specified and required. No allowances for extra work will be made unless specifically authorized in writing by the OWNER.

2.2 CLAIMS FOR DAMAGES

- 2.2.1** If the Contractor makes claim for any damages alleged to have been sustained by breach of the contract or otherwise, he shall, within ten (10) days after occurrence of the alleged breach or within ten (10) days after such damages are alleged to have been sustained, whichever date is the earlier, file with the OWNER, an itemized written statement in triplicate of the details of the alleged breach and the details and amount of the alleged breach and the details and amount of the alleged damages. The Contractor agrees that unless such statement is made and filed as so required, his claim for damages shall be deemed waived, invalid and unenforceable, and that he shall not be entitled to any compensation for any such alleged damages.

2.3 OWNER'S INSPECTION

- 2.3.1** The Contractor shall make allowances for the OWNER to inspect and/or test the Contractor's work at any and/or all times at the OWNER's discretion.
- 2.3.2** The OWNER will appoint an Inspector to inspect all materials and workmanship and to see that the work conforms with the specifications and drawings. The failure of the Inspector to reject or condemn improper materials and workmanship shall not prevent the OWNER from rejecting materials and workmanship found defective at any time prior to the final acceptance of the completed work, nor shall it be considered as a waiver of any defects which may be discovered later, or as preventing the OWNER at any time subsequently from recovering damages for work actually defective.
- 2.3.3** The Contractor shall provide sufficient, safe and proper facilities at all times for inspection.

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2.3.4 The Contractor shall furnish the Inspector with every reasonable facility for examining and inspecting the work and for ascertaining that the work is being performed in accordance with the requirements and intent of the Contract Documents, even to the extent of requiring the uncovering of portions of finished work by the Contractor.

2.3.5 Should the work thus uncovered prove satisfactory, the cost of uncovering and the replacement thereof shall be considered as extra work and the costs associated shall be borne by the OWNER. Said costs shall be borne by the Contractor if the original work was done in violation of the Contract, in the absence of the Inspector, or without the OWNER's written authorization. Should the Work uncovered prove unsatisfactory, said cost shall be borne by the Contractor.

2.3.6 If in the sole judgement of the Inspector, the Contractor is not employing sufficient labor, plant, equipment or other means to complete the work within the time specified, the OWNER may, after giving written notice, require the Contractor to employ such additional labor, plant, equipment and other means as the Inspector deems necessary to enable the work to progress properly.

3.1 WORK NOT PAID FOR SEPARATELY

3.1.1 Delivery

3.1.1.1 Payment for equipment delivery, storage or freight is included in the prices for the various items in the Bidder's Blank, and therefore no other separate payment will be made.

3.1.2 Bonds

3.2.2.1 Payment for bonds required by the contract is included in the prices bid for the various items of work in the Bidder's Blank, and therefore, no separate payment will be made.

3.2.3 Permits and Licenses

3.2.3.1 Payment for permits and/or licenses required by the contract are included in the prices bid for the various items of work in the Bidder's Blank, and therefore no separate payment will be made.

3.2.3.2 Reference is hereby made to Article 9.2, Permits, of this section of the Contract Specifications for permits required by municipalities.

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Unit Prices

- 4.1** The Bidder shall provide unit prices for the hourly rates for Labor, Equipment, and Traffic Control, and Material, Subcontractor, and Escalation (labor and equipment) cost markup percentages in the Bidder's Blank. Unit prices and cost markup percentages in the Bidder's Blank shall be used for partial payments for any changes and/or additions to the original scope of work. Reference is made to Part 4 and Part 5 of the Bid Schedule for the applicable contract unit bid items.
- 4.1.1** Original invoices for Materials and Subcontractor cost shall be submitted to OWNER with the respective application for payment.

Product Alternates or Equals

- 5.1 PRODUCT ALTERNATES / EQUALS**
- 5.1.1** The contract is based on the standards of quality established by the Contract Documents. Alternatives and substitutions will be considered as specified at the time of the bid submittal or when requested by the Contractor during the progress of the work.
- 5.1.2** It is the sole responsibility of the Contractor to show that the proposed alternative meets the requirements of the Contract Documents and is equal in quality, performance, reliability, durability, etc. to the OWNER's satisfaction. The Contractor shall submit, for the OWNER's approval, all documentation and materials necessary to substantiate the request.
- 5.1.3** Alternate materials, equipment, methods, etc., shall not be used or incorporated into the work until approved in writing by the OWNER.
- 5.1.4** Where the phrase "approved substitute or equal" appears in the Contract Documents, the Contractor shall submit, for the OWNER approval, all documentation and materials necessary to substantiate the request for the proposed item meets or exceeds the requirements of the Contract Documents. The contractor shall not assume that an item will be an approved substitute unless written approval is received from the OWNER.
- 5.1.5** The decision of the OWNER will be final on all alternatives, substitutions and "approved substitutes or equals."

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GENERAL REQUIREMENTS**

Modification Procedures

6.1 CHANGE ORDERS

- 6.1.1** No payment beyond the original Contract Price will be considered unless authorized in advance in writing by the OWNER. Changes in the original Contract Price may only be made by written Change Order from the OWNER.
- 6.1.2** Should the OWNER desire a change in the scope of work, the OWNER will issue a written change notice to the Contractor describing the scope of work of the desired change. The Contractor will review this notice and meet with the OWNER to finalize the scope of work. After the scope of work has been finalized and compensation determined in accordance with the General Conditions of the Contract Documents, the OWNER will issue a written Change Order to the Contractor to proceed with the work.
- 6.1.3** Should the Contractor discover a discrepancy or circumstance suggesting a change in the original scope of work, he shall immediately notify the OWNER in writing of the proposed change, describing the proposed change and its consequences. The OWNER will review information provided by the Contractor and determine if a Change Order is warranted. If the OWNER determines that a Change Order is warranted, the procedure in Paragraph 6.1.2 above will be followed; if the OWNER determines that a Change Order is not justified, he will notify the Contractor in writing.
- 6.1.4** Change Orders will be dated and numbered, describing the change in work and reasons for the change, and will stipulate the change in Contract Price.

Coordination

7.1 COORDINATION

- 7.1.1** Coordination of the work with the OWNER's operation of the facility during construction, with any subcontractors, and with any agencies or authorities having jurisdiction over the project or any part shall be the responsibility of the Contractor.
- 7.1.1.1** The following is a listing of contact telephone numbers:

Providence DPW	401-467-7950
Cranston DPW	401-780-3175
North Providence DPW	401-233-1440

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Johnston DPW	401-231-4186
National Grid - Gas	
Gas Leak or Damage	401-272-3330
Exposed Cast Iron Bell Joint	401-525-5513
Cast Iron Encroachment	401-525-5513
National Grid - Electric Dispatch	888-625-3723

7.1.2 Coordination of meetings shall be the responsibility of the OWNER's Project Manager.

7.2 NOTICES

7.2.1 It shall be the Contractor's responsibility to provide sufficient notice to all businesses, property owners, etc., of any anticipated disruption of access to businesses or properties resulting from work performed under this contract. The Contractor shall also be responsible for notifying schools, places of worship, police departments, fire departments and/or any other agencies as may be required by the City, Town or State.

7.2.2 45 Day Notices. The OWNER shall mail to all property owners (with both lead & copper public sides) within the scope of work, a notification letter of the Contractor's proposed schedule for water main rehabilitation. Time permitting, the letter shall be sent at least 45 days prior to the public side lead service replacement work. The "45 Day Notification Letter" shall advise the property owner of the upcoming scheduled work activities, notify the property owner that a lead service potentially exists at their location, and ask the property owner if he/she is interested in a cost estimate for the work, allowing the Contractor to replace their private side lead service **at the property owner's cost**. The "45 Day Notification Letter" includes the following attachments:

- a. A Form, to be completed and returned to the OWNER, indicating whether or not the property owner is interested in replacing their private side lead service.
- b. "Deciding Whether to Replace Your Lead Service"
- c. "Partial Lead Service Replacement ADVISORY"
- d. "How to Reduce Lead in Your Drinking Water"

7.2.3 14 Day Notices. The OWNER shall distribute a "Construction Notification Advisory" to all building occupants who will be impacted by the Contractor's upcoming planned work, 14 days prior to start of actual construction activities. The "14 Day Notification Letter" shall advise the occupants as to what construction activities will occur, the name of the Contractor performing the work, and contact numbers for the occupants to call to request information or to report any issues or a concerns.

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- 7.2.4 72 Hour Notices.** The Contractor shall distribute an "Important Notice" to each building, which will be impacted by the Contractor's construction activities, 72 hours prior to the Contractor performing work at said address. Blank "72 Hour Notification" notices will be furnished by the OWNER to the Contractor. The Contractor shall provide accurate emergency contact information on the notices prior to distribution.
- 7.2.5 24 Hour Notices.** The Contractor shall distribute "Shutdown Notices" to each building, which will have their water service temporarily shut off as a result of the Contractor's construction activities, 24 hours prior to the Contractor shutting off the occupant's water. Blank "24 Hour Shutdown" notifications will be furnished by the OWNER to the Contractor. The Contractor shall provide accurate "Date", "Time of Shutdown", and "Duration of Shutdown" information on the notices prior to distribution.
- 7.2.6** Consumers of OWNER's potable water shall not be deprived of their water supply for an unreasonable or extended period of time, as determined by the OWNER. The closure or disconnection of existing water services, which results in the actual shutdown of water service to occupied homes or buildings, as required for the installation of a temporary service or a new, permanent, copper water service, shall not be performed before 8:30 AM., unless otherwise approved and coordinated with the property owner and/or tenant.
- 7.2.7** The Contractor shall provide the OWNER at least a seventy-two (72) hour notification of any start of construction work or water shutdown. Twenty-four (24) hours prior to a water main or service shutdown, the Contractor shall provide written notice to affected OWNER's customers. The OWNER shall determine if the operation of valves will be performed by OWNER'S work forces, the Contractor, or an OWNER's Subcontractor with the OWNER's permission or at his direction. At no additional cost to the OWNER, the Contractor is allowed to operate valves for purposes of water main shutdown under this contract. Whereupon the Contractor is unable to shutdown a valve after two (2) hours of attempting to do so, OWNER will direct the Contractor as to how to proceed. See Section 5000 – Utility Piping, Article 7.13, Operation of Valves for additional procedures and requirements.
- 7.2.8** All Contractor valve operation must be under the direct supervision of an OWNER's representative. **The immediacy of water main shutdowns or valve operation is not warranted by OWNER.** In the operation of valves, for the purpose of shutting down existing mains, OWNER does not guarantee or imply that shut down will be completely effective in stopping the flow of water to open ends. The Contractor must notify OWNER and/or its representative of all problematic valves. Ultimately, the OWNER will make the determination on whom will accomplish the valve repair or replacement, as delineated in Section 5000 – Utility Piping, Article 7.13, Operation of Valves.
- 7.2.9** It is the Contractor's responsibility to coordinate, interact with, and resolve property

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owner/resident inquiries and issues. The OWNER shall monitor Contractor and property owner/resident interactions and assist when required.

- 7.2.10** Further, whereupon a home or building cannot be flushed subsequent to the lead service replacement, a special “red” door-hanger style notice, as provided by the OWNER, will be delivered by the Contractor and placed at the home or building.

7.3 DIG SAFE

- 7.3.1** Prior to the start of work, and in accordance with the rules and regulations of Dig Safe, the Contractor shall notify Dig Safe (**Tel. 1-800-344-7233**) for the location and marking of all underground utilities in the work area.

- 7.3.2** The Contractor is to comply with all current Dig Safe Regulations.

7.4 STREET CLOSINGS

- 7.4.1** All emergency and/or extended street closings shall be reported to the proper City, Town, or State Authorities by the Contractor.

- 7.4.2** No portion of any street shall be closed to traffic unless written permission of the proper Civil Authorities has first been obtained. Reference is made to Article 9.2 “PERMITS” for specific provisions which relate to street closing permits within the City of Providence.

- 7.4.3** Trench repairs, paving operations, or other work involving a street and/or intersection, shall be so worked that no more than one-half of the street and/or intersection is blocked at any time.

7.5 PERMANENT STREET PAVEMENT RESTORATION

- 7.5.1** In lieu of typical trench restoration, OWNER will be completing pavement overlays of the indicated streets under this Contract for water main replacement or rehabilitation. OWNER will accomplish this work under a separate permanent pavement bid proposal.

- 7.5.2** As directed by the OWNER, the Contractor shall install sufficient asphalt pavement to match the existing pavement thickness (no less than four (4”) inches of pavement shall be installed). To account for settlement, the Contractor at his discretion (and at no additional expense to the OWNER) may install a two (2”) inch temporary pavement and then remove it to apply full depth pavement after a settlement period.

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7.5.3 For pavement with a concrete base, the Contractor will be responsible for the concrete restoration in their excavations (utilizing contract unit rates in Part 1 of the Bid Schedule), as specified in “Section 08000 - Paving, Surfacing, and Permanent Repairs to Streets and Sidewalks.”

7.6 “FULL DEPTH TEMPORARY ASPHALT” STREET PAVEMENT MAINTENANCE AND WARRANTY

7.6.1 The Contractor’s shall be responsible for any pavement failures due to settlement or failures associated with his excavations, for a period of one (1) year from the date of the pavement’s installation.

7.7 SIDEWALK, DRIVEWAY, AND INTERSECTIONS PAVEMENT MAINTENANCE AND WARRANTY

7.7.1 The Contractor will be held responsible for any pavement failures due to settlement or failures associated with his excavations, for a period of five (5) years from the date of the pavement’s installation and acceptance.

7.7.2 If, at any time during the five (5) year period following final acceptance of paving work under this contract, **any part of the paving or surfacing work** which, in the opinion of the OWNER, requires replacement, repair, or remedial action to damaged private or public property (caused by any defect in the paving work), the OWNER will require the Contractor to make the necessary repairs or replacement to the OWNER’s satisfaction within ten (10) days of notification.

7.7.3 At the OWNER’s discretion, the OWNER may employ other persons to make such repairs and replacement. The Contractor agrees, upon demand, to reimburse the City all amounts expended for such repairs or replacements.

7.7.4 Failure to meet the warranty requirements constitutes a breach of contract.

Quality Assurance

8.1 QUALITY ASSURANCE

8.1.1 The Contractor shall use skilled workman and equipment of adequate size and capacity to assure proper performance of all work.

8.1.2 The Contractor shall comply with the requirements of any agency or codes having jurisdiction over the work.

**SECTION 01000
GENERAL REQUIREMENTS**

Field Engineering

9.1 FIELD ENGINEERING

- 9.1.1** Field engineering, including establishing and maintaining all lines, grades, elevations, measurements, and other items specified, shall be the sole responsibility of the Contractor.
- 9.1.2** The Contractor shall employ a competent engineer/surveyor, to establish all lines, elevations, referenced marks, batter boards, etc., needed by the Contractor during the progress of the work, and from time to time to verify such marks by instrument or other appropriate means.
- 9.1.3** The Contractor shall make, check, and be responsible for all measurements and dimensions necessary for the proper construction of and the prevention of misfitting of work.
- 9.1.4** The OWNER shall be permitted at all times to check the lines, elevations, reference marks, batter boards, etc., set by the Contractor, who shall correct any errors in lines, elevations, reference marks, batter boards, etc., disclosed by such check. Such a check shall not be construed to be an approval of the Contractor's work and shall not relieve or diminish in any way the responsibility of the Contractor for the accurate and satisfactory construction and completion of the entire work.
- 9.2** The Contractor shall provide such field engineering services as may be required to properly complete the work to the OWNER's satisfaction.

Regulatory Requirements

10.1 REGULATORY REQUIREMENTS

- 10.1.1** Work and materials under this contract shall conform to all applicable federal, state, and local codes and requirements. The Contractor shall obtain and pay for any and all permits which may be required, and make arrangements for and coordinate any required inspections.
- 10.1.2** Materials, equipment, and workmanship shall meet all industry standards and be subject to inspection and testing by the OWNER and/or his authorized representatives, and the OWNER and his authorized representatives will at all times have access to the work.
- 10.1.3** The Contractor shall provide proper and safe facilities and equipment necessary for

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inspection, testing, access and observation of the work by the OWNER and his authorized representatives, and any agencies having jurisdiction over the work. The Contractor shall cooperate and provide assistance as required.

10.1.4 Except as otherwise specified herein, the Contractor shall provide all testing necessary to make certain that work is in conformance with the Contract Documents.

10.1.5 Contractor shall adhere to the requirements outlined in the RI DWSRF Program Construction Specifications.

10.2 PERMITS

10.2.1 At no additional cost to the OWNER, the Contractor shall be responsible for obtaining all permits and their associated fees from City, Town, or State authorities. Contractors must supply OWNER with copies of all permits prior to starting work. Anticipated permits are Street Opening Permits, Sidewalk Opening Permits, Construction Street/Sidewalk Closing Permits, and No-Parking Permits.

10.2.2 Street Opening Permits and Sidewalk Opening Permits - The OWNER has made arrangements with each municipality, Providence, Cranston, North Providence, and Johnston for Street and Sidewalk Opening Permits. The City of Providence is allowing permits to be acquired based on each city block of a street regardless of the number of openings within that city block. The Contractor will be supplied GIS Maps of impending water main replacement/rehabilitation and lead service replacement locations that must be included with each permit application in Providence, Cranston, North Providence, Johnston, and East Smithfield.

10.2.3 The Contractor is responsible for obtaining authorization for street closures from municipalities. Whereupon the Contractor requires a street closing as discussed under Article 7.4 "STREET CLOSINGS" of this section of the Contract Specifications, the Contractor may be required to obtain a "Construction Street/Sidewalk Closing Permit" from the City of Providence Department of Public Works – Traffic Engineering Division (or its equivalent in the other municipalities). When required and where directed, the Contractor will be responsible for the permit application and the associated fee required.

10.2.4 The Contractor shall be responsible for obtaining authorization/permits from municipalities to designate sections of roadways where "No-Parking" will be required. When required and where directed, the Contractor will be responsible for the permit application and the associated fee required.

10.2.5 Plumbing Permits – Each private side lead replacement will require a Plumbing Permit from each respective city or town. Plumbing Permit applications must be

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submitted by the Contractor's Master Plumber (ref. Part 3 of Bid Forms).

- 10.2.6** Winter Restrictions (Street and Sidewalk Opening Permits) – Typically, Department of Public Works have moratoriums on issuing permits in the winter months (November 15 through April 1). All excavations must be restored with hot mix asphalt **and temporary pavement markings shall be furnished at disturbed locations, as an interim measure until permanent markings can be installed in a separate paving contract. The Contractor shall maintain these excavations,** at no additional cost, throughout the winter season. OWNER does not allow cold patch for temporary trench restoration over winter. **The contractor shall schedule work to allow for the removal of all temporary bypass piping and associated services no later than November 15th.**

11.1 REFERENCES

- | | | |
|---------------|---------------|--|
| 11.1.1 | AWWA | American Water Works Association |
| 11.1.2 | ASTM | American Society for Testing and Materials |
| 11.1.3 | ANSI | American National Standards Institute |
| 11.1.4 | PWSB | Providence Water Supply Board |
| 11.1.5 | AASHTO | American Association of State Highway and Transportation Officials |

ADDENDUM NO. 3

SECTION 01150

MEASUREMENT & PAYMENT

**SECTION 01150
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General

1.1 EXTENT OF WORK

1.1.1 Measurement

1.1.1.1 The quantities to be measured under the various items in the Bidder's Blank will be those quantities of work completed in accordance with the Specifications. The methods of measurement will be as stated hereinafter for the individual items.

1.1.1.2 All quantities, except for lump sum items, shall be unit priced and measured for payment to the nearest one-tenth of a unit.

1.1.2 Prices

1.1.2.1 The unit rates in the Bidder's Blank shall be full compensation for the work of the Contractor specified and shall include the cost of furnishing all labor, materials, equipment, and all work and expense incidental to and necessary to complete the work in accordance with the Specifications.

1.2 WORK NOT PAID FOR SEPARATELY

1.2.1 Delivery

1.2.1.1 Payment for equipment delivery, storage or freight is included in the prices for the various items in the Bidder's Blank, and therefore no other separate payment will be made.

1.2.2 Bonds

1.2.2.1 Payment for bonds required by the contract is included in the prices bid for the various items of work in the Bidder's Blank, and therefore no separate payment will be made.

1.2.3 Permits and Licenses

1.2.3.1 Payment for permits and/or licenses required by the contract are included in the prices bid for the various items of work in the Bidder's Blank, and therefore no separate payment will be made.

1.2.3.2 Permits required by Municipalities.

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1.2.4 Primary Road Work

- 1.2.4.1** Additional payment for work along primary, state, major/minor arterial roadways or roadways with concrete base required by the contract shall be considered to be included in the prices bid for the various items of work in the Bidder's Blank, and therefore no additional compensation will be made.

Measurement

2.1 METHOD OF MEASUREMENT

2.1.1 PIPELINE SYSTEMS – PUBLIC SPACE

- A. Ductile-iron Pipe: Buried ductile-iron pipes utilized for water main replacement, including ductile-iron service laterals, of the various sizes listed in the Bid Schedule (Item Nos. 1, 2, 3, 4, 5, 6), shall be measured for payment by the "Linear Foot" (L.F.), as measured along the centerline of the pipe, measured through all fittings and valves in the line, complete, in place and accepted by the OWNER.
- B. Ductile-iron Fittings: Ductile-iron pipe fittings (e.g. pipe bends, tees, caps/plugs, etc.), including pipe couplings or solid sleeves for connections to existing water mains, as listed in the Bid Schedule (Item No. 7), shall be measured by the unit "pounds" (LBS.), for the number of pounds for the weight of fittings and couplings installed, complete, in-place and accepted by the OWNER. The measurement shall be based on the weight of the fitting or coupling, as provided by the standard fitting weights published in AWWA C153 and AWWA C219 for ductile iron compact fittings and couplings. There shall be no separate measurement for glands, joint restraints, or other appurtenances.
- C. Gate Valves: Gate valves, of the various sizes listed in the Bid Schedule (Item Nos. 8, 9, 10, 11), shall be measured by the unit "Each" (EA.), for each gate valve installed, complete, in-place and accepted by the OWNER.
- D. Fire Hydrant Assembly: New fire hydrant assemblies, as listed in the Bid Schedule (Item Nos. 12a and 12b), shall be measured by the unit "Each" (EA.), for each fire hydrant assembly installed at the designated locations, complete, in-place, as shown in the detail, and accepted by the OWNER.
- E. Blow-off Assembly: New 2-inch blow-off assemblies, as listed in the Bid Schedule (Item No. 13), shall be measured by the unit "Each" (EA.), for each

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blow-off assembly installed at select locations at the ends of designated water mains, complete, in-place, as shown in the detail, and accepted by the OWNER.

2.1.2 SERVICE CONNECTIONS

- A. Copper Tubing (Part 1 - Bid Schedule): The furnishing and installation of Copper Tubing to replace existing lead services with new buried water services within the Public Space, as listed in the Bid Schedule (Item Nos. 14a, 14b, 15a, 15b, 16a, and 16b) will be measured for payment by the unit "Linear Foot" (L.F.) of the actual number of linear feet of service tubing installed by either open-cut trench or trenchless technology means and methods, completed in place and accepted as part the assigned lead service replacement contract work.
- B. Corporation Stops, Curb Stops, and Service Boxes (Part 1 - Bid Schedule) The furnishing and installation of Corporation Stops, (Saddles for 1-1/2" and 2" Services), Curb Stops, and Service Boxes, of the sizes indicated, as listed in the Bid Schedule (Item Nos. 14c, 15c, and 16c), will be measured by the unit "Each" (EA.), complete in place and accepted for each new water service installation associated with the water main rehabilitation, or at other locations as directed by the OWNER.
- C. Copper Service Reconnections: The reconnection of existing copper water services, of the sizes listed in Part 1 of the Bid Schedule (Item Nos. 17a to 17d), will be measured by the unit "Each" (EA.), for each existing copper service that is reconnected to the new water main, complete in place and accepted.
- D. Existing Lead Service Replacement:
 - i. Lead Service Removal: The removal and disposal of existing lead water services, removed by either open-cut trench or by trenchless technology at the designated public side and private side lead service replacement locations will not be measured for separate payment, but the cost thereof will be considered to be included with the unit bid prices for the lead service replacement work under Parts 1 and 3 of the Bid Schedule.
 - ii. Private Side Lead Service Abandonment: The abandonment of existing lead water service pipe, resulting from the relocation of the service or the use of a mole or tunneling device at designated private side lead service replacement locations will not be measured for separate payment, but the cost thereof will be considered to be included with the unit bid prices for the lead service replacement work under Part 3 of the Bid Schedule.
 - iii. Corporation Stop Closure and Curb Stop Removal: The closure or removal of existing service corporation stops, and the removal of existing curb stops

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and service boxes, will not be measured for separate payment, but the cost thereof will be considered to be included with the unit bid prices for the lead service replacement work under Part 1 of the Bid Schedule.

2.1.3 CLEANING AND LINING EXISTING WATER MAINS

- A. The quantity for “Cleaning and Lining Existing 6”, 8" and 12" C.I. Water Mains, as listed in the Bid Schedule (Item Nos. 18a to 18c), will be measured for payment by the unit “Linear Foot” (L.F.), along the centerline of the existing water mains that are actually cleaned and lined with the specified cement mortar thicknesses, complete and accepted at the designated street locations.
- B. The quantity for “Obstructions, as listed in the Bid Schedule (Item No. 18d), will be measured for payment by the unit “Each” (EA.), for the actual number of each obstruction encountered and removed from the existing water main, as defined in Section 05200, Cleaning and Lining Water Mains, of these Contract Specifications.

2.1.3.1 EXPLORATORY VIDEO INSPECTION

The quantity for “Exploratory Video Inspection”, as listed in the Bid Schedule (Item No. 33k), will be measured for payment by the unit “Linear Foot” (L.F.), as tracked / recorded in the video footage of the existing water mains at OWNER designated locations.

2.1.4 TEMPORARY BYPASS PIPING SYSTEMS

Temporary Bypass Piping: The furnishing and installation of temporary bypass piping, of the sizes listed in Part 1 of the Bid Schedule (Item Nos. 19a to 19c), including temporary services and hydrants, will be measured for payment by the unit “Linear Foot” (L.F.), for the actual laid length of temporary bypass piping, complete in place and accepted along each street location, to facilitate the removal and replacement of the existing water mains serving those areas. The furnishing of temporary services for each home or building, and the associated connections to the temporary bypass piping, and connections to other existing water mains with corporation stops, where necessary, will not be measured separately for payment.

2.1.5 EARTHWORK

- A. Trench Excavation: The volume of trench excavation, as is required for the work specified under these Contract Specifications, shall not be measured separately for payment, but the costs thereof shall be considered to be included in the unit

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price bid for the applicable work items under "PIPELINE SYSTEMS," as described herein for the overall water main replacement work.

- B. Gravel Borrow (Refill): Where, through no fault of the Contractor, sufficient suitable materials from excavations are not available for backfill, or unsuitable materials exist below the normal trench lines, gravel borrow from off-site sources shall be used for backfilling or refilling excavations. Gravel Borrow, as listed in Part 1 of the Bid Schedule (Item No. 20a), will be measured for payment by the unit "Tons" (TN), for gravel borrow in-place, compacted to the lines, grades and limits as directed by the OWNER.
- C. Test Pits: Where and when directed by the OWNER, the Contractor shall excavate test pits to establish locations of existing pipelines or other buried structures. Test Pits, as listed in Part 1 of the Bid Schedule (Item No. 20b), will be measured for payment by the unit "Cubic Yards" (CY), for the volume of material excavated within the lines and limits, as ordered by the OWNER.
- D. Dry-Hole Excavations (Part 4 - Bid Schedule): Whereupon an existing water main, service, plugged stub, or other appurtenant fitting is excavated for purposes of replacement, removal, or abandonment at select locations, as directed by the OWNER, and where, through no fault of the Contractor, it is determined that the existing service is constructed of copper pipe material, or a street marking location is determined to be incorrect, the Contractor will be compensated for the work associated with said excavations. Dry-hole excavations, as listed in the Bid Schedule (Item No. 33j), will be measured for payment by the unit "Each" (EA.) for each dry-hole excavation performed in the field as directed and approved by the OWNER.
- E. Rock Excavation: Including Disposal and Refill with Suitable Material when encountered, the volume of rock excavation, as listed in Part 4 of the Bid Schedule, as "Trench Rock Excavation & Removal" (Item No. 33l), will be measured for payment in "Cubic Yards" (CY) in its original position, prior to excavation, computed based on the pre-approved trench width, length of rock excavation and average depth of rock excavation. Boulders or detached rock fragments which are less than 1 cubic yard shall not be measured for payment separately, but shall be classified as earth excavation.
- F. Boulders or detached rock fragments, which are 1 cubic yard or more, shall be measured for payment individually and the volume will be computed from average dimensions taken in three representative directions. Boulders or detached rock fragments that are located within the excavation limits of the water main, service piping, or other appurtenances, or above the existing grade along the route of the water main or service piping, and are required to be

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removed to facilitate trenching, shall be measured as specified above. The Contractor shall clean rock formation for measurement and notify the **OWNER** that the boulders and/or excavated rock fragments are ready for measurement. If the Contractor fails to give such notice, then the **OWNER** will take measurement at the time he first observes the formation in question, and this quantity will be used for payment.

2.1.6 TEMPORARY RESTORATION - BITUMINOUS PAVEMENT

The extent of temporary bituminous concrete pavement, including gravel base course, required by these Specifications for the interim restoration of roadways, **intersections**, and sidewalks, as listed in Part 1 of the Bid Schedule (Item Nos. 21a and 21b) and in Part 4 of the Bid Schedule (Item Nos. 33g, 33h and 33i) shall be measured and computed in square yards to the nearest 1/10th of a square yard. The width for measurement of the minimum 2-inch compacted thickness of bituminous concrete (hot-mix) pavement surface course, or other interim pavement depth), as required for the water main installations and related service work, will be the specified width within the payment line limits, as described and shown on the trench details, and the length will be the actual length of the trench pavement limits, as measured along the center line of the trench.

2.1.7 PERMANENT RESTORATION – BITUMINOUS STREET PAVEMENT

2.1.7.1 TRENCH RESTORATION

- A. The extent of permanent bituminous concrete pavement, which is placed to restore all roadways that have existing gravel bases, as listed in Part 1 of the Bid Schedule (Item Nos. 22a, 22b, and 22c), will be measured and computed in square yards to the nearest 1/10th of a "Square Yard" (SY). The width for measurement of the permanent bituminous (hot mix) pavement structure, of the specified courses and thicknesses, will be the specified width within the payment line limits, as described and shown on the trench details for the restored pavement surface, and the length will be the actual length of the trench pavement limits, as measured along the center line of the trench.

- B. The extent of concrete placed to restore roadways with a reinforced concrete road base, as listed in Part 1 of the Bid Schedule (Item No. 22d), will be measured and computed in square yards to the nearest 1/10th of a "Square Yard" (SY). The width and length for measurement of the replaced reinforced concrete road base, will be the actual limits of the sawcut trench excavation measured in the field. Furnishing and installing 1" diameter epoxy coated steel reinforcing dowels 18 inches on center will be considered included in the unit price bid for this particular item of permanent street pavement restoration.

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- C. The extent of permanent bituminous concrete binder pavement, which is placed to restore select roadways not requiring a surface course, as listed in Part 1 of the Bid Schedule (Item No. 22e), will be measured for payment by the unit "Ton", for the actual number of ton of bituminous concrete binder material placed in a minimum of two lifts for the existing pavement thicknesses encountered during construction at these select roadway locations, as directed by the OWNER.

2.1.7.2 INFRARED RESTORATION

The extent of infrared permanent bituminous pavement restoration, to restore select roadway patches, as listed in Part 4 of the Bid Schedule (Item Nos. 33a to 33c), will be measured for payment by the "Square Yard (SY). Measurement will be computed based on the actual width and length dimensions of the burned back asphalt measured in the field. The limits of work for infrared restoration areas will be determined in the field as directed by the OWNER. Contractor shall minimize limits of asphalt burn back to 6" beyond the existing temporary patch edge or as determined in the field as directed by the OWNER.

2.1.7.3 MILL AND OVERLAY

The extent of cold plane/micro mill bituminous pavement restoration, to restore select roadways, as listed in Part 4 of the Bid Schedule (Item Nos. 33d to 33f), will be measured for payment by the "Square Yard (SY). Measurement will be computed based on the actual width and length dimensions as measured in the field. The limits of work for cold plane/micro mill restoration areas will be determined in the field as directed by the OWNER.

2.1.8 PERMANENT RESTORATION - SIDEWALKS & DRIVEWAYS

- A. Restoration of bituminous sidewalks and driveways, which are disturbed as a result of construction operations, as listed in Part 1 of the Bid Schedule (Item No. 22f), will be measured for payment by the "Square Yard (SY). Measurement will be computed based on the actual width and length dimensions measured in the field for the specified depth of new pavement. The limits of work for the sidewalk and driveway restoration areas will be as specified, or as determined in the field and directed by the OWNER.
- B. Restoration of cement concrete sidewalks and driveways, which are disturbed as a result of construction operations, of the specified thicknesses, as listed in Part 1 of the Bid Schedule (Item Nos. 22g and 22h), will be measured for payment by the square yard (SY). Measurement will be computed based on the actual width and length dimensions measured in the field for the specified

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depth of new concrete pavement. Contractor shall minimize limits of disturbance for the restoration of the sidewalk and driveway panels, which will be determined in the field as directed by the **OWNER**.

2.1.9 BRICK / PAVER AND COBBLESTONE RESTORATION

The restoration of existing brick / paver, or cobblestone sidewalks, driveways, or streets, which are disturbed as a result of construction operations associated with the service replacement work, as directed by the **OWNER** at select locations, as listed in Part 1 of the Bid Schedule (Item Nos. 22i and 22j), will be measured for payment by the unit "Square Yard" (S.Y.). Measurement will be computed based on the actual width and length dimensions measured in the field at the site of the approved brick / paver, or cobblestone sidewalk, walkway, driveway, or street restoration. Contractor shall minimize the limits of disturbance of existing brick / paver, or cobblestone to remain during construction and removal operations.

2.1.10 CURB RESTORATION

- A. Replacement of granite, precast concrete, cast-in-place concrete, or bituminous street curbing, to restore existing broken or deteriorated curbing, as directed by the **OWNER** at select locations, as listed in Part 1 of the Bid Schedule (Item Nos. 23a, 23b, 23c and 23d), will be measured for payment by the unit "Linear Foot" (L.F.), of the actual number of linear feet of new curbing installed. Contractor shall minimize the limits of disturbance of existing sound curbing to remain during construction operations.

- B. The resetting of existing concrete or granite curbing, which may be required outside of the service replacement trench limits to accommodate the proper restoration of the existing sidewalk, or as directed by the **OWNER** at select locations, as listed in Part 1 of the Bid Schedule (Item No. 23e), will be measured for payment by the unit "Linear Foot" (L.F.). Measurement will be computed based on the actual number of linear feet, as measured in the field, of existing concrete or granite curbing that is disturbed and reset, as directed and approved by the **OWNER**.

2.1.11 GRASS RESTORATION

Restoration of grassed areas in the public right of way or on private property, which are disturbed as a result of construction operations, will not be measured separately for payment, but the costs thereof will be considered included in the price bid for the applicable work items under "PIPELINE SYSTEMS – PUBLIC SPACE". The limits of work for the grass restoration areas will be as specified,

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or as determined in the field and directed by the OWNER.

2.1.12 CLEARING AND GRUBBING

No separate payment will be made for clearing and grubbing. The costs thereof will be considered included in the price bid for the applicable work items, as described herein.

2.1.13 ABANDONMENTS

- A. Abandoned Lead Service Removal (Part 2 Bid Schedule): The work performed in connection with the exclusive removal of existing Abandoned Lead Services, as listed in the Bid Schedule (Item Nos. 24a to 24c), will be measured for payment by the unit "Linear Foot" (L.F.) for the actual number of linear feet of service tubing removed (if required); and "Each" for the closing or the removal of the existing corporation stop, plugging of the existing tap (as applicable), and the removal and disposal of the existing service box. Abandoned Lead Service Removals at designated locations within the scope of work will be directed by the OWNER.
- B. Cast Iron Abandonments NOT SPECIFIED ON THE DESIGN PLANS: The removal and disposal of existing 4", 6" and 8" Services, as listed in Part 2 of the Bid Schedule (Item Nos. 25a, 25b, and 25c), will be measured for payment by the unit "per Each" upon completion of the following: removal of existing fittings, piping, appurtenances and incidental piping work required for tie-in to the existing cast iron water main. No additional payment shall be made for the tie-in (i.e. couplings, piping, and other necessary fittings) required to remove these abandonments. These items are intended for Cast Iron Abandonments "NOT SPECIFIED ON THE DESIGN PLANS."
- C. No additional payment shall be made for the abandonment of existing water mains, services, plugged stubs, and other appurtenant fitting removals as specified on the design plans. The cost, thereof, will be considered to be included with the unit bid prices for the Water Main Replacement and Rehabilitation work under Part 1 of the Bid Schedule.
- D. No additional payment shall be made for the reconnect/tie-in of existing active cast and ductile iron services within the project scope of work. The cost, thereof, will be considered to be included with the unit bid prices for the Water Main Replacement and Rehabilitation work under Part 1 of the Bid Schedule.

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2.1.14 PIPELINE SYSTEMS – PRIVATE SPACE

- A. The furnishing and installation of 1” and 2” water services within Private Property, as listed in Part 3 of the Bid Schedule (Item Nos. 26a and 26b), will be measured for payment by the unit “Each” (EA.) completed and accepted, at the designated private-side lead service replacement locations.
- B. Utility Crew (Base Rate): The base rate per Utility Crew for the services employed to complete Private Side lead service replacements, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.
- C. Utility Crew (Hourly Rate beyond Base Rate): The rate per Utility Crew beyond a four (4) hour period, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.
- D. Loam & Seed, Sidewalk, and Driveway Restoration (Private Side LSR): Restoration of grass lawns, both concrete and asphalt sidewalks and driveways, brick, pavers, and cobblestone areas, which are disturbed as a result of the private side lead service replacement, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b. The limits of work for these restoration areas will be as specified, or as determined in the field and directed by the OWNER.
- E. The removal and disposal of existing lead water services removed by either open-cut trench or by trenchless technology means and methods, pipe fittings, couplings, adapters, and other appurtenances, of the various sizes required, will not be measured separately for payment, but the costs thereof will be considered included in the price bid for the applicable work items under “PIPELINE SYSTEMS – PRIVATE SPACE”, as described herein.
- F. The furnishing and installation of individual interior 1” or 2” Ball Valves, as required to isolate the meter, complete in place and accepted for each private water service installation, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.
- G. The furnishing and installation of an interior 1” or 2” Pressure Reducing Valves, as applicable and if required, complete in place and accepted for each private water service installation, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.

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- H. The furnishing and installation of a Jumper Pipe at a new water meter location may be required. No additional payment shall be made for installation of a Jumper Pipe, but the costs thereof will be considered included in the price bid for the applicable work items under “PIPELINE SYSTEMS – PRIVATE SPACE”.
- I. The furnishing and installation of a 1” Backflow Prevention Devices, as applicable and if required, complete in place and accepted for each private water service installation, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.
- J. The furnishing and installation of a new Expansion Tank, as applicable and if required, complete in place and accepted for each private water service installation, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.
- K. Master Plumber Service Fee (Base Rate): The base rate per Master Plumber, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.
- L. Master Plumber Service Fee (Hourly Rate beyond Base Rate): The rate per Master Plumber for the services employed to complete Private Side lead service replacements beyond a four (4) hour period, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.
- M. Plumbing Permit: The Plumbing Permit fee, required by the municipality to complete Private Side lead service replacements, will not be measured separately for payment, but the costs thereof will be considered to be included with the unit bid prices in Items 26a and 26b.
- N. The furnishing, installation, and testing of a new Reduced Pressure Zone (RPZ) Backflow Prevention devices, of the sizes listed in Part 3 of the Bid Schedule (Item Nos. 27a to 27d), will be measured by the unit "Each" (EA.) complete in place and accepted for each new private water service installation associated with select commercial properties, as directed by the OWNER.

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2.1.15 TRAFFIC CONTROL

- A. Uniformed Traffic Control Police: Special Duty Police for uniformed traffic control within the project's limits of construction, as required by the local Police Departments of the respective Cities and Towns, will be reimbursed to the Contractor per pay period as a pass-through without markup. The Contractor will call in the details and pay the invoices to the respective cities and towns that they have utilized for the period. For reimbursement purposes, the Contractor shall forward detail voucher (slip) copies to PWSB, with a copy of the invoice for verification.
- B. Flagpersons: The utilization of Flagpersons for traffic control employed within the project's limits of construction, as directed by the Engineer and/or the local Police Departments of the respective Cities and Towns, will be paid by the **OWNER** per pay application. If flagger services are subcontracted, the Contractor shall forward flagger invoices with certified payroll to PWSB for payment without markup. If the flagperson is employed by the General Contractor, flagger services shall be compensated for the employee's hourly wage without markup.
- C. Temporary Construction Signage and Traffic Control Devices: Measurement for the placement and relocation of temporary construction signs, traffic cones, drums, barricades, or other traffic control devices, will not be measured separately for payment, but the costs thereof will be considered to be included with applicable items of work, as listed in the Bid Schedule, to perform the overall contract work.

2.1.17 EXISTING WATER MAIN FLOW LINE STOPPING DEVICES

- A. The furnishing and installation of single line stopping devices, of the sizes listed in Part 4 of the Bid Schedule (**Item Nos. 28a to 28c**), will be measured for payment by the unit price bid per "Each" (EA.), for the actual number of line stopping operations performed on existing water mains as directed by the **OWNER**.
- B. The furnishing and installation of double line stopping devices, of the sizes listed in Part 4 of the Bid Schedule (**Item Nos. 29a to 29c**), will be measured for payment by the unit price bid per "Each" (EA.), for the actual number of line stopping operations performed on existing water mains as directed by the **OWNER**.

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2.1.18 TAPPING SLEEVES AND VALVES

The furnishing and installation of the specified Tapping Sleeves and Valves, of the sizes listed in Part 4 of the Bid Schedule (Item Nos. 30a to 30f), will be measured for payment by the unit price bid per “Each” (EA.), for the actual number of tapping sleeve and valve installations performed on existing water mains, as directed by the OWNER.

2.1.19 INSERTION VALVES

The furnishing and installation of the specified Insertion Valves, of the sizes listed in Part 4 of the Bid Schedule (Item Nos. 31a to 31c), will be measured for payment by the unit price bid per “Each” (EA.), for the actual number of insertion valve installations performed on existing water mains, as directed by the OWNER.

2.1.20 BUTTERFLY VALVES

Butterfly Valves: Butterfly valves, of the size listed in the Bid Schedule (Item No. 32a), shall be measured by the unit “Each” (EA.), for each butterfly valve installed, complete, in-place and accepted by the OWNER.

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Payment

3.1 BASIS OF PAYMENT

3.1.1 PIPELINE SYSTEMS - PUBLIC SPACE

- A. Ductile-Iron Pipe: Payment for quantity measured, as specified and listed in the Bid Schedule (Item Nos. 1, 2, 3, 4, 5, 6), to furnish and install Ductile-Iron Pipe for the water main replacement work, will be made at the unit prices bid per "Linear Foot" (L.F.), which price will include furnishing and installing all pipe, pipe jointing materials, joint restraint devices (e.g. field locking gaskets), and all other necessary accessory materials; for hauling and handling of all materials; for pipe cutting; for jointing and connection to other pipe; for all earthwork in connection with the construction of the new water main replacement, including saw-cutting, pavement removal, excavations, pipe bedding, backfilling and compaction, grading, and preparation of subgrades; for removal and disposal of the existing water mains and appurtenances; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all soils and pavement materials; disposal of surplus materials; pressure testing and disinfection; for all labor, equipment, plant, tools and materials; and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the ductile-iron water main installations in accordance with the specifications, and at the locations as directed by the OWNER.
- B. Ductile-Iron Pipe Fittings: Payment for quantity measured, as specified and listed in the Bid Schedule (Item No. 7), to furnish and install Ductile-Iron Pipe Fittings, including pipe couplings or solid sleeves, will be made at the unit prices bid per "Pound" (LB), which price will include furnishing and installing all pipe fittings (e.g. bends, crosses, tees, etc.), pipe jointing materials, and all other necessary accessory materials; for hauling and handling of all materials; for pipe jointing; for all other incidental earthwork associated with the installation of the new fittings for the water main replacement, including saw-cutting, pavement removal, excavations, pipe bedding, backfills and compaction, grading, and preparation of subgrades; for removal and disposal of the existing water mains and appurtenances; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all soils and pavement materials; disposal of surplus materials; pressure testing and disinfection; for all labor, equipment, plant, tools and materials; and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the installation of the ductile-iron water main fittings and coupling connections in accordance with the specifications, and at the locations as directed by the OWNER.

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Mechanical Joint Restraint: No separate payment will be made for the installation of mechanical restrained joint gland mechanisms, which will be required for pipe joint restraint at all pipe bends, tees, and caps or plugs for dead-end water main locations, of the specified dimensions and sizes, but the cost thereof shall be deemed to be included in the unit price bid for the ductile-iron pipe fitting work described herein.

Concrete Thrust Blocks: No separate payment will be made for the installation of concrete thrust blocks, which will be required for pipe restraint at all pipe bends, tees, and caps or plugs for dead-end water main locations, of the specified dimensions and sizes, but the cost thereof shall be deemed to be included in the unit price bid for the ductile-iron pipe fitting work described herein.

- C. Gate Valves: Payment for quantity measured, as specified and listed in the Bid Schedule (Item Nos. 8, 9, 10, and 11), to furnish and install the specified buried service Gate Valves, will be made at the unit prices bid per “Each” (EA.), which price will include the gate valve, C.I. valve box, mechanical restrained jointing materials (main line piping and couplings to be paid under respective unit items herein), and all other necessary accessory materials; for hauling and handling of all materials; for pipe jointing; for all other incidental earthwork associated with the installation of the new gate valves for the water main replacement, including saw-cutting, pavement removal, excavations, pipe bedding, backfills and compaction, grading, and preparation of subgrades; for removal and disposal of the existing gate valves and appurtenances; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all soils and pavement materials; disposal of surplus materials; pressure testing and disinfection; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items in accordance with the specifications, and at the locations as directed by the **OWNER**.
- D. Fire Hydrant Assemblies: Payment for quantity measured, as specified and listed in the Bid Schedule (Item Nos. 12a and 12b), to furnish and install the specified Fire Hydrant Assembly, will be made at the unit prices bid per “Each” (EA.), which price will include the fire hydrant, 6-inch or 8-inch ductile-iron branch piping, 6-inch or 8-inch gate valve, valve box, hydrant anchor tee, mechanical restrained jointing materials (main line piping and couplings to be paid under respective unit items herein), and all other necessary accessory materials; for hauling and handling of all materials; for pipe jointing; for all other incidental earthwork associated with the installation of the new fire hydrant assemblies associated with the water main replacement work, including saw-cutting, pavement removal, excavations, pipe bedding, backfills and

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compaction, grading, and preparation of subgrades; for removal and disposal of the existing fire hydrants and appurtenances; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all soils and pavement materials; disposal of surplus materials; pressure testing and disinfection; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items in accordance with the specifications, and at the locations as directed by the **OWNER**.

- E. Two-inch Blow-off Assemblies: Payment for quantity measured, as specified and listed in the Bid Schedule (Item No. 13), to furnish and install the specified 2-inch Blow-off Piping Assembly, will be made at the unit prices bid per "Each" (EA.), which price will include the service saddle, 2-inch brass piping and fittings, curb stop, 2-inch galvanized riser piping, cast-iron road boxes, and all other incidental materials; for hauling and handling of all materials; for tapping; pipe jointing; for all other incidental earthwork associated with the installation of the new blow-off assembly associated with the water main replacement work, including saw-cutting, pavement removal, excavations, bedding, backfills and compaction, grading, and preparation of subgrades; for removal and disposal of the existing blow-off or bleeder assemblies and appurtenances; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all materials, disposal of surplus materials; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items in accordance with the specifications, and at the locations as directed by the **OWNER**.
- F. Protection of Existing Pipelines and Utilities: The support and protection of existing gas, ~~water~~, telephone, cable television, storm or sanitary sewer, and electric lines, crossing the trench, which may be required to prevent damage of the utilities during construction, will not be measured for separate payment, but the cost thereof will be considered to be included with the unit bid prices for the applicable work items under "PIPELINE SYSTEMS – PUBLIC SPACE", as described herein.
- G. Calcium Chloride: No separate payment will be made for furnishing and placing calcium chloride for dust control, but the costs thereof shall be considered to be included with the unit prices bid for the applicable items of work as listed under "PIPELINE SYSTEMS – PUBLIC SPACE", as described herein for which calcium chloride is required.
- H. Dewatering, Control & Diversion of Water: No separate payment shall be made for furnishing, installing, maintaining, operating and removing all

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equipment, facilities, construction and appurtenant work required to maintain in a dry condition the areas in which construction of this contract is to be conducted, but the costs thereof shall be considered to be included with the unit bid prices for the applicable work items under "PIPELINE SYSTEMS – PUBLIC SPACE", as described herein.

- I. Excavation Support Systems: No separate payment will be made for excavation support systems (trench boxes), but the cost thereof shall be deemed to be included in the unit prices bid for the applicable items of work under "PIPELINE SYSTEMS – PUBLIC SPACE", as described herein.

3.1.2 SERVICE CONNECTIONS

- A. Copper Service Tubing (Part 1 - Bid Schedule): Payment for quantity measured, as specified and listed in the Bid Schedule (Item Nos. 14a, 14b, 15a, 15b, 16a, and 16b), to furnish and install Copper Service Tubing, of the specified diameter sizes, for the replacement of existing lead water services, will be made at the unit prices bid per "Linear Foot (L.F.), which price will include furnishing and installing all copper service tubing, fittings, pipe jointing materials, adapters, and all other necessary connection materials; for hauling and handling of all materials; for jointing and connection to other pipe (e.g. brass compression or polypropylene couplings); for all earthwork in connection with the construction of the new water service replacement, including sawcutting, pavement removal, excavations, backfills and compaction, grading, and preparation of subgrades; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all materials, disposal of surplus materials; flushing; disinfection; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items in accordance with the specifications at the respective public-side lead service replacement locations, as directed by the **OWNER**.
- B. Corporation Stops, Curb Stops, and Service Boxes (Part 1 - Bid Schedule): Payment for quantity measured, as specified and listed in the Bid Schedule (Item Nos. 14c, 15c, and 16c), to furnish and install Corporation Stops and Curb Stops, will be made at the unit price bid per "Each" (EA.), which price will include furnishing all the specified buried corporation stops and curb stops (valve), service boxes, corporation and curb valve jointing accessories, service saddles; and all other necessary materials; installation of these materials as part of the new water service assembly, which price will also include the trench excavations; water main tapping; service connections, backfilling and compaction; grading; and the preparation of subgrades; for all dewatering, pumping, drainage and bailing; and for the satisfactory removal and disposal of surplus materials; for all labor, equipment, plant, tools and materials, and for

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all appurtenant and incidental work and all other costs necessary to satisfactorily complete the installation of the corporation stop, curb stop (valve), and service box in accordance with the details and specifications at the respective public-side lead service replacement locations, as directed by the **OWNER**.

- C. Reconnection of Existing Copper Services: Payment for quantity measured, as specified and listed in Part 1 of the Bid Schedule (Item Nos. 17a to 17d), to reconnect existing Copper Services, of the specified diameter sizes, will be made at the unit prices bid per "Each" (EA.), which price will include furnishing and installing the new copper service tubing, corporation stop, fittings, pipe jointing materials, adapters, and all other necessary connection materials; for hauling and handling of all materials; for jointing and connection to other service pipe (e.g. brass compression or polypropylene couplings); for any other incidental earthwork in connection with the installation of the service reconnection, including sawcutting, pavement removal, excavations, backfills and compaction, grading, and preparation of subgrades; for the partial removal and disposal of the existing copper service piping; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all materials, disposal of surplus materials; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items in accordance with the specifications, and at the locations as directed by the **OWNER**.

3.1.3 CLEANING AND LINING EXISTING WATER MAINS

- A. Payment for the quantity measured for the "Cleaning and Lining of existing 6", 8" and 12" C.I. Water Mains, as listed in the Bid Schedule (Item Nos. 18a to 18c), will be made at the unit price bid per "Linear Foot" (L.F.) for the linear footage of the existing water mains that are actually cleaned and lined with the specified cement mortar thicknesses, complete and accepted at these designated street locations. Said unit price and payments shall constitute full compensation for furnishing all labor, materials, equipment, tools, supplies and plant, which will be required to perform the cleaning and lining; the associated excavation and backfilling; the installation of the excavation support system; the dewatering of pipelines and excavations; the disconnecting and/or cutting the water main pipe; the protection of structures, properties and utilities; furnishing, installing, maintaining and removing steel decking over street access pit openings; site maintenance; and as further described in the paragraphs below.
- B. Payment shall also constitute full compensation for the removal of existing mainline valves and piping to facilitate the cleaning and lining work within the access pits; the satisfactory handling and disposal of cleaning water and

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residual from the cleaning operations; clearing existing branch connections (laterals) and services, as applicable; hand-placed lining work, where applicable; testing of cement-mortar materials; curing and protection of the completed cement-mortar linings; and the performance of a closed-circuit television (video) inspection of the completed rehabilitated pipeline, as further specified in Section 05200, Cleaning and Lining Water Mains, of these Contract Specifications.

- C. Payment for the quantity measured for “Obstructions”, as listed in the Bid Schedule (Item Nos. 18d), will be made at the unit prices bid per “Each” (EA.), as specified herein, for the actual number of each obstructions encountered and removed from the existing water mains, as defined in Section 05200, Cleaning and Lining Water Mains, of these Contract Specifications, which price shall include pavement saw-cutting, pipe cutting and removal, excavation, backfilling and compaction
- D. The replacement of existing piping, fittings and valves, which are removed from the existing water mains for the cleaning and lining operations, will be measured and paid separately, as described herein under Article 3.1.1, Pipeline Systems – Public Space, of this section of the Contract Specifications, for the furnishing and installation of new Ductile-Iron Piping, Ductile-Iron Pipe Fittings and Gate Valves.
- E. No separate payment will be made for the removal and disposal of existing water main piping, fittings, valves and appurtenances, which is required to facilitate the cleaning and lining operations within the access pits, but the cost thereof shall be deemed to be included in the unit price bid for the overall cleaning and lining contract work. No separate payment will be made for the temporary capping/ plugging of lined sections of main.
- F. Both temporary and permanent sidewalk and street pavement restoration, which will be required in connection with the cleaning and lining contract work, will be measured and paid separately, as described herein.
- G. Payment of Accepted/Conforming Cleaning and Lining pipe lengths shall only be paid after the following is completed:
 - i. The water main has been video inspected and approved by Providence Water.
 - ii. The water main has been pressure tested, chlorinated, and approved by Providence Water.
 - iii. All hydrants shall be installed prior to chlorination of water main.
 - iv. Completion of copper service or cast/ductile iron services tie-ins, and

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- lead service replacements.
- v. Completion of valve replacements and cross-street water main tie-ins.
 - vi. All valves, as directed, are opened to provide adequate flow to system and services

3.1.3.1 EXPLORATORY VIDEO INSPECTION

- A. Payment for the quantity measured, as specified or directed herein, for “Exploratory Video Inspection”, as listed in Part 4 of the Bid Schedule (Item No. 33k), will be made at the pre-set unit price per "Linear Foot" (L.F.) for the linear footage (displayed and tracked in the video, further specified in Section 05200) of existing water mains that are video inspected for exploratory purposes at locations designated by the OWNER. Said unit price and payments shall constitute full compensation for furnishing all labor, materials, equipment, tools, supplies and plant, which will be required to perform the video inspection; the associated excavation and backfilling; the installation of the excavation support system; the dewatering of pipelines and excavations; the disconnecting and/or cutting the water main pipe; the protection of structures, properties and utilities; furnishing, installing, maintaining and removing steel decking over street access pit openings; site maintenance; and as further described in the preceding paragraphs.
- B. The replacement of existing piping, fittings, valves, and other appurtenances which are removed from the existing water mains for the video inspection operations, will be measured and paid separately, as described herein under Article 3.1.1, Pipeline Systems – Public Space, of this section of the Contract Specifications, for the furnishing and installation of new Ductile-Iron Piping, Ductile-Iron Pipe Fittings and Gate Valves.

3.1.4 TEMPORARY BYPASS PIPING SYSTEMS

- A. Temporary Bypass Piping: Payment for the quantity measured, for the furnishing and installation of Temporary Bypass Piping, of the sizes listed in Part 1 of the Bid Schedule (Item Nos. 19a to 19c), including temporary services and hydrants, will be made at the unit prices bid per "Linear Foot" (L.F.), which price shall constitute full compensation for the furnishing of all labor, equipment, tools, supplies, materials, appurtenances, and all other work incidental and necessary for satisfactorily installing, disinfecting, maintaining, repairing and removing all temporary bypass piping, temporary hydrants, temporary house or building services, and connections to other piping and water mains; performing all earthwork including excavations for street pipe crossings, backfilling and compacting; removing and resetting existing curbing to accommodate the installation of the temporary bypass piping (if required);

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performing temporary sidewalk or street pavement restoration; complete in place and accepted along each street location, to facilitate the removal and replacement of the existing water mains serving those areas.

- B. Separate payment will not be made for connections to temporary bypass piping that are required to be made underground. As delineated in paragraph 7.6.2 in Section “05800 – Temporary Bypass Piping and Services”, all costs associated with the furnishing, installation, maintaining and removing temporary building service connections made underground, will be included in the unit price bid for Temporary Bypass Piping as listed in the Bid Schedule.
- C. Separate payment will not be made for temporary service connections to buildings, which extend from the temporary bypass pipe and terminate at the connection to the building plumbing; or for temporary building service connections that extend from building to building. All costs associated with the furnishing, installation, maintaining and removing temporary building service connections, will be included in the unit price bid for Temporary Bypass Piping as listed in the Bid Schedule.
- D. Separate payment will not be made for pipe, fittings, isolation valve, or such other accessories or appurtenances incorporated in the temporary bypass piping and services, but the costs thereof shall be included under the unit price bid for Temporary Bypass Piping as listed in the Bid Schedule.
- E. Separate payment will not be made for furnishing and installing corporation stops for the connection of temporary bypass piping to existing water mains, but the cost thereof will be included in the unit price bid for Temporary Bypass Piping as listed in the Bid Schedule.
- F. Separate payment will not be made for the placement of 2-inch bituminous pavement for the temporary restoration of sidewalk or street pavement surfaces, which are disturbed as a result of the installation and removal of the temporary bypass piping and services, as applicable, but the cost thereof will be included in the unit price bid for Temporary Bypass Piping as listed in the Bid Schedule.
- G. Payment of Accepted/Conforming By-pass Piping is to be paid according to the following schedule:
- 45% for installation including successful disinfection prior to activation
 - 20% for activation and connection of all buildings to By-pass piping
 - 35% for water main deactivation, disconnection of all buildings from By-pass piping, removal of all By-pass Piping from the site, and restoration of all site areas disturbed.

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3.1.5 EARTH EXCAVATION

- A. Trench Excavation: No separate payment for earth excavation shall be made, including excavation for unsuitable material, but the costs thereof shall be considered to be included in the unit prices bid for the applicable work items under "PIPELINE SYSTEMS", as described herein.
- B. Gravel Borrow (Refill): Payment for approved gravel borrow from off-site sources, as specified, as listed in Part 1 of the Bid Schedule (Item No. 20a), will be made at the unit bid price per Ton (TN). Payment will include all costs associated with furnishing, placing and compacting the Gravel Borrow (Refill) excavation, and disposal of all unsuitable materials off-site.
- C. Test Pits: Payment for the quantity measured, as specified and directed, to excavate Test Pits, as listed in Part 1 of the Bid Schedule (Item No. 20b), will be made at the unit price bid per Cubic Yard (C.Y.). Payment will constitute full compensation for all sawcutting, excavation, backfilling and compaction associated with the test pit operations. Where required, additional material to refill test pit excavations will be paid at the unit price bid for "Gravel Borrow", as described above.
- D. Dry-Hole Excavations: Payment for dry-hole excavations, as listed in Part 4 of the Bid Schedule (Item No. 33j), will be made at the pre-set unit price per "Each" (EA). Payment will include all costs associated with sawcutting, pavement removal, excavation, backfilling, compaction, grading, and preparation of subgrades; for all dewatering, pumping, drainage and bailing of excavations; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete this item of work in accordance with the specifications at the select replacement, removal, or abandonment locations, as directed by the OWNER.
- E. Rock Excavation: Payment for the quantity measured, as specified or directed herein, for "Trench Rock Excavation & Removal", as listed in Part 4 of the Bid Schedule (Item No. 31), will be made at the pre-set unit price (per Cubic Yard). Payment will include costs for excavation, removal and disposal of excavated rock or boulders, and refill with suitable materials, either from the excavations or with gravel borrow from off-site sources.

3.1.6 TEMPORARY RESTORATION – BITUMINOUS PAVEMENT

Payment for the quantity measured, as specified or directed, to furnish and place temporary bituminous pavement in roadways, intersections, and in sidewalk or driveway areas, as listed in Part 1 of the Bid Schedule (Item No. 21a and 21b),

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and in Part 4 of the Bid Schedule (Item Nos. 33g, 33h and 33i) will be made at the unit price bid (per Square Yard), which prices shall also include the preparation of gravel subgrade, compaction, cleaning, sweeping, and the subsequent maintenance and repair of the temporary trench patching.

3.1.7 PERMANENT RESTORATION – BITUMINOUS STREET PAVEMENT

3.1.7.1 TRENCH RESTORATION

- A. Payment for the quantity measured, as specified or directed, to furnish and place permanent bituminous pavement in roadways with existing gravel bases, as listed in Part 1 of the Bid Schedule (Item Nos. 22a, 22b, and 22c), will be made at the unit price bid (per Square Yard), which prices shall also include the preparation and sawcutting of pavement edges; preparation of gravel subgrade; compaction; tack coat; and cleaning and sweeping.
- B. Payment for the quantity measured, as specified or directed, to furnish and place concrete base in City or State roadways with reinforced concrete bases, as listed in Part 1 of the Bid Schedule (Item No. 22d), will be made at the unit price bid per "Square Yard" (SY), which price shall include the sawcutting and existing concrete base removal; gravel subgrade preparation; drilling and doweling; temporary hotmix asphalt (if used in lieu of road plates), placement of concrete; preparation and sawcutting of pavement edges; tack coating; rolling and compaction; and cleaning, sweeping.
- C. Payment for the quantity measured, as specified or directed, to furnish and place permanent bituminous binder pavement in roadways, which will not require a surface course, as listed in Part 1 of the Bid Schedule (Item No. 22e), will be made at the unit price bid (per Ton), which prices shall also include the preparation and sawcutting of pavement edges; gravel subgrade preparation; tack coating; rolling and compaction; and cleaning and sweeping.

3.1.7.2 INFRARED RESTORATION

Payment for the quantity measured, as specified or directed, to permanently restore asphalt patches via the infrared method, as listed in Part 4 of the Bid Schedule (Item Nos. 33a to 33c), will be made at the unit price bid per "Square Yard" (SY), which price shall include the labor, materials and equipment required to blend new bituminous material with infrared heated existing material to form a joint free integral mix. The cost includes but is not limited to drainage inlet protection, resets and adjustments to final pavement elevation of all valve boxes, curb stops, manhole frames and covers, catch basin frames and grates (disturbed by construction operations) in accordance with the specified procedures of the

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appropriate utility, the full depth hot mix asphalt (initial restoration) placed in trench after soil compaction, additional hot mix asphalt added during infra-red process, asphalt rejuvenator agent, sand or stone dust, removal and disposal of unsuitable material or loose aggregates, temporary patch preparation and final treatment; restoration of pavement markings and loop detectors, feathering driveway aprons to finished grade, jointing to existing asphalt (if required), squaring pavement edges; tack coating; rolling and compaction; and cleaning, sweeping. All other work delineated in section 8100 "Infrared Bituminous Pavement Restoration" and section 08000 "Special Conditions - Paving, Surfacing, and Permanent Repairs to Streets, Driveways, and Sidewalks" will be considered incidental to this unit item and bid price shall include all work defined in this section.

3.1.7.3 MILL AND OVERLAY

Payment for the quantity measured, as specified or directed, to permanently restore select segments of roadways by means of a micro-mill and overlay, as listed in Part 4 of the Bid Schedule (Item Nos. 33d to 33f), will be made at the unit price bid per "Square Yard" (SY), which price shall include all materials, tools, labor, equipment, and all other incidentals required to finish all work, complete-in-place and accepted by the OWNER. The cost includes but is not limited to drainage inlet protection, resets and adjustments to final pavement elevation of all valve boxes, curb stops, manhole frames and covers, catch basin frames and grates (disturbed by construction operations) in accordance with the specified procedures of the appropriate utility, the full depth hot mix asphalt (initial restoration) placed in trench after soil compaction, additional hot mix asphalt, surface preparation, milling, removal and disposal of millings, unsuitable material, loose aggregates, and other debris, asphalt placement, rolling and compaction, restoration of pavement markings and loop detectors, feathering driveway aprons to finished grade, jointing to existing asphalt outside project limits, squaring pavement edges, tack coating; rolling and compaction; and cleaning, sweeping. All other work delineated in Section 8200 "Cold Plane / Micro-Mill Bituminous Pavement Restoration" and section 08000 "Special Conditions - Paving, Surfacing, and Permanent Repairs to Streets, Driveways, and Sidewalks" will be considered incidental to this unit item and bid price shall include all work defined in this section.

3.1.8 PERMANENT RESTORATION – SIDEWALKS AND DRIVEWAYS

- A. Payment for the quantity measured, as specified or directed, to furnish and place permanent bituminous pavement in sidewalk or driveway areas, as listed in Part 1 of the Bid Schedule (Item No. 22f), will be made at the unit price bid per "Square Yard" (SY), which price shall also include the preparation of gravel

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subgrade; compaction; rolling; and cleaning and sweeping.

- B. Payment for the quantity measured, as specified and directed, to restore cement concrete sidewalks and driveways, which are disturbed as a result of construction operations, as listed in Part 1 of the Bid Schedule (Item Nos. 22g and 22h), will be made at the unit price bid per "Square Yard" (SY), which price shall include sawcutting; preparation of the gravel subgrade; compaction; formwork; placement of the concrete; concrete protection from weather and vandalism; and clean-up.

3.1.9 BRICK / PAVER AND COBBLESTONE RESTORATION

Payment for the quantity measured, as specified and directed, to remove and restore existing brick / paver, or cobblestone sidewalks, driveways, or streets as directed by the **OWNER** at select locations, as listed in Part 1 of the Bid Schedule (Item Nos. 22i and 22j), will be made at the unit price bid (per Square Yard), which price shall include the preparation of the subgrade; sand or stone dust bedding; compaction; placing and resetting the existing bricks / pavers, or cobblestones; furnishing and installing the new bricks / pavers, or cobblestones, where required; sweeping; and sidewalk clean-up.

3.1.10 CURB RESTORATION

- A. Payment for the quantity measured, as specified and directed, to remove and replace granite, concrete or bituminous street curbing, as directed by the **OWNER** at select locations, as listed in Part 1 of the Bid Schedule (Item Nos. 23a, 23b, 23c, and 23d), will be made at the unit price bid (per Linear Foot), which price shall include the cutting and removal of the existing curbing; the furnishing, installation and preparation of the gravel subgrade; compaction; furnishing and installing the new granite curbing; precast concrete curbing; forming and placing the cast-in-place concrete curbing; mortar jointing (as applicable); and clean-up.
- B. Payment for the quantity measured, as specified and directed, to remove and reset existing granite street curbing outside of the typical service replacement limits of disturbance, as directed by the **OWNER** at select locations, to accommodate the required sidewalk restoration at a given service address location, as listed in Part 1 of the Bid Schedule (Item No. 23e), will be made at the unit price bid (per Linear Foot), which price shall include the removal, handling and cleaning of the existing segments of granite curbing; the preparation of the gravel subgrade; compaction; the resetting of the existing curbing to proper line, grade and curb reveal; disposal; and clean-up.

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3.1.11 GRASS RESTORATION

No separate payment will be made for the restoration of grass lawns or grassed areas, which are disturbed as a result of construction operations. At no additional cost, the contractor shall repair all disturbed grassed areas along the street Right-of-Way, or within private property. The costs thereof will be considered included in the price bid for the applicable work items under “**PIPELINE SYSTEMS – PRIVATE SPACE**” and “**PIPELINE SYSTEMS – PUBLIC SPACE**”, as described herein.

3.1.12 CLEARING AND GRUBBING

- A. Clearing shall consist of removal and disposal at ground level of tree limbs, brush, shrubs, grass, weeds, other vegetation, down timber, rotten wood, rubbish, fences, incidental structures, bituminous and concrete paving, and general debris within the limits of construction.
- B. Grubbing shall consist of removal of stumps, roots, stubs, brush, foundations, and other buried items and debris which interfere with this work.
- C. No separate payment will be made for clearing and grubbing. The costs thereof will be considered included in the price bid for the applicable work items under “**PIPELINE SYSTEMS – PRIVATE SPACE**” and “**PIPELINE SYSTEMS – PUBLIC SPACE**”, as described herein.

3.1.13 ABANDONMENTS

- A. Abandoned Lead Service Removal (Part 2 Bid Schedule): Payment for quantity measured, as specified and listed in Part 2 of the Bid Schedule (Item Nos. 24a to 24c), to perform the Abandoned Service Removal work, removal and disposal of lead service tubing (as required), closing and plugging of the existing corporation, including the cutting and crimping of the existing lead service pipe at the existing corporation location (when applicable); the removal of the existing corporation; and the removal and disposal of the existing curb stop and service box, as applicable, at the designated lead service replacement locations, will be made at the unit price bid (per "Linear Foot" or "Each"), which price will constitute full compensation to furnish all the necessary labor, equipment, plant, tools and materials, to perform the specified work, and which price will also include excavations, backfilling, grading, and for the satisfactory removal and disposal of surplus materials; and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the closing of the existing corporation; the cutting and crimping of the existing lead service pipe at the existing corporation location; the removal of the existing corporation stop, and plugging of the water main at the existing corporation location; and the removal and disposal of the upper section of the existing service box, as

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applicable, at the designated abandoned service locations, as directed by the OWNER.

- B. Payment for the quantity measured, as specified herein, for the removal and disposal of existing 4", 6", and 8" Services, as listed in Part 2 of the Bid Schedule (Item Nos. 25a to 25c), will be made at the unit price (per Each), which price will include the removal of existing fittings, piping, appurtenances and incidental piping work required for tie-in to the existing cast iron water main (i.e. couplings, piping, and other necessary fittings), capping abandoned pipe sections, mechanical restrained jointing materials, and all other necessary accessory materials; for hauling and handling of all materials; for all other incidental earthwork associated with the removal work, including saw-cutting, pavement removal, excavations, pipe bedding, backfills and compaction, grading, and preparation of subgrades; for removal and disposal of the existing gate valves, blow-offs and appurtenances; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all soils and pavement materials; disposal of surplus materials; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items in accordance with the specifications, and at these select locations, or as directed by the OWNER.

3.1.14 PIPELINE SYSTEMS – PRIVATE SPACE

- A. Private property owners may request that they would like their private side lead service replaced based on construction notifications sent by OWNER (Providence Water). OWNER may utilize this contract to authorize and direct Contractor to complete private side lead service replacements in the project areas. If directed by OWNER, Contractor shall complete private side lead service replacements as measured and paid for in accordance with Bid Items 26a and 26b.
- B. Private Side Lead Service Replacements must be completed at the same time as the public portion of the lead service to be replaced. Private Side Replacements may not carry over into the following construction season, unless approved by the OWNER. Subsequently all restoration work shall be completed within this aforementioned construction season, which will require appropriate scheduling to accommodate the winter close out. At the OWNER's discretion, exceptions for the permanent restoration requirement may be made for authorizations approved by property owners in the month of October. These temporary patches must be maintained throughout the winter period, at no additional cost, and permanent restoration must be completed the following spring.
- C. Payment for quantity measured, as specified and listed in Part 3 of the Bid Schedule (Item Nos. 26a and 26b), to furnish and install 1" and 2" private-side

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services will be made at the unit prices bid (per each), which price will include all labor, equipment, tools, and for all appurtenant and incidental work, all other costs necessary to satisfactorily complete the new private-side copper service installation in accordance with the specifications at the designated residential or commercial buildings, as directed by the OWNER, furnishing and installing (by any and all installation methods used by Contractor) all copper service tubing, fittings, pipe jointing materials, adapters, and all other necessary connection materials; for hauling and handling of all materials; for jointing and connection to other pipe; for all earthwork in connection with the construction of the new water service replacement, including sawcutting, pavement removal, excavations, backfills and compaction, grading, and preparation of subgrades; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of surplus materials; flushing and disinfection; for all planning and coordination necessary to perform the work, and coordination and scheduling with private property owners and/or residents.

- D. No separate payment will be made for the utilization of moling, or other trenchless technologies in connection with the lead service replacement, including cutting and the removal of the interior basement floor; exterior and interior excavations required for the operation; backfills and compaction, grading, and preparation of subgrades; disposal of surplus materials; and the replacement of the interior concrete basement floor. The costs thereof will be considered included in the price bid for the applicable work items under “PIPELINE SYSTEMS – PRIVATE SPACE”, as described herein. The provided unit costs in Items 26a and 26b shall be inclusive of whatever installation method(s) the Contractor uses at each and every location.
- E. In the event of an unsuccessful pulling attempt and where open trench replacement cannot be employed (not limited to terraced landscapes, fixed obstructions, and other immovable features), a mole or equivalent tunneling device should be utilized. A mole or equivalent tunneling device should be onsite at all times. PWSB does not guarantee the successful replacement and extraction of an existing private side lead service via trenchless technology (pull). No additional payment shall be made to compensate for losses associated with failed replacement attempts. The costs thereof will be considered included in the price bid for the applicable work items under “PIPELINE SYSTEMS – PRIVATE SPACE”, as described herein.
- F. No separate payment will be made for the restoration of grassed areas, concrete and asphalt sidewalks and driveways, brick, paver, and cobblestone areas which are disturbed as a result of private side lead service replacement. The costs thereof will be considered included in the price bid for the applicable work

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items under "PIPELINE SYSTEMS – PRIVATE SPACE", as described herein.

- G. No separate payment will be made for the removal and disposal of the existing lead water services, pipe fittings, couplings, adapters, and other appurtenances, of the various sizes required, but the costs thereof will be considered included in the price bid for the applicable work items under "PIPELINE SYSTEMS – PRIVATE SPACE", as described herein.
- H. Protection of Existing Pipelines and Utilities: The support and protection of existing gas, water, telephone, cable television, storm or sanitary sewer, and electric lines, crossing the trench, which may be required to prevent damage of the utilities during construction, will not be measured for separate payment, but the cost thereof will be considered to be included with the unit bid prices for the applicable work items under "PIPELINE SYSTEMS – PRIVATE SPACE", as described herein. Calcium Chloride: No separate payment will be made for furnishing and placing calcium chloride for dust control, but the costs thereof shall be considered to be included with the unit prices bid for the applicable items of work as listed under "PIPELINE SYSTEMS – PRIVATE SPACE", as described herein for which calcium chloride is required.
- I. Dewatering, Control & Diversion of Water: No separate payment shall be made for furnishing, installing, maintaining, operating and removing all equipment, facilities, construction and appurtenant work required to maintain in a dry condition the areas in which construction of this contract is to be conducted, but the costs thereof shall be considered to be included with the unit bid prices for the applicable work items under " PIPELINE SYSTEMS – PRIVATE SPACE ", as described herein.
- J. Excavation Support Systems: No separate payment will be made for excavation support systems (trench boxes), but the cost thereof shall be deemed to be included in the unit prices bid for the applicable items of work under " PIPELINE SYSTEMS – PRIVATE SPACE ", as described herein.
- K. No additional payment shall be made, to furnish and install, an interior 1" or interior 2" Ball Valve, as applicable and as required to isolate the meter. The costs thereof will be considered included in the price bid for Item Nos. 26a and 26b and shall also include all appurtenant copper piping, fittings or adapters, which are required to complete the necessary piping connections before and after the water meter, as part of the interior private side service replacement work.
- L. No additional payment shall be made, to furnish and install an interior 1" or 2" Pressure Reducing Valve, as applicable and when required. The costs thereof will

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be considered included in the price bid for Item Nos. 26a and 26b and shall also include all appurtenant interior copper piping, fittings or adapters, which are required for the necessary piping connections to complete this valve installation, as part of the interior private side service replacement work.

- M. No additional payment shall be made, to furnish and install a Jumper Pipe at a new water meter location (if required). The costs thereof will be considered included in the price bid for Item Nos. 26a and 26b and shall also include all appurtenant copper piping, fittings or adapters, which are required for the necessary piping connections to complete this piping installation, as part of the interior private side service replacement work.
- N. No additional payment shall be made, to furnish and install 1” Backflow Prevention Devices, as applicable, after the water meter. The costs thereof will be considered included in the price bid for Item Nos. 26a and 26b and shall also include all appurtenant interior copper piping, fittings or adapters, which are required to complete the backflow device installation, as part of the interior private side service replacement work.
- O. No additional payment shall be made, to furnish and install an Expansion Tank (if required). The costs thereof will be considered included in the price bid for Item Nos. 26a and 26b and shall also include all appurtenant interior copper piping, fittings or adapters, which are required for the necessary piping connections to complete the expansion tank installation, as part of the interior private side service replacement work.
- P. No additional payment shall be made for providing the services of a Master Plumber to perform and/or supervise the performance of the interior plumbing contract work associated with the installation of private-side service replacements. The costs thereof will be considered included in the price bid for Item Nos. 26a and 26b.
- Q. No additional payment shall be made for Plumbing Permit fee required by the municipality to complete Private Side lead service replacements. The costs thereof will be considered included in the price bid for Item Nos. 26a and 26b.
- R. Payment for the quantity measured, as specified herein, to furnish, install and test Reduced Pressure Zone (RPZ) Backflow Prevention devices, of the sizes listed in Part 3 of the Bid Schedule (Items 27a to 27d), will be made at the unit price bid per "Each" (EA.), which price shall also include all appurtenant interior copper piping, fittings or adapters, which are required for the necessary piping connections to complete the RPZ backflow preventer installation, as part of the interior private side service replacement work at select commercial properties.

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3.1.15 TRAFFIC CONTROL

- A. Police details shall be paid by the Contractor and reimbursed by PW per pay period without markup. For reimbursement purposes, the Contractors shall submit invoices copies from the respective cities and towns with copies of daily detail vouchers for verification.
- B. Compensation for the Flagperson's services shall be paid by PW per pay period without markup. If flagger services are subcontracted, the General Contractors shall submit flagger invoices with certified payroll for payment. If the flagperson is employed by the General Contractor, flagger services shall be compensated for the employee's hourly wage (on certified payroll) per pay period without markup. The hourly rate of wages paid by the Contractor or Sub-Contractor shall not be less than the prevailing rate set by the Rhode Island Department of Labor.
- C. Temporary Construction Signage and Traffic Control Devices: No separate payment shall be made for the placement and relocation of temporary construction signs, traffic cones, drums, barricades, or other traffic control devices, but the costs thereof will be considered to be included with applicable items of work, as listed in the Bid Schedule to perform the overall contract work.

3.1.16 EXISTING WATER MAIN FLOW LINE STOPPING DEVICES

Payment for the quantity measured, as specified and directed, to furnish and install double line stopping devices, of the sizes listed in Part 4 of the Bid Schedule (Item Nos. 28a to 28c and 29a to 29c), will be made at the unit price per "Each" (EA), which price shall constitute full compensation to furnish all materials, equipment, tools and labor to install the specified line stopping devices, including excavations, backfilling, compaction and temporary pavement restoration. The work will also include the exterior cleaning of the existing water main; thrust and support blocking; disinfection; plug seal testing; temporary valve removal; blind flange installation; and coal tar epoxy coating of the assembly.

3.1.17 TAPPING SLEEVES AND VALVES

Payment for the quantity measured, as specified and directed, for the furnishing and installation of the specified Tapping Sleeves and Valves, as listed in Part 4 of the Bid Schedule (Item Nos. 30a to 30f), will be made at the unit price per "Each" (EA), which price will include the tapping sleeve, gate valve, valve box, mechanical restrained jointing materials, concrete thrust block. and all other necessary accessory materials; for hauling and handling of all materials; for pipe

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jointing; for all other incidental earthwork associated with the installation of the new tapping sleeve and valve for interconnection to the new water main piping, including saw-cutting, pavement removal, excavations, pipe bedding, backfills and compaction, grading, and preparation of subgrades; for removal and disposal of the existing gate valves and appurtenances; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all materials, disposal of surplus materials; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items in accordance with the specifications, and at the tapping valve locations as directed by the OWNER.

3.1.18 INSERTION VALVES

Payment for the quantity measured, as specified and directed, for the furnishing and installation of the specified Insertion Valves, as listed in Part 4 of the Bid Schedule (Item Nos. 31a to 31c), will be made at the unit price per “Each” (EA), which price will include the new insertion valve, valve box, mechanical restrained jointing materials, and all other necessary accessory materials; for hauling and handling of all materials; for cleaning and tapping the existing water main piping; for permanent valve support; for all other incidental earthwork associated with the installation of the overall insertion valve installation, including saw-cutting, pavement removal, excavations, pipe bedding, backfills and compaction, grading, and preparation of subgrades; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all materials, disposal of surplus materials; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items of work in accordance with the specifications at the designated insertion valve locations, as directed by the OWNER.

3.1.19 BUTTERFLY VALVES

Butterfly Valves: Payment for quantity measured, as specified and listed in the Bid Schedule (Item No. 32a), to furnish and install the specified buried service Butterfly Valves, will be made at the unit prices bid per “Each” (EA.), which price will include the butterfly valve, C.I. valve box, mechanical restrained jointing materials, a minimum 3ft DI spool piece on either side of the valve (sized as required), couplings (as required) for tie-in to the existing main, and all other necessary accessory materials; for hauling and handling of all materials; for pipe jointing; for all other incidental earthwork associated with the installation of the new gate valves for the water main replacement, including saw-cutting, pavement removal, excavations, pipe bedding, backfills and compaction, grading, and preparation of subgrades; for removal and disposal of the existing gate valves

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and appurtenances; for all dewatering, pumping, drainage and bailing of excavations; for the satisfactory removal and disposal of all soils and pavement materials; disposal of surplus materials; pressure testing and disinfection; for all labor, equipment, plant, tools and materials, and for all appurtenant and incidental work and all other costs necessary to satisfactorily complete the items in accordance with the specifications, and at the locations as directed by the **OWNER**.

4.1 UNIT PRICES

4.1.1 The Bidder shall provide unit prices for the hourly rates associated with Labor; Equipment; and Material and Subcontractor Cost Markup Percentages, in the spaces provided in Part 5 of the Bid Schedule. Unit prices and cost markup percentages, as submitted with the Bid Schedule, shall be used for partial payments for any changes and/or additions to the original scope of work. Cost Markup Percentages are not applicable to police, flaggers, and subcontracted flaggers utilized for in scope contract work. Reference is made to the general **Item Nos. 34, 35, 36, and 37** in Part 5 of the Bid Schedule for the respective bid items.

4.1.2 Original invoices for Materials and Subcontractor cost shall be submitted to Providence Water with the respective application for payment.

END OF SECTION

ADDENDUM NO. 3

SECTION 08200

**COLD PLANE / MICRO-MILL
BITUMINOUS PAVEMENT
RESTORATION**

SECTION 08200
COLD PLANE / MICRO-MILL
BITUMINOUS PAVEMENT RESTORATION

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

- A. Work shall generally include traffic control (i.e., signage, flaggers, police details as needed), utility coordination, removal of existing pavement, cleaning of surface, **adjustment of existing structures to finish grade**, replacement of new pavement, installation of pavement markings, and installation of loop detectors for all roadway segments within the Work Area.
- B. Unless otherwise noted, Work to be performed shall be in accordance with the Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction, as amended with revisions. Work shall include all materials, tools, labor, equipment, and all other incidentals required to finish all work, complete-in-place and accepted by the **OWNER**.
- C. Micro-Milling shall be performed in accordance with Section 935 of the RIDOT Standard Specifications.
- D. This special provision is for locations as indicated on the design plans or as directed by the **OWNER**.
 - 1. New pavement in streets shall consist of Class 9.5 (Marshall Mix: Class I, Type I-1) bituminous concrete pavement placed over trenches as outlined below.
 - 2. Temporary pavement shall consist of bituminous concrete with a minimum thickness of 4-in, unless directed otherwise by the **OWNER**.
 - 3. After a 60 day settlement period, permanent pavement restoration shall be accomplished by micro-milling the existing bituminous concrete pavement at a 1-1/2" depth; followed by a 1-1/2" overlay of wearing coarse bituminous concrete, delineated above. The limits and locations of micro-milled road sections shall be determined by the **OWNER**.
 - 4. Driveway, parking area or sidewalk pavements damaged or disturbed by the Contractor's operations shall be repaired, restored or replaced (at the Contractor's expense) in accordance with the requirements specified in Section 8000 or as directed by the **OWNER**.

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1.2 REFERENCES

- A. RIDOT Standard Specifications for Road and Bridge Design
- B. AASHTO M140 – Standard Specification for Emulsified Asphalt
- C. AASHTO M208 – Standard Specification for Cationic Emulsified Asphalt

1.3 DEFINITIONS

- A. Work Area: The Work Area shall consist of those roadways determined by PWSB that will be permanently restored via a micro-mill and overlay.
- B. Micro-milling: Micro-milling shall consist of the cold milling of existing asphalt concrete pavement with a milling machine equipped with a cutting drum specifically designed and constructed for micro-milling.

1.4 SAFETY

- A. Proper safety precautions shall be taken including traffic cones, signage, and flagmen (if necessary) to insure a safe workplace for workers, pedestrians, and automobile traffic.

1.5 SUBMITTALS

- A. Upon request, the Contractor shall provide manufacturer's product data, equipment specifications and material specifications.

1.6 GENERAL REQUIREMENTS

1.6.1 UTILITY & COMMUNITY COORDINATION

- A. All contractors are required to notify OWNER of work location and when not working due to weather, daily.
- B. The Contractor shall use care when working in or within the vicinity of existing drainage structures and underground utilities. The Contractor shall check and verify the location of all existing utilities and service connections both underground and overhead in accordance with Dig Safe.

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- C. No excavation or roadway work shall be done until all involved utility companies and Dig Safe are notified 72 hours in advance. The Contractor should be aware that not all utility companies subscribe to the Dig Safe Program.
- D. It is the Contractor's responsibility to ensure that all utility companies have been notified and all utilities have been marked prior to commencing their work. Any damage to existing utilities marked in the field, or as a result of failing to contact the appropriate utility company, shall be repaired or replaced at no additional cost to the OWNER.
- E. The Contractor shall contact Dig Safe (1-888-344-7233) prior to construction.
- F. All contractors are required to coordinate with local businesses, property owners, and tenants that may be effected by paving.
- G. All contractors will be required to obtain a hydrant meter and backflow from the OWNER for any water use while paving. Pertinent PW policies, procedures, and requirements apply.

1.6.2 SITE CONDITIONS & UTILITY STRUCTURES

- A. The Contractor shall make every effort to prevent debris from falling into catch basins or any utility structure. The Contractor is required, at no additional cost, to employ storm drain inlet protection measures (ie. hay bales or filter socks). Should any debris fall inside a structure, it shall be removed immediately by the Contractor.
- B. No portions of the shoulders or sidewalks are to be used for storage for construction equipment and/or material.
- C. The Contractor shall take adequate precautions to avoid unnecessary damage to pavements, utilities, or private properties. The Contractor shall promptly repair (in kind), at his own expense, any damage attributed to his work to such pavements, utilities, or private property to the satisfaction of the OWNER.
- D. The Contractor shall provide for adequate protection of exposed utility structures to prevent vehicle damage or claims after completion of the micro milling work and maintain such protection in place until the final pavement work has been completed.
- E. The Contractor shall provide adequate signage on exposed roadways and shall paint the exposed edges of structures with a highly visible fluorescent color.
- F. The Contractor shall be responsible for all claims and/or damages resulting from exposed utility structures.

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- G. A self-loading motorized street sweeper equipped with both brooms and a vacuum system, and a functional water spray system shall immediately follow the milling machine. Millings, excess pavement waste, etc. and shall not be allowed to flow across the pavement nor be left on the surface of the pavement.
- H. All removed material, i.e. millings, excess pavement waste, etc., shall be considered the property of the Contractor and shall be disposed of by the Contractor. The Contractor shall notify the OWNER prior to the start of milling operations of the disposal location.

1.6.3 ADJUSTMENTS OF UTILITY APPURTENANCES TO GRADE

All valve boxes, curb stops, manhole frames and covers, catch basin frames and grates which are disturbed by construction operations shall be reset and adjusted, at no additional expense to the OWNER, to grade at the elevation of the final pavement in accordance with the specified procedures of the appropriate utility.

1.6.4 PAVEMENT MARKINGS

- A. Final epoxy resin pavement markings (or approved equal) shall be placed on the final pavement surface course no sooner than 14 calendar days but no later than 28 calendar days from the completion of the paving operation for each road.
- B. Prior to commencing the work, it will be the Contractor's responsibility to accurately record the locations of all the existing pavement markings, where applicable, including stop bars, edge lines, parking stalls, centerlines, arrows, dash markings, and other surface markings in order to replicate those markings onto newly finished surfaces. The Contractor shall make the necessary arrangement to enable him to re-establish these locations and new limits of pavement marking before any milling and overlay commences.
- C. All epoxy resin pavement markings (or approved equal) are to be in accordance with Section T20 of the RIDOT Standard Specifications and shall conform to the requirements of the Manual on Uniform Traffic Control Devices, 2009 Edition, including all revisions.
- D. Payment for all epoxy resin pavement markings (or approved equal) shall be included as part of the unit rate bid for Micro-Milling and considered to be incidental to the work.

1.6.5 LOOP DETECTOR REPLACEMENT

- A. All traffic signal loop detectors within the project limits that are removed by the pavement milling operations shall be replaced in-kind as part of unit rate bid for Micro-Milling.

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- B. Prior to commencing milling of the intersection pavement, the Contractor shall coordinate with the individual City or Town's Traffic Engineer or DPW.
- C. These loop detectors shall be replaced in accordance with the "RIDOT Standard Detail 19.6.0." Any loop detectors impaired by construction shall be replaced no later than 28 calendar days from the completion of the paving operation for each road.

1.6.6 ACCEPTANCE

- A. Ensure that the micro-milling operation produces a uniform pavement texture that is true to line, grade, and cross section.
- B. Micro-milled pavement surfaces are subject to visual and straightedge inspections. Keep a 12 ft. straightedge near the micro-milling operation to measure surface irregularities of the milled pavement surface.
- C. Micro-milling shall result in a grid-patterned textured pavement surface with longitudinal ridges approximately the same distance apart as the cutting teeth. The ridges shall be consistent in depth, width, and profile. The distance between the top of each ridge and the adjacent valleys shall not exceed 1/8 inch.
 - 1. If any areas exceed 1/8 inch between the ridge and valley of the mat surface, the Contractor shall remove the underlying layer and replace it with material as directed by the **OWNER** at no additional cost.
 - 2. During milling operations, the cutter teeth shall be regularly checked and replaced as necessary.
- D. The resulting profile and cross slope of the milled pavement surface shall be such that a 12 ft. long straightedge laid perpendicular or parallel to the centerline will not allow a shim with a width of 1 inch and a thickness of 3/16 inch to pass under the straightedge at any point except at breaks in profile grade or cross slope.
- E. Milled pavement surfaces which do not conform to the requirements above shall be corrected by the Contractor at no additional cost. Prior to initiating corrective action, the Contractor shall prepare and submit a correction plan to the **OWNER** for approval.

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PART 2 PRODUCTS AND EQUIPMENT

2.1 MATERIALS

- A. Hot Mix Asphalt Pavement (HMA) uniformly mixed and well graded. The Contractor shall maintain records to be given to the **OWNER** upon request of the plant that supplied the HMA and of the gradation and Superpave binder grade (in accordance with RIDOT Standard Specifications) that is utilized in the Pavement Repair process.
1. Aggregate size for Wearing Course as prescribed by RIDOT shall conform to Class 9.5 (Marshall Mix: Class I, Type I-1) 9.5 mm maximum, well-graded aggregate.
 2. From pick up through placement the Contractor shall conduct and record periodic temperature checks of the Virgin HMA in its hotbox to ensure the temperature does not fall below 250°F or exceed 300°F. This documentation shall be provided to the **OWNER** upon request.
 3. Tack Coat/Sealant shall be emulsified asphalt with the same asphaltic cement as the HMA pavement mix placed, SSI or equal. In accordance with requirements of AASHTO M140/M208 and Section 403 of RIDOT Standard Specifications.

2.2 EQUIPMENT

- A. Use power-driven, self-propelled micro-milling equipment that is the size and shape that allows traffic to pass safely through areas adjacent to the work.
- Also, use equipment that is:
1. Equipped with a cutting mandrel with carbide tipped cutting teeth designed for micro-milling bituminous pavement to close tolerances
 2. Equipped with grade and slope controls operating from a stringline or ski and based on mechanical or sonic operation
 3. Capable of removing pavement to an accuracy of 1/16 inch
 4. Furnished with a lighting system for night work, as necessary
 5. Provided with conveyors capable of side, rear, or front loading to transfer the milled material from the roadway to a truck
- B. Rollers shall be steel wheel rollers weighing between 126 and 172 pounds per linear inch of drum width equipped with an operating water spray and scraper system.

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- C. The spreading and finishing machine shall be equipped with a fully automatic screed control system which shall be in operation at all times during placement of the surface course. The system shall be either a contact (skid) or non-contact (sonic averaging) system. The skid shall be mounted on the side of the spreading and finishing machine which will receive the next mat of material, placed in contact with the pavement surface. The sonic averaging system shall have a ski, mounted on the side of the spreading and finishing machine which will receive the next mat of material. A joint maker placed on the side of the spreading and finishing machine to ride on the existing or previously constructed surface or mat of material may be required as directed by the Engineer.

PART 3 EXECUTION

3.1 MARK AND MEASURE REPAIR AREA

- A. Identify, mark and measure the specific area to be repaired in coordination with the **OWNER's** representative (Inspector).

3.2 ENVIRONMENTAL REQUIRMENTS

- A. The Contractor shall ensure that asphalt is not placed in the rain nor in wet conditions.
- B. When the air temperature falls below 50 degrees F, extra precautions shall be taken in drying the aggregates, controlling the temperatures of the materials, placing and compacting the mixtures.
- C. No mixtures shall be placed when the air temperature is below 40 degrees F unless authorized in writing by the **OWNER**.
- D. No mixtures shall be placed when the material on which the mixtures are to be placed contains frost or has a surface temperature not suitable to the **OWNER**.

3.3 CLEAN REPAIR AREA

- A. The entire roadway pavement surface to be resurfaced shall be thoroughly cleaned, giving specific attention to accumulated mud and debris. Pressurized water and/or vacuum systems may be required to ensure a clean surface.

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3.4 CONSTRUCTION

A. MILLING OPERATIONS

1. Clean existing pavement surface of loose and deleterious material immediately before cold milling.
2. Milling operations shall progress from the low side of each roadway barrel or lane and progress towards the high side. Each successive pass of the milling machine shall meet the line and grade of the previous pass. The speed of the milling machine shall be maintained at a rate which results in a uniform pavement texture.
3. Mill to a depth of 1-1/2 inches to a uniform finished surface free of excessive gouges, grooves, and ridges.
4. Control rate of milling to prevent tearing of existing asphalt course.
5. Repair or replace curbs, manholes, and other construction damaged during cold milling, at no additional expense.
6. Excavate and trim unbound-aggregate base course, if encountered, and keep material separate from milled hot-mix asphalt.
7. Patch surface depressions deeper than 1 inch after milling, before wearing course is laid.
8. Traffic must be maintained on the milled surface prior to the placement of the new asphalt concrete, provide suitable transitions between areas of varying thickness to create a smooth longitudinal riding surface. Produce a pattern of striations that will provide an acceptable riding surface.
9. Prior to opening an area which has been milled to traffic, sweep the pavement with self-loading motorized street sweeper to remove, to the greatest extent practicable, fine material which will create dust under traffic. Sweep in a manner that will minimize the potential for creation of a traffic hazard and to minimize air pollution.
10. Asphalt shall be placed within five (5) business days, or as otherwise directed by OWNER, following milling operations.

ADDENDUM NO. 1

B. PLACING HOT MIX ASPHALT

1. Asphalt Emulsion Tack Coat shall be applied on the micro milled surface, between asphalt layers and on exposed cross-sections of adjacent roadways.

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2. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
3. Spread mix at a minimum temperature of 250 degrees F.
4. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
6. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.
 - a. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Overlap mix placement about 1 to 1-1/2 inches from strip to strip to ensure proper compaction of mix along longitudinal joints.
 - b. Complete a section of asphalt base course before placing asphalt surface course.
7. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

C. JOINTS

1. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
2. Clean contact surfaces and apply tack coat to joints.
3. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
4. Offset transverse joints, in successive courses, a minimum of 24 inches.
5. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Joints between old and new pavements, or between successive days' work, shall be carefully made in such a manner as to insure a thorough and continuous bond between the old and new surfaces.
6. The edge of the old pavement, or previously placed new pavement, shall be cut back a sufficient distance to expose a fresh, full thickness, vertical face. To obtain a well

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bonded joint, this face shall be brush-painted or pressure sprayed with a bituminous tack coat, after which the hot bituminous mixture shall be placed in contact with it.

7. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
8. Compact asphalt at joints to a density within 2 percent of specified course density.

D. COMPACTION

1. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
 - a. Complete compaction before mix temperature cools to 175 degrees F.
2. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
3. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
 - a. Average Density: 96 percent of Marshall density as determined at the plant, according to RIDOT Specifications. Density shall be attained before the temperature of the surface falls below 175 degrees F.
4. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
5. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
6. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
7. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

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8. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.5 WARRANTY AND QUALITY ASSURANCE

- A. The Contractor shall warrantee the resurfaced roadway for a 5-year period and repair any failures at no expense to PWSB.
- B. Failure to meet the warranty requirements constitutes a breach of contract.

3.6 FINAL CLEAN UP

- A. Clean-up site after paving. Remove and dispose all excess material and debris resulting from repair operation.

3.7 OPEN TO TRAFFIC

- A. Allow the repaired area to cool to 175°F before opening to traffic. Measurement shall be conducted with an infrared temperature gun.
- B. No vehicular traffic or loads shall be permitted on the newly completed pavement until adequate stability has been attained and the material has cooled sufficiently to prevent distortions or loss of fines. If the climatic or other conditions warrant it, the period of time before opening to traffic may be extended at the discretion of PWSB.

END OF SECTION