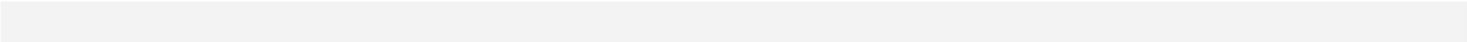


**CITY OF PAWTUCKET**  
**And**  
**PAWTUCKET WATER SUPPLY BOARD**  
  
**REQUEST FOR SEALED BIDS**



**BID No. 15-009**  
**Water Works Materials and Other Supplies**

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## 1.0 - Bid/Solicitation Information

### Schedule

Pre-Bid/Proposal Conference:  No  Yes

Requests for Further Information Prior to: April 2, 2015

Requests for information or clarification must be made electronically to the attention of:

David Clemente - Purchasing Agent

E-mail: [dcllemente@pawtucketri.com](mailto:dcllemente@pawtucketri.com)

Please reference the Sealed Bid number on all correspondence. Answers to questions received, if any, will be posted on the internet as an addendum to this bid solicitation.

Sealed Bid Submission Deadline: April 9, 2015 at 3:00 PM

**Late submittals will not be considered.**

Publicly Opened on April 9, 2015 at 4:00 PM

Sealed Bids must be mailed or hand-delivered in a sealed envelope **marked with the Sealed Bid # and Project Name** to:

Pawtucket City Hall - Purchasing Office  
137 Roosevelt Avenue  
Pawtucket, RI 02860

### Bonds/Surety Required

Surety Bond:  No  Yes

Bidder is required to provide a bid surety in the form of a bid bond or certified check payable to the City of Pawtucket in an amount not less than ten percent (10%) of the bid price.

Fidelity Bond:  No  Yes

Performance Bond and Labor and Material Bond:  No  Yes

The successful bidder will be required to furnish all insurance documentation as outlined in the specifications document.

### Miscellaneous

The bid process and resulting contract are subject to the Rules and Regulations and General Terms and Conditions of Purchase. Submission of a bid in response to this solicitation is acknowledgement and acceptance of these Rules and Regulations and General Terms and Conditions of Purchase.

The City of Pawtucket reserves the right to award on the basis of cost alone, accept or reject any or all bids, and to act in its best interest including, but not limited to, directly negotiating with any vendor who submits a proposal in response to this Sealed Bid and to award a contract based upon the results of those negotiations alone. Proposals found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further. The City of Pawtucket may, at its sole option, elect to require presentations(s) by bidders clearly in consideration for award.

## 2.0 - Instructions and Notifications to Bidders

- The words “City of Pawtucket” when used, shall also mean the Pawtucket Water Supply Board acting through its Chairman.
- It is the vendor's responsibility to examine all specifications and conditions thoroughly, and comply fully with specifications and all attached terms and conditions. Vendors must comply with all Federal, State, and City laws, ordinances and regulations, and meet any and all registration requirements where required for contractors as set forth by the State of Rhode Island. Failure to make a complete submission as described herein may result in a rejection of the proposal.
- All costs associated with developing or submitting a proposal in response to this Request, or to provide oral or written clarification of its content shall be borne by the bidder. The City of Pawtucket assumes no responsibility for these costs.
- A submittal may be withdrawn by written request to the Purchasing Agent by the proposer prior to the stated Sealed Bid deadline.
- Prior to the proposal deadline established for this Sealed Bid, changes may be made to a proposal already received by the City if that vendor makes a request to the Purchasing Agent, in writing, to do so. No changes to a proposal shall be made after the Sealed Bid deadline.
- Proposals are considered to be irrevocable for a period of not less than ninety (90) days following the opening date, and may not be withdrawn, except with the express written permission of the Purchasing Agent. Should any vendor object to this condition, the vendor must provide objection through a question and/or complaint to the Purchasing Agent prior to the proposal deadline.
- All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.
- The vendor has full responsibility to ensure that the proposal arrives at the Purchasing Division Office prior to the deadline set out herein. The City assumes no responsibility for delays caused by the U.S. Postal Service or any other delivery service. Postmarking by the due date will not substitute for actual receipt of response by the due date. Proposals arriving after the deadline may be returned, unopened, to the vendor, or may simply be declared non-responsive and not subject to evaluation, at the sole discretion of the Purchasing Agent. **For the purposes of this requirement, the official time and date shall be that of the time clock in the City of Pawtucket’s Purchasing Office.**
- It is intended that an award pursuant to this Sealed Bid will be made to a prime contractor, who will assume responsibility for all aspects of the work. Joint venture and cooperative proposals will not be considered, but subcontracts are permitted, provided that their use is clearly indicated in the bidder's proposal, and the subcontractor(s) proposed to be used are identified in the proposal.
- Bidders are advised that all materials submitted to the City of Pawtucket for consideration in response to this Sealed Bid shall be considered to be public records as defined in Title 38 Chapter 2 of the Rhode Island General Laws, without exception, and may be released for inspection immediately upon request once an award has been made.
- Vendors are responsible for errors and omissions in their proposals. No such error or omission shall diminish the vendor's obligations to the City.
- The City reserves the right to reject any or all proposals, or portions thereof, at any time, with no penalty. The City also has the right to waive immaterial defects and minor irregularities in any submitted proposal at its sole discretion. All material submitted in response to this Sealed Bid shall become the property of the City of Pawtucket upon delivery to the Purchasing Agent.

### **3.0 - Overview**

The City of Pawtucket desires to seek sealed bids for the furnishing of waterworks materials and other supplies for the Pawtucket Water Supply Board. This is a two year annual material contract that commences on July 1, 2015.

### **4.0 - Scope of Work**

This contract is grouped into the following six material categories:

- Group 1 – Pipe, Pipe Fittings and Miscellaneous
- Group 2 – Fire Hydrants and Hydrant Parts
- Group 3 – Water Service Materials
- Group 4 – Couplings, Clamps and Saddles
- Group 5 – Valves, Valve Parts and Tapping Materials
- Group 6 – Meters, Meter Couplings and Cable

### **5.0 - Insurance**

The vendor shall maintain and keep in force such comprehensive general liability insurance as shall protect them from claims which may arise from operations under any contract entered into with the City of Pawtucket and the PWSB, whether such operations be by themselves or by anyone directly or indirectly employed by them.

The amounts of insurance shall be not less than \$1,000,000.00 combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death.

The City of Pawtucket and the PWSB shall be named as additional insured on the vendor's General Liability Policy.

The vendor shall maintain and keep in force such Workers' compensation insurance limits as required by the statutes of the State of Rhode Island, and Employer's Liability with limits no less than \$500,000.

### **6.0 - Acknowledgement of Risk & Hold Harmless Agreement**

In addition to the indemnity provisions in the City of Pawtucket's Terms and Conditions of Purchase and to the fullest extent permitted by law, the selected vendor, its officers, agents, servants, employees, parents, subsidiaries, partners, officers, directors, attorneys, insurers, and/or affiliates (Releasors) agree to release, waive, discharge and covenant not to sue the City of Pawtucket and the PWSB, its officers, agents, servants or employees (Releasees) from any and all liability, claims, cross-claims, rights in law or in equity, agreements, promises demands, actions and causes of action whatsoever arising out of or related to any loss, damage, expenses (including without limitation, all legal fees, expenses, interest and penalties) or injury (including death), of any type, kind or nature whatsoever, whether based in contract, tort, warranty, or other legal, statutory, or equitable theory of recovery, which relate to or arise out of the Releasors use of or presence in and/or on City of Pawtucket property. The Releasors agree to defend, indemnify and hold harmless the Releasees from (a) any and all claims, loss, liability, damages or costs by any person, firm, corporation or other entity claiming by, through or under Releasors in any capacity whatsoever, including all subrogation claims and/or claims for reimbursement, including any court costs and attorneys fees, that may incur due to Releasors use of or presence in and on City of Pawtucket property; and (b) any and all legal actions, including third-party actions, cross-actions, and/or claims for contribution and/or indemnity with respect to any claims by any other persons, entities, parties, which relate to or arise out of Releasors use of or presence in and on City of Pawtucket property.

The Releasors acknowledge the risks that may be involved and hazards connected with use of or presence in and on City of Pawtucket property but elect to provide services under any contract with the City of Pawtucket and the PWSB with full knowledge of such risks. Releasors also acknowledge that any loss, damage, and/or injury sustained by Releasors is not covered by Releasees insurance. Releasors agree to become fully aware of any safety risks involved with the performance of services under any contract with the City of Pawtucket and the PWSB and any safety precautions that need to be followed and agree to take all such precautions.

The duty to indemnify and/or hold harmless the City of Pawtucket and the PWSB shall not be limited by the insurance required under the City of Pawtucket Terms and Conditions of Purchase.

## **7.0 - Additional Insurance Requirements**

In addition to the insurance provisions in the City of Pawtucket Terms and Conditions of Purchase, the liability insurance coverage, except Professional Liability, Errors and Omissions or Workers' Compensation insurance required for performance of a contract with the City of Pawtucket and the PWSB shall include the City of Pawtucket and the PWSB, its divisions, officers and employees as Additional Insureds but only with respect to the selected vendor's activities under the contract. The insurance required through a policy or endorsement shall include:

- A. a Waiver of Subrogation waiving any right to recovery the insurance company may have against the City of Pawtucket and the PWSB; and
- B. a provision that the selected vendor's insurance coverage shall be primary with respect to any insurance, self insurance or self retention maintained by the City of Pawtucket and the PWSB and that any insurance, self insurance or self retention maintained by the City of Pawtucket and the PWSB shall be in excess of the selected vendor's insurance and shall not contribute.

There shall be no cancellation, material change, potential exhaustion of aggregate limits or non-renewal without thirty (30) days written notice from the selected vendor or its insurer(s) to the City of Pawtucket's Purchasing Agent. Any failure to comply with the reporting provision of this clause shall be grounds for immediate termination of the contract with the City of Pawtucket and the PWSB.

Insurance coverage required under the contract shall be obtained from insurance companies acceptable to the City of Pawtucket and the PWSB. The selected vendor shall pay for all deductibles, self insured retentions and/or self insurance included hereunder.

The City of Pawtucket's Purchasing Agent reserves the right to consider and accept alternative forms and plans of insurance or to require additional or more extensive coverage for any individual requirement.

## **8.0 - Proposal Content and Organization**

Pricing must include all costs as specified in this solicitation. Pricing for this proposal must be indicated on the Bid Form in Section 11.0 and must be submitted in a separate, sealed envelope marked with the words "Pricing Proposal".

All Bid Forms must be signed.

Vendors must include on the Bid Form a list of at least four (4) references with whom they have contracted to do similar work by including the company name, telephone number, contact person, and number of years they have served this customer. Preferably, references should be municipalities which are of approximate size as the City of Pawtucket, and a website address should be included if available.

Respondents must also include an overview of their company's experience including, but not limited to, the number of years the company has been providing these services, the size of the company (including the number of employees and locations), a description of work undertaken that is similar to what is being

requested in this Sealed Bid, and, if applicable, certifications that show a knowledge of equipment that would be serviced or provided under this contract.

If any subcontractors are to be used in the performance of any work contracted for under this Sealed Bid, please list their name(s), contractor license #, address and phone number, and specific description of the subcontract work to be performed.

Two (2) copies of your proposal, one (1) original and one (1) copy, must be submitted at the time of submission. Proposals must be comprised of the following:

- Bid Form
- Anti-Kickback Acknowledgment

Please state any and all additions, deletions, and exceptions, if any, that you are taking to any portion of this proposal. If not addressed specifically, the City of Pawtucket assumes that the vendor will adhere to all terms and conditions listed in this Sealed Bid.

Submission of a proposal is acknowledgement and acceptance of the City of Pawtucket's Purchasing Rules and Regulations and General Terms and Conditions of Purchase.

## **9.0 - Evaluation Criteria**

The evaluation of proposals will be conducted in a time frame convenient to the City.

The City of Pawtucket reserves the right to award on the basis of cost alone, accept or reject any or all proposals, and to otherwise act in its best interest including, but not limited to, directly negotiating with any Supplier who submits a proposal in response to this Sealed Bid and to award a contract based upon the results of those negotiations alone. Further, the City reserves the right to waive irregularities it may deem minor in its consideration of proposals.

Proposals found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further. The City of Pawtucket may elect to require presentations(s) by vendors in consideration for award.

Proposals will be evaluated in two (2) phases:

1. The first phase is an initial review to determine if the proposal, as submitted, is complete. To be complete, a proposal must meet all the requirements of this Sealed Bid.
2. The second phase is an in-depth analysis and review based on award to the lowest qualified bidder.

In the event that the City requires further information and/or a demonstration of any equipment or process offered in any proposal, all vendors asked for same will do so at no cost to the City.

## **10.0 - Miscellaneous**

Vendors shall at all times comply with all federal, state, and local laws, ordinances and regulations and shall defend, indemnify and save harmless the City of Pawtucket against any claims arising from the violation of any such laws, ordinances and regulations, including but not limited to challenges as to the legality of any and all vendor installations.

The City is exempt from the payment of the Rhode Island State Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30, Paragraph 1, as amended. Further, the City is also exempt from the payment of any excise or federal transportation taxes. The proposal prices submitted must be exclusive of same, and will be so construed.

The City of Pawtucket reserves the right to cancel an agreement with the Vendor with thirty (30) days written notice and to award the contract to the next highest evaluated bidder.

The City of Pawtucket reserves the right to renegotiate the terms of this contract with the Vendor for subsequent years provided the Vendor agrees to the contract terms for the renewal period.

The payment and performance of any obligations under this contract for years beyond the first fiscal year are subject to the availability of funds.

The words "City of Pawtucket" when used, shall also mean the Pawtucket Water Supply Board acting through its Chairman.

# 11.0 – Bid Form and Specifications

## FURNISHING PIPE, VALVES, FIRE HYDRANTS, WATER METERS AND OTHER SUPPLIES

The Pawtucket Water Supply Board (PWSB) is soliciting bids for the furnishing of waterworks materials and other supplies. These materials will be ordered from the selected supplier(s) at times and in quantities as determined by the Pawtucket Water Supply Board. Several shipments may, therefore, be required during the course of the contract. The bidder agrees that all materials shall be shipped as ordered and shall be delivered to the Water Supply Board stock room as soon as possible after an itemized order is placed. Complete delivery of all items ordered at various times must be made within 30 days of the order unless a longer lead time is noted for specific items on the bid sheet. At least 24 hours advance notice shall be provided prior to making any delivery. No delivery will be accepted before 7:00 A.M. nor after 3:00 P.M.

The undersigned hereby proposes to furnish the materials listed in the Proposal for the unit prices indicated and in accordance with the attached specifications. The unit prices will include all charges such as freight, unloading, etc. Material quantities as listed are estimates only and the actual quantity of materials ordered prior to June 30, 2017 may vary from the stated quantities. The bidder further agrees that, should he be awarded the contract, the unit prices offered in this Proposal shall remain valid through June 30, 2017. Materials may be ordered at any time during this period at the unit prices shown in the bid. Certain items may not be ordered at all. Upon mutual agreement of both parties, the contract may be extended for not more than one (1) additional year with no change in unit prices.

The contract award will be made for an entire Group. **To be eligible for consideration, a Bidder must quote on EACH AND EVERY ITEM within the Group and complete the “Anti-Kickback Acknowledgment” form attached (APPENDIX A) to this document.**

Payment will be made for the total quantity of materials delivered at the unit prices stipulated in the Proposal. Delivery time must be filled in for each Group. Payment will be made only after all items to be supplied on each order or partial order as requested by the PWSB are delivered.

**BID PROPOSAL**  
(July 1, 2015 thru June 30, 2017)

**(All blanks on this form must be completed in ink or typewritten)**

Bidder acknowledges receipt of the following addendum: \_\_\_\_\_

Name of Bidder (Type or Print) \_\_\_\_\_

Signature \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

Telephone Number and Extension \_\_\_\_\_

The bidder understands that the Water Supply Board reserves the right to reject any or all bids, to award contracts to various bidders for any one or more groups of items, and to award contracts which will be in the best interest of the Water Supply Board.

## PWSB MATERIAL SPECIFICATIONS

### Information to Bidders

General: All tools, equipment and materials to be furnished shall conform to existing industry standards as established by the following: American Water Works Association (AWWA), American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), and other established standards organizations as applicable. All items shall conform as a minimum to the above referenced standards as they are applicable to the specific item, and shall further conform to any specific requirements called for in this specification; it is understood that the latest revision of the standards referenced shall apply. Where a specific manufacturer and part number are listed in the proposal with an "or equal" allowable, the bidder shall provide, along with his bid documents, data supporting the "or equal" product to be of a quality better than or equal to the specified product in every way, as determined by the Pawtucket Water Supply Board, including, but not limited to, function, durability, operability, serviceability, and reliability. No substitutions will be allowed for fire hydrants and hydrant parts listed in the proposal.

1.0 Corporation stops. Threads for corporation stops shall conform to the provisions of AWWA Standard C800. Inlet threads shall be standard tapered corporation threads conforming to Table 7 of AWWA C800, commonly known as "Mueller Threads", "AWWA Threads", or "CC Threads". Outlet threads shall be either a compression connection conforming to AWWA C800 or standard male iron pipe threads (MIPT) conforming to ANSI B2.1 (see Table 8 of AWWA C800), as designated in the Proposal. Where specified in the Proposal, the outlet end shall also be tapped with female driving threads conforming to Table 8 of AWWA C800. Corporation stops shall be manufactured of low-lead "Mueller Brass", CDA/UNS Brass Alloys C89520 or C89833, conforming to ASTM B584. Corporation stops shall be equipped with ball type valve.

2.0 Miscellaneous brass fittings. Miscellaneous brass fittings shall be manufactured of low-lead "Mueller Brass", CDA/UNS Brass Alloys C89520 or C89833, conforming to ASTM B584. Unless otherwise noted in the Proposal, all fittings shall have compression type connections equipped for use with copper service tubing, Type "K". Threads shall conform to Table 8 of AWWA Standard C800.

3.0 Copper service tubing. All copper tubing used for water services shall be seamless tubing suitable for underground installations, designated as annealed (soft) copper tubing, Type "K" as manufactured by Cerro Manufacturing, East St. Louis, Missouri, and shall be supplied in conformance with applicable provisions of ASTM Specification B-88 and AWWA C800. One inch size tubing shall be supplied in coils of 60 feet. All tubing dimensions shall be standard "copper tube size" (CTS) dimensions as specified in the applicable standards.

4.0 Curb stops. Valves shall be of the ball type as specified in the proposal. The ball shall be teflon coated brass and shall be held in a position by and sealed off against seats of Buna-N rubber that are held securely in place with epoxy adhesive. Valves shall be water tight against flow in either direction. The stem that turns the ball shall exert no other force on it except to open and close the valve and shall be held securely in place by means of a bronze ring. The valve shall have a substantial T-head for the operation of the valve. The stops or lugs for controlling the motion of the T-head shall be enclosed and properly positioned to line up the waterway through the ball with the water passage through the valve body. The valves shall have in common the following functions and characteristics:

- a. Open with one quarter turn (90°) LEFT (counterclockwise) from fully closed to fully open position, with checks to stop at each extreme position.
- b. T-head, for operation with standard slotted wrench, which aligns with the valve port to provide quick identification of valve position.
- c. Valves shall be of bronze or brass, meeting AWWA Standard C800.
- d. Valve opening shall be designed to allow straight through flow, eliminating turbulence and causing a minimum of resistance, with waterway no smaller than nominal valve size.
- e. Inlet and outlet openings shall be for use with copper tubing, Type "K", unless otherwise noted
- f. When inlet and outlet are specified for iron pipe thread (IPT) connections, threads shall be the standard female iron pipe thread conforming to Table 9 of AWWA C800.
- g. Ball valves shall have a 300 psig working pressure rating.

Curb stops shall be manufactured of low-lead "Mueller Brass", CDA/UNS Brass Alloys C89520 or C89833, conforming to ASTM B584.

5.0 Curb boxes. Curb boxes shall be 1-inch inside diameter, telescoping type. The construction shall provide adjustment for varying grade levels and make allowance for settlement or frost heave. A heavy weight applied to the top of the box shall cause the upper section to slide downward into the box without damaging the curb stop or the service piping. A stop type device shall be an integral part of the curb box to prevent the upper section from being pulled out of the base. Operating rods shall be furnished with each box. The rod shall be thirty-three (33) inches long, plus or minus two (2) inches, and shall be so constructed that one end is slotted to fit the T-head of the curb stop with a fastening device to ensure a linkage with the valve. The other end shall be formed so a standard slotted wrench may be used to operate the valve. The rod shall be designed to permit minimum lateral movement in the upper section of the box. The top section shall be threaded to receive a lid with a bronze thread to receive a plug. The plug shall be a standard pentagon valve nut in the center of the lid. The word "WATER" shall be clearly cast into the lid. The telescoping curb box shall extend to a maximum of at least 5 feet 6 inches. The box shall be coated inside and out with a tar based enamel.

6.0 Gate valve boxes. Gate valve boxes (road boxes) shall be cast iron, two piece telescoping type with 5-1/4 inch barrels. The box shall be adjustable from a minimum depth of 36 inches to a maximum of 60 inches, and shall be designed to permit the use of extension pieces when the depth exceeds 60 inches. The cover shall have a tapered surface edge with long side skirts to prevent "pop-out". The cover shall also sit inside the upper section, with the word "WATER" clearly cast on the top. The valve box and cover shall be thoroughly coated inside and out with a coal tar epoxy coating.

7.0 Mechanical couplings. The pipe couplings shall be of a gasketed sleeve type with diameter to properly fit the pipe. Each coupling shall consist of one (1) ductile iron middle ring, of thickness and length specified, two (2) ductile iron followers, two (2) rubber compounded wedge section gaskets and sufficient track-head stainless steel bolts to properly compress the gaskets. The middle ring and followers shall be epoxy coated. Field joints shall be made with this type of coupling.

- a. The middle ring and followers of the coupling shall be true circular sections free from irregularities, flat spots, or surface defects. They shall be formed from mill sections with the follower-ring section of such design as to provide confinement of the gasket. After welding, they shall be tested by cold expanding a minimum of 1% beyond the yield point.
- b. The coupling bolts shall stainless steel and be of the elliptic-nec, trackhead design with rolled threads. The manufacturer shall supply information as to the recommended torque to which bolts shall be tightened. All bolt holes in the followers shall be oval for greater strength.
- c. The gaskets of the coupling shall be composed of a crude or synthetic rubber base compounded with other products to produce a material which will not deteriorate from age, heat or exposure to air under normal storage conditions. It shall also possess the quality of resilience and ability to resist cold flow of the material so that the joint will remain sealed and tight indefinitely when subjected to shock, vibration, pulsation and temperature or other adjustments of the pipe line.

8.0 Pipe repair clamps. The pipe repair clamps shall be stainless steel band type clamps used to make pipe repairs.

Repair clamps bands shall be made of annealed, non corrosive, 18-8 nickel bearing type 302, Austenitic Stainless Steel. The band shall be flexible to absorb normal line stresses and preshaped to fit the pipe for easier installation. Bolts for repair clamps shall have double radius heads and a substantial shoulder. Deep non-galling threads shall be rolled and sized. Heavy series semi-finished hexagonal nuts shall be spin fit. Both nuts and bolts shall be type 304 Stainless Steel for extreme corrosion resistance. Bolt threads or nuts shall be teflon molybdenum disulfide coated to prevent galling.

Lugs of high grade iron casting shall be heat treated to relieve internal stress and designed for maximum strength and durability. The lugs shall be contour designed for the OD of the pipe to provide proper shape and strength and to apply uniform pressure around the pipe and on the gasket.

The specially compounded neoprene gasket shall be cemented to the band and shall have the proper degree of toughness and softness for maximum sealing efficiency. The gasket shall be resistant to weather, gas, oil, and impervious to water. It shall not crack or harden. The gasket shall be the gridded interlocking finger type. All repair clamps shall be clearly marked with size ranges and other identification information. Where specified in the Proposal the clamps shall include a corporation tap for the AWWA or Mueller tapered thread of the size indicated.

8.1 Bell joint repair clamps. The bell joint repair clamps shall be suitable for sealing both caulked and rubber ring or push-on type bell and spigot joints in cast iron or ductile iron pipe without removing the pipeline from service. Bell-spigot rings shall be ductile iron per ASTM 536. Nuts and bolts shall be stainless steel. Gaskets shall be grade 60 with interlocking ends that facilitate field assembly.

9.0 Service Repair Saddles. The service saddles shall be of heavy design, constructed of Ductile Iron body ASTM-A 536 with a reinforced section for extra strength. The service saddles shall have two (2) extra wide straps made of Type 304 stainless steel, accurately shaped to conform to the outside diameter of the pipe with stainless steel nuts and studs. Service saddles shall fit all classes of cast iron pipe, with minimum range as specified, and have its range size clearly marked on the saddle. Saddles shall be treated in a manner to provide (maximum) corrosion resistance. The gasket shall be a proven product, capable of resisting damage from oil, natural gas, acids, alkalis, water, etc., and be securely cemented into place for easy installation. The service saddles shall be for the corporation stop (Mueller) type "CC" thread.

10.0 Gate Valves. Gate valves shall meet AWWA C500. The valve shall be iron-body, bronze-mounted, non-rising stem, with double-disc gates having parallel seats. Such valves are suitable for use in approximately level setting on buried water distribution pipe lines. All valves to OPEN RIGHT; operating nuts shall be painted red for identification. All internal surfaces shall be coated with a minimum thickness of 8 mils of epoxy coating, and all external surfaces shall be coated with epoxy or asphalt varnish in accordance with AWWA standards. Gate valves as outlined in AWWA C500 standard have been incorporated in these specifications as accepted standards of the Water Supply Board for valves.

10.1 Resilient Seated Gate Valves. Resilient seated gate valves, where specified, shall be resilient seated, manufactured to meet or exceed the requirements of AWWA Standard C509 and the following specifications. Valves shall have an unobstructed waterway equal to or greater than the full nominal diameter of the valve. Valves shall be non-rising stem with stem made of cast, forged or rolled bronze in accordance with AWWA C509.

Stem nut shall be made of bronze, and may be independent of the gate or cast integrally with the gate. If the stem nut is independent of the gate it shall have a spherical bearing surface to eliminate binding of the stem and to provide a self-aligning seating mechanism. If cast integrally, the stem nut threads shall be straight and true with the axis of the stem to avoid binding during opening and closing.

Seating mechanism shall comprise a cast or ductile iron gate with a vulcanized synthetic rubber coating or a rubber seat mechanically retained on the gate. The resilient seating mechanism shall provide zero leakage at 200 psi working pressure when installed with line flow in either direction. No line fluid entrapment shall be permitted within the gate while the gate is in the raised position.

Valve body, bonnet and bonnet cover shall be cast iron, ASTM A126, Class B or ductile iron, ASTM A395 or ASTM A536. All internal surfaces shall be coated with epoxy to a minimum thickness of 8 mils. All external surfaces shall be coated with epoxy or with asphalt varnish in compliance with AWWA C509.

10.2 Butterfly Valves. Butterfly valves, where specified, shall be manufactured to meet or exceed the requirements of AWWA Standard C504 for class 150B service and the following specifications. The valve shall have a cast iron body and end cover, ASTM A126 Class B with Type 304 stainless steel shafts. The valve discs shall be of streamlined shape to substantially reduce turbulence and insure low head loss across the valve. Actuators to be rated for 450 ft-lbs of torque at open and closed stops.

Valves shall be equipped with standard two (2) inch operating nuts and shall OPEN RIGHT (clockwise); operating nuts shall be painted red for identification. Unless otherwise specified in the Proposal, all valves shall be furnished with mechanical joint ends conforming to AWWA Standard C111.

11.0 Fire hydrants. All fire hydrants shall be of the compression type, with 5-1/4 inch main valves closing with line pressure. Hydrants shall comply fully with AWWA Standard C502 and be ULFM approved. Depth of bury shall be as specified in the Proposal. Hydrant shall be furnished with a sealed oil reservoir in the bonnet so that all threaded and bearing surfaces are lubricated each time the hydrant is operated.

Hydrant shall be equipped with two 2-1/2 inch hose nozzles and one 4-1/2 inch steamer nozzle, all with National Standard Threads. Each nozzle shall be furnished with a cap with a 1-1/2 inch pentagon nut. The hydrant operating nut shall be of the same size.

The hydrant shall have at least two bronze or copper lined drain outlets. The shoe of the hydrant shall have a mechanical joint end, suitable for use with either centrifugally cast pipe or Class D pit cast iron pipe. Lugs shall be cast on the shoe for securely anchoring the hydrant. Hydrants shall be furnished with a breakable feature that will break cleanly upon impact with a minimum amount of damage to the hydrant and no leakage from the valve. Breakable feature shall include a two part breakable safety flange and a breakable stem coupling. Frangible bolts and shear pins are not acceptable. Barrel shall be designed so that nozzles may be rotated to any position without disassembling the groundline flange.

All hydrants shall be OPEN LEFT (counterclockwise). An arrow and the word "OPEN" shall be clearly cast on the bonnet.

Hydrants must be consistent both in design and in appearance with those currently in use by the Pawtucket Water Supply Board, which is the Mueller Centurion model. All Mueller hydrant parts shall be genuine Mueller replacement parts that match the manufacturer's original equipment specifications with regard to dimensions, materials and performance. Hydrants shall be painted two coats yellow above ground line. Sample color will be furnished to the supplier.

12.0 Ductile Iron Pipe. Unless otherwise noted in the Proposal all pipe shall be ductile iron pipe conforming to the provisions of AWWA Standard C151 (ANSI A21.51) .

12.1 Pipe Lining . All ductile iron pipe shall be furnished with a cement mortar lining and seal coating conforming to the provisions of AWWA Standard C104 (ANSI A21.4) . The lining shall be "double thickness" as specified in paragraph 4-8.2 of the referenced standard.

13.0 Pipe Fittings. Pipe fittings shall be ductile iron with a minimum pressure rating of 350 psi. The fittings shall conform to the provisions of AWWA Standard C153(ANSI A21.10). Fittings shall be furnished with mechanical joint or plain ends and shall include glands, bolts, nuts and gaskets. Interior surfaces shall be cement lined, double thickness with bituminous material seal coat. Exterior surfaces shall be coal tar base bituminous coating, approximately 1-mil thick. The number of pounds of fittings to be paid for shall be the weight stated in AWWA C153, latest revision.

14.0 All materials are scheduled by nominal pipe size. All couplings clamps and saddles must be suitable for use on pipe of varying outside diameters. Unless otherwise noted, the minimum range acceptable for each nominal size shall be as follows:

<u>Normal Size</u>	<u>Range of Outside Diameter (Minimum)</u>
4 inch	4.80 to 5.00
6 inch	6.90 to 7.10
8 inch	9.05 to 9.30
10 inch	11.10 to 11.40
12 inch	13.20 to 13.50
16 inch	17.40 to 17.80
20 inch	21.60 to 22.06
24 inch	25.80 to 26.32

### COMPLIANCE OF MATERIALS

The Bidder fully understands that the Pawtucket Water Supply Board reserves the right to inspect, and reject and return, at the Bidder's expense, any and all items and materials it finds to be unacceptable, of poor quality, or not in conformance with this Specification, Proposal and/or referenced Standards.

Group 1  
Pipe, Pipe Fittings & Miscell

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
1. Pipe, Ductile Iron	1.1.1	4"	400 ft	_____ /ft	_____	_____
"double thickness"	1.1.2	6"	800 ft	_____ /ft	_____	_____
cement lined, "Tyton"	1.1.3	8"	600 ft	_____ /ft	_____	_____
push-on joint, Class 52	1.1.4	10"	60 ft	_____ /ft	_____	_____
	1.1.5	12"	100 ft	_____ /ft	_____	_____
	1.1.6	16"	40 ft	_____ /ft	_____	_____
	1.1.7	20"	40 ft	_____ /ft	_____	_____
	1.1.8	24"	40 ft	_____ /ft	_____	_____
2. Ductile Iron Fittings, Cement Lined (double thickness), Rating: 350 psi (min), AWWA C153 (complete including all hardware; however weights of glands, bolts and nuts shall not be included in pay weights)						
	1.2.1	4" thru 24"	2,000 lbs.	_____ /lb	_____	_____
3. Water Pressure Pipe, PVC (SDR21), Press Class 200						
	1.3.1	2"	40 ft	_____ /ft	_____	_____
4. Gravity Sewer Pipe, PVC (SDR35), Green Color, (14 ft laying length)						
	1.4.1	4"	200 ft	_____ /ft	_____	_____
	1.4.2	6"	200 ft	_____ /ft	_____	_____
	1.4.3	8"	200 ft	_____ /ft	_____	_____
	1.4.4	12"	200 ft	_____ /ft	_____	_____
5. Gravity Sewer Pipe Gasketed Fittings, PVC (SDR35)						
	1.5.1	4" ¼ Bend (LG)	30 ea	_____ /ea	_____	_____
	1.5.2	4" 1/8 Bend	30 ea	_____ /ea	_____	_____
	1.5.3	4" 1/16 Bend	30 ea	_____ /ea	_____	_____
	1.5.4	6" ¼ Bend (LG)	30 ea	_____ /ea	_____	_____
	1.5.5	6" 1/8 Bend	30 ea	_____ /ea	_____	_____
	1.5.6	6" 1/16 Bend	30 ea	_____ /ea	_____	_____
	1.5.7	8" ¼ Bend (LG)	30 ea	_____ /ea	_____	_____
	1.5.8	8" 1/8 Bend	30 ea	_____ /ea	_____	_____
	1.5.9	8" 1/16 Bend	30 ea	_____ /ea	_____	_____
	1.5.10	12" ¼ Bend (LG)	30 ea	_____ /ea	_____	_____
	1.5.11	12" 1/8 Bend	30 ea	_____ /ea	_____	_____
	1.5.12	12" 1/16 Bend	30 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
6. Tyton Joint Restraint; "FIELD LOK" 350 gasket for ductile iron pipe,						
	1.6.1	4"	12 ea	_____ /ea	_____	_____
	1.6.2	6"	20 ea	_____ /ea	_____	_____
	1.6.3	8"	20 ea	_____ /ea	_____	_____
	1.6.4	10"	6 ea	_____ /ea	_____	_____
	1.6.5	12"	10 ea	_____ /ea	_____	_____
7. Mech. Joint Restraint; MJ "FIELD LOK" kit for ductile iron pipe, includes gland, gasket & Std. T-Head bolts and nuts						
	1.7.1	4"	20 ea	_____ /ea	_____	_____
	1.7.2	6"	80 ea	_____ /ea	_____	_____
	1.7.3	8"	50 ea	_____ /ea	_____	_____
	1.7.4	10"	8 ea	_____ /ea	_____	_____
	1.7.5	12"	10 ea	_____ /ea	_____	_____
8. Mechanical Joint Restraint; MEGALUG Series 1100 for ductile iron, incl/ MJ accessories						
	1.8.1	4"	20 ea	_____ /ea	_____	_____
	1.8.2	6"	100 ea	_____ /ea	_____	_____
	1.8.3	8"	60 ea	_____ /ea	_____	_____
	1.8.4	10"	8 ea	_____ /ea	_____	_____
	1.8.5	12"	20 ea	_____ /ea	_____	_____
	1.8.6	16"	4 ea	_____ /ea	_____	_____
	1.8.7	20"	4 ea	_____ /ea	_____	_____
	1.8.8	24"	4 ea	_____ /ea	_____	_____
9. "Upside-Down" Survey Marking Paint; approx. 17 oz cans, 12 cans per case (similar to Aervoe's Survey Marking Spray Paint)						
	1.9.1	Blue	50 cases	_____ /case	_____	_____
	1.9.2	White	30 cases	_____ /case	_____	_____
	1.9.3	Black	2 cases	_____ /case	_____	_____
	1.9.4	Flour. Orange	2 cases	_____ /case	_____	_____
10. Rust & Stain Remover Powder; approx.. 12-16 oz size bottles, 12 bottles per case (similar to "Iron Out" or "Red-B- Gone" brands)						
	1.10.1		40 cases	_____ /case	_____	_____

GROUP 1

Total Bid Price in Words \_\_\_\_\_

Total Bid Price in Figures \_\_\_\_\_

Delivery Time \_\_\_\_\_

Name of Bidder and Title (Type or Print) \_\_\_\_\_

Signature \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_  
Telephone Number and Extension \_\_\_\_\_

NOTE: The price bid shall be written in words and figures. In case of a discrepancy between writing and figures, the writing will prevail. Unit price will prevail if there is a discrepancy between the unit price and extended price. The bidder understands that the Water Supply Board reserves the right to reject any and or all bids to award the contract or contracts in the best interests of the Water Supply Board.

Group 2

Fire Hydrants and Parts

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
1. Fire Hydrant, complete; 5-1/4" valve, bury as indicated, MJ shoe, open <u>left</u> , Mueller Centurion Model A-423, color: chrome yellow.						
	2.1.1	4'6" bury	10 ea	_____ /ea	_____	_____
	2.1.2	5'0" bury	20 ea	_____ /ea	_____	_____
	2.1.3	5'6" bury	50 ea	_____ /ea	_____	_____
	2.1.4	6'0" bury	10 ea	_____ /ea	_____	_____
	2.1.5	6'6" bury	4 ea	_____ /ea	_____	_____
2. Fire Hydrant Upper Barrel, complete (includes parts A-1 thru A-30); 5-1/4" valve, open <u>left</u> , Mueller Centurion Model A-423, color: chrome yellow.						
	2.2.1	5-1/4" valve	12 ea	_____ /ea	_____	_____
3. Hydrant Bonnet, Mueller A-8; Mueller Model A-423, color: chrome yellow.						
	2.3.1	5-1/4" valve	10 ea	_____ /ea	_____	_____
4. Hydrant Bonnet Bolts and Nuts, Mueller Model A-423;						
A-9	2.4.1	5-1/4" valve	640 ea	_____ /ea	_____	_____
5. Hydrant Upper Stem, open <u>left</u> ,						
H-103	2.5.1	N/A	10 ea	_____ /ea	_____	_____
A-11 (1977-1986)	2.5.2	28-13/32" length	40 ea	_____ /ea	_____	_____
A-11 (1987-present)	2.5.3	27-9/16" length	50 ea	_____ /ea	_____	_____
6. Hydrant Bonnet Gasket Mueller H-59 (flat)	2.6.1	5-1/4"	40 ea	_____ /ea	_____	_____
A-10 (O-ring)	2.6.2	5-1/4"	40 ea	_____ /ea	_____	_____
7. Hydrant Nozzle Locks, Mueller Model A-423, pumper and hose;						
A-13	2.7.1	5-1/4" valve	10 ea	_____ /ea	_____	_____
8. Hydrant Pumper Nozzle, Mueller Model A-423;						
A-14 (L.H.T.)	2.8.1	5-1/4" valve	2 ea	_____ /ea	_____	_____
A-14 (R.H.T.)	2.8.1	5-1/4" valve	2 ea	_____ /ea	_____	_____
9. Hydrant Hose Nozzle, Mueller Model A-423;						
A-18 (L.H.T.)	2.9.1	5-1/4" valve	6 ea	_____ /ea	_____	_____
A-18 (R.H.T.)	2.9.1	5-1/4" valve	6 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
10. Hydrant Safety Flange Gasket Mueller H-76 (flat)	2.10.1	5-1/4" valve	50 ea	_____ /ea	_____	_____
A-27 (O-ring)	2.10.2	5-1/4" valve	50 ea	_____ /ea	_____	_____
11. Hydrant Safety Flange, A-28	2.11.1	5-1/4" valve	20 ea	_____ /ea	_____	_____
12. Hydrant Extension Kit, 5-1/4" A-320	2.12.1	6"	30 ea	_____ /ea	_____	_____
	2.12.2	12"	20 ea	_____ /ea	_____	_____
	2.12.3	18"	4 ea	_____ /ea	_____	_____
	2.12.4	24"	4 ea	_____ /ea	_____	_____
13. Oil Filler Plug, A-7	2.13.1	N/A	60 ea	_____ /ea	_____	_____
14. Safety Stem Rod Coup A-25	2.14.1	N/A	20 ea	_____ /ea	_____	_____
15. Clevis Pins, A-30	2.15.1	N/A	80 ea	_____ /ea	_____	_____
16. Hose Nozzle caps (NST), A-21	2.16.1	5-1/4"	10 ea	_____ /ea	_____	_____
17. Pumper Nozzle Caps (NST) A-17	2.17.1	5-1/4"	10 ea	_____ /ea	_____	_____
18. MJ Duck-Tipped Boot Gasket Equal to Mueller 194733	2.18.1	6"	30 ea	_____ /ea	_____	_____
19. Safety Flanges Repair Kit A-301	2.19.1	5-1/4"	120 ea	_____ /ea	_____	_____
20. Hydrant Lubricating Oil, A-51	2.20.1	10-1/2" oz.	100 ea	_____ /ea	_____	_____
21. Hydrant Hose Reducer, Brass						
2.21.1	2-1/2" Fem(NST) x	3/4" Male(IPT)	5 ea	_____ /ea	_____	_____
2.21.2	2-1/2" Fem(NST) x	1" Male (IPT)	5 ea	_____ /ea	_____	_____
2.21.3	2-1/2" Fem(NST) x	1-1/2" Male(IPT)	5 ea	_____ /ea	_____	_____
2.21.4	2-1/2" Fem(NST) x	2" Male(IPT)	5 ea	_____ /ea	_____	_____

GROUP 2

Total Bid Price in Words \_\_\_\_\_

Total Bid Price in Figures \_\_\_\_\_

Delivery Time \_\_\_\_\_

Name of Bidder and Title (Type or Print) \_\_\_\_\_

Signature \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_  
Telephone Number and Extension \_\_\_\_\_

NOTE: The price bid shall be written in words and figures. In case of a discrepancy between writing and figures, the writing will prevail. Unit price will prevail if there is a discrepancy between the unit price and extended price. The bidder understands that the Water Supply Board reserves the right to reject any and or all bids to award the contract or contracts in the best interests of the Water Supply Board.

Group 3

Water Service Materials

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
1. Copper Tubing, Type K as manufactured by Cerro Mfg.	3.1.1	1" (60' coil)	5000 ft	_____ /ft	_____	_____
	3.1.2	2" (20' lengths)	300 ft	_____ /ft	_____	_____
	3.1.3	2" (40' coil)	280 ft	_____ /ft	_____	_____
2. Curb Stop, Mueller B-25209, open <u>left</u> , compression conn., ball type						
	3.2.1	1"	300 ea	_____ /ea	_____	_____
	3.2.2	2"	20 ea	_____ /ea	_____	_____
3. Curb Stop, Mueller B-25204, open <u>left</u> , flared ends conn., ball type						
	3.3.1	2"	2 ea	_____ /ea	_____	_____
4. Curb Stop, Mueller B-20283, open <u>left</u> , Female Thrd. Ends, ball type						
	3.4.1	1"	100 ea	_____ /ea	_____	_____
	3.4.2	2"	10 ea	_____ /ea	_____	_____
5. Straight Coupling, comp. conn. x female (IPT) Mueller H-15451						
	3.5.1	1"	300 ea	_____ /ea	_____	_____
	3.5.2	2"	20 ea	_____ /ea	_____	_____
6. Straight Coupling, flared end conn. x female (IPT) Mueller H-15450						
	3.6.1	1"	20 ea	_____ /ea	_____	_____
7. Straight Coupling, comp. conn. x male (IPT) Mueller H-15428						
	3.7.1	1"comp x 1" male (IPT)	200 ea	_____ /ea	_____	_____
	3.7.2	2"comp x 2" male (IPT)	15 ea	_____ /ea	_____	_____
	3.7.3	3/4"comp x 1" male (IPT)	35 ea	_____ /ea	_____	_____
	3.7.4	3/4"comp x 3/4" male (IPT)	30 ea	_____ /ea	_____	_____
	3.7.5	1"comp x 3/4" male (IPT)	30 ea	_____ /ea	_____	_____
8. Straight Coupling, flared end conn. x male (IPT) Mueller H-15425						
	3.8.1	1"	20 ea	_____ /ea	_____	_____
9. Straight Coupling, copper to iron pipe, IPS PVC pack joint x copper (CTS) pack joint Mueller V-15441						
	3.9.1	1"	80 ea	_____ /ea	_____	_____
	3.9.2	3/4" iron x 1" copper	20 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
10. Corporation Stop, Mueller, comp. conn. outlet H-25008 ball type						
	3.10.1	3/4"x1"	30 ea	_____ /ea	_____	_____
	3.10.2	1"	100 ea	_____ /ea	_____	_____
	3.10.3	2"	20 ea	_____ /ea	_____	_____
11. Corporation Plug, Mueller, square head with Mueller "CC" thread H-10033						
	3.11.1	3/4"	20 ea	_____ /ea	_____	_____
	3.11.2	1"	20 ea	_____ /ea	_____	_____
	3.11.3	1-1/4"	10 ea	_____ /ea	_____	_____
	3.11.4	1-1/2"	10 ea	_____ /ea	_____	_____
	3.11.5	2"	10 ea	_____ /ea	_____	_____
12. Brass Plug, Mueller, square head with I.P. thread H-10035						
	3.12.1	3/4"	20 ea	_____ /ea	_____	_____
	3.12.2	1"	20 ea	_____ /ea	_____	_____
	3.12.3	1-1/4"	10 ea	_____ /ea	_____	_____
	3.12.4	1-1/2"	10 ea	_____ /ea	_____	_____
	3.12.5	2"	20 ea	_____ /ea	_____	_____
13. Straight Three Part Union, comp. conn. x comp. conn. Mueller H-15403						
	3.13.1	3/4"	50 ea	_____ /ea	_____	_____
	3.13.2	1"	150 ea	_____ /ea	_____	_____
	3.13.3	1"x3/4"	100 ea	_____ /ea	_____	_____
	3.13.4	2"	15 ea	_____ /ea	_____	_____
14. Curb Box Lid (with slotted top) and Plug; 1-1/4" curb box Mueller No 89375						
	3.14.1	1-1/4"	200 ea	_____ /ea	_____	_____
15. Curb Box Lid (with slotted top) and Plug; 1" curb box Mueller No 89376						
	3.15.1	1"	200 ea	_____ /ea	_____	_____
16. Pentagon Iron Plug with recessed nut (only); 1-1/4" curb box Mueller No. 58039						
	3.16.1	1-1/4"	100 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
17. Pentagon Brass Plug (only); 1" curb box						
Mueller No 36571	3.17.1	1"	200 ea	_____ /ea	_____	_____
Coarse Thread	3.17.2	1"	200 ea	_____ /ea	_____	_____
18. Curb Valve Box; 1-inch, Erie Type with lid (with slotted top), plug and 33" rod(muel. no. 82864), Mueller H-10334						
	3.18.1	1"	400 ea	_____ /ea	_____	_____
19. Curb Valve Box Adapters, for Erie Type boxes, I.P.S.						
	3.19.1	1"x6"	150 ea	_____ /ea	_____	_____
	3.19.2	1-1/4"x6"	100 ea	_____ /ea	_____	_____
20. Curb Valve Box Foot Piece, heavy, enlarged base, Erie type For 2 -inch Mueller Curb Stop						
	3.20.1	2"	40 ea	_____ /ea	_____	_____
21. Brass Ball Valve, Quarter Turn with Lever Handle, Female Iron Pipe Thread						
	3.21.1	3/4 "	60 ea	_____ /ea	_____	_____
	3.21.2	1 "	60 ea	_____ /ea	_____	_____
	3.21.3	1-1/2 "	6 ea	_____ /ea	_____	_____
	3.21.4	2"	6 ea	_____ /ea	_____	_____
22. Brass Pipe Fittings						
	3.22.1	3/4" Close Nipple	40 ea	_____ /ea	_____	_____
	3.22.2	3/4"x6" Nipple	100 ea	_____ /ea	_____	_____
	3.22.3	3/4"x1/2 Red. Bush.	100 ea	_____ /ea	_____	_____
	3.22.4	1" x3/4" Red. Bush.	50 ea	_____ /ea	_____	_____
	3.22.5	2"x1-1/2"Red. Bush	20 ea	_____ /ea	_____	_____
	3.22.6	1"x3/4" Red. Coupling	40 ea	_____ /ea	_____	_____
	3.22.7	1"x1/4" x1"Red. Coupling	40 ea	_____ /ea	_____	_____
	3.22.8	1" Coupling	50 ea	_____ /ea	_____	_____
	3.22.9	1" Close Nipple	50 ea	_____ /ea	_____	_____
	3.22.10	1"x6" Nipple	200 ea	_____ /ea	_____	_____
	3.22.11	3/4" 90° Elbow	20 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
Brass Pipe Fittings Continued						
3.22.12	1" 90° Elbow		25 ea	_____ /ea	_____	_____
3.22.13	1-1/4" 90° Elbow		20 ea	_____ /ea	_____	_____
3.22.14	1-1/2" 90° Elbow		20 ea	_____ /ea	_____	_____
3.22.15	1" x 3/4" 90° Reducing Elbow		20 ea	_____ /ea	_____	_____
3.22.16	1-1/2" 90° Elbow		20 ea	_____ /ea	_____	_____
3.22.17	1" x 3/4" 90° Reducing Elbow		20 ea	_____ /ea	_____	_____
3.22.18	2"x3" Nipple		10 ea	_____ /ea	_____	_____
3.22.19	2"x6" Nipple		20 ea	_____ /ea	_____	_____
3.22.20	1"x1" Tee		20 ea	_____ /ea	_____	_____
3.22.21	2"x2" Tee		10 ea	_____ /ea	_____	_____
3.22.22	2" 90° Elbow		10 ea	_____ /ea	_____	_____
3.22.23	2" IP Threaded Cap		10 ea	_____ /ea	_____	_____
3.22.24	2"x2"x1" Tee		10 ea	_____ /ea	_____	_____
3.22.25	2"x1-1/4" Red. Coupling		20 ea	_____ /ea	_____	_____
3.22.26	2-1/2"x2" Red. Coupling		20 ea	_____ /ea	_____	_____
23. Galvanized Steel Pipe Fittings						
3.23.1	1" Coupling		150 ea	_____ /ea	_____	_____
3.23.2	1"x6" Nipple		150 ea	_____ /ea	_____	_____
3.23.3	1-1/4"x2" Nipple		100 ea	_____ /ea	_____	_____
3.23.4	1-1/4"x6" Nipple		100 ea	_____ /ea	_____	_____
3.23.5	1-1/4" Coupling		100 ea	_____ /ea	_____	_____
3.23.6	1" Close Nipple.		100 ea	_____ /ea	_____	_____
24. Pentagon Key; Steel						
Mueller H-10323	3.24.1	Std.	20 ea	_____ /ea	_____	_____
Pentagon End	3.24.2	48" Length	15 ea	_____ /ea	_____	_____
25. Drill and Tap; cc thread						
Mueller No. 680540	3.25.1	1"	20 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
26. Curb Box Key; Mueller H-10322	3.26.1	6'	10 ea	_____ /ea	_____	_____
	3.26.2	4'	30 ea	_____ /ea	_____	_____
27. Drilling & Tapping Machine Cutting Grease 1-QT Cans Mueller No. 88366	3.27.1		40 ea	_____ /ea	_____	_____
28. Flaring Tool Mueller H-18000	3.28.1	3/4"	2 ea	_____ /ea	_____	_____
	3.28.2	1"	2 ea	_____ /ea	_____	_____
	3.28.3	2"	2 ea	_____ /ea	_____	_____
29. Drill Bit Mueller No. 36069	3.29.1	1-7/8"	10 ea	_____ /ea	_____	_____

GROUP 3

Total Bid Price in Words \_\_\_\_\_

Total Bid in Figures \_\_\_\_\_

Delivery Time \_\_\_\_\_

Name of Bidder and Title (Title or Print) \_\_\_\_\_

Signature \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

Telephone Number and Extension \_\_\_\_\_

NOTE: The price bid shall be written in words and figures. In case of a discrepancy between writing and figures, the writing will prevail. Unit price will prevail if there is a discrepancy between the unit price and extended price. The bidder understands that the Water Supply Board reserves the right to reject any and or all bids to award the contract or contracts in the best interests of the Water Supply Board.

Group 4

Couplings, Clamps, and Saddles

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
1. Coupling; Smith-Blair #411 with stainless steel hardware						
	4.1.1	1/2"	10 ea	_____ /ea	_____	_____
	4.1.2	3/4"	30 ea	_____ /ea	_____	_____
	4.1.3	1"	150 ea	_____ /ea	_____	_____
	4.1.4	1-1/2"	20 ea	_____ /ea	_____	_____
	4.1.5	2"	30 ea	_____ /ea	_____	_____
2. Stainless Steel Repair Clamp; Smith-Blair #261 with stainless steel hardware						
	4.2.1	12"x15"	8 ea	_____ /ea	_____	_____
	4.2.2	10"x15"	4 ea	_____ /ea	_____	_____
	4.2.3	8"x 15"	30 ea	_____ /ea	_____	_____
	4.2.4	6"x15"	50 ea	_____ /ea	_____	_____
	4.2.5	4"x15"	8 ea	_____ /ea	_____	_____
3. Stainless Steel Service Saddle; Smith-Blair #317 with stainless steel hardware						
Range:	4":	4.80" to 5.00"	Range:	12":	13.20" to 13.50"	
	6":	6.90" to 7.10"		16":	17.40" to 17.80"	
	8":	9.05" to 9.30"		20":	21.60" to 22.06"	
	10":	11.10" to 11.40"		24":	25.80" to 26.32"	
	4.3.1	4"x2"	4 ea	_____ /ea	_____	_____
	4.3.2	6"x2"	10 ea	_____ /ea	_____	_____
	4.3.3	8"x2"	16 ea	_____ /ea	_____	_____
	4.3.4	10"x2"	4 ea	_____ /ea	_____	_____
	4.3.5	12"x2"	10 ea	_____ /ea	_____	_____
	4.3.6	16"x2"	4 ea	_____ /ea	_____	_____
	4.3.7	20"x2"	4 ea	_____ /ea	_____	_____
	4.3.8	24"x2"	4 ea	_____ /ea	_____	_____
4. Repair Service Saddle; Smith-Blair #331 with stainless steel hardware						
Range:	6":	6.90" to 7.10"				
	8":	9.05" to 9.30"				
	10":	11.10" to 11.40"				
	12":	13.20" to 13.50"				
	4.4.1	6"x1"	20 ea	_____ /ea	_____	_____
	4.4.2	8"x1"	20 ea	_____ /ea	_____	_____
	4.4.3	10"x1"	4 ea	_____ /ea	_____	_____
	4.4.4	12"x1"	10 ea	_____ /ea	_____	_____
	4.4.5	12"x3/4"	4 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
5. Coupling; Smith-Blair #441 with stainless steel hardware						
	4.5.1	4"	10 ea	_____ /ea	_____	_____
	4.5.2	6"	120 ea	_____ /ea	_____	_____
	4.5.3	8"	100 ea	_____ /ea	_____	_____
	4.5.4	10"	4 ea	_____ /ea	_____	_____
	4.5.5	12"	40 ea	_____ /ea	_____	_____
6. Hymax-2000 Wide Range Coupling;						
Range:	4": 4.25" to 5.63"	12": 13.15" to 14.41"				
	6": 6.42" to 7.68"	16": 17.10" to 19.20"				
	8": 8.54" to 9.84"	20": 21.50" to 23.60"				
	10": 10.70" to 12.00"	24": 24.60" to 26.70"				
2-bolt	4.6.1	4"	10 ea	_____ /ea	_____	_____
2-bolt	4.6.2	6"	10 ea	_____ /ea	_____	_____
2-bolt	4.6.3	8"	10 ea	_____ /ea	_____	_____
2-bolt	4.6.4	10"	10 ea	_____ /ea	_____	_____
2-bolt	4.6.5	12" o.s.	10 ea	_____ /ea	_____	_____
Large Dia. (4-bolt)	4.6.6	16"	10 ea	_____ /ea	_____	_____
Large Dia. (4-bolt)	4.6.7	20"	10 ea	_____ /ea	_____	_____
Large Dia. (4-bolt)	4.6.8	24"	10ea	_____ /ea	_____	_____
7. Transition Coupling; Smith-Blair 441,Omni For Asbestos-Cement Pipe with stainless steel hardware						
Range:	4": 4.80" DI to 5.32" AC					
	6": 6.90" DI to 7.37" AC					
	8": 9.05" DI to 9.62" AC					
	4.7.1	4"	4 ea	_____ /ea	_____	_____
	4.7.2	6"	4 ea	_____ /ea	_____	_____
	4.7.3	8"	4 ea	_____ /ea	_____	_____
8. Transition Coupling; Smith-Blair #413 with stainless steel hardware						
16": 17.40" to 17.80"	4.8.1	16"	4 ea	_____ /ea	_____	_____
20": 21.60" to 22.06"	4.8.2	20"	6 ea	_____ /ea	_____	_____
24": 25.80" to 26.32"	4.8.3	24"	6 ea	_____ /ea	_____	_____
9. Full Circle, single band, service repair clamp with 1" CC outlet; Smith-Blair #238 with stainless steel hardware						
Range 6.84"-7.24"	4.9.1	6"x15"x1" cc tap	10 ea	_____ /ea	_____	_____
Range 8.99"-9.39"	4.9.2	8"x15"x1" cc tap	10 ea	_____ /ea	_____	_____
Range 11.04"-11.44"	4.9.3	10"x15"x1" cc tap	2 ea	_____ /ea	_____	_____
Range 13.10"-13.50"	4.9.4	12"x15"x1" cc tap	8 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
10. Anti-Rotation Bolts (high strength low alloy steel)						
	4.10.1	3/4" x 3-1/2"	100 ea	_____ /ea	_____	_____
	4.10.2	3/4" x 4"	100 ea	_____ /ea	_____	_____
11. Two-Bolt Underground Friction Clamps;						
	4.11.1	6"	2 ea	_____ /ea	_____	_____
	4.11.2	8"	2 ea	_____ /ea	_____	_____
	4.11.3	10"	2 ea	_____ /ea	_____	_____
	4.11.4	12"	2 ea	_____ /ea	_____	_____
12. Duc-Lug	4.12.1	3/4"	20 ea	_____ /ea	_____	_____
13. Zinc Plated Tie-Bolts	4.13.1	3/4"	20 ea	_____ /ea	_____	_____
14. Dog Washers	4.14.1	3/4"	20 ea	_____ /ea	_____	_____
15. Zinc Plated Hex Nut (Heavy Duty)	4.15.1	3/4" x 10	20 ea	_____ /ea	_____	_____
16. Zinc Plated Steel Rod Coupling;						
	4.16.1	3/4"	10 ea	_____ /ea	_____	_____
17. Zinc Electroplated Threaded Steel Rod; 10 foot lengths						
	4.17.1	3/4" x 10 ft length	6 ea	_____ /ea	_____	_____
18. Clay Pipe To PVC Pipe Coupling;						
4" Fernco #1002-44	4.18.1	4"	40 ea	_____ /ea	_____	_____
6" Fernco #1002-66	4.18.2	6"	40 ea	_____ /ea	_____	_____
8" Fernco #1002-88	4.18.3	8"	40 ea	_____ /ea	_____	_____
12" Fernco #1002-1212	4.18.4	12"	40 ea	_____ /ea	_____	_____

GROUP 4

Total Bid Price in Words \_\_\_\_\_

Total Bid Price in Figures \_\_\_\_\_

Delivery Time \_\_\_\_\_

Name of Bidder and Title (Type or Print) \_\_\_\_\_

Signature \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

Telephone Number and Extension \_\_\_\_\_

NOTE: The price bid shall be written in words and figures. In case of a discrepancy between writing and figures, the writing will prevail. Unit price will prevail if there is a discrepancy between the unit price and extended price. The bidder understands that the Water Supply Board reserves the right to reject any and or all bids to award the contract or contracts in the best interests of the Water Supply Board.

Group 5  
Valves, Valve Parts and Tapping Materials

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
1. Resilient Seated Gate Valves, MJxMJ, incl/ MJ accessories, <u>Open Right</u> (Mueller A-2360-20, or equal)						
	5.1.1	4"	4 ea	_____ /ea	_____	_____
	5.1.2	6"	30 ea	_____ /ea	_____	_____
	5.1.3	8"	30 ea	_____ /ea	_____	_____
	5.1.4	10"	4 ea	_____ /ea	_____	_____
	5.1.5	12"	10 ea	_____ /ea	_____	_____
2. Butterfly Valves (Class 150B service), MJxMJ, incl/ MJ accessories, <u>Open Right</u> (Mueller Lineseal III, or equal)						
	5.2.1	16"	1 ea	_____ /ea	_____	_____
	5.2.2	20"	4 ea	_____ /ea	_____	_____
	5.2.3	24"	4 ea	_____ /ea	_____	_____
3. Two-inch gate valve operating nut, open right, Mueller Part No. G-38						
	5.3.1	4" thru 8"	2 ea	_____ /ea	_____	_____
	5.3.2	10" thru 24"	2 ea	_____ /ea	_____	_____
4. Mechanical Joint Gasket for valves & fittings, AWWA C111						
	5.4.1	4"	4 ea	_____ /ea	_____	_____
	5.4.2	6"	20 ea	_____ /ea	_____	_____
	5.4.3	8"	20 ea	_____ /ea	_____	_____
	5.4.4	10"	8 ea	_____ /ea	_____	_____
	5.4.5	12"	12 ea	_____ /ea	_____	_____
	5.4.6	16"	4 ea	_____ /ea	_____	_____
	5.4.7	20"	4 ea	_____ /ea	_____	_____
	5.4.8	24"	4 ea	_____ /ea	_____	_____
5. Fabricated Stainless Steel Tapping Sleeve, <b>6" and larger</b> , Smith-Blair Model 664, AWWA C223						
O. D. Ranges:	6" – 6.90 to 7.10	8" - 9.05 to 9.30	10" -11.10 to 11.40	12" – 13.20 to 13.50		
	16" –17.40 to 17.80	20" – 21.60 to 22.06"	24" – 25.80 to 26.32			
	5.5.1	6" main w/ 4" branch	8 ea	_____ /ea	_____	_____
	5.5.2	6" main w/ 6" branch	8 ea	_____ /ea	_____	_____
	5.5.3	8" main w/ 4" branch	8 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
Tapping Sleeve Continued						
	5.5.4	8" main w/ 6" branch	8 ea	_____ /ea	_____	_____
	5.5.5	8" main w/ 8" branch	4 ea	_____ /ea	_____	_____
	5.5.6	10" main w/ 4" branch	1 ea	_____ /ea	_____	_____
	5.5.7	10" main w/ 6" branch	1 ea	_____ /ea	_____	_____
	5.5.8	10" main w/ 8" branch	1 ea	_____ /ea	_____	_____
	5.5.9	10" main w/ 10" branch	1 ea	_____ /ea	_____	_____
	5.5.10	12" main w/ 4" branch	8 ea	_____ /ea	_____	_____
	5.5.11	12" main w/ 6" branch	8 ea	_____ /ea	_____	_____
	5.5.12	12" main w/ 8" branch	4 ea	_____ /ea	_____	_____
	5.5.13	12" main w/ 10" branch	1 ea	_____ /ea	_____	_____
	5.5.14	16" main w/ 4" branch	2 ea	_____ /ea	_____	_____
	5.5.15	16" main w/ 6" branch	2 ea	_____ /ea	_____	_____
	5.5.16	16" main w/ 8" branch	2 ea	_____ /ea	_____	_____
	5.5.17	16" main w/ 10" branch	2 ea	_____ /ea	_____	_____
	5.5.18	20" main w/ 4" branch	2 ea	_____ /ea	_____	_____
	5.5.19	20" main w/ 6" branch	2 ea	_____ /ea	_____	_____
	5.5.20	20" main w/ 8" branch	2 ea	_____ /ea	_____	_____
	5.5.21	20" main w/ 10" branch	2 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity</u> <u>(Unit)</u>	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>	<u>Meets or Exceeds</u> <u>(Explain)</u>
Tapping Sleeve Continued						
	5.5.22	24" main w/ 4" branch	2 ea	_____ /ea	_____	_____
	5.5.23	24" main w/ 6" branch	2 ea	_____ /ea	_____	_____
	5.5.24	24" main w/ 8" branch	2 ea	_____ /ea	_____	_____
	5.5.25	24" main w/ 10" branch	2 ea	_____ /ea	_____	_____
6. Tapping Valve (resilient seat), Flange x MJ, incl/ MJ accessories, <u>Open Right</u> , with regular and transitional gaskets. (Muel. T-2360-16, or equal)						
	5.6.1	4"	20 ea	_____ /ea	_____	_____
	5.6.2	6"	20 ea	_____ /ea	_____	_____
	5.6.3	8"	10 ea	_____ /ea	_____	_____
	5.6.4	10"	1 ea	_____ /ea	_____	_____
7. Road Valve Box, complete, 2-piece telescoping type, range 36" to 60", with cover marked "WATER"						
	5.7.1	5-1/4"	120 ea	_____ /ea	_____	_____
8. Road Valve Box, top section only, with cover marked "WATER"						
	5.8.1	5-1/4"	80 ea	_____ /ea	_____	_____
9. Road Valve Box Riser (fixed) for 5-1/4" telescoping type						
	5.9.1	1"	80 ea	_____ /ea	_____	_____
	5.9.2	1-1/2"	80 ea	_____ /ea	_____	_____
	5.9.3	2"	80 ea	_____ /ea	_____	_____
	5.9.4	3"	80 ea	_____ /ea	_____	_____
	5.9.5	4"	20 ea	_____ /ea	_____	_____
	5.9.6	6"	20 ea	_____ /ea	_____	_____
	5.9.7	12"	20 ea	_____ /ea	_____	_____
	5.9.8	18"	8 ea	_____ /ea	_____	_____
	5.9.9	24"	8 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
10. Cover marked "WATER" for 5-1/4" road valve box	5.10.1		120 ea	_____	_____	_____
11. Posi cap for 5-1/4" road valve box	5.11.1		120 ea	_____	_____	_____

GROUP 5

Total Bid Price in Words \_\_\_\_\_

Total Bid Price in Figures \_\_\_\_\_

Delivery Time \_\_\_\_\_

Name of Bidder and Title (Type or Print) \_\_\_\_\_

Signature \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Telephone Number and Extension \_\_\_\_\_

NOTE: The price bid shall be written in words and figures. In case of a discrepancy between writing and figures, the writing will prevail. Unit price will prevail if there is a discrepancy between the unit price and extended price. The bidder understands that the Water Supply Board reserves the right to reject any and or all bids to award the contract or contracts in the best interests of the Water Supply Board.

Group 6  
Meters, Meter Couplings, Cable

**Cold Water Meter**

All meters furnished shall be produced from an ISO 9001 manufacturing facility and conform to the "Standard Specifications for Cold Water Meters" - C700, latest revision issued by AWWA or as otherwise stated. Only magnetic driven, positive displacement meters of the flat nutating disc type will be accepted because of enhanced low flow accuracy performance.

The size, capacity, and meter lengths shall be as specified in AWWA Standard C700 latest revision. The maximum number of disc nutations is not to exceed those specified in AWWA C700 latest revision, Sec. 4.2 Registration, Table 1.

**All meter maincases shall be made of a NO LEAD brass that meets NSF 61 standard. The serial number should be stamped between the outlet port of the maincase and the register. Maincase markings shall be cast raised and shall indicate size, model, direction of flow and NSF 61 certification. Plastic maincases are not acceptable.**

Meters for 5/8", 3/4" and 1" shall be of the removable bottom cap type with the bottom cap secured by four (4) bolts on 5/8" and 3/4" sizes and six (6) bolts on the 1" size. Intermediate meter maincases shall also be made of the same lead-free brass material in sizes 1-1/2" and 2" type with an upper top plate secured to the maincase with eight (8) bolts, a screw on design shall not be accepted. Meters with a frost plug, screw on or no bottom cap shall not be accepted in 5/8"-1" sizes. 5/8" meters shall have a cast iron bottom cap. All lead-free brass maincases shall be guaranteed free from manufacturing defects in workmanship and material for the life of the meter. All maincase bolts shall be of 300 series non-magnetic stainless steel to prevent corrosion. Connections shall be furnished as specified.

All meters must be adaptable to a field programmable absolute encoder type register or an electronic solid state register without interruption of the customer's service. They shall come complete with remote registers that provide means for electrically transmitting a water meter reading from the indoor meter to a remotely located receptacle, located outside the structure. Readings at the receptacle are taken via the Neptune ProRead AutoDetect system or a walk-by system via an RF meter interface unit (MIU). All future installations must be capable of utilizing the existing systems or their successor similar systems.

**Meter Register**

Registers shall be direct reading hermetically sealed or open and shall read in cubic feet. They shall be in accordance with the latest revision of AWWA Standard C707 and be ANSI/NSF 61 certified. Registers shall not be affected by prolonged submergence in water. They shall be of the 6 active wheel odometer type and shall be capable of encoding and relaying the 4 most significant digits to the remote receptacle. Digital electronics shall be employed; analog devices are not acceptable. Registration for various size meters shall be:

<u>Size</u>	<u>Reading/Revolution</u>	<u>Capacity</u>
5/8"	1 cu ft	1,000,000 cu ft
3/4"	1 cu ft	1,000,000 cu ft
1"	10 cu ft	10,000,000 cu ft
1-1/2"	10 cu ft	10,000,000 cu ft
2"	10 cu ft	10,000,000 cu ft

The measuring chamber shall be of a 2-piece snap-joint type with no fasteners allowed. The chamber shall be made of NEPTON 313, a non-hydrolyzing synthetic polymer. No screws shall be used to secure the chamber together. The control block shall be the same material as the measuring chamber and be located on top of the chamber. The control block assembly shall be located after the strainer. The measuring chamber outlet port shall be sealed to the maincase outlet port by means of an "O" ring gasket.

The flat nutating disc chamber shall be of the one piece and made from non-hydrolyzing synthetic polymer, and shall contain a type 316 stainless steel spindle. The nutating disc shall be equipped with a synthetic polymer thrust roller located within the disc slot. The disc slot shall be located on the diaphragm. The roller head shall roll on the buttressed track provided by the diaphragm in the measuring chamber near the chamber outlet port.

The chamber shall be warranted for 10 years against freeze damage if the meter has been equipped with a frost proof cast iron or synthetic polymer bottom cap.

All meters shall contain removable polypropylene plastic strainer screens. The strainer shall be located near the maincase inlet port, before the measuring chamber and control block assembly. The strainer shall also function as the device that holds the measuring chamber in place within the maincase. Straps or other types of fasteners shall not be accepted.

**PERFORMANCE - To ensure accuracy, each meter must be accompanied by a factory test tag certifying the accuracy at the flows required by AWWA C700 (low, intermediate, and full flow).**

All meters shall be warranted as follows:

<u>Size</u>	<u>Low Flow</u>	<u>Low Flow New Meter Accuracy</u>	<u>Low Flow Repaired Meter Accuracy</u>
5/8"	1/8 gpm @ 95%	5 Yrs or 500,000 Gal	5-10 years or 1,500,000 Gal
3/4"	1/4 gpm @ 95%	5 Yrs or 750,000 Gal	5-10 years or 2,300,000 Gal
1"	3/8 gpm @ 95%	5 Yrs or 1,000,000	5-10 years or 3,000,000 Gal
1-1/2"	3/4 gpm @ 95%	1 year	1 year
2"	1 gpm @ 95%	1 year	1 year

Normal meter operating range shall be warranted per AWWA C700 Section 4.2 Table 1.

<u>Size</u>	<u>Range (100 +/- 1.5)</u>
5/8"	1 - 20 gpm
3/4"	2 - 30 gpm
1"	3 - 50 gpm
1-1/2"	5 - 100 gpm
2"	8 - 160 gpm

Meters and meter parts shall be manufactured, assembled, and tested within the Continental United States. Manufacturers may be required to provide proof of where and of what percentage of the meter register, chamber, and maincase is manufactured as per specified. Manufacturers shall have a minimum of fifteen years of field and production experience with all sizes of the model quoted for model standardization. Manufacturers shall provide only one model of meter that complies with these specifications.

**Electronic Absolute Encoder (E-Coder) Meter Register**

It may be the preference of the Pawtucket Water Supply Board to obtain an advanced encoder-based remote metering system capable of providing electronically encoded meter information as described in this specification.

**1. Description - General**

A self-contained electronic absolute encoder (E-Coder) register metering system shall be capable of obtaining remote simultaneous water meter registration that is guaranteed to exactly match the registration on the register odometer. The metering information shall be obtained through a remotely located receptacle or Meter Interface Unit (MIU) or integrated MIU using a compatible data capture system. The above system shall be configured as follows:

1. Electronic absolute encoder (E-Coder) meter register — Direct mounting, electro-magnetically encoded measuring element into an electronic solid-state odometer. Encoder shall provide value-added flow data including leak, tamper and back flow detection when connected to a compatible RF AMR MIU. Batteries and digital counters using volatile memory are not allowed.
2. Remotely mounted receptacle or MIU or integrated MIU providing a communication link for the transmission of information from the register.
3. Data acquisition equipment with which the above components can be interrogated. Such equipment shall be configured in two types:
  - a. A device that captures information and displays it visually to confirm correct system installation and wiring.

- b. A device that is pre-programmed with route information and is capable of storing collected data in solid-state memory. This device shall also electronically transfer the data for use by the utility billing computer.

## **2. Solid-State Encoder Register Unit**

### **A. Registration**

1. The register shall provide at least a nine-digit visual registration at the meter.
2. The unit shall provide an 8-digit meter reading for transmission through the radio MIU.
3. The dial shall have a high resolution nine-digit LCD display for meter testing.
4. The register shall employ a visual LCD leak detection indicator as well as provide remote leak detection through an ASCII format to the RF AMR MIU.
5. The manufacturer will guarantee that the reading obtained electronically matches the LCD odometer reading on the register and that the manufacturer will pay the difference at the current rate whenever a discrepancy appears.
6. The register should accumulate and register consumption without connecting to a receptacle or MIU.

### **B. Mechanical Construction**

1. The unit shall possess a hermetic sonic weld seal.
2. The register shall be attached to the meter case by a bayonet attachment. Fastening screws or nuts shall not be required. A tamper-proof seal pin shall be used to secure the register to the maincase
3. The register shall be removable from the meter without disassembling the meter body and shall permit field installation and/or removal without taking the meter out of service.
4. Provision shall be made in the register for the use of seal wires to further secure the register.
5. Terminal screws must be accessible on the register for transmission wire connection to the remote receptacle or a future AMR system. A permanently potted wire connection shall be available as an option.

### **C. Electrical Construction**

1. The electronic absolute encoder register shall incorporate an Application Specific Integrated Circuit (ASIC) and firmware designed to verify accurate measurement, information transmission and data integrity.
2. Connection shall be made to the register by three screw-type terminals sonically inserted into the register top. Access to the terminals shall be available to all models of register with the exception of a permanently potted version. A port cover shall be provided to cover the terminals after they have been wired.

### **D. Meter Reading Information**

1. The electronic absolute encoder register shall provide to the reading equipment an eight-digit meter reading. An identification number of up to ten digits shall be provided with each reading when read using a probed reading device.
2. The electronic absolute encoder register shall have the capability of providing additional value-added information remotely when connected to a radio MIU (i.e. detailed leak detection data, days of leak state, days of no consumption, and back flow indication). This information shall be communicated through the encoder protocol and RF MIU to the route management software to allow the seamless integration of data into a CIS package.

## **RF Meter Interface Unit (MIU)**

The MIUs must be compact electronic devices, connected to encoder type register water meters via 3 wire cable or may be integrated into the electronic solid state register. They shall encode consumption, then transmit this data and other information to a remote reading device. They shall be compatible with Neptune ARB V and ARB VI Proread registers .

MIU's with higher power transmission output allow meter readings to be gathered more efficiently and with fewer delays. Higher power MIU devices improve the overall meter reading success rate and in difficult to read locations such as commercial and industrial buildings. This limits the number of "re-reads" which are expensive and time consuming to perform. The MIU's must have a minimum power output of 100 milliwatts (mW).

The same RF MIUs must be able to be read either in the Walk-by System with a handheld computer equipped with a radio frequency unit or in a Drive-by System with a Mobile Data Collection Device mounted in a vehicle. This shall allow an easy migration between the systems without any change to devices or revisiting the site.

The MIUs shall retrofit to existing meters and wiring in the field.

The MIUs must work in the Specifications defined in the above sections.

The MIUs shall be: "wall" type - to have the ability to be mounted in a basement or on the outside of a building; and "pit" type - to have the ability to be mounted in a pit or an underground vault. The wall type shall have a water-resistant enclosure; the pit shall have a waterproof design.

The MIU's must be fully certified by the United States Federal Communications Commission.

The proposed system must be currently compatible with and capable of reading a one-way meter interface unit that meets the following specifications:

## **Physical / Mechanical Requirements**

### **Wall Unit**

- The MIU housing shall be constructed of a polycarbonate plastic compound and be capable of mounting both indoors and outdoors on wall or pole. The device must be water-resistant and capable of exposure to spray, splash as specified in NEMA 4 standard.
- The device shall use a tamper deterrent seal. Tampering with the device functions or connections shall not be possible without causing visible damage to the device exterior or to the seal.
- The device shall be capable of operating at temperatures of -22°F to 149°F (-30°C to +65°C), with a humidity factor of 5 to 95% (condensing).
- The circuit board will be coated for moisture protection.
- The battery will be protected by and encapsulated in a hard potting.
- The unit must retrofit to existing installations.
- The unit can be mounted either outside the building or inside the building. The Pawtucket Water Supply Board intends to install wall-mount MIU's on the exterior of all buildings. MIU's may also be integrated into the electronic solid state register.

### **Pit Unit**

- For pit or vault applications, the MIU shall be designed for being installed through the industry standard 1-3/4" hole in the pit lid with no degradation of transmission range. The MIU will be capable of mounting to various pit lids with thicknesses from 1/2" to 3".
- The device shall be capable of operating at temperatures of -22°F to 149°F (-30°C to +65°C), and operating humidity of 5% to 100% (IP 68 rating).
- The range will not be affected when the pit is flooded.
- The circuit board and the battery will be encapsulated in a hard potting material.
- The battery must be field replaceable without the need to reprogram the MIU.
- The antenna shall be made of a metallic material to withstand traffic configuration.

## **Operation Specifications**

- For maintenance ease, reliability, and meter reading integrity, the vendor shall be the sole manufacturer of the different components of the AMR system (Meter Reading Software, Data Collection Equipment, RF MIUs, and Meters).
- The manufacturer will guarantee that the reading obtained electronically matches the mechanical odometer read on the register. Therefore, synchronization of electronic reading and mechanical read for any reason (battery change, register change, cut wire, register rollover) is not acceptable.
- For the purpose of ease of implementation, the system shall not require any special licensing, including licenses from FCC. The system must, therefore, operate in the 902 MHz to 928 MHz unlicensed bandwidth.
- The System implementation shall not be delayed due to the uncertainty of Federal Licensing Requirements.
- The System must be expandable at any time without getting authorization from the FCC.

- No wake-up tone shall be necessary.
- To minimize the potential for RF interference from other devices, the MIU shall transmit using the Frequency Hopping Spread Spectrum technique comprised of alternating pseudo-random frequencies within the 902 MHz to 928 MHz unlicensed bandwidth.
- The meter interface unit shall operate within FCC Part 15 regulations for devices operating in the 902 MHz to 928 MHz unlicensed bandwidth. The output power of the devices will be governed by their conformance with these relevant FCC standards.
- Output power shall meet FCC Part 15.247 requirements.
- Power shall be supplied to the MIU by a lithium battery. The vendor shall warrant the MIU and battery by the vendor to be free of manufacture and design defects for a period of twenty years from their date of shipment from factory; the first ten (10) years from their date of shipment from factory without prorating and the second ten (10) years with prorating, as long as the MIU is working under the environmental and meter reading conditions specified.
- The battery life shall not be affected by outside erroneous wake-up tones (i.e. other water, gas or electric utilities reading and therefore sending out a wake-up tone).
- The number of reads performed must not affect the battery life.
- The batteries shall be field replaceable (the replacement shall be demonstrated), and be designed for minimum twenty (20) years life expectancy. The MIU shall not require reprogramming, if the battery discharges before it is replaced.
- No MIU programming shall be necessary for installation.
- The MIU shall not send readings older than an hour.
- The MIU shall interface to ARB V and ProRead absolute encoder registers via a 3-conductor wire without the need for special configuration to the MIU.
- The MIU shall transmit the reading at a fixed time interval.
- Each device shall have a unique pre-programmed identification number of 10 characters. The ID number will be permanent and shall not be altered. Each device shall be labeled with the ID number in numeric form. The label shall also display FCC approval information and manufacturer's designation, and date of manufacture.
- The MIU shall transmit the encoder meter reading and its unique MIU ID number.
- Tamper - If wiring has been disconnected, a "non reading" shall be provided indicating wire tamper; a reading that gives the last available reading is an incorrect reading.
- The MIU shall be capable of being received by a HHIU and/or a Mobile Data Collection Device without special configuration, reprogramming, or remanufacture.

## **Data Collection Devices**

### **Walk-by System**

In a walk-by system, the system must give the user the ability to collect metering data in several ways:

- Keyed entry
- Inductive probing
- RF communication: The meter must be attached to an RF meter interface unit (MIU); the handheld must have an RF receiving device (Handheld Interface Unit (HHIU))

The proposed walk-by data collection system must include:

- Handheld data collector device which shall be a combination of a handheld unit and an HHIU and its antenna.
- Communication cradles for charging and loading the handheld unit.
- Probes for interrogating Neptune absolute encoders.

## **Handheld Data Collector Device**

### **Basic Functions**

The handheld data collection device shall have the capability to collect and store meter readings at any time of the meter reading route by any of the following methods:

- Manual use through the use of an alphanumeric keypad.
- Probing of water meters equipped with supported absolute encoders.
- Via radio frequency.

The unit shall be able to obtain all types of readings on any particular route without requiring:

- Reprogramming of the handheld computer.
- Physical change of software contained within the unit while in the field.
- Access through special software menus contained within a given route/program.

The handheld data collection device must be able to multi-task by reading RF meters while in keyed entry (manual) meter reading mode.

### **Hardware Requirements**

#### **Processor and PC Compatibility**

The handheld data collection device must be PC compatible and run Windows CE.NET 4.2. At minimum, the handheld must operate with an Intel X-Scale PXA255 Processor at 400 MHz.

#### **Case**

- The unit must be able to withstand a minimum six-foot drop to concrete.
- The handheld must meet and exceed MIL-STD 810F standard, method 516.5, procedure IV for drop tests.

#### **Display**

- The handheld screen must be 3.5" (89mm) QVGA TFT transfective color LCD with backlighting. The size of the display characters must be selectable, allowing the use of larger characters that are easiest to read. The screen must have a minimum of 240 by 320 pixels (a total of 76,800 pixels) and is CGA compatible for both text and graphics.
- The manufacturer's specification on the contrast ratio on the LCD display must be 9:1 at 76° F (25° Celsius) and provide automatic contrast adjustment based on temperature which will give clear readings in extreme temperature. There must also be a manual contrast adjustment feature which will allow the user to adjust the contrast to his or her satisfaction.
- The display must have no degradation when exposed to storage temperatures of -40°C to +70°C (-40°F to 158°F) and operating temperature of -20°C to + 50°C (-4°F to +122°F).

#### **Keyboard**

- The keyboard must have independent large keys of silicone rubber with adequate separation for use with gloved hand.
- The keyboard must provide tactile feedback and be fully alphanumeric.
- There must be an audible beep indicating key has been fully depressed; there must also be an auto-repeat function on keys and a rapid response between keying and seeing results on the screen.
- The keyboard must be fully PC compatible and programmable.

#### **Battery**

- The battery capacity must be sufficient for a minimum of 8 hours of meter reading.
- The handheld must come with a power management system designed to conserve power.
- The handheld must come with an integrated intelligent fast charge capability that allows for full charge in 4 hours.
- Rechargeable Lithium Ion batteries shall be made with a technology that does not develop memory effect.
- The back-up battery must be a rechargeable Nickel Metal Hydride battery.

#### **Memory**

The handheld data collection device must include 64MB of DRAM and 128MB FLASH memory.

## Size

The handheld data collection device dimensions with RF HHIU must not be larger than:

- Length: 11.75" (298 mm)
- Width: 4.6" (117 mm)
- Height: 3.25" (83 mm)

## Weight

The unit's weight must be less than 2.4 lbs (1089g) with the battery pack installed.

## Environmental Characteristics

The handheld must include but not be limited to the following:

- The unit must operate in temperature range of -20°C to +50°C (-4° F to +122° F).
- The device shall be water resistant, capable of unlimited exposure to spray or splash (such as rain or snow).
- The device must be protected against an 8kV static discharge without loss of data.
- The unit must be resistant to various chemical products and must be sealed to keep out dust, humidity, and water.
- The device must be shock resistant exceeding IEC 68-2-32 method 1 (a 1-meter drop on concrete).
- The unit must be CE and FCC certified.

## Software Requirements

### Basic Functions

The handheld software must be easy to use and give the meter reader control over the route in searching for accounts, tagging accounts for later action, entering related notes and manually reading meters.

The handheld software must include entry of meter readings, identification numbers, up to four coded notes and 192 characters of free form notes for each account.

In addition, the handheld software shall include but shall not be limited to the following basic features:

- Defineable function keys.
- Allows manual or automatic entry of meter readings, ID numbers and note codes.
- Performs high/low test on readings.
- Date and time stamped to each reading.
- Identifies type of reading — manual keyed, probed or RF MIU.
- Must be able to read ARB® I - VI
- Performs unread meter search.
- Found meter processing for new accounts.
- Verifies meter ID numbers when entered with manual meter readings.
- Forward and reverse walk order allowed.
- Data search capability (Display, Notes and ID).
- Auto-Search for automatic reading of encoded meters.
- Displays the number of read and unread accounts on demand.
- Left-to-right, right-to-left or calculator entry of manual meter readings.
- Can capture multiple meter readings from a single ARB VI pad; i.e., two networked ARB VI encoders.
- Collect the information for the host to generate reports on leak detection, tamper detection, and backflow conditions when used with Neptune R900 encoder and E-Coder register.

## Sounds

- Successful meter readings will be confirmed by an audible tone.

## Communication

-Communications between the handheld and the PC software must be established using a cradle connected via an Ethernet 10 Base T Cradle with one additional option of an RS232 on Lemo connector, up to 230 kbps full duplex. The handheld must have an Ethernet connection for communication with the cradle. In addition, the following basic features must be included:

- A typical route of four to five hundred accounts could be loaded or unloaded in less than one minute and must be able to load 5000 accounts to one unit.
- Routes/books can be split at the PC level.
- Once loaded routes may be selected on the handheld.

**Charging / Communications Cradles**

- It will have the capability of recharging the handheld unit within 4 hours and also provide the communication port connection to the computer.
- The cradle will hold one handheld at a time and be capable of connecting in a series to accommodate additional units.
- The cradle will be capable of communicating with the host computer at 10 Mbps or an RS232 on Lemo connector up to 230 kpbs full duplex.
- Multiple handhelds must be able to be connected to the host computer.
- The charging units must carry the Underwriters Laboratory (UL) seal of approval.

**Probes**

- The handheld must be compatible with a wireless probe capable of reading Neptune ARB V, Neptune ProRead AutoDetect and the electronic solid state E- Coder register.
- The handheld must be compatible with the existing software, Equinox, and the Pawtucket Water Supply Board's transfer file used in these applications.

Group 6

Meters, Meter Couplings, Cable

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
1. Water Meter, Cold; w/ProRead AutoDetect Register per specification, Supply with leather washers (1/8" thick) for 5/8" thru 1" meters and 1-1/2" & 2" screw end meters, Supply with full face flange red rubber gaskets (1/8" thick) along with flange bolt & nut pack for all 1-1/2" & 2" flange end meters						
	6.1.1	5/8"	1500 ea	_____ /ea	_____	_____
	6.1.2	3/4"	45 ea	_____ /ea	_____	_____
	6.1.3	1"	90 ea	_____ /ea	_____	_____
	6.1.4	1-1/2" Screw End	45 ea	_____ /ea	_____	_____
	6.1.5	1-1/2" Flange End	75 ea	_____ /ea	_____	_____
	6.1.6	2" Screw End	45 ea	_____ /ea	_____	_____
	6.1.7	2" Flange End	90 ea	_____ /ea	_____	_____
2. Water Meter, Cold; w/Electronic E-Coder Register per specification, Supply with leather washers (1/8" thick) for 5/8" thru 1" meters and 1-1/2" & 2" screw end meters, Supply with full face flange red rubber gaskets (1/8" thick) along with flange bolt & nut pack for all 1-1/2" & 2" flange end meters						
	6.2.1	5/8"	200 ea	_____ /ea	_____	_____
	6.2.2	3/4"	30 ea	_____ /ea	_____	_____
	6.2.3	1"	30 ea	_____ /ea	_____	_____
	6.2.4	1-1/2" Screw End	30 ea	_____ /ea	_____	_____
	6.2.5	1-1/2" Flange End	30 ea	_____ /ea	_____	_____
	6.2.6	2" Screw End	30 ea	_____ /ea	_____	_____
	6.2.7	2" Flange End	60 ea	_____ /ea	_____	_____
3. Couplings, Water Meter, Cold; "No Lead" Brass with integral seal hole, Supply with leather washers (1/8" thick) for 5/8" thru 1" meters and 1-1/2" & 2" screw end meters, Supply with full face flange red rubber gaskets (1/8" thick) along with flange bolt & nut pack for all 1-1/2" & 2" flange end meters						
	6.3.1	5/8"	1800 ea	_____ /ea	_____	_____
	6.3.2	3/4"	120 ea	_____ /ea	_____	_____
	6.3.3	1"	90 ea	_____ /ea	_____	_____
	6.3.4	1-1/2" Screw End	60 ea	_____ /ea	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
	6.3.5	1-1/2" Flange End	60 ea	_____ /ea	_____	_____
	6.3.6	2" Screw End	60 ea	_____ /ea	_____	_____
	6.3.7	2" Flange End	60 ea	_____ /ea	_____	_____
4. Pro Read AutoDetect Meter Register per specification						
	6.4.1	5/8"	60 ea	_____ /ea	_____	_____
	6.4.2	3/4"	15 ea	_____ /ea	_____	_____
	6.4.3	1"	15 ea	_____ /ea	_____	_____
	6.4.4	1-1/2"	15 ea	_____ /ea	_____	_____
	6.4.5	2"	15 ea	_____ /ea	_____	_____
5. Electronic E-Coder Register per specification						
	6.5.1	5/8"	30 ea	_____ /ea	_____	_____
	6.5.2	3/4"	15 ea	_____ /ea	_____	_____
	6.5.3	1"	15 ea	_____ /ea	_____	_____
	6.5.4	1-1/2"	15 ea	_____ /ea	_____	_____
	6.5.5	2"	30 ea	_____ /ea	_____	_____
6. RF meter interface unit (MIU)						
	6.6.1		1,000 ea	_____ /ea	_____	_____
7. Direct Mount Kit for RF meter interface unit (MIU)						
	6.7.1		100 ea	_____ /ea	_____	_____
8. Cable, Cold Water Meter Register/Receptacle; 3 wire cable for interconnection between register and receptacle, to be furnished in 1000 ft rolls.						
	6.8.1		60 rolls	_____ /roll	_____	_____
9. Lead seals (No wire) 500 per bag						
	6.9.1	7/16"	30 bags	_____ /bag	_____	_____
10. Sealing Wire in 1000 foot rolls, 4 x 27 AWG bare copper soft						
	6.10.1		30 rolls	_____ /roll	_____	_____

<u>Description</u>	<u>Item No.</u>	<u>Size</u>	<u>Quantity (Unit)</u>	<u>Unit Price</u>	<u>Total Price</u>	<u>Meets or Exceeds (Explain)</u>
11. Leather Washers for 5/8" thru 1" water meter couplings, 1/8" thickness, 100 washers per bag						
	6.11.1	5/8"	60 bags	_____ /bag	_____	_____
	6.11.2	3/4"	15 bags	_____ /bag	_____	_____
	6.11.3	1"	15 bags	_____ /bag	_____	_____
12. Leather Washers for 1-1/2" & 2" screw end meter couplings, 1/8" thickness,						
	6.12.1	1-1/2"	100 ea	_____ /ea	_____	_____
	6.12.2	2"	100 ea	_____ /ea	_____	_____
13. Full Face Flange Red Rubber Gasket for 1-1/2" & 2" flange end meters, 1/8" thickness						
	6.13.1	1-1/2"	100 ea	_____ /ea	_____	_____
	6.13.2	2"	100 ea	_____ /ea	_____	_____
14. Flange Bolt and Nut Pack for 1-1/2" and 2" flange end meters, (four - 5/8" x 2-1/2" heavy hex head nuts & bolts, zinc plated)						
	6.14.1	1-1/2"	100 ea	_____ /ea	_____	_____
	6.14.2	2"	100 ea	_____ /ea	_____	_____

GROUP 6

Total Bid Price in Words \_\_\_\_\_

Total Bid Price in Figures \_\_\_\_\_

Delivery Time \_\_\_\_\_

Name of Bidder and Title (Type or Print) \_\_\_\_\_

Signature \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

Telephone Number and Extension \_\_\_\_\_

NOTE: The price bid shall be written in words and figures. In case of a discrepancy between writing and figures, the writing will prevail. Unit price will prevail if there is a discrepancy between the unit price and extended price. The bidder understands that the Water Supply Board reserves the right to reject any and or all bids to award the contract or contracts in the best interests of the Water Supply Board.

**ANTI-KICKBACK ACKNOWLEDGMENT**

**ALL BIDDERS/OFFERORS MUST ATTEST TO THE FOLLOWING:**

The vendor acknowledges, under the pains and penalties of perjury, that he/she has not been offered, paid, or solicited for any contribution or compensation, nor has he/she been granted a gift, gratuity, or other consideration, either directly or indirectly by any officer, employee or member of the governing body of the City of Pawtucket who exercises any functions or responsibilities in connection with either the award or execution of the project to which this contract pertains.

Further, the vendor acknowledges, under the pains and penalties of perjury, that he/she has not offered, paid, or solicited by way of any contribution or compensation, nor has he/she granted a gift, gratuity or other consideration either directly or indirectly to any officer, employee, or member of the governing body of the City of Pawtucket who exercises any functions or responsibilities in connection with either the award or execution of the project to which this project or contract pertains.

\_\_\_\_\_  
SIGNATURE OF OFFEROR

\_\_\_\_\_  
DATE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
COMPANY

Title of RFP or Bid:

Water Works Materials and Other Supplies

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# Appendix B

## CITY OF PAWTUCKET GENERAL TERMS AND CONDITIONS OF PURCHASE

### *Preamble*

The City of Pawtucket's Purchasing Office may, from time to time, make amendments to the General Terms and Conditions when the City of Pawtucket's Purchasing Agent determines that such amendments are in the best interest of the City of Pawtucket. Amendments shall be made available for public inspection at the Purchasing Office located in Pawtucket City Hall but shall not require formal public notice and hearing. Copies of the Terms and Conditions shall be provided to any individual or firm requesting them. The words "City of Pawtucket" when used, shall also mean the Pawtucket Water Supply Board acting through its Chairman.

### **CITY OF PAWTUCKET'S PURCHASING OFFICE GENERAL CONDITIONS OF PURCHASE**

All City of Pawtucket purchase orders, contracts, solicitations, delivery orders and service requests shall incorporate and be subject to the provisions of Rhode Island General Laws 8-15-4 and the City of Pawtucket purchasing rules and regulations adopted pursuant thereto, all other applicable provisions of the Rhode Island General Laws, the Pawtucket City Charter, specific requirements described in the Request or Contract, and the following General Conditions of Purchase:

1. GENERAL

All purchase orders, contracts, solicitations, delivery orders, and service requests are for specified goods and services, in accordance with express terms and conditions of purchase, as defined herein. For the purposes of this document, the terms "bidder" and "contractor" refer to any individual, firm, corporation, or other entity presenting a proposal indicating a desire to enter into contracts with the City of Pawtucket, or with whom a contract is executed by the City of Pawtucket's Purchasing Agent, and the term "contractor" shall have the same meaning as "vendor".

2. ENTIRE AGREEMENT

The City of Pawtucket's Purchase Order, or other City of Pawtucket contract endorsed by the City of Pawtucket Purchasing Office, shall constitute the entire and exclusive agreement between the City of Pawtucket and any contractor receiving an award. In the event any conflict between the bidder's standard terms of sale, these conditions or more specific provisions contained in the solicitation shall govern.

All communication between the City of Pawtucket and any contractor pertaining to any award or contract shall be accomplished in writing.

- a. Each proposal will be received with the understanding that the acceptance, in writing, by contract or Purchase Order by the City of Pawtucket Purchasing Agent of the offer to do work or to furnish any or all the materials, equipment, supplies or services described therein shall constitute a contract between the bidder and the City of Pawtucket. This shall bind the bidder on his part to furnish and deliver at the prices and in accordance with the conditions of said accepted proposal and detailed specifications and the City of Pawtucket on its part to order from such contractor (except in case of emergency) and to pay for at the agreed prices, all materials, equipment, supplies or services specified and delivered. A contract shall be deemed executory only to the extent of funds available for payment of the amounts shown on Purchase Orders issued by the City of Pawtucket to the contractors.
- b. No alterations or variations of the terms of the contract shall be valid or binding upon the City of Pawtucket unless submitted in writing and accepted by the City of Pawtucket Purchasing Agent. All orders and changes thereof must emanate from the City of Pawtucket Purchasing Office: no oral agreement or arrangement made by a contractor with a department or employee will be considered to be binding on the City of Pawtucket Purchasing Agent, and may be disregarded.
- c. Contracts will remain in force for the contract period specified or until all articles or services ordered before date of termination shall have been satisfactorily delivered or rendered and accepted and thereafter until all terms and conditions have been met, unless:
  - 1. terminated prior to expiration date by satisfactory delivery against orders of entire quantities, or
  - 2. extended upon written authorization of the City of Pawtucket Purchasing Agent and accepted by the contractor, to permit ordering of the unordered balances or additional quantities at the contract price and in accordance with the contract terms, or
  - 3. canceled by the City of Pawtucket in accordance with other provisions stated herein.

- d. It is mutually understood and agreed that the contractor shall not assign, transfer, convey, sublet or otherwise dispose of this contract or his right, title or interest therein, or his power to execute such contract, to any other person, company or corporation, without the previous consent, in writing, of the City of Pawtucket Purchasing Agent.
- e. If, subsequent to the submission of an offer or issuance of a purchase order or execution of a contract, the bidder or contractor shall merge with or be acquired by another entity, the contract may be terminated, except as a corporate resolution prepared by the contractor and the new entity ratifying acceptance of the original bid or contract terms, condition, and pricing is submitted to the City of Pawtucket Purchasing Office, and expressly accepted.
- f. The contractor or bidder further warrants by submission of an offer or acceptance of a purchase order or other contract that he has no knowledge at the time of such action of any outstanding and delinquent or otherwise unsettled debt owed by him to the City of Pawtucket, and agrees that later discovery by the City of Pawtucket Purchasing Agent that this warranty was given in spite of such knowledge, except where the matter is pending in hearing or from any appeal therefrom, shall form reasonable grounds for termination of the contract.

3. SUBCONTRACTS

No subcontracts or collateral agreements shall be permitted, except with the City of Pawtucket's express written consent. Upon request, contractors must submit to the City of Pawtucket Purchasing Office a list of all subcontractors to be employed in the performance of any Purchase Order or other contract arising from this Request.

4. RELATIONSHIP OF PARTIES

The contractor or bidder warrants, by submission of an offer or acceptance of a purchase order or other contract, that he is not an employee, agent, or servant of the City of Pawtucket, and that he is fully qualified and capable in all material regards to provide the specified goods and services. Nothing herein shall be construed as creating any contractual relationship or obligation between the City of Pawtucket and any sub-bidder, subcontractor, supplier, or employee of the contractor or offeror.

5. COSTS OF PREPARATION

All costs associated with the preparation, development, or submission of bids or other offers will be borne by the offeror. The City of Pawtucket will not reimburse any offeror for such costs.

6. SPECIFIED QUANTITY REQUIREMENT

Except where expressly specified to the contrary, all solicitations and contracts are predicated on a specified quantity of goods or services, or for a specified level of funding.

- a. The City of Pawtucket reserves the right to modify the quantity, scope of service, date of delivery or completion, or funding of any contract, with no penalty or charge, by written notice to the contractor, except where alternate terms have been expressly made a part of the contract.
- b. The City of Pawtucket shall not accept quantities in excess of the specified quantity except where the item is normally sold by weight (where sold by weight, the City of Pawtucket will not accept quantities greater than ten per cent [10%] of the specified quantity), or where the Request or Contract provides for awards for other than exact quantities.
- c. Purchase Orders or other contracts may be increased in quantity or extended in term without subsequent solicit with the mutual consent of the contractor and the City of Pawtucket, where determined by the City of Pawtucket Purchasing Agent to be in the City of Pawtucket's best interest.

7. TERM AND RENEWAL

Where offers have been requested or contracts awarded for terms exceeding periods of twelve (12) months, it is mutually understood and agreed that the City of Pawtucket's commitment is limited to a base term not to exceed twelve (12) months, subject to renewal annually at the City of Pawtucket's sole option for successive terms as otherwise described, except where expressly specified to the contrary. Purchase orders appearing to commit to obligations of funding or terms of performance may be executed for administrative convenience, but are otherwise subject to this provision, and in such cases the City of Pawtucket's renewal shall be deemed to be automatic, conditional on the continued availability of appropriated funds for the purpose, except as written notice of the City of Pawtucket's intent not to renew is served.

8. **DELIVERY/COMPLETION**  
Delivery must be made as ordered and/or projects completed in accordance with the proposal. If delivery qualifications do not appear on the bidder's proposal, it will be interpreted to mean that goods are in stock and that shipment will be made within seven (7) calendar days. If the project completion date is not specified in the proposal, the date shall be determined by the City of Pawtucket Purchasing Agent. The decision of the City of Pawtucket Purchasing Agent, as to reasonable compliance with the delivery terms, and date of completion shall be final. Burden of proof of delay in receipt of order shall rest with the contractor. No delivery charges shall be added to invoices except when authorized on the Purchase Order.
9. **FOREIGN CORPORATIONS**  
In accordance with Title 7 Chapter 1.1 ("Business Corporations") of the General Laws of Rhode Island, no foreign corporation shall have the right to transact business in this state until it shall have procured a certificate of authority so to do from the Secretary of State.
10. **PRICING**  
All pricing offered or extended to the City of Pawtucket is considered to be firm and fixed unless expressly provided for to the contrary. All prices shall be quoted F.O.B. Destination with freight costs included in the unit cost to be paid by the City of Pawtucket, except, where the Request or Contract permits, offers reflecting F.O.B. Shipping Point will be considered, and freight costs may then be prepaid and added to the invoice.
11. **COLLUSION**  
Bidder or contractor warrants that he has not, directly or indirectly, entered into any agree participated in any collusion or otherwise taken any action in restraint of full competitive bidding. In special circumstances, an executed affidavit will be required as a part of the bid.
12. **PROHIBITION AGAINST CONTINGENT FEES AND GRATUITIES**  
Bidder or contractor warrants that he has not paid, and agrees not to pay, any bonus, commission, fee, or gratuity to any employee or official of the City of Pawtucket for the purpose of obtaining any contract or award issued by the City of Pawtucket. Bidder or contractor further warrants that no commission or other payment has been or will be received from or paid to any third party contingent on the award of any contract by the City of Pawtucket, except as shall have been expressly communicated to the City of Pawtucket Purchasing Agent in writing prior to acceptance of the contract or award in question. Subsequent discovery by the City of Pawtucket of non-compliance with these provisions shall constitute sufficient cause for immediate termination of all outstanding contracts and suspension or debarment of the bidder(s) or contractor(s) involved.
13. **AWARDS**  
Awards will be made with reasonable promptness and by written notice to the successful bidder (only); bids are considered to be irrevocable for a period of ninety (90) days following the bid opening unless expressly provided for to the contrary in the Request, and may not be withdrawn during this period without the express permission of the City of Pawtucket Purchasing Agent.
- a. Awards shall be made to the bidder(s) whose offer(s) constitutes the lowest responsive price offer (or lowest responsive price offer on an evaluated basis) for the item(s) in question or for the Request as a whole, at the option of the City of Pawtucket. The City of Pawtucket reserves the right to determine those offers which are responsive to the Request, or which otherwise serve its best interests.
  - b. The City of Pawtucket reserves the right, before making award, to initiate investigations as to whether or not the materials, equipment, supplies, qualifications or facilities offered by the bidder meet the requirements set forth in the proposal and specification, and are ample and sufficient to insure the proper performance of the contract in the event of award. If upon such examination it is found that the conditions of the proposal are not complied with or that articles or equipment proposed to be furnished do not meet the requirements called for, or that the qualifications or facilities are not satisfactory, the City of Pawtucket may reject such a bid. It is distinctly understood, however, that nothing in the foregoing shall mean or imply that it is obligatory upon the City of Pawtucket to make any examinations before awarding a contract; and it is further understood that if such examination is made, it in no way relieves the contractor from fulfilling all requirements and conditions of the contract.
  - c. Qualified or conditional offers which impose limitations of the bidder's liability or modify the requirements of the bid, offers for alternate specifications, or which are made subject to different terms and conditions than those specified by the City of Pawtucket may, at the option of the City of Pawtucket, be

1. rejected as being non-responsive, or
2. set aside in favor of the City of Pawtucket's terms and conditions (with the consent of the bidder), or
3. accepted, where the City of Pawtucket Purchasing Agent determines that such acceptance best serves the interests of the City of Pawtucket.

Acceptance or rejection of alternate or counter-offers by the City of Pawtucket shall not constitute a precedent which shall be considered to be binding on successive solicitations or procurements.

- d. Bids submitted in pencil, or which do not bear an original signature, in ink, by an owner or authorized agent thereof, will not be accepted.
- e. Bids must be extended in the unit of measure specified in the Request. In the event of any discrepancy between unit prices and their extensions, the unit price will govern.
- f. The City of Pawtucket Purchasing Agent reserves the right to determine the responsibility of any bidder for a particular procurement.
- g. The City of Pawtucket Purchasing Agent reserves the right to reject any and all bids in whole or in part, to waive technical defects, irregularities, and omissions, and to give consideration to past performance of the offerors where, in his judgment the best interests of the City of Pawtucket will be served by so doing.
- h. The City of Pawtucket Purchasing Agent reserves the right to make awards by items, group of items or on the total low bid for all the items specified as indicated in the detailed specification, unless the bidder specifically indicates otherwise in his bid.
- i. Preference may be given to bids on products raised or manufactured in the City of Pawtucket or State of Rhode Island, other things being equal.
- j. The impact of discounted payment terms shall not be considered in evaluating responses to any Request.
- k. The City of Pawtucket Purchasing Agent reserves the right to act in the City of Pawtucket's best interests regarding awards caused by clerical errors by the City of Pawtucket Purchasing Office.

#### 14. SUSPENSION AND DEBARMENT

The City of Pawtucket Purchasing Agent may suspend or debar any vendor or potential bidder, for good cause shown:

- a. A debarment or suspension against a part of a corporate entity constitutes debarment or suspension of all of its divisions and all other organizational elements, except where the action has been specifically limited in scope and application, and may include all known corporate affiliates of a contractor, when such offense or act occurred in connection with the affiliate's performance of duties for or on behalf of the contractor, or with the knowledge, approval, or acquiescence of the contractor or one or more of its principals or directors (or where the contractor otherwise participated in, knew of, or had reason to know of the acts).
- b. The fraudulent, criminal or other serious improper conduct of any officer, director, shareholder, partner, employee, or any other individual associated with a contractor may be imputed to the contractor when the conduct occurred in connection with the individual's performance of duties for or on behalf of the contractor, or with the contractor's knowledge, approval or acquiescence. The contractor's acceptance of benefits derived from the conduct shall be evidence of such knowledge, approval, or acquiescence.
- c. A vendor or contractor who knowingly engages as a subcontractor for a contract awarded by the City of Pawtucket to a vendor or contractor then under a ruling of suspension or debarment by the City of Pawtucket shall be subject to disallowance of cost, annulment or termination of award, issuance of a stop work order, or debarment or suspension, as may be judged to be appropriate by the City of Pawtucket's Purchasing Agent.

#### 15. PUBLIC RECORDS

Contractors and bidders are advised that certain documents, correspondence, and other submissions to the City of Pawtucket's Purchasing Office may be voluntarily made public by the City of Pawtucket absent specific notice that portions of such submittals may contain confidential or proprietary information, such that public access to those items should be withheld.

#### 16. PRODUCT EVALUATION

In all specifications, the words "or equal" are understood after each article when manufacturer's name or catalog are referenced. If bidding on items other than those specified, the bidder must, in every instance, give the trade designation of the article, manufacturer's name and detailed specifications of the item the bidder proposes to furnish; otherwise, the bid will be construed as submitted on the identical commodity described in the detailed specifications. The City of Pawtucket's Purchasing Agent reserves the right to determine whether or not the item submitted is the approved equal the detailed specifications.

- a. Any objections to specifications must be filed by a bidder, in writing, with the City of Pawtucket's Purchasing Agent at least 96 hours before the time of bid opening to enable the City of Pawtucket's Purchasing Office to properly investigate the objections.
- b. All standards are minimum standards except as otherwise provided for in the Request or Contract.
- c. Samples must be submitted to the City of Pawtucket's Purchasing Office in accordance with the terms of the proposals and detailed specifications. Samples must be furnished free of charge and must be accompanied by descriptive memorandum invoices indicating whether or not the bidder desires their return and specifying the address to which they are to be returned (at the bidder's risk and expense), provided they have not been used or made useless by tests; and absent instructions, the samples shall be considered to be abandoned. Award samples may be held for comparison with deliveries.
- d. All samples submitted are subject to test by any laboratory the City of Pawtucket's Purchasing Agent may designate.

17. PRODUCT ACCEPTANCE

All merchandise offered or otherwise provided shall be new, of prime manufacture, and of first quality unless otherwise specified by the City of Pawtucket. The City of Pawtucket reserves the right to reject all nonconforming goods, and to cause their return for credit or replacement, at the City of Pawtucket's option. Contract deliverables specified for procurements of services shall be construed to be work products, and subject to the provisions of this section.

- a. Failure by the City of Pawtucket to discover latent defect(s) or concealed damage or non-conformance shall not foreclose the City of Pawtucket's right to subsequently reject the goods in question.
- b. Formal or informal acceptance by the City of Pawtucket of non-conforming goods shall not constitute a precedent for successive receipts or procurements.
- c. Where the contractor fails to promptly cure the defect or replace the goods, the City of Pawtucket reserves the right to cancel the Purchase Order, contract with a different contractor, and to invoice the original contractor for any differential in price over the original contract price.
- d. When materials, equipment or supplies are rejected, the same must be removed by the contractor from the premises of the City of Pawtucket within forty-eight (48) hours of notification. Rejected items left longer than two days will be regarded as abandoned and the City of Pawtucket shall have the right to dispose of them as its own property.

18. PRODUCT WARRANTIES

All product or service warranties normally offered by the contractor or bidder shall accrue to the City of Pawtucket's benefit, in addition to any special requirements which may be imposed by the City of Pawtucket. Every unit delivered must be guaranteed against faulty material and workmanship for a period of one year unless otherwise specified, and the City of Pawtucket may, in the event of failure, order its replacement, repair, or return for full credit, at its sole option.

19. PAYMENT

Unless otherwise provided for by the Request or Contract, payment shall not be made until delivery has been made, or services performed, in full, and accepted. Payment shall not be due prior to thirty (30) working days following the latest of completion, acceptance, or the rendering of a properly submitted invoice.

- a. Payment terms other than the foregoing may be rejected as being nonresponsive.
- b. No partial shipments, or partial completion will be accepted, unless provided for by the Request or Contract.
- c. Where a question of quality is involved, or failure to complete a project by the specified due date, payment in whole or part against which to charge back any adjustment required, shall be withheld at the direction of the City of Pawtucket Purchasing Agent. In the event a cash discount is stipulated, the withholding of payments, as herein described, will not deprive the City of Pawtucket from taking such discount.
- d. Payments for used portion of inferior delivery or late delivery will be made by the City of Pawtucket on an adjusted price basis.
- e. Payments on contracts under architectural or engineering supervision must be accompanied by a Certificate of Payment and Statement of Account signed by the architect or engineer and submitted to the City of Pawtucket Purchasing Office for approval.

20. THIRD PARTY PAYMENTS

The City of Pawtucket recognizes no assigned or collateral rights to any purchase agreement except as may be expressly provided for in the bid or contract documents, and will not accede to any request for third party or joint payment(s), except as provided for in specific orders by a court of competent jurisdiction, or by express written

permission of the City of Pawtucket's Purchasing Agent. Where an offer is contingent upon such payment(s), the offeror is obligated to serve affirmative notice in his bid submission.

21. SET-OFF AGAINST PAYMENTS

Payments due the contractor may be subject to reduction equal to the amount of unpaid and delinquent state taxes (or other just debt owed to the State), except where notice of delinquency has not been served or while the matter is pending in hearing or from any appeal therefrom.

22. CLAIMS

Any claim against a contractor may be deducted by the City of Pawtucket from any money due him in the same or other transactions. If no deduction is made in such fashion, the contractor shall pay the City of Pawtucket the amount of such claim on demand. Submission of a voucher and payment, thereof, by the City of Pawtucket shall not preclude the City of Pawtucket's Purchasing Agent from demanding a price adjustment in any case when the commodity delivered is later found to deviate from the specifications and proposal.

- a. The City of Pawtucket's Purchasing Agent may assess dollar damages against a vendor or contractor determined to be non-performing or otherwise in default of their contractual obligations equal to the cost of remedy incurred by the City of Pawtucket, and make payment of such damages a condition for consideration for any subsequent award. Failure by the vendor or contractor to pay such damages shall constitute just cause for disqualification and rejection, suspension, or debarment.

23. CERTIFICATION OF FUNDING

The Director of Finance shall provide certification as to the availability of funds to support the procurement for the current fiscal year ending June 30th only. Where delivery or service requirements extend beyond the end of the current fiscal year, such extensions are subject to both the availability of appropriated funds and a determination of continued need.

24. UNUSED BALANCES

Unless otherwise specified, all unused Blanket Order quantities and/or unexpended funds shall be automatically canceled on the expiration of the specified term. Similarly, for orders encompassing more than one fiscal year, unexpended balances of funding allotted for an individual fiscal year may be liquidated at the close of that fiscal year, at the City of Pawtucket's sole option.

25. MINORITY BUSINESS ENTERPRISES

Pursuant to the provisions of Title 37 Chapter 14.1 of the General Laws, the City of Pawtucket reserves the right to apply additional consideration to offers, and to direct awards to bidders other than the responsive bid representing the lowest price where:

- a. the offer is fully responsive to the terms and conditions of the Request, and
- b. the price offer is determined to be within a competitive range (not to exceed 5% higher than the lowest responsive price offer) for the product or service, and
- c. the firm making the offer has been certified by the R.I. Department of Economic Development to be a small business concern meeting the criteria established to be considered a Minority Business Enterprise.

26. PREVAILING WAGE REQUIREMENT

In accordance with Title 37 Chapter 13 of the General Laws of Rhode Island, payment of the general prevailing rate of per diem wages and the general prevailing rate for regular, overtime and other working conditions existing in the locality for each craft, mechanic, teamster, or type of workman needed to execute this work is a requirement for both contractors and subcontractors for all public works.

27. EQUAL OPPORTUNITY COMPLIANCE, HANDICAPPED ACCESS AND AFFIRMATIVE ACTION

Contractors of the City of Pawtucket are required to demonstrate the same commitment to equal opportunity as prevails under federal contracts controlled by Federal Executive Orders 11246, 11625, 11375 and 11830, and Title 28 Chapter 5.1 of the General Laws of Rhode Island.

Affirmative action plans shall be submitted by the contractor for review by the State Equal Opportunity Office. A contractor's failure to abide by the rules, regulations, contract terms and compliance reporting provisions as established shall be grounds for forfeiture and penalties as shall be established, including but not limited to suspension.

28. DRUG-FREE WORKPLACE REQUIREMENT

Contractors who do business with the City of Pawtucket and their employees shall abide by the State's drug-free workplace policy and the contractor shall so attest by signing a certificate of compliance.

29. TAXES

The City of Pawtucket is exempt from payment of excise, transportation and sales tax imposed by the Federal or State Government. These taxes should not be included in the proposal price. Exemption Certificates will be furnished upon request.

30. INSURANCE

All construction contractors, independent tradesmen, or firms providing any type of maintenance, repair, or other type of service to be performed on City of Pawtucket premises, buildings, or grounds are required to purchase and maintain coverage with a company or companies licensed to do business in the state as follows:

- a. Comprehensive General Liability Insurance  
Combined Single Limit not less than \$1,000,000 each occurrence for bodily injury and property damage.
  - 1) Independent Contractors;
  - 2) Contractual - including construction hold harmless and other types of contracts or agreements in effect for insured operations;
  - 3) Products and Completed Operations;  
Personal Injury (with employee exclusion deleted)
  - 4) Personal Injury (with employee exclusion deleted)
  
- b. Automobile Liability Insurance  
Combined Single Limit not less than \$1,000,000 each occurrence for Bodily Injury and Property Damage including non-owned and/or hired vehicle coverage.

OR

Bodily Injury, per person, \$500,000/ Bodily Injury, \$1,000,000 per accident/Property Damage, \$500,000 per accident including non-owned and/or hired vehicle coverage.

- c. Workers' Compensation Insurance  
As required by the General Laws of Rhode Island. Employers liability \$500,000.

The City of Pawtucket and the PWSB shall be named as an additional insured on the vendor's Comprehensive General Liability Policy and Automobile Liability Policy.

The City of Pawtucket's Purchasing Agent reserves the right to consider and accept alternate forms and plans of insurance or to require additional or more extensive coverage for any individual requirement. Successful bidders shall provide certificates of coverage, reflecting the City of Pawtucket and the PWSB named as additional insured, to the City of Pawtucket Purchasing Office, forty-eight (48) hours prior to the commencement of work, as a condition of award. Failure to comply with this provision shall result in rejection of the offeror's bid.

31. BID SURETY

When requested, a bidder must furnish a Bid Bond or Certified Check for 10% of his bid, or for the stated amount shown in the solicitation. Bid Bonds must be executed by a reliable Surety Company authorized to do business in the State of Rhode Island. Failure to provide Bid Surety with bid may be cause for rejection of bid. The Bid Surety of any three bidders in contention will be held until an award has been made according to the specifications of each proposal. All others will be returned by mail within 48 hours following the bid opening. Upon award of a contract, the remaining sureties will be returned by mail unless instructed to do otherwise.

32. PERFORMANCE AND LABOR AND PAYMENT BONDS

A performance bond and labor and payment bond of up to 100% of an award may be required by the City of Pawtucket's Purchasing Agent. Bonds must meet the following requirements:

- a. Corporation: The Bond must be signed by an official of the corporation above his/her official title and the corporate seal must be affixed over his/her signature.
- b. Firm or Partnership: The Bond must be signed by all of the partners and must indicate that they are " Doing Business As (name of firm)."

- c. Individual: The Bond must be signed by the individual owning the business and indicate "Owner."
- d. The Surety Company executing the Bond must be licensed to do business in the State of Rhode Island or Bond must be countersigned by a company so licensed.
- e. The Bond must be signed by an official of the Surety Company and the corporate seal must be affixed over his signature.
- f. Signatures of two witnesses for both the principal and the Surety must appear on the Bond.
- g. A Power of Attorney for the official signing of the Bond for the Surety Company must be submitted with the Bond.

### 33. SUSPENSION, DEFAULT AND TERMINATION

#### a. Suspension of a Contract by the City of Pawtucket

The City of Pawtucket reserves the right at any time and for any reason to suspend all or part of this contract, for a reasonable period, not to exceed sixty days, unless the parties agree to a longer period. The City of Pawtucket shall provide the contractor with written notice of the suspension order signed by the Purchasing Agent or his or her designee, which shall set forth the date upon which the suspension shall take effect, the date of its expiration, and all applicable instructions. Upon receipt of said order, the contractor shall immediately comply with the order and suspend all work under this contract as specified in the order. The contractor shall take all reasonable steps to mitigate costs and adverse impact to the work specified in the contract during the suspension period. Before the order expires, the City of Pawtucket shall either:

- 1. cancel the suspension order;
- 2. extend the suspension order for a specified time period not to exceed thirty (30) days; or
- 3. terminate the contract as provided herein.

The contractor shall resume performance once a suspension order issued under this section is canceled or expires. If as a result of the suspension of performance, there is a financial or schedule impact upon the contract, an appropriate adjustment may be made by, or with the approval of, the City of Pawtucket's Purchasing Agent. Any adjustment shall be set forth in writing. After a suspension order has been canceled or expires, the contractor shall provide any request for adjustment to the City of Pawtucket's Purchasing Agent within thirty (30) days after resuming work performance.

#### b. Termination of a Contract by the City of Pawtucket

##### 1. Termination for Default or Nonperformance

If, for any reason, the contractor breaches the contract by failing to satisfactorily fulfill or perform any obligations, promises, terms, or conditions, and having been given reasonable notice of and opportunity to cure such default, fails to take satisfactory corrective action within the time specified by the City of Pawtucket, the City of Pawtucket may terminate the contract, in whole or in part, the termination of all outstanding contracts or sub-contracts held by the contractor, and the suspension or debarment of the contractor from future procurements by giving written notice to the contractor specifying the date for termination. The City of Pawtucket shall endeavor to provide such notice at least seven (7) calendar days before the effective date of the termination.

A contractor who fails to commence within the time specified or complete an award made for repairs, alterations, construction, or any other service will be considered in default of contract. If contractor consistently fails to deliver quantities or otherwise perform as specified, the City of Pawtucket's Purchasing Agent reserves the right to terminate the contract and contract for completion of the work with another contractor and seek recourse from the defaulting contractor or his surety. In the event of a termination for default or nonperformance, in whole or in part, the City of Pawtucket may procure similar goods or services in a manner and upon terms it deems appropriate, and the contractor shall be liable for the excess costs incurred by the City of Pawtucket as a result of the contractor's default. The contractor, or its surety, agrees to promptly reimburse the City of Pawtucket for the excess costs, but shall have no claim to the difference should the replacement cost be less.

##### 2. Termination Without Cause

The City of Pawtucket may terminate the contract in whole or in part without cause at any time by giving written notice to the contractor of such termination at least thirty (30) days before the effective

date of such termination. The notice shall specify the part(s) of the contract being terminated and the effective termination date.

Within thirty (30) days of the effective date of the termination of the contract the contractor shall compile and submit to the City of Pawtucket an accounting of the work performed up to the date of termination. The City of Pawtucket may consider the following claims in determining reasonable compensation owed to the contractor for work performed up to the date of termination:

- a. contract prices for goods or services accepted under the contract;
- b. costs incurred in preparing to perform and performing the terminated portion of the contract;  
or
- c. any other reasonable costs incurred by the contractor as a result of the termination.

The total sum to be paid to the contractor shall not exceed the total contract price, less any payments previously made to the contractor, the proceeds from any sales of goods or manufacturing materials, and the contract price for work not terminated.

### 3. Contractor's Obligations in the Event of Termination

If the contract is terminated for any reason, or expires pursuant to its terms, the contractor shall transfer and deliver to the City of Pawtucket in the manner and to the extent directed by the City of Pawtucket:

- a. all finished or unfinished material prepared by the contractor; and
- b. all material, if any, provided to the contractor by the City of Pawtucket.

For the purposes of the contract, "material" shall include, but is not limited to, goods, supplies, parts, tools, machinery, equipment, furniture, fixtures, information, data, reports, summaries, tables, maps, charts, photographs, studies, recommendations, files, audiotapes, videotapes, records, keys, security badges, and documents.

If the contract is terminated for cause, the contractor shall not be relieved of liability to the City of Pawtucket for damages sustained because of any breach by the contractor. In such event, the City of Pawtucket may retain any amounts which may be due and owing to the contractor until such time as the exact amount of damages due the City of Pawtucket from the contractor has been determined by the City of Pawtucket Purchasing Agent. The City of Pawtucket may also set off any damages so determined against the amounts retained.

Upon termination of the contract, the contractor shall stop performance on the date specified, terminate any outstanding orders and subcontracts applicable to the terminated portion of the contract, and shall incur no further commitments or obligations in connection with the terminated performance. The contractor shall settle all liabilities and claims arising out of the termination of subcontracts and order generating from the terminated performance. The City of Pawtucket may direct the contractor to assign the contractor's right, title and interest under terminated orders or subcontracts to the City of Pawtucket or a third party.

Terminations of Purchase Order Contracts or Master Pricing Agreements shall require the signature of the City of Pawtucket Purchasing Agent or his designee. Notice of termination by either party shall be submitted in writing to the other party in accordance with the termination clause of the contract, or where no specific termination clause is included, written notice shall be provided no later than thirty (30) days before the expiration of the contract.

## 34. INDEMNITY

The contractor guarantees:

- a. To save the City of Pawtucket, its agents and employees, harmless from any liability imposed upon the City of Pawtucket arising from the negligence, either active or passive, of the contractor, as well as for the use of any copyrighted or uncopied composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of the contract of which the contractor is not the patentee, assignee or licensee.
- b. To pay for all permits, licenses and fees and give all notices and comply with all laws, ordinances, rules and regulations of the City of Pawtucket and of the State of Rhode Island.
- c. That the equipment offered is standard new equipment, latest model of regular stock product with all parts regularly used with the type of equipment offered; also, that no attachment or part has been substituted or applied contrary to manufacturer's recommendations and standard practice.

35. CONTRACTOR'S OBLIGATIONS

In addition to the specific requirements of the contract, construction and building repair contractors bear the following standard responsibilities:

- a. To furnish adequate protection from damage for all work and to repair damages of any kind, for which he or his workmen are responsible, to the building or equipment, to his own work, or to the work of other contractors;
- b. The contractor, its subcontractor(s) and their employees and/or agents, shall protect and preserve property in the contractor or subcontractor's possessions in which the City of Pawtucket has an interest, and any and all materials provided to the contractor or subcontractor by the City of Pawtucket;
- c. To clear and remove all debris and rubbish resulting from his work from time to time, as directed or required, a completion of the work leave the premises in a neat unobstructed condition, broom clean, and in satisfactory order and repair;
- d. To store equipment, supplies, and material at the site only upon approval by the City of Pawtucket, and at his own risk;
- e. To perform all work so as to cause the least inconvenience to the City of Pawtucket, and with proper consideration for the rights of other contractors and workmen;
- f. To acquaint themselves with conditions to be found at the site, and to assume responsibility for the appropriate dispatching of equipment and supervision of his employees during the conduct of the work;
- g. To ensure that his employees are instructed with respect to special regulations, policies, and procedures in effect for any City of Pawtucket facility or site, and that they comply with such rules, including but not limited to security policies or practices and/or criminal background checks for any employees and/or subcontractors;
- h. The contractor shall ensure that its employees or agents are experienced and fully qualified to engage in the activities and services required under the contract;
- i. The contractor shall ensure that at all times while services are being performed under this contract at least one of its employees or agents on the premises has a good command of the English language and can effectively communicate with the City of Pawtucket and its staff;
- j. The contractor and contractor's employees or agents shall comply with all applicable licensing and operating requirements required by federal or state law and shall meet accreditation and other generally accepted standards of quality in the applicable field of activity;
- k. The contractor shall secure and retain all employee-related insurance coverage for its employees and agents as required by law; and
- l. The contractor, subcontractor, and his or her employees and agents shall not disclose any confidential information of the City of Pawtucket to a third party. Confidential information means:
  - (1) any information of a sensitive or proprietary nature, whether or not specially identified as confidential or proprietary; or
  - (2) any information about the City of Pawtucket gained during the performance of a contract that is not already lawfully in the public domain.

36. FORCE MAJEURE

All orders shall be filled by the contractor with reasonable promptness, but the contractor shall not be held responsible for any losses resulting if the fulfillment of the terms of the contract shall be delayed or prevented by wars, acts of public enemies, strikes, fires, floods, acts of God, or for any other acts not within the control of the contractor and which by the exercise of reasonable diligence, the contractor is unable to prevent.