



Town of Hanover
Department of Public Works
40 Pond Street
Hanover, Massachusetts 02339-1693
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Field Operations

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Deputy Superintendent
Water Operations

INVITATION TO BID

The Town of Hanover through its Department of Public Works will receive sealed bids from responsible and responsive parties for materials, supplies, and services for the period July 1, 2020 through June 30, 2021 for the following items in the quantities as indicated on the proposal forms and bid specifications:

Material/Supply Contracts:

- Item 1 Water Meters and Reading Equipment
- Item 2A Water Treatment Chemicals: Commercial Liquid Aluminum Sulfate
- Item 2B Water Treatment Chemicals: Liquid Ammonium Sulfate
- Item 2C Water Treatment Chemicals: Potassium Permanganate
- Item 2D Water Treatment Chemicals: Potassium Hydroxide
- Item 2E Water Treatment Chemicals: Sodium Hypochlorite Bleach 12%-15%
- Item 2F Water Treatment Chemicals: Hydrated Lime
- Item 3 Water Distribution Materials and Supplies
- Item 4A Bulk Highway Materials: Stone Dust/Stone Screenings
- Item 4B Bulk Highway Materials: Pea Stone/Crushed Stone
- Item 4C Bulk Highway Materials: Sand Borrow
- Item 4D Bulk Highway Materials: Loam Borrow
- Item 4E Bulk Highway Materials: Reclaimed Asphalt Borrow

Service Contracts:

- Item 5 Hauling and Disposal of Construction and Demolition Debris and Bulky Furniture
- Item 6 Equipment Rental with and without Operator
- Item 7 Catch Basin Cleaning
- Item 8 Trash Barrel Service
- Item 9 Pavement Markings

Sealed bids properly marked as identified in the bid specifications shall be accepted at the office of the Hanover Department of Public Works, 40 Pond Street, Hanover MA 02339 on the approved bid forms until 2:00 pm local time on May 28, 2020 at which time they will be opened and read aloud. All bidders must complete and submit the attached Non-Collusion Statement, Bidder's Certification Regarding Payment of Prevailing Wages (where indicated in the bid specification), 5% Bid Bond (where indicated in the bid specification), Tax Compliance Certificate, and Bidder's Qualification Form. Prequalification from MassDOT for Item 9: Pavement Markings is required.

Specifications and proposal forms may viewed and/or downloaded from the Hanover DPW website, <https://www.hanover-ma.gov/public-works/pages/open-bids-and-bid-results>. Documents will be available after 12:00 PM on May 6, 2020. Hardcopies of bid packages can be made available at the Hanover Department Works with an advance request through 781-826-3189.

All materials will meet all applicable standards as identified in the respective bid specifications including those of the Massachusetts Department of Transportation (MassDOT) and American Water Works Association.

All bids must be submitted on the bid forms supplied. All bid forms must be either typewritten or written in ink. All signatures must be in ink.

The Town of Hanover reserves the right to reject any or all bids should it be deemed in the best interest of the Town to do so.

DEPUTY SUPERINTENDENT OF PUBLIC WORKS

Kurt P. Kelley

Town of Hanover – Department of Public Works
Specifications For Annual Bids to Furnish Water Distribution
Materials and Supplies

I. Invitation to Bid

1. The Town of Hanover acting through its Director of Public Works is accepting sealed bids from responsible and responsive parties for the furnishing of water distribution materials and supplies in quantities as estimated on the attached bid sheet, more or less, as ordered, to the Town of Hanover, in accordance with the following specification during the period of July 1, 2020 through June 30, 2021.
2. Sealed bids marked on the outside of the envelope “Bid for Water Distribution Materials and Supplies” shall be accepted at the office of the Hanover Department of Public Works, 40 Pond Street, Hanover MA 02339 on the approved bid forms until 2:00 local time on May 28, 2020 at which time they will be opened and read aloud. All bidders must complete and submit the attached Non-Collusion Statement, Tax Compliance Certificate, and the Bidder's Qualification Form. All bid forms must be either typewritten or written in ink. All signatures must be in ink.
3. Copies of this bid package may be viewed and/or download from the Hanover DPW website at <https://www.hanover-ma.gov/public-works/pages/open-bids-and-bid-results>. Documents will be available after 12:00 PM on May 6, 2020. Hardcopies of bid packages can be made available at the Hanover Department Works with an advance request through 781-826-3189.
4. The Town of Hanover Department of Public Works reserves the right to purchase only the quantities required by the Department.
5. The Town of Hanover reserves the right to reject any or all bids should it be deemed in the best interest of the Town to do so.

II. Material Specification

1. Item #3-1: 6” OR LARGER GATE VALVES

A. Materials

1. Furnish in compliance with the specifications, 6" or larger gate valves as described in the following specification
2. Individual estimated quantities are itemized on the bid form

B. Gate Valves, Resilient Seat with Gland

1. Gate Valves shall be iron body, bronze mounted, resilient seated type with mechanical joint ends, interior and exterior ferrous surfaces shall be epoxy coated, iron disc with epoxy coating and replaceable steel reinforced rubber seat.
2. Valves are to have double O-ring seal stuffing box and a non-rising stem. Valves shall have a 2-inch operating nut and shall open left.
3. Valves shall have mechanical joint ends.
4. The valves shall be designed for 200 psi working pressure and 400 psi test pressure and conform to the latest AWWA Standard C-509.

5. Valves shall be as manufactured by Mueller Inc., # A-2360-23., or approved equal.

2. Item #3-2 MUELLER SUPER CENTURION 250 FIRE HYDRANT

A. Materials

1. Furnish fire hydrants in compliance with the specification in quantities as ordered.
2. Individual estimated quantities are itemized on the bid form.

B. Fire Hydrants

1. All fire hydrants shall comply in all respects to the latest AWWA Standard C-502 and the following design standards.
2. Fire hydrants shall be of the compression type, closing with the line pressure and have a 5 1/4 " valve opening.
3. The hydrant shall be equipped with two 2 1/2" hose nozzles and one 4 1/2" steamer nozzle, National Standard Threads, with 1 1/2" pentagonal nuts.
4. The depth of bury shall be 5' - 5 1/2'.

5. Design Features

a) The operating nut shall be a one-piece bronze casting with a cast iron weather shield. The operating nut to be a NS, measure 1 1/2 to flat with minimum height of one inch. Pressure seals or dirt seals making contact with the operating nut shall be protected from changing climatic conditions by the weather shield attached to the operating nut in an allowed manner. The thrust collar will be an integral cast part of the operating nut above which will be fitted an anti-friction device. The hydrant shall open left.

b) All threaded and metal to metal bearing surfaces in the bonnet shall be sealed away from the line pressure by no less than two "O" Rings. The first of which will act as a wiper and dirt seal, the other as a pressure seal.

c) The upper barrel shall include two hose nozzles and one pumper nozzle located on the same plane, with the center line of the steamer nozzle at least 18" from the ground line mark on the lower barrel.

d) The hose and pumper nozzle size and threading shall be the same as those in the existing system and locked in place by a stainless steel pin or screw. In the case of threaded construction "O" rings will be used as pressure seals.

e) Hydrant to be dry top design with factory lubricated operating mechanism with provisions to field check for the need of lubrication and an external means to lubricate the operating mechanism without removal of bonnet. Parts to be lubricated shall include anti-friction device, thrust collar, stem threads, bronze stem sleeve and stem pressure seal. Type of lubricant shall be oil suitable for a temperature range of -40°F to +150°F.

f) Upper and lower barrel flanges (except those designed to break on traffic impact) are to be integrally cast. Wall thickness of upper and lower barrels to be no less than those called for by the latest AWWA Standard C-502 under Table II (Statically Cast Iron) Ductile iron for lower barrel construction is not an acceptable material.

g) That part of the top operating stem which passes through the bonnet "O" Rings will be encased in brass with a rubber "O" Ring seal between the stem surface and the brass sleeve near the lower end of the sleeve.

h) The union between the upper and lower barrels shall be made by a traffic safety device such as a two-part safety flange, four-part segmental coupling, or breakable lugs in combination with breakable bolts. The design will permit rotation of the upper barrel to position the nozzle in any direction. The nozzle position shall not be restricted by bolt hole placement.

i) The lower flange of the upper barrel and the top flange of the lower will be reinforced where flange joins the barrel section by either increased wall thickness or flutes and ribbed construction at that point.

j) The union between the upper and lower stems shall be made by a breakable coupling. The design shall be such that excessive turning torque on the stems in either the opening or closing cycle is not transmitted to the weakened section of the coupling. The stems are to be retained in the coupling by stainless steel clevis pins and cotter pins, or stainless steel bolt and nuts.

k) The main valve assembly is to include double drain valves to operate automatically each time operated without the aid of springs, pins or toggles. The drain valve mechanism is to be an integral cast part of the upper valve plate.

l) The drainway shall be all bronze. Drain water shall not come in contact with internal cast iron parts of the shoe while exiting the hydrant through the drainway.

m) The seat ring shall thread into a bronze bushing or drain ring. If the bushing type construction is used the bushing must be threadably retained in the shoe and locked in position by lower barrel flange overlap. If drain ring design is used the drain ring must be retained between the lower flange of the lower barrel and shoe flange with drain ring housed in a cast iron drain housing. The housing shall be attached to the shoe flange. Pressure seals shall be rubber gaskets or "O" Rings.

n) The stem threads that extend beyond the lower valves plate shall be protected by sealed ductile iron cap nut or other approved method that is locked to the lower valve plate to prevent premature loosening.

o) The hydrant show shall have generous support pads on base and back for blocking and supporting the hydrant.

p) The maximum allowable pressure drops through the entire hydrant are as listed below when tested according to AWWA Standard C-502-73.

a.	One 2 1/2" hose nozzle	Two 2 1/2" hose nozzle
b.	at 250 g.p.m. flow	at 500 g.p.m. flow
i.	0.6 p.s.i.	1.0 p.s.i.
1.		One 4 1/2" pumper nozzle
2.		at 1000 g.p.m. flow
a.		2.1 p.s.i.

q) Main valve and seat ring to be removable through the upper barrel from above ground.

- r) All bolting material below ground shall be at least 3/4" in diameter. If bolts smaller than 3/4" diameter are used, they must be of silicon bronze or 18-8 stainless steel.

6. Test Pressure

- a). Fire hydrants are subjected to two (2) hydrostatic test per latest AWWA Standard C-502.

- 1) One (1) test is made on fully assembled hydrant with test pressure of 300 p.s.i., main valve is open.
Except for a maximum allowable leakage of five fluid ounces per minute through drain valves, no other leakage is permitted during this test.
- 2) Another test is made at 300 p.s.i. with main valve closed and pressure applied to shoe inlet. No leakage permitted on this test.
- 3) All hydrants shall be drained and shipped in closed position.

- 7. Hydrants shall be Mueller SUPER CENTURION 250, or approved equal.

3. **Item #3-3 - 6" THROUGH 12" DUCTILE IRON PIPE**

A. Materials

- 1. Furnish in compliance with the specifications, 6" through 12" Ductile Iron Pipe on a purchase as needed basis.
- 2. Individual estimated quantities are itemized on the bid form

B. Material Specification

- 1. All Ductile Iron Pipe shall conform to the latest revision to ANSI/AWWA C151/A21.51.
- 2. All Ductile Iron Pipe shall be Class-52 and furnished in minimum nominal 18-foot lengths, with push-on joints as manufactured by U.S. Pipe and Foundry Company, Atlantic States Cast Iron Pipe Co. or an approved equal. Gaskets shall conform to the latest revision to ANSI/AWWA C111/A2.11
- 3. The Ductile Iron Pipe shall be double cement lined inside and then asphalt seal coated on the outside and inside approximately 1 mil. thick. The lining shall conform to the latest revisions to ANSI/AWWA C104/A21.4.
- 4. All pipe shall be clean, sound, and without defects that could impair service. Repair of defects by welding will not be allowed.

4. **Item #3-4 - 3" THROUGH 16" Butterfly Valves**

A. Materials

- 1. Furnish in compliance with the specifications, 3" through 16" Butterfly Valves on a purchase as needed basis.
- 2. Individual estimated quantities are itemized on the bid form. Quantities are subject to change as needed.

B. Material Specification

1. **General:** Butterfly valves shall be manufactured in accordance with the latest revision of AWWA C504, Class 150B and conform to NSF Standard 61. The manufacturer shall have produced AWWA butterfly valves for a minimum of five years. All valves shall be either Henry Pratt Model 2FII or Monoflange MKII as manufactured by Henry Pratt Company, or approved equal. Bidders shall list the name of the manufacturer on the bid sheet. If a valve manufacturer other than Pratt is proposed, bidder shall submit complete documentation to support the proposed valve's conformance to these specifications as an approved equal and shall note where the proposed valves deviate from the specification.
2. **Valve Body:** Valve bodies shall be constructed of ASTM A126, Class B cast iron for flanged valves or ASTM A48, Class 40 for wafer style. Flanged valves shall be fully faced and drilled in accordance with ANSI Standard B16.1, Class 125.
3. **Valve Seats:** Rubber body seats shall be of one piece construction, simultaneously molded and bonded into a recessed cavity in the valve body. Seats may not be located on the disc or be retained by segments and/or screws. For wafer style valves, the seat shall cover the entire inner surface of the valve body and extend over the outside face of the valve body to form a flange gasket.
4. **Valve Bearings:** Valve bearings shall be of a self-lubricating, nonmetallic material to effectively isolate the disc-shaft assembly from the valve body. Metal-to-metal thrust bearings in the flow stream are not allowed.
5. **Valve Disc:** The disc shall be a lens-shaped design to afford minimal pressure drop and line turbulence. Materials of construction shall be 3"-6" – ASTM A351 gr. CF8N stainless steel disc, 8"-20" – ASTM A126, Class B cast iron disc with a stainless steel type 316 edge. Discs shall be retained by stainless steel pins which extend through the full diameter of the shaft to withstand the specified line pressure up to the valve rating and the torque required to operate the valve. Disc stops located in the flow stream are not allowed.
6. **Valve Shafts:** Valve shafts shall be stainless steel type 304. At the operator end of the valve shaft, a shaft seal utilizing "V" type chevron packing shall be utilized. "O" ring and/or "u" cup packing is not allowed.
7. **Painting:** All surfaces of the valve interior shall be clean, dry and free from grease before painting. The valve interior and exterior, except for the disc edge, rubber seat and finished portions shall be evenly coated with an NSF61 approved 2-part liquid epoxy. Minimum dry film thickness shall be 8 Mils minimum.
8. **Testing:** Hydrostatic and seat leakage tests shall be conducted in strict accordance with AWWA Standard C504.
9. **Proof of Design:** The manufacturer furnishing valves under the specification shall be prepared to provide Proof of Design test reports to illustrate that the valves supplied meet the design requirements of AWWA C504.
10. **Manual Actuators:** Manual actuators shall be of the travelling nut, self-locking type and shall be designed to hold the valve in any intermediate position between full open and fully closed without creeping or fluttering. Actuators shall be equipped with mechanical stop-limiting devices to prevent over travel of the disc in the open and closed positions. Actuators shall be fully enclosed and designed to produce the specified torque with a maximum pull of 80 lb on the hand wheel or chain wheel. Actuator components shall withstand an input torque of 450 Lb. Ft. at extreme operator position without damage. Manual actuators shall conform, to AWWA C504 and shall be Pratt MDT or an approved equal.

5. **Item #3-5 - MECHANICAL JOINT RESTRAINT FOR DUCTILE IRON PIPE**

A. Materials

1. Furnish in compliance with the specifications, mechanical joint restraints for ductile iron pipe as specified below on a purchase as needed basis
2. Individual estimated quantities are itemized on the bid form

B. Material Specification

Hanover Annual Bids Item 3: Water Distribution Materials and Supplies

1. The restraining mechanism shall consist of individually actuated wedges that increase their resistance to pull-out as pressure or external forces increase.
2. The device shall be capable of full mechanical joint deflection during assembly and the flexibility of the joint shall be maintained after burial.
3. The joint restraint ring and its wedging components shall be made of grade 60-42-10 ductile iron conforming to ASTM A536-84.
4. The wedges shall be ductile iron heat treated to a minimum hardness of standardized mechanical joint bell conforming to ANSI/AWWA A111/A21.11 and ANSI/AWWA C153/A21.53 of the latest revision.
5. Torque limiting twist-off nuts shall be used to insure proper actuation of the restraining wedges.
6. The mechanical joint restraint shall have a rated working pressure of 350 psi. The devices shall be Listed by Underwriters Laboratories and Approved by Factory Mutual.
7. The restraint shall be the Series 1100 Megalug restraint produced by EBBA Iron, Inc., or approved equal.

III. Pricing Structure and Rule for Award

1. Bidders shall quote unit prices for each item on the bid form, delivered, based on the delivery information listed under section IV Deliveries below. This price shall include any and all fees and surcharges and shall be firm for the contract period.
2. Multiple contracts will be awarded to the responsible and responsive bidders who offers the lowest per unit price, delivered, for each item on the bid sheet.

IV. Deliveries

1. Deliveries shall be made only between the hours of 7:00 am and 2:30 pm, Monday through Friday. Deliveries outside of these hours may be allowed upon prior arrangements with the Town at no additional cost to the Town.
2. Deliveries shall be made to Hanover DPW Operations Center, 219 Winter Street, Hanover, MA., or in the case of ductile iron pipe to the applicable job site in the Town of Hanover. The proper delivery information will be specified at the time of ordering. All delivery trucks shall bear a current Massachusetts seal of inspection, and shall be properly insured. Any damages to Town property caused by the vendor shall be repaired and paid for by the vendor.
3. The bidder shall be in compliance with all Federal and State regulations.

VI. Bid Form

The undersigned hereby proposes and agrees to furnish the Town of Hanover with water distribution materials and supplies, in accordance with the specifications listed above during the period of July 1, 2020, through June 30, 2021.

The price per item is as listed on the attached bid form. Quantities listed are estimated quantities. The prices submitted are unit prices for each item and shall include all delivery charges, insurance charges, and all fees and surcharges.

The Town of Hanover Department of Public Works reserves the right to purchase only the quantities required by the Department.

The prices on the bid sheet are for the period of 12 months as indicated. In the event market conditions would cause a price change, the bidder agrees to provide one month advance notice of the price change and accept an order for delivery at the above quoted price up to 60 days following the date of notification provided the order is placed within 30 days of receipt of the price change notice and/or cancel the agreement.

_____ Company	By _____ Signature
_____ Address	_____ Print Name
_____ Address	_____ Title
_____ Date	_____ Telephone

All bidders must complete the attached Certificate of Non-Collusion, Tax Compliance Certificate and a Bidder's Qualification Form.

The Town of Hanover reserves the right to reject any or all bids should it be deemed in the best interest of the Town to do so.

Sealed bids shall be accepted at the office of the Hanover Department of Public Works, 40 Pond Street, Hanover MA 02339 on the approved bid forms until 2:00 local time on May 28, 2020 at which time they will be opened and read aloud. All bid forms must be either typewritten or written in ink. All signatures must be in ink.

Town of Hanover
40 Pond Street
Hanover, MA 02339
(781) 826-3189

		Unit Bid Price
#4-1 <u>GATE VALVES, FITTINGS, BOXES</u>		
GATE VALVES-RESILIENT SEAT	20 MORE OR LESS	6"
	10 MORE OR LESS	8"
	10 MORE OR LESS	10"
	10 EACH MORE OR LESS	12"
#4-2 <u>MUELLER HYDRANTS</u>		
	15 MORE OR LESS	
#4-3 <u>DUCTILE IRON PIPE</u>		
	200 FEET MORE OR LESS	6"
	200 FEET MORE OR LESS	8"
	200 FEET MORE OR LESS	10"
	2000 FEET MORE OR LESS	12"
#4-4 <u>Butterfly Valves</u>		
<u>BUTTERFLY VALVES-RUBBER SEATED</u>		
	14 MORE OR LESS	3"
	8 MORE OR LESS	4"
	10 MORE OR LESS	6"
	10 MORE OR LESS	8"
	10 MORE OR LESS	10"
	10 MORE OR LESS	12"
	10 MORE OR LESS	16"
Name of Valve Manufacturer: _____		
#4-5 <u>MECHANICAL JOINT RESTRAINT</u>		
<u>FOR DUCTILE IRON PIPE</u>		
	100 MORE OR LESS	6"
	50 MORE OR LESS	8"
	50 MORE OR LESS	10"
	50 MORE OR LESS	12"

CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

(Signature of Individual signing/submitting the bid)

(Name of person signing bid)

(Name of business)

TAX COMPLIANCE CERTIFICATE

Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all State tax returns and paid all State taxes required under law.

Social Security Number
or Federal Identification
Number

Signature of Individual or
Corporation

Corporate Officer
(If Applicable)

Date: _____

BIDDER'S QUALIFICATION FORM

1. Name of Bidder:
2. Permanent Main Office Address:
3. When Incorporated (If Applicable):
4. Where Incorporated (If Applicable):
5. How many years have you been engaged in the contracting business under your present firm name:
6. Contracts on Hand: (Type of project, client, gross amount, estimated completion date):
7. General character of work performed by your company:
8. Have you ever failed to complete any work awarded to you?
Yes _____ No _____
If yes, where, when and why:
9. Have you ever defaulted on a contract?
Yes _____ No _____
If yes, where, when and why:
10. List the more important projects, similar to the work of this contract, recently completed by your company, stating the name, address and telephone number of the owner, name and location of similar project, approximate cost for each, and time period of contract performance (month and year started/month and year completed).
11. List your major equipment available for this contract.
12. With what banks do you do business?

Page 2 Bidder's Qualification Form

13. Do you grant the Awarding Authority permission to contact this (these) institution(s)?

Yes _____ No _____

Dated at _____ this _____ day of _____

Name of Bidder

By

Title

COMMONWEALTH OF MASSACHUSETTS

_____ being duly sworn, deposes and says that he is

_____ of _____ and that the
Title Name of Organization

answers to the foregoing questions and all statements contained therein are true and correct.

Sworn to me this _____ day of _____, 20__

Notary

My commission expires _____

Bidder's Courtesy Checklist:

This list does not need to be submitted with the bid. However, the following items **MUST** be submitted, typed or filled in and signed (where applicable) in ink, in order for a bid to be considered responsive.

_____ Bid Sheets

_____ Certificate of non-collusion

_____ Tax compliance certificate

_____ Bidder's qualification form (notarized and filled in completely)