

CITY OF VENICE
PROCUREMENT- FINANCE DEPARTMENT

401 W. VENICE AVE. - ROOM # 204
VENICE, FL. 34285
(941) 486-2626
FAX (941) 486-2790

ADDENDUM NO. 1

Date: November 1, 2013

To: All Prospective Proposers

Re: ITB# 2975-13: Water Main Replacement Program- Phase I

This addendum sets forth changes and/or information as referenced and is hereby made part of and should be attached to the subject Contract Documents. Receipt of this Addendum shall be acknowledged below and in the submitted proposal. It shall be the responsibility of each proposer, prior to submitting a proposal, to contact the City of Venice- Procurement- Finance Department to determine if addenda were issued and to make such addenda a part of their proposal.

The following is to clarify and provide additional information requested during the pre-bid meeting held October 25, 2013 at 2:00 P.M. and questions submitted to date.

Summary:

- 1. Mr. Mayes started the meeting by reviewing the next important dates. Mr. Mayes stated that the bids are due November 14th at 2:00 p.m. at City Hall room #204 with the actual opening occurring in room #114, shortly after 2:00 p.m. Last day for any additional question is October 30th at 1:00 p.m.**
- 2. Mr. Mayes pointed out the “General Conditions & Instructions to Offerors” section. Specifically the “contact”, section 2, on page 3 and stated that from the meeting time forward, he is the only person firms are to contact for any questions and/or concerns about this bid. Mr. Mayes also pointed out “local preference”, section 16 on page 5 and stated that since this project is funded by the City- local preference will be used.**

3. Mr. Mayes reviewed the required forms that must be returned with each firm's submittal. These required forms are listed on page 273 and start on page 274 of the bid document, through page 295. Mr. Mayes stated that even if a form does not pertain to said company- to still mark it with a "N/A" and return it with each submittal.
4. Chris Kuzler of King Engineering reviewed the scope of work for the project. Mr. Kuzler stated that the project area is bound by Armada Street to the north, Villas Drive to the south, Harbor Drive to the east and Park Boulevard to the west plus Ponce DeLeon Avenue between Harbor Drive and Nassau Street- south. The project also includes the replacement of an 8-inch water main under Hatchett Creek from Warfield Avenue north to Marcus Street.
5. Mr. Kuzler stated that the crossing at Hatchett Creek is shown on the drawings as 10-inch HDPE. If the Contractor elects to furnish and install fusible PVC for the crossing, the pipe and associated fittings may be reduced to 8-inch. All other pipe sizes for directional drills shall not change from those shown on the drawings.
6. Mr. Kuzler discussed plan sheet "C 1.01" which shows the overall project (minus Hatchett Creek) and stated that the water mains to be taken out of services are shown as shaded on that sheet. He further pointed out that typical pavement restoration limits, like that on sheet "C 1.02", are shown as shaded to denote where milling and overlaying of the streets is to be done. The documents also allow the pavement to be sawcut and replaced in its entirety.
7. Mr. Kuzler also stated that any County road crossings require the "jack and bore" or "directional drilling" methods as shown on the drawings.
8. Mr. Kuzler reminded firms that work will occur on private property. The City has obtained signed agreements from property owners, but the contractor will still need to notify and coordinate with the property owners before and during the work on their property as noted in the drawings. Mr. Kuzler also stated that the contractor will need to hire a licensed plumber for the work on private property and all work on private property will be inspected by the City Building Department. Mr. Kuzler stated that the City's Building Department will issue a "master" Plumbing Permit for all work involved on private property and an \$80.00 fee must be paid for each property. Mr. Kuzler pointed out that there is a Permit Fee Allowance of \$15,000 that is included on the "Bid Form" to reimburse the contractor for these fees.
9. Mr. Kuzler stated that some of the existing services have dual or double check valve assemblies or RPZs. Unless connecting to an existing meter, all existing dual or double check valve assemblies and RPZs on residential services shall be removed and turned over to the property Owner and a new dual check valve assembly shall be installed on the new service. New dual check valve assemblies are only required if the existing service has a backflow prevention device. Existing RPZs on commercial services shall be relocated and reinstalled on the new service. If the

existing service has neither type of backflow assembly, no backflow assembly is required on the new service.

- 10.** One firm asked if the number of days for construction time could be changed from 150 days to at least 210 days. Reason being the other work involved including landscaping for restoration work and the amount of hand digging that will be required. **Response: It has been decided to change the construction time to 240 days for final completion.**
- 11.** Another firm asked of the services that involve some resident's pool deck areas and if the connection is to be required closest to these pool deck areas? **Response: Mr. Kuzler stated that services with conditions such as this will be addressed on a case-by-case basis but, in general, the new service should be connected to the existing service at an accessible location as close to the existing structure as possible.**
- 12.** One firm asked why this project was rebid. **Response: Tim Hochuli, Assistant Utilities Director, stated that the low bidder withdrew their bid and the second lowest bidder had discrepancies in their bid as well.**
- 13.** Another firm asked of local preference and what the percentage will be used. **Response: Mr. Mayes stated the amount is 10% per the City's municipal code- section 2-217, which reads in part: "When applying local preference to competitive sealed bids, the finance department will notify the responsive and responsible lowest local business bidder that they have five days to resubmit a bid that matches or beats the lowest bid submitted by the nonlocal business, provided the local business' original bid was within ten percent of the lowest bid submitted by the nonlocal business. If the lowest local business bidder submits a revised bid that match, or beat, the bid submitted by the lowest nonlocal business bidder, the bid will be awarded to the local business. If the lowest local business bidder fails to submit a bid that matches or beats the bid submitted by the lowest nonlocal business bidder, the bid will be awarded to the nonlocal business."**
- 14.** One firm asked of item 32 of the bid item sheet which states general conditions, mobilization and demobilization (max: 5% of base bid subtotal) and if this amount can or will be adjusted. **Response: Please see the enclosed, revised bid item sheet. Please use these new sheets and submit with your proposal.**
- 15.** Another firm noted that concrete restoration appears to be incidental to the other pay items and asked if a separate pay item for concrete restoration could be provided. **Response: Mr. Kuzler stated that this has been discussed with the City and a separate pay item will not be provided.**
- 16.** One firm asked if the two addenda from the first bid for this project were incorporated into this new, rebid. **Response: Mr. Kuzler stated "yes", the addendum information**

from the first bid has been incorporated into the current Bid Documents as applicable.

17. Another firm asked if the new services can be separated on the Bid Form for new lines vs. existing lines? **Response: Please see the enclosed revised Bid Form.**
18. One firm asked of the availability of any new profiles, lateral elevations and/or noted conflicts other than the City's. **Response: Additional information, other than that provided in the Bid Documents, will not be provided.**
19. Another firm asked of any restrictions with the replacement of an 8-inch water main under Hatchett Creek. **Response: Mr. Kuzler stated that firms are to follow the FDEP permits and to be aware of any possible blocking of residential drive-ways.**
20. One firm asked if the meters used for the new services for this project will be supplied by the City. **Response: Dave Abene, Utilities Field Operations Supervisor, stated that the City has a stock of meters to use for this project. Mr. Abene stated that the chosen firm will make arrangements for meter pick up, during the project time, and must return the old meters back to the City.**
21. Another firm asked of any possible changes with new meter locations- I.E. original location on the left side of the property with the new meter being located to the right side of the property. **Response: It was stated that yes, there are possible changes in the location of the new meters and that the chosen firm work with the property owner and the City on the final meter location.**
22. One firm asked if any soil reports are available. **Response: Mr. Kuzler stated that these reports are in the bid documents.**
23. Another firm asked if the City will pay for stored materials and if "builder's risk" insurance will also be required. **Response: Please see the enclosed, revised "Attachment A" for insurance requirements and/or information, which includes the addition of "Automotive Insurance" and "Installation Floater/Installation Builder's Risk". Please review Item 2 of the Special Conditions (page 14 of bid documents). "The City will pay for stored materials that meet the requirements of the Special Conditions."**
24. One firm asked if water for testing purposes is to be provided by the City. **Response: Mr. Kuzler stated that yes, water for testing will be provided by the City through the connection to the existing main. All other water for construction purposes is at the contractor's expense through a metered connection per the requirements of Section 01510.**
25. Another firm asked of what dated "standard details" apply and question the use of a 45 degree meter connection as pointed out on sheet 8. **Response: Mr. Kuzler stated that**

the standard details that apply to the project are provided in the drawings and may have been modified to suit the project.

- 26.** One firm asked of the criteria of phasing out leaded brass by January 2014 and if this project requires the use of new “lead-free” brass or if the City has any type of allowance for using the old style first. **Response: All brass used on the project shall conform to the new requirement and shall be lead free.**

The following are questions submitted after the pre-bid meeting:

- 27.** “What is the Engineer’s estimate for this project?” **Response: \$1,100,000.**

The following summarizes attachments provided in this Addendum:

Revised Insurance Requirements
Revised Bid Form
Revised Specification 01030 – Special Project Procedures
Revised Specification 01150 – Measurement and Payment
Revised Specification 01340 – Shop Drawings, Product Data, Working Drawings And Samples
Revised Sheet D1.02 – Potable Water Details (2)

**Jon Mayes
Procurement Department**

Acknowledgment is requested even if you have elected not to respond to this bid. A designated management representative of your firm can sign the receipt for this addendum. Please acknowledge receipt of this addendum immediately by fax to (941) 486- 2790 or mail to the above noted address, if a fax is not possible.

Receipt Acknowledged:

Signature

Company

Date: _____

“ATTACHMENT A”

Insurance:

Before performing any work, the Company shall procure and maintain, during the life of the Contract, insurance listed below. The policies of insurance shall be primary and written on forms acceptable to the City and placed with insurance carriers approved and licensed by the Insurance Department in the State of Florida and meet a minimum financial AM Best and Company rating of no less than A:VII. No changes are to be made to these specifications without prior written specific approval by the City.

A. **Workers Compensation**: Company will provide Workers Compensation Insurance on behalf of all employees, including sub-contractors who are to provide a service under this Contract, as required under Florida Law, Chapter 440, and Employers Liability with limits of not less than \$100,000 per employee per accident; \$500,000 disease aggregate; and \$100,000 per employee per disease.

B. **Commercial General Liability** including but not limited to bodily injury, property damage, contractual, products and completed operations, and personal injury with limits of not less than \$1,000,000 per occurrence, \$1,000,000 aggregate covering all work performed under this Contract, to include broad form property damage.

C. **Business Auto Policy**: including bodily injury and property damage for all vehicles owned, leased, hired and non-owned vehicles with limits of not less than \$1,000,000 combined single limit covering all work performed under this Contract.

D. Installation Floater/Installation Builders' Risk-Property Coverage:

Policy to cover direct physical loss or damage to materials, supplies, machinery, and equipment being installed, constructed or rigged by the contractor in conjunction with its installation or construction. All items involved in the water main project including drainage/water sewer pipes, etc. (as included in description of project) need to be insured for the total completed replacement value. Coverage should include perils of fire, theft, vandalism, windstorm/hail, collapse and transit, sewer backup, testing, equipment breakdown, waterborne property. Coverage shall start when the items to be installed are transported to City premises and remain in place until the interest of the contractors ceases or the City accepts possession whichever comes first. Coverage should apply to owned property and non-owned property in the contractor's care, custody and control. The installation coverage forms shall provide coverage for building materials and supplies at the construction site, in transit to the site and similar property intended for the construction project at other locations as necessary or because of lack of storage space at the construction site. Coverage should apply on a Primary basis and should include a Waiver of Subrogation. Contractor should be responsible for any deductibles.

Policy Form:

A. All policies required by this Contract, with the exception of Workers Compensation, or unless specific approval is given by the City, are to be written on an occurrence basis, shall name the City of Venice, its Elected Officials, Officers, Agents, Employees as additional insured as their interest may appear under this Contract. Insurer(s), with the exception of Workers Compensation, shall agree to waive all rights of subrogation against the City of Venice, its Elected Officials, Officers, Agents, & Employees.

B. Insurance requirements itemized in this Contract, and required of the Company, shall be provided on behalf of all subcontractors to cover their operations performed under this Contract. The Company shall be held responsible for any modifications, deviations, or omissions in these insurance requirements as they apply to subcontractors.

C. Each insurance policy required by this Contract shall:

(1) apply separately to each insured against whom claim is made and suit is brought, except with respect to limits of the insurer's liability;

(2) be endorsed to state that coverage shall not be suspended, voided or canceled by either party except after thirty (30) calendar days prior written notice by certified mail, return receipt requested, has been given to the City of Venice Risk Manager.

D. The City shall retain the right to review, at any time, coverage form, and amount of insurance.

E. The procuring of required policies of insurance shall not be construed to limit Company's liability nor to fulfill the indemnification provisions and requirements of this Contract.

F. The Company shall be solely responsible for payment of all premiums for insurance contributing to the satisfaction of this Contract and shall be solely responsible for the payment of any deductible and/or retention to which such policies are subject, whether or not the City is an insured under the policy. In the event that claims in excess of the insured amounts provided herein are filed by reason of operations under the contract, the amount excess of such claims, or any portion thereof, may be withheld from any payment due or to become due to the Company until such time the Company shall furnish additional security covering such claims as may be determined by the City. Deductible levels should be acceptable to the city.

G. Claims Made Policies will be accepted for professional and hazardous materials and such other risks as are authorized by the City. All Claims Made Policies contributing to the satisfaction of the insurance requirements herein shall have an extended reporting period option or automatic coverage of not less than two years. If provided as an option, the Company agrees to purchase the extended reporting period on cancellation or termination unless a new policy is effected with a retroactive date, including at least the last policy year.

H. Certificates of Insurance evidencing Claims Made or Occurrence form coverage and conditions to this Contract, as well as the City's Bid Number and description of work, are to be furnished to the City's Risk Manager, 401 West Venice Avenue, Venice, FL 34285,

ten (10) business days prior to commencement of work and a minimum of thirty (30) calendar days prior to expiration of the insurance policy.

I. Notices of Accidents and Notices of Claims associated with work being performed under this Contract, shall be provided to the Company's insurance company and the City's Risk Manager, as soon as practicable after notice to the insured.

BID ITEMS: WATER MAIN REPLACEMENT PROGRAM – PHASE 1

Item No.	Estimated Quantity	Unit	Description (Print or Type in Words)	Unit Bid Price (In Numbers)	Total Amount (In Numbers)
			BASE BID ITEMS		
1	2,255	LF	6" Water Main Installed by HDD Method		
2	445	LF	8" FPVC or 10" HDPE Water Main Installed by HDD Method (at Hatchett Creek)		
3	45	LF	10" Water Main Installed by Open Cut Method		
4	20	LF	8" Water Main Installed by Open Cut Method		
5	2,295	LF	6" Water Main Installed by Open Cut Method		
6	80	LF	4" Water Main Installed by Open Cut Method		
7	97	LF	16" Steel Casing with Ductile Iron Carrier Pipe Installed by Jack and Bore Method		
8	990	LF	4" HDPE or PVC Casing Installed by HDD Method		
9	1	EA	Combination Air/Vacuum Valve Assembly		
10	2.8	TN	Ductile Iron Fittings		
11	2	EA	10" Resilient Wedge Gate Valves with Box		
12	1	EA	8" Resilient Wedge Gate Valves with Box		
13	10	EA	6" Resilient Wedge Gate Valves with Box		
14	4	EA	6" Tapping Sleeves and Valves		
15	1	EA	8"x6" Tapping Sleeve and Valve		
16	7	EA	Fire Hydrant Assemblies		
17	22	EA	Water Services From New Water Mains With New Meter Box (Near Side Single)		
18	13	EA	Water Services From New Water Mains With New Meter Box (Near Side Tandem)		
19	14	EA	Water Services From New Water Mains With New Meter Box (Far Side Single)		
20	7	EA	Water Services From New Water Mains With New Meter Box (Far Side Tandem)		
21	12	EA	Water Services From Existing Water Mains With New Meter Box (Near Side Single)		
22	4	EA	Water Services From Existing Water Mains With New Meter Box (Near Side Tandem)		
23	17	EA	Water Services From Existing Water Mains With New Meter Box (Far Side Single)		
24	14	EA	Water Services From Existing Water Mains With New Meter Box (Far Side Tandem)		
25	6	EA	Water Services Without New Meter Box (Near Side Single)		
26	1	EA	Water Services Without New Meter Box (Near Side Tandem)		

27	7	EA	Water Services Without New Meter Box (Far Side Single)		
28	1	EA	Water Services Without New Meter Box (Far Side Tandem)		
29	60	EA	New Dual Check Valve Assemblies		
30	10	EA	Relocated RPZ Assemblies		
31	141	EA	New Water Service Connections from Meter Assemblies to Existing Buildings		
32	1	LS	Abandonment of Existing Water Mains		
33	2,940	SY	Asphalt Restoration (Within City of Venice Right of Way)		
34	731	SY	Asphalt Restoration (Within Sarasota County Right of Way)		
			BASE BID SUBTOTAL		
35	1	LS	Maintenance of Traffic and Traffic Control		
36	1	LS	General Conditions		
37	1	LS	Mobilization and Demobilization		
38	1	LS	Indemnification	\$10.00	\$10.00
39	1	LS	Owner's Allowance	\$50,000	\$50,000
40	1	LS	Permit Fee Allowance	\$15,000	\$15,000
			BASE BID TOTAL		

TOTAL BID PRICE written in words:

Name and address of bidding firm:

Signature and title of authorized individual signing bid

SECTION 01030

SPECIAL PROJECT PROCEDURES

PART 1 – GENERAL

1.01 WORKMANSHIP, MATERIAL AND EQUIPMENT

- A. When a particular product is specified or called for, it is intended and shall be understood that the proposal tendered by the Contractor included those products in his bid. Should the Contractor desire products equal to those specified, the Contractor shall furnish information as described in the Standard General Conditions. The alternate product or products submitted by the Contractor shall meet the requirements of the Specifications and shall, in all respects, be equal to the products specified by name herein.
- B. All apparatus, mechanism, equipment, machinery and manufactured articles for incorporation into the Work shall be the new and unused standard products of recognized reputable manufacturers.
- C. Contractor must provide his own disposal of excavation that he removes from the site.

1.02 CONTRACTOR PROVIDED STAGING AREA

- A. The Work of this project is to be performed in a congested area that affords minimal and limited space that the Contractor may use to stage construction activities such as material storage, parking, or tool & supply storage. The Contractor shall secure staging area(s) as he may require and the cost shall be included as part of the price bid for the work.
- B. Appropriate temporary security fencing and effective erosion control measures shall be provided for the staging area(s). In particular, effective measures shall be employed to prevent soil, mud, or dust from being tracked onto roadway surfaces between the site of the work and the staging area. The cost to provide and maintain temporary security fencing and erosion control measures shall be considered an incidental project cost shall not be separately measured for payment.
- C. When the Work of this project is completed, and before final payment is made to the Contractor, the staging area shall be restored according to the agreement between the Contractor and the staging area owner including removal of temporary fencing and erosion control measures. Roadway damage that may have occurred between the project site and staging area because of construction equipment operation between the two sites shall be repaired to the satisfaction of the Engineer. The City may withhold payment retainage to the Contractor until the requirements of this paragraph are satisfied.

1.03 CONNECTIONS TO EXISTING SYSTEMS

- A. The Contractor shall perform all work necessary to locate, excavate, restrain or confirm restraint, and prepare for connections to the existing systems, as shown on the Construction Drawings. The cost for this work and for the actual connection to the existing systems shall be included in the various prices bid for the Work, except where specifically indicated as a separate Item, and shall not result in any additional cost to the Owner.
- B. The Contractor shall install, pressure test, disinfect, and wait for clearance from the Health Department or FDEP for the new water main prior to transferring services over to the new main and taking the existing water main out of service. The maximum duration that the water main can be temporarily taken out-of-service shall be as specified herein. The Contractor shall plan his work accordingly so as to comply with these requirements.

- C. The Contractor shall provide, install and test any required piping and valves, including tapping sleeves and valves. The Contractor shall make the tap in the presence of a City Utilities Representative, and only in the presence of a City Utilities Representative.
- D. The Contractor shall provide the City's Project Manager with written notice of any requirement to shut down the system at least 72 hours in advance.
- E. It shall be noted that existing water mains can be shut down for a maximum of 3 hours.

1.04 PROVISIONS FOR CONTROL OF EROSION

- A. Sufficient precautions shall be taken during construction to minimize the run-off of polluting substances such as silt, clay, fuels, oils, bitumens, calcium chloride, or other polluting materials harmful to humans, fish, or other life, into the supplies and surface waters of the state. Control measures must be adequate to assure that turbidity in the receiving water will not be increased more than 10 nephelometric turbidity units (NTU), or as otherwise required by the state or other controlling body, in water used for public water supply or fish unless limits have been established for the particular water. In surface water used for other purposes, the turbidity must not exceed 25 NTU unless otherwise permitted. Special precautions shall be taken in the use of construction equipment to prevent operations which promote erosion.
- B. Comply with the requirements of the EPA-NPDES general permit for stormwater discharges and the stormwater pollution prevention plan developed for the project.

1.05 WARRANTIES

- A. The Contractor and the materials manufacturers shall warranty all workmanship and materials for a minimum period of twelve (12) months. Warranty period shall commence on the date of Final Acceptance by the Owner.
- B. If, within the warranty period, repairs or changes are required in connection with guaranteed work which, in the opinion of the Engineer, is rendered necessary as the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract, the Contractor shall, promptly upon receipt of notice from the Owner and without expense to the Owner, do the following:
 - 1. Place in satisfactory condition in every particular all of such warranted work and correct all defects herein.
 - 2. Make good all damage which, in the opinion of the Engineer, is the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract.
 - 3. Make good any work or material or site disturbed in fulfilling any such guarantee.
- C. If the Contractor, after notice, fails within ten (10) days to proceed to comply with the terms of this warranty, the Owner may have the defects corrected, and the Contractor and his surety shall be liable for all expense incurred, provided, however, that in case of an emergency where, in the opinion of the Owner, delay would cause loss or damage, repairs may be started without notice being given to the Contractor and the Contractor shall pay the cost thereof.
- D. All special guarantees or warranties applicable to specific parts of the work, as may be stipulated in the Contract Specifications or other papers forming a part of this Contract, shall be subject to the terms of this paragraph during the first year of life of each such guarantee. All special guarantees and manufacturers' warranties shall be assembled by the Contractor and delivered to the Engineer, along with a summary list thereof, before the acceptance of the Work.

- E. The Contractor's twelve (12) month warranty or guarantee period shall be part of the project performance bond.

1.06 CONSTRUCTION CONDITIONS

- A. The Contractor shall strictly adhere to the specific 2010 Florida Plumbing Code requirements of the governmental unit(s) or agency(ies) having jurisdiction over the work. Wherever there is a difference in the requirements of the 2010 Florida Plumbing Code and these Specifications, the more stringent shall apply.

1.07 PUBLIC NUISANCE

- A. The Contractor shall not create a public nuisance including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, or excessive noise.
- B. Trash accumulation, including accumulation of lunch-break refuse, shall be avoided. The Contractor shall provide appropriate containers for collecting rubbish and the Contractor's superintendent shall enforce their use. The containers shall also be regularly emptied.
- C. No extra charge may be made for time lost due to work stoppage resulting from the creation of a public nuisance.

1.08 HAZARDOUS LOCATIONS

- A. Contractor shall perform work in accordance with OSHA, state and local safety requirements.

1.09 RELOCATIONS

- A. The Contractor shall be responsible for the relocation of structures, including but not limited to: utility poles, signs, sign poles, fences, piping, conduits and drains that interfere with the positioning of the work as set out on the Drawings. The cost of all such relocations shall be included in the bid.

1.10 SUSPENSION OF WORK DUE TO WEATHER

- A. During inclement weather, all work that could be damaged or rendered inferior by such weather conditions shall be suspended. The orders and decisions of the Engineer as to suspensions shall be final and binding. The ability to issue such an order shall not be interpreted as a requirement to do so. During suspension of the work for any cause, the work shall be suitably covered and protected so as to preserve it from injury by the weather or otherwise; and, if the Engineer shall so direct, rubbish and surplus materials shall be removed. Throughout the duration of the Work, the Contractor shall provide temporary connections between new portions of the storm drainage system and existing portions of the storm drainage system in order to allow drainage of storm water runoff from the work area consistent with the requirements for providing effective erosion control.

1.11 HURRICANE PREPAREDNESS PLAN

- A. Within 30 days of the date of Notice to Proceed, the Contractor shall submit to the Engineer and Owner a Hurricane Preparedness Plan. The Plan should outline the necessary measures that the Contractor proposes to perform at no additional cost to the Owner in case of a hurricane warning.
- B. In the event of inclement weather, or whenever Engineer shall direct; the Contractor shall carefully protect the Work and materials against damage or injury from the weather. If, in the opinion of Engineer, any portion of Work or material has been damaged or injured by reason of

failure on the part of the Contractor or subcontractors to set protect the Work, such Work and materials shall be removed and replaced at the expense of the Contractor.

1.12 SALVAGE

- A. Any existing equipment or material including, but not limited to, valves, pipes, fittings, couplings, etc., which is removed or replaced as a result of construction under this project may be designated as necessary and delivered, to the Owner at a location directed by the Owner, at the Contractor's expense. Removed material not designated as salvage, or that the Engineer decides is not to salvage, shall become the property of the Contractor, removed from the site, and properly disposed at the Contractor's expense.

1.13 PERMITS

- A. Upon notice of award, the Contractor shall immediately apply for all applicable permits not previously obtained by the Owner to do the work from the appropriate governmental agency or agencies. This includes a City Building Permit for all work to be performed on private property. No work shall commence until all applicable permits have been obtained and copies delivered to the Engineer. The costs for obtaining all permits shall be borne by the Contractor.
- B. The Contractor shall be responsible for complying with all permit conditions for any permits that the Owner has already obtained and are attached to these specifications.
- C. The City has obtained, or is actively in the process of obtaining, the following permits for the Work:
 - 1. Sovereign Submerged Lands Letter of Consent for the Hatchet Creek crossing.
 - 2. Florida Department of Environmental Protection/Sarasota County Health Department Public Water System Construction Permit.
 - 3. Florida Department of Environmental Protection Environmental Resource Permit (ERP).
 - 4. U.S. Army Corps of Engineers Nationwide 12 Permit for the Hatchet Creek crossing.

1.14 PUMPING

- A. The Contractor shall, for the duration of the contract, and with his own equipment, pump out stormwater runoff or groundwater which may flow, seep or leak into excavations.
- B. Contractor shall provide all labor, material, and equipment necessary to provide a pump discharge that is located and made in a manner acceptable to the Engineer; that meets all permit and environmental protection requirements; and meets all federal, state, and local laws. At no time will the Contractor be allowed to pump sewage or polluted water into storm drains, streams, open channels, or onto streets during the course of the work. The Contractor shall also provide all necessary noise suppression devices to minimize pump noise and comply with the noise requirements of the Contract Documents.

1.15 NOTIFICATION OF WORK ON EXISTING FACILITIES

- A. Before commencing work on any of the existing structures or equipment, the Contractor shall notify the Owner/Engineer, in writing, at least 10 calendar days in advance of the date he proposes to commence such work.
- B. Contractor shall notify the various permitting and regulatory agencies prior to commencing the work permitted and regulated by the affected permits in accordance with the conditions of the permit.

1.16 EXISTING UNDERGROUND PIPING, STRUCTURES AND UTILITIES

- A. The attention of the Contractor is drawn to the fact that during excavation, the possibility exists that the Contractor will encounter various water, gas, telephone, electrical, service laterals or other utility lines not shown on the Drawings. The Contractor shall exercise extreme care before and during excavation to locate and flag these lines so as to avoid damage thereto. Should damage occur to an existing line, the Contractor shall immediately contact the utility and the Owner. If the repair is to be completed by the Contractor it shall be carried out in a timely and quality manner. Costs associated with such damage shall be borne by the Contractor at no additional cost to the Owner.
- B. It is the responsibility of the Contractor to ensure that all utility or other poles, the stability of which may be endangered by the close proximity of excavation, are temporarily supported in position while work proceeds in the vicinity of the pole and that utility or other companies concerned be given reasonable advance notice of any such excavation by the Contractor.
- C. The locations of existing utilities are shown without express or implied representation, assurance, or guarantee that they are complete or correct or that they represent a true picture of underground piping to be encountered. Encountering existing utilities at different depths or locations than shown on the drawings shall not be cause for additional costs to the Owner.
- D. The existing piping and utilities that interfere with new construction shall be rerouted as shown, specified or required. The Contractor shall excavate sufficiently ahead of the proposed work to predict potential conflicts. Before any piping and utilities not shown on the Drawings are disturbed, the Contractor shall immediately notify the Engineer of the location of the pipeline or utility and shall reroute or relocate the pipeline or utility as directed.
- E. The Contractor shall exercise care in any excavation to locate all existing piping and utilities. All utilities that do not interfere with completed work shall be carefully protected against damage. Any existing utilities damaged in any way by the Contractor shall be restored or replaced by the Contractor at his expense, as directed by the Engineer.
- F. It is intended that wherever existing utilities such as water, gas, telephone, electrical, or other service lines must be crossed, deflection of the pipe within recommended limits and cover shall be used to satisfactorily clear the obstruction unless otherwise indicated on the Drawings. However, when in the opinion of the Owner or Engineer this procedure is not feasible, the Engineer may direct the use of fittings for the utility crossing. The Contractor shall verify utility crossings with test pits prior to construction as required by the Engineer.
- G. The contractor shall preserve existing sanitary sewers without interruption while performing the work of the project. When the drawings indicate that all or a portion of a service lateral is to be replaced, the Contractor shall accomplish the work without disruption of service, backup in the structure served, or leakage of sewage into the excavation.

1.17 JOB SITE SECURITY

- A. The Contractor shall properly protect the work area to prevent the public from entering the work area. The Contractor shall furnish and erect such barricades, fences, lights, and danger signals and shall provide such other precautionary measures for the protection of persons or property and of the work as necessary. Barricades/fencing shall be painted or have a reflective color that will be visible at night. From sunset to sunrise, the Contractor shall furnish and maintain at least one light at each barricade/fence and sufficient numbers of barricades/fencing shall be erected to keep vehicles or pedestrians from entering on or into any work under construction.
- B. The Contractor will be held responsible for all damage to the work due to failure of barricades, fencing signs, and lights to protect it and whenever evidence is found of such damage, the Contractor shall immediately remove the damaged portion and replace it at his cost and expense.

The Contractor's responsibility for the maintenance of barricades, signs, and lights shall not cease until the project has been accepted by the Owner.

1.18 NEW SERVICE CONNECTIONS

- A. The work requires that new services be installed to the lots shown on the drawings. In most cases, this shall include a new service from the new water main to the new meter box, installing a new, City supplied meter in the new meter box and a new service line from the meter box to the building on the lot.
- B. In some cases, as shown on the Drawings, the existing meter box and meter, and the line from the meter box to the building will remain. In such cases, the work involves only running a new service line from the new water main to the existing meter box and connecting into the existing meter with a new curb stop. No new backflow prevention device is required.
- C. The Contractor's pricing for installing the new service lines on private property shall allow for installation by either open cut or by horizontal directional drill based on direction from the City and feedback from the property owner.
- D. After the new water main and street services are tested, disinfected and cleared by the Health Department/FDEP, the Contractor shall transfer each affected lot's service to the new water main. This shall include:
 - 1. Unless the Drawings call for connecting to an existing meter:
 - a. Furnishing and installing a new meter box and a new service from the meter box to the existing water service connection on the building being served. New service laterals shall be Schedule 40 PVC or SDR-9 HDPE and shall match the size of the new street lateral. All above ground pipe shall be copper or brass.
 - b. Installing a City supplied meter in the new meter box. Piping in the meter box shall include all accessories necessary to connect the meter.
 - 2. Some of the existing services have dual or double check valve assemblies or RPZs. Unless connecting to an existing meter, all existing dual or double check valve assemblies and RPZs on residential services shall be removed and turned over to the property Owner and a new dual check valve assembly shall be installed on the new service. Dual check valve assemblies shall be Conbraco model 40-300. New dual check valve assemblies are only required if the existing service has a backflow prevention device. Existing RPZs on commercial services shall be relocated and reinstalled on the new service. All new dual check valve and relocated commercial RPZ assemblies shall be tested after installation and certified by a licensed backflow testing professional prior to activating the new service.
 - 3. Temporarily discontinuing water service to the affected lot and concurrently relocating the existing RPZ (where applicable), connecting the new service laterals to the meter and, if included, to the building.
 - 4. Restoring water service to the affected building by placing the new service line into service. The trench for the new service from the meter to the building shall not be backfilled until the City's Plumbing Inspector inspects the line visually for leaks and passes the line.
 - 5. If not connecting to an existing meter, removing the existing meter box and backfilling and restoring the remaining hole.
 - 6. If not connecting to an existing meter, cutting and capping the old service line at the building, a minimum of 6 inches below ground.
- E. All work conducted downstream of the meter and on private property shall be completed by a licensed plumber hired by the Contractor and properly registered to do work in the City.

- F. Irrigation meters and services are not shown on the drawings. If there is an existing irrigation meter, a new irrigation water service will be required and the contractor's plumber will be responsible for connecting the new irrigation water service to the existing irrigation system. Payment for the new irrigation service and meter will be made at the contract unit price for the same size water service.
- G. The City has obtained written permission from property owners for the work to be completed on private property. Copies will be provided to the Contractor.
- H. Property owners and/or residents shall be notified at least 72 hours in advance of work being conducted on their property and for the need to turn off water service. Once work begins on a private lot, work shall continue and be completed within 5 working days. Trenches or holes shall not remain open overnight or over the weekend. If necessary to allow for Building Department inspection, the trench for the new water service may remain open overnight for one night but shall be covered with plywood.

1.19 DOOR HANGERS

- A. The Contractor shall develop and distribute door hangers to notify residents and businesses of the impending work on their street. The language to be used in the door hanger shall be submitted to the City for approval prior to their production.
- B. Door hangers shall be placed on the front door of each affected property on a given street one week prior to commencing work.
- C. When necessary, Boil/Rescind notices will be provided by the City for distribution by the Contractor. Notices shall be distributed a minimum of 24 hours before shutdowns.

1.20 RESTORATION

- A. The Contractor shall restore disturbed areas progressively as the work continues. No more than a total of 1,200 linear feet of disturbed work area along the streets shall remain unrestored at any given time.
- B. No open trenches shall be allowed during non-working hours for all work in this project.
- C. Good housekeeping on this project is extremely important and the Contractor will be responsible for keeping the construction site neat and clean, with debris being removed daily as the work progresses or as otherwise directed by the Engineer. Good housekeeping at the job site shall include: Removing all tools and temporary structures, dirt, rubbish, etc.; hauling all excess dirt, rock, etc., from excavations to a dump provided by the Contractor; and all clean up shall be accomplished to the satisfaction of the Engineer. Dust shall be controlled daily as may be required. Immediately after construction completion in an area or part thereof (including restoration), barricades, construction equipment and surplus and discarded materials shall be removed by the Contractor.
- D. In the event that the timely clean up and restoration of the job site is not accomplished to the satisfaction of the Engineer, the Engineer shall make arrangements to affect the necessary clean up by others. The Contractor shall be charged for these costs through deductions in payment due the contractor. If such action becomes necessary on the part of an in the opinion of the Engineer, the City shall not be responsible for the inadvertent removal from the work site of materials which the Contractor would not normally have disposed of had he affected the required clean up.
- E. The City reserves the right to stop new construction until the provisions of this Article are satisfied with no award of additional contract time or cost.

1.25 JACKING AND BORING

- A. The project includes a jack and bore under Harbor Drive South, a Sarasota County Road. Jacking and boring under Harbor Drive South shall be in accordance with Section 9 of the Sarasota County Uniform Water, Wastewater and Reclaimed Water Systems Code. A copy of Section 9 of this code is provided as Attachment No. 1 to these technical specifications and is hereby incorporated into these Contract Documents.

1.26 GEOTECHNICAL INVESTIGATION

- A. A report entitled “Geotechnical Engineering Services, City of Venice Water Main Replacement, Venice, Florida” for the project completed by Dunkelberger Engineering Services Inc. is provided as Attachment No. 2 to these technical specifications to assist Contractors with preparation of their bids.
- B. Contractors may perform additional geotechnical investigations at the site that they deem necessary for preparing their bids.

1.27 SHUTDOWN OF EXISTING WATER MAINS

- A. In the event that the Contractor shuts down and depressurizes an existing water main with live service connections as part of his construction efforts, he shall be responsible for notifying residents a minimum of 48 hours in advance of the shutdown. Prior to placing the water main back into service, the Contractor shall develop Boil Water Notices and distribute the notices to the affected properties. A copy of the required City of Venice Boil Water Notice forms is provided as Attachment No. 3 to these technical specifications.

1.28 GROUTING OF ABANDONED WATER MAIN

- A. All abandoned water mains 3” and greater shall be pumped full of 100 psi excavatable flowable fill in accordance with FDOT Standard Specifications section 121. A pumpable grout product with strength equivalent to the flowable fill will also be considered acceptable.

1.29 STORMWATER POLLUTION PREVENTION PLAN AND NOTICE OF INTENT

- A. Prior to the start of construction, the Contractor shall sign the Stormwater Pollution Prevention Plan provided on sheet G1.02 and file the Notice of Intent to Discharge Stormwater from Construction Activities with the FDEP along with the associated fee. Compensation for the fee will be paid for from the contract’s permitting allowance.

1.30 COORDINATION WITH THE CITY BUILDING DEPARTMENT

- A. The City Building Department will issue a master Plumbing Permit for all involved private properties, and an \$80.00 fee must be paid for each property. A Permit Fee Allowance of \$15,000 is included in the contract in order to reimburse the Contractor for these fees.
- B. It is anticipated that the inspection and approval process with the Building Department will be as follows:
 - 1. The Contractor will fill in the required Minor Work Plumbing Permit application and pay the \$80 fee for each property. The Building Department will help the Contractor in doing duplicate permit applications.
 - 2. After installing the new service lines between the meter and the building, call in for an inspection prior to backfilling the trench. The plumber shall provide the Building Department a minimum of 24-hours notice for inspections. If the service is found to be acceptable by the Building Department inspector, the trench may be backfilled and the

new service line may be activated. If the inspector finds deficiencies in the service line, the plumber shall correct the deficiencies and then call for a re-inspection.

3. The plumber shall notify the Building Department once the work on each private property is completed for final plumbing inspection. This inspection will include observing the new service line visually for leaks. The service line trench shall therefore not be backfilled until the inspection is completed.
4. When work on all lots is completed, the plumber shall file the appropriate closeout paperwork with the Building Department.

1.31 COOPERATION WITH OTHER CONTRACTORS

- A. The Contractor is not entitled to exclusive use of the Site. The City may perform additional work with its own forces or through another Contractor within the project area. The Contractor shall provide the other City contractors, including but not limited to the other contractor's employees, agents, subcontractors, and suppliers (or the City's forces performing the additional work), access to the site and shall cooperate with said Contractors and the City.

1.32 PITS FOR HORIZONTAL DIRECTIONAL DRILLING

- A. Approximate locations of entry and exit pits for horizontal directional drilling are shown on the plans. Alternate pit locations will be considered and additional pits may be required to provide adequate space to string out fused pipe or to for other conditions. The Contractor shall provide proposed pit locations as part of his Horizontal Directional Drilling shop drawing submittal.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01150

MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.1 General Information

The Contractor shall receive and accept the compensation provided in the Proposal and the Agreement as full payment for furnishing certain materials and all labor, tools and equipment, for performing all operations necessary to complete the work under the Agreement, and also in full payment for all loss or damages arising from the nature of the work, or from any discrepancy between the actual quantities of work and quantities herein estimated by the Engineer, or from the action of the elements or from any unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the City.

It is the intent of these contract documents that any cost for which compensation is not directly provided by a bid item shall be prorated and included in the bid item(s) for which they are required. Failure of the Contractor to follow this procedure shall be basis for rejection of his bid.

The prices stated in the Proposal include all costs and expenses for taxes, labor, equipment, commissions, transportation charges and expenses, patent fees and royalties, together with any and all other costs and expenses for performing and completing the work as shown on the plans and specified herein. The basis of payment for any item at the unit price shown in the Proposal shall be in accordance with the description of that item in this Section.

All work shall be in accordance with the Technical Specifications.

Unless specifically listed as a Bid Item, no separate payment will be made for the following items and the cost of such work shall be included in the applicable contract pay items of work.

1. Clearing and grubbing;
2. Excavation, including necessary pavement/slab removal;
3. Shoring and sheeting;
4. Dewatering and disposal of surplus water including well point dewatering as directed by Engineer;
5. Backfill;
6. Grading;
7. Replacement or restoration of paved or unpaved roadways, grass and shrubbery plots outside of established pay limits;
8. Replacement or restoration of curbing, gutter, sidewalk, and site restoration of any areas damaged during construction activities;
9. Temporary facilities and controls during construction such as water/sanitary facilities, traffic control and environmental protection, unless specifically provided for in a pay item;
10. Removing and disposing of waste material due to construction;
11. Cleanup;
12. Refill materials, except as hereinafter specified;
13. Testing and placing system in operation;
14. Any material or equipment required installed and/or used for the tests;
15. Maintaining the existing quality of service during construction;
16. Repair of sanitary sewer house laterals damaged during construction;
17. Repair and/or cleaning of storm sewers, inlets & catch basins damaged or filled with sediment during construction;
18. Color audio-video construction record;

19. Providing the services of an Independent Testing Laboratory for materials and compaction testing;
20. Providing the services of a professional land surveyor, licensed in the State of Florida, to establish horizontal and vertical control, layout the work, and assist with the preparation of record drawings;
21. Cost to reproduce drawings, specifications, shop drawings, and reports for the Contractor's use and for submissions to the City;
22. Temporary fencing;
23. Dust Control;
24. Noise suppression measures;
25. Removing, relocating, resetting existing street signage to facilitate construction;
26. Removing, relocating, resetting mailboxes to facilitate construction;
27. Utility notification and location and exploratory pits; and
28. All other appurtenant work as required for a complete and operable system.

The Contractor's attention is again called to the fact that the quotations for the various items of work are intended to establish a total price for completing the work in its entirety. Should the Contractor feel that the cost for any item of work has not been established by the Proposal or Contract Pay Items, he shall include the cost for that work in some other applicable bid item, so that his proposal for the project does reflect his total price for completing the work in its entirety.

Following final payment by the City, the Contractor shall maintain the surface of the unpaved trenches, shrubbery, trees, fences, sod, and other surfaces disturbed for a period of six (6) months thereafter. The cost of maintaining the restored areas is considered incidental to the cost of restoring the areas disturbed by the Contractor. These costs shall be prorated and included in the cost for the bid item for which it is required.

1.2 Measurement

The quantities for payment under this Agreement shall be determined by actual measurement of the completed items, in place, ready for service and accepted by the City, in accordance with the applicable method of measurement therefore contained herein. A representative of the Contractor shall witness all field measurements. Payment shall be made and shall be based on percent complete of the Lump Sum price according to the schedule of values.

1.3 Payment

The Contractor will be paid monthly, by the City, for work performed the previous month. Each application for payment shall be submitted with a copy of "as built" drawings, to date, as well as an updated schedule for the project. Payment shall be for the approved and accepted amount of work that the Contractor has accomplished in the previous month.

Payment shall be made and shall be based on percent complete for Lump Sum pay items and on a measured quantity times unit price basis for unit price pay items.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 Bid Items: Water Main Replacement Program – Phase 1

- A. WATER MAIN INSTALLED BY HORIZONTAL DIRECTIONAL DRILL METHOD (Bid Items #1, #2)

The Contractor shall provide all labor, equipment and materials to furnish and install pipe by horizontal directional drill (HDD) method. The HDD installation of pipe shall include, but may not be limited to:

1. Performing all evaluations and calculations necessary for the proper implementation of the HDD.
2. Preparing and implementing the HDD work plan, bentonite management and emergency spill plan;
3. Excavating the launch, recovery, intermediate mud and exploratory pits;
4. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
5. Maintaining the pits, which shall include dewatering, barricading, sheeting, shoring, containment, berming and disposal of drill fluid as required or as directed by the Engineer;
6. Furnishing and installing the pipe;
7. Horizontal directional drilling of pipe;
8. Furnishing and installing the locator wires on the pipe;
9. Joining the pipe as required;
10. Furnishing and installing MJ adapters as necessary to connect HDPE pipe to other pipe materials, fittings, and valves;
11. Backfilling and compaction of pits;
12. Hydrostatic pressure testing and cleaning the pipe;
13. Cleaning up and restoring the job site which shall include removing excess materials and debris and re-grading the terrain;
14. Providing an environmental scientist for monitoring HDD activities per the Contract Documents and applicable permits;
15. Connecting piping to existing piping and/or structures; and
16. All other ancillary materials, equipment, labor, water, and power required for the complete installation of the piping by HDD method.

All work shall be in accordance with the Technical Specifications.

Payment for installing pipe by the HDD method shall be based on the size and horizontal distance in linear feet of pipe measured along the top centerline of the installed and connected pipe, in place, complete and acceptable to the Engineer.

B. WATER MAIN INSTALLED BY OPEN CUT METHOD (Bid Items #3, #4, #5, #6)

The Contractor shall provide all labor, equipment, and materials for installing pipe by the open cut method (OC). The open cut installation of pipe shall include, but may not be limited to:

1. Exploratory pits;
2. Excavating and maintaining the trench, which shall include dewatering, sheeting, shoring and/or bracing where required or as directed by the Engineer;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Cleaning dirt and foreign material from within the pipe and bell;
5. Beveling field-cut joints and pipe shorts;
6. Installing City approved pipe and any pipe shorts as part of the pipeline;
7. Furnishing and installing locator wires on PVC pipe;
8. Furnishing and installing leak detector assemblies where called for on the drawings;
9. Furnish and install joint restraints complete with all tie rods and hardware;
10. Furnishing and installing pipe;
11. Furnishing and installing polyethylene encasement on ductile iron pipe;
12. Backfilling and compacting the trench including regrading the terrain;
13. Hydrostatic pressure testing, pigging, and cleaning the pipe;

14. Cleaning up and restoring the job site which shall include removing excess materials and debris and re-grading the terrain;
15. Driveway, sidewalk, asphalt and other restoration;
16. Disinfecting the potable or raw water main pipe;
17. Connecting piping to existing piping and/or structures;
18. Furnishing and installing any lateral pipe and making any connection needed; and
19. All other ancillary materials, equipment, labor, water and power required for the complete installation of the piping by open cut method.

Pay item #6 includes the 4" water service on Ponce De Leon Avenue.

All work shall be in accordance with the Technical Specifications.

Payment for installing pipe by the open cut method shall be based on the horizontal distance in linear feet of pipe measured along the top centerline of the pipe in place complete and acceptable to the Engineer.

C. 16" STEEL CASING WITH DUCTILE IRON CARRIER PIPE INSTALLED BY JACK AND BORE METHOD (Bid Item #7)

The Contractor shall provide all labor, equipment, and materials for installing 16" steel casing with Ductile Iron carrier pipe. The installation of casing and carrier pipe shall include, but may not be limited to:

1. Performing all evaluations and calculations necessary for the proper implementation of the Jack and Bore.
2. Excavating the launch, recovery, intermediate mud and exploratory pits;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Maintaining the pits, which shall include dewatering, barricading, sheeting, shoring, containment, berming and disposal of drill fluid as required or as directed by the Engineer;
5. Furnishing and installing the steel casing piping;
6. Welding/Joining the pipe as required;
7. Jack and Bore drilling of pipe;
8. Furnishing and installing the locator wires on the pipe;
9. Furnishing and installing the restrained carrier piping, casing spacers and casing end seals;
10. Furnishing and installing MJ adapters as necessary to connect carrier pipe to other pipe materials, fittings, and valves;
11. Backfilling and compaction of pits;
12. Hydrostatic pressure testing, pigging, and cleaning the pipe;
13. Cleaning up and restoring the job site which shall include removing excess materials and debris and re-grading the terrain;
14. Testing and disinfecting the carrier pipe;
15. Connecting piping to existing piping and/or structures; and
16. All other ancillary materials, equipment, labor, water, and power required for the complete installation of the piping by Jack and Bore method.

All work shall be in accordance with the Technical Specifications and Plans.

Payment for installing steel casing with ductile iron carrier pipe by the jack and bore method shall be based on the horizontal distance in linear feet of steel measured along the top centerline of the steel casing in place complete and acceptable to the Engineer.

D. 4" HDPE OR PVC CASING INSTALLED BY HORIZONTAL DIRECTIONAL DRILL METHOD
(Bid Item #8)

The Contractor shall provide all labor, equipment and materials to furnish and install casing pipe by horizontal directional drill (HDD) method. The HDD installation of casing pipe shall include, but may not be limited to:

1. Performing all evaluations and calculations necessary for the proper implementation of the HDD.
2. Preparing and implementing the HDD work plan, bentonite management and emergency spill plan;
3. Excavating the launch, recovery, intermediate mud and exploratory pits;
4. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
5. Maintaining the pits, which shall include dewatering, barricading, sheeting, shoring, containment, berming and disposal of drill fluid as required or as directed by the Engineer;
6. Furnishing the casing pipe;
7. Joining the casing pipe as required;
8. Horizontal directional drilling of pipe;
9. Furnishing and installing the locator wires on the casing pipe;
10. Backfilling and compaction of pits;
11. Cleaning up and restoring the job site which shall include removing excess materials and debris and re-grading the terrain;
12. All other ancillary materials, equipment, labor, water, and power required for the complete installation of the piping by HDD method.

All work shall be in accordance with the Technical Specifications.

Payment for installing casing pipe by the HDD method shall be based on the size and horizontal distance in linear feet of casing pipe measured along the top centerline of the casing in place complete and acceptable to the Engineer.

E. COMBINATION AIR/VACUUM VALVE ASSEMBLY (Bid Item #9)

The Contractor shall provide all labor, equipment and certain materials to completely install air release valve assemblies for water mains. The combination air/vacuum valve assembly installation shall include, but may not be limited to:

1. Excavating the trench/pit;
2. Maintaining the trench/pit, which shall include dewatering and bracing and sheeting where required or as directed by the Engineer;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Furnishing and installing air release valves;
5. Field painting the air release valves with the painting system per the Contract Documents;
6. Furnishing and installing valve assembly enclosures;
7. Backfilling and compacting the trench/pit; and
8. All other ancillary materials, equipment, labor, and power required for the complete installation of combination air release/vacuum valve and air release valve assemblies.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made for the number of each combination air/vacuum valve assembly installed and incorporated into the piping system complete, working, and operating to the satisfaction of the Engineer.

F. DUCTILE IRON FITTINGS (Bid Item #10)

The Contractor shall provide all labor, equipment and materials to completely furnish and install all miscellaneous fittings. The installation of these fittings shall include but not be limited to:

1. Excavating the trench/pit;
2. Maintaining the trench/pit which shall include dewatering and bracing and sheeting where required or as directed by the Engineer;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Furnishing and installing polyethylene encasement (for ductile iron fittings);
5. Furnishing and installing restrained joints on the fittings;
6. Backfilling and compacting the trench/pit; and
7. All other ancillary materials, equipment, labor, and power required for the complete installation of the ductile iron fittings, joint restraints, and cast-in-place thrust blocks.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made per ton for the total weight of fittings installed based on manufacturers standards of each size and type of fittings, less bolts and accessories, installed complete with joint restraints and incorporated into the piping system, working, and operating to the satisfaction of the Engineer.

G. RESILIENT WEDGE GATE VALVES WITH BOX (Bid Items #11, #12, #13)

The Contractor shall provide all labor, equipment and certain materials to completely furnish and install all resilient wedge gate valves. The resilient wedge gate valve installation shall include, but may not be limited to:

1. Excavating the trench/pit;
2. Maintaining the trench/pit which shall include dewatering and bracing and sheeting where required or as directed by the Engineer;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Furnishing and installing valves, valve boxes, and tapping sleeves;
5. Furnishing and installing mechanical joint restraints;
6. Furnishing and installing valve extension rods where necessary;
7. Furnishing and installing brass valve identification tag;
8. Backfilling and compacting the trench/pit;
9. Furnishing paint and painting valve cover; and
10. All other ancillary materials, equipment, labor, and power required for the complete installation of resilient wedge gate valves.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made based on the size and for each resilient wedge gate valve installation complete, working, and operating to the satisfaction of the Engineer. Operating satisfactorily includes but is not limited to:

1. The valve box and valve is plumb and the valve box is centered on the valve.
2. City personnel can insert a valve key through the valve box and completely open and close the valve.

H. TAPPING SLEEVES AND VALVES (Bid Items #14 and #15)

The Contractor shall provide all labor, equipment and certain materials to completely install and test all tapping sleeves and valves. The tapping sleeve and valve installation shall include, but may not be limited to:

1. Excavating the trench/pit;
2. Maintaining the trench/pit which shall include dewatering and bracing and sheeting where required or as directed by the Engineer;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Furnishing and installing valves, valve boxes, adapter fittings and tapping sleeves;
5. Pressure testing the tapping sleeve;
6. Furnishing and installing mechanical joint restraints;
7. Furnishing and installing valve extension rods where necessary;
8. Furnishing and installing brass valve identification tag;
9. Backfilling and compacting the trench/pit;
10. Furnishing paint and painting valve cover; and
11. All other ancillary materials, equipment, labor, and power required for the complete installation of valves and appurtenances.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made based on the size and for each tapping sleeve and valve complete, working, and operating to the satisfaction of the Engineer. Operating satisfactorily includes but is not limited to:

1. The valve box and valve is plumb and the valve box is centered on the valve.
2. City personnel can insert a valve key through the valve box and completely open and close the valve.

I. FIRE HYDRANT ASSEMBLIES (Bid Item #16)

The Contractor shall provide all labor, equipment and certain materials to completely install fire hydrant assemblies. The fire hydrant assembly installation shall include, but may not be limited to:

1. Excavating the trench/pit;
2. Maintaining the trench/pit, which shall include dewatering and bracing and sheeting where required or as directed by the Engineer;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Furnishing and installing fire hydrant assemblies as shown on the detail drawings including the hydrant valve;
5. Backfilling and compacting the trench/pit; and
6. All other ancillary materials, equipment, labor, and power required for the complete installation of fire hydrant assemblies.
7. The main line tee shall not be included in this bid item.

All work shall be in accordance with the Technical Specifications and Plans. Payment for the tee shall be made under the Ductile Iron Fittings pay item.

Payment shall be made for the number of each fire hydrant assembly installed and incorporated into the piping system complete, working, and operating to the satisfaction of the Engineer.

J. WATER SERVICES WITH NEW METER BOX (Bid Items #17, #18, #19, #20, #21, #22, #23, #24)

The Contractor shall provide all labor, equipment and materials to completely install water services and meter assemblies for each lot as shown on the plans. The water service and meter assembly installation shall include, but may not be limited to:

1. Excavating the trench/pit;
2. Maintaining the trench/pit, which shall include dewatering and bracing and sheeting where required or as directed by the Engineer;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Furnishing and installing the far-side PVC or HDPE casings;
5. Furnishing and installing carrier piping and service lateral;
6. Furnishing and installing new meter box(es) and accessories;
7. Installing the City supplied water meter;
8. Connections to new or existing piping systems, including small diameter piping and fittings not included in other bid items;
9. Backfilling and compacting the trench/pit; and
10. All other ancillary materials, equipment, labor, and power required for the complete installation of water services and meter assemblies.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made for the number of each water service installed and incorporated into the piping system complete, working, and operating to the satisfaction of the Engineer.

K. WATER SERVICES WITHOUT NEW METER BOX (Bid Items #25, #26, #27, #28)

The Contractor shall provide all labor, equipment and materials to completely install water services to existing meter assemblies for each lot as shown on the plans. The water service installation shall include, but may not be limited to:

1. Excavating the trench/pit;
2. Maintaining the trench/pit, which shall include dewatering and bracing and sheeting where required or as directed by the Engineer;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Furnishing and installing the far-side PVC or HDPE casings;
5. Furnishing and installing carrier piping and service lateral;
6. Furnishing and installing the corporation stop;
7. Connecting to the existing water meter assemblies;
8. Backfilling and compacting the trench/pit; and
9. All other ancillary materials, equipment, labor, and power required for the complete installation of water services.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made for the number of each water service installed and incorporated into the piping system complete, working, and operating to the satisfaction of the Engineer.

L. NEW DUAL CHECK VALVE ASSEMBLIES (Bid Item #29)

The Contractor shall provide all labor, equipment and materials to completely install new dual check valve assemblies per the specifications. The dual check valve installation shall include, but may not be limited to:

1. Furnishing the new dual check valve assemblies;
2. Installing the dual check valve in the meter box as shown on the Drawings;
3. Testing the dual check valve assemblies;
4. Miscellaneous fittings, piping and accessories necessary for a complete installation.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made for the number of each dual check valve installed and incorporated into the piping system complete, working, and operating to the satisfaction of the Engineer.

M. RELOCATED RPZ ASSEMBLIES (Bid Item #30)

The Contractor shall provide all labor, equipment and materials to completely remove, relocate and install existing RPZ assemblies per the specifications. The RPZ relocation shall include, but may not be limited to:

1. Removing the RPZ from the existing service;
2. Installing the above ground RPZ assembly as shown on the Drawings including copper piping, isolation valves and concrete stepping stone;
3. Testing the RPZ assemblies, and;
4. Miscellaneous fittings, piping and accessories necessary for a complete installation.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made for the number of each RPZ relocated and incorporated into the piping system complete, working, and operating to the satisfaction of the Engineer.

N. NEW WATER SERVICE CONNECTIONS FROM METER ASSEMBLIES TO EXISTING BUILDINGS (Bid Item #31)

The Contractor's plumber shall provide all labor, equipment and certain materials to completely install new water services from the new meter assemblies to each existing building. The new water service shall include, but may not be limited to:

1. Coordinating with the property owner to determine the service route;
2. Excavation;
3. Maintaining the trench/pit, which shall include dewatering and bracing and sheeting where required or as directed by the Engineer;
4. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
5. Furnishing, installing, testing and connecting the new service line by either open cut or by horizontal directional drill;
6. Backfilling and compacting the trench/pit;
7. Restoration; and
8. All other ancillary materials, equipment, labor, and power required for the complete installation of water services and meter assemblies.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made for the number of each new service installed complete, working, and operating to the satisfaction of the Engineer.

O. ABANDONMENT OF EXISTING WATER MAINS (Bid Item #32)

The Contractor shall provide all labor, equipment and materials to abandoned the existing water mains as shown on the drawings. The water main abandonment shall include, but may not be limited to:

1. Cutting the abandoned line and capping/plugging its connection to the remaining, in service water main;
2. Removal and disposal of all potable water in the abandoned line;
3. Furnishing, installing and maintaining all necessary erosion control measures including but not limited to artificial coverings, mowing, sandbagging, slope drains, sediment basins, hay bales, straw, floating silt barrier, staked silt barrier and seeding;
4. Materials, equipment, labor, and power required to furnish and install flowable fill on mains 3" or greater;
5. Capping/plugging the main;
6. Closing valves to be abandoned and removing the valve box;
7. Pipe clamps, rebar, concrete, equipment, labor, and power required to furnish and install the reverse dead man or thrust block;
8. Resisting the stub on the water main remaining in service; and
9. All other ancillary materials, equipment, labor, water, and power required for the complete abandonment of the line.

All work shall be in accordance with the Technical Specifications and Plans.

Payment shall be made and shall be based on percent complete of the Lump Sum price according to the schedule of values.

P. ASPHALT RESTORATION (Bid Items #33, #34)

The Contractor shall provide all labor, equipment, and materials to restore asphalt roadway that was cut, removed or damaged during the course of the pipeline construction and milling and paving of full lane widths as shown on the drawings. The asphalt restoration shall include sawcutting, removing and replacing the entire asphalt layer to the milling limits shown on the drawings or:

1. Placing, grading, and compacting sub-base, base, and approved asphaltic pavement over excavated area as specified in the Contract Documents;
2. Returning 30-days later to mill the full lane width of all damaged lanes and designated intersection areas indicated in the Approved Construction Plans so as to provide a uniform longitudinal profile and cross-section;
3. Sweeping of the milled surface;
4. Disposal of all surplus existing materials resulting from milling operations;
5. Restoring, placing, grading, and compacting approved asphaltic pavement at the thickness specified in the Contract Documents.

Payment shall be made on a square yard basis, in place complete and acceptable to the Engineer.

Q. MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL (Bid Item #35)

The bid price for Traffic Control shall be a lump sum amount. This bid item shall include preparation of a Maintenance of Traffic plan consistent with the Contractor's work schedule/plan and coordination with through the Project Representative with the City, County of State Traffic Control authority. It shall include the construction and maintenance of any necessary detour facilities, traffic control barriers; providing of necessary facilities for access to residences and

businesses, etc. along the project; furnishing, installing and maintaining of traffic control and safety devices during construction, including placement and removal of temporary pavement markings, and signs; temporary wheelchair ramps, temporary lighting for nightwork, and any other special requirements for safe and expeditious movement of both vehicular and pedestrian traffic.

Payment for Maintenance of Traffic and Traffic Control will be on an incremental basis in accordance with the following:

Percent of Original Contract Amount Earned	Allowable Percent of the Lump Sum Price for the Item
20	20
40	40
60	60
80	80
100	100

R. GENERAL CONDITIONS, MOBILIZATION AND DEMOBILIZATION (Bid Items #36, #37)

The bid price for General Conditions and mobilization and demobilization shall be lump sum amounts and shall include obtaining all permits, insurance, and bonds; securing a staging area in proximity to the work if public lands are insufficient; moving onto the site all materials and equipment; furnishing and erecting temporary buildings, access roads and other items as necessary to complete the work; providing a color audio-videotape of existing conditions of the construction site or route; providing field trailers, sanitary facilities and potable water facilities as required for the proper performance and completion of the work.

Payment for General Conditions each month shall be an equal percentage of the General Conditions bid item, spread equally over the Contract time.

Payment for mobilization will be on an incremental basis in accordance with the following:

Percent of Original Contract Amount <u>Earned</u>	Allowable Percent of the Lump Sum <u>Price for the Item</u>
5	15
10	25
25	50
50	75
75	85
100	100

S. INDEMNIFICATION (Bid Item #38)

The bid price for Indemnification shall be a lump sum amount for the project. The amount shall be ten dollars (\$10.00). Payment for Indemnification will be made to the Contractor for considerations for indemnification to Owner and Engineer as specified in the General Conditions at the time of the first invoice.

T. OWNER'S ALLOWANCE (Bid Item #39)

The bid price for Owner's Allowance shall be a lump sum amount for the project. Payment shall be made to the Contractor, at the sole discretion of the Owner for additional Work requested by the Owner that is not covered by the scope of Work identified in this Contract.

U. PERMIT FEE ALLOWANCE (Bid Item #40)

Payment will be made to the Contractor based on actual invoiced amounts paid by the Contractor to obtain required Building Permits and inspections and for the FDEP Notice of Intent to Discharge Stormwater from Construction Activities.

Payment will not be made for:

- a. Contractor premiums or markups.
- b. Fees incurred due to Contractor's negligence.
- c. Permits required for items for the Contractor's convenience but not required by the Contract Documents or the Engineer.
- d. Fees and costs associated with utility services to temporary construction trailers and electricity required by the Contractor during construction.

END OF SECTION

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the Engineer for review such working drawings, shop drawings, test reports and data on materials and equipment (hereinafter in this Section called data), and material samples (hereinafter in this Section called samples) as are required for the proper control of work, including but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. At a time decided upon at the preconstruction meeting the Contractor shall furnish the Engineer a Submittal Schedule fixing the respective dates for the initial submission of shop and working drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall be provided as a separate entity and indicate those submittals that are critical to the progress schedule. The Engineer will review and approve the Schedule of Submittals for general completeness and with respect to the project schedule. In general, one submittal shall be provided for each specification section.
- C. The Contractor shall prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work sections of the Specifications, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery, and similar sequenced activities. No extension of time will be authorized because of the Contractor's failure to transmit complete and acceptable submittals sufficiently in advance of the Work.
- D. The Contractor shall note that there are specific submittal requirements in other sections of these Specifications.

1.02 SHOP DRAWINGS

- A. When used in the Contract Documents, the term "shop drawings" shall be considered to mean Contractor's Drawings for material and equipment which become an integral part of the Project. These drawings shall be complete and detailed. Shop drawings shall consist of fabrication, erection and setting drawings and schedule drawings, manufacturer's scale drawings, bills of material, wiring and control diagrams, and inspection and test reports including performance curves and certifications as applicable to the Work.
- B. All details on shop drawings submitted for review shall show clearly the elevations of the various parts to the main members and lines of the structure and/or equipment, and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the shop drawings before being submitted for review.

1.03 PRODUCT DATA

- A. Product data as specified in individual sections, include, but are not necessarily limited to, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturers product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances and applicability, roughing-in diagrams and

templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing storage instructions, and printed product warranties, as applicable to the work.

1.04 WORKING DRAWINGS

- A. When used in the Contract Documents, the term "working drawings" shall be considered to mean the Contractor's Drawings for temporary structures such as temporary bulkheads, support of open cut excavation, support of utilities, ground water control systems, forming and falsework; for underpinning; and for such other work as may be required for construction but does not become an integral part of the Project.
- B. Working drawings shall be signed and sealed by a registered Professional Engineer, currently licensed to practice in the State and shall convey, or be accompanied by, calculations or other sufficient information to completely explain the structure, machine, or system described and its intended manner of use. Prior to commencing such work, working drawings must have been reviewed without specific exceptions by the Engineer. Such review will be for general conformance and will not relieve the Contractor in any way from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error are assumed by the Contractor; the Owner and Engineer shall have no responsibility therefore.

1.05 SAMPLES

- A. The Contractor shall furnish, for review of the Engineer, samples required by the Contract Documents or requested by the Engineer. Samples shall be delivered to the Engineer as specified or directed and in quantities and sizes as specified. Where required, a minimum of two samples of each item shall be submitted unless otherwise specified. The Contractor shall prepay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in work until reviewed by the Engineer.
- B. Samples specified in individual sections, include, but are not necessarily limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and units of work to be used by the Engineer or Owner for independent inspection and testing, as applicable to the Work.
- C. The Contractor shall prepare a transmittal letter for each shipment of samples. He shall enclose a copy of this letter with the shipment and send a copy of this letter to the Engineer. Review of a sample shall be only for the characteristics or use named in such review and shall not be construed to change or modify any Contract requirements.

1.06 SUBMITTAL REQUIREMENTS

- A. Submittals to the Engineer shall be made electronically and shall consist of:
 - 1. One (1) digital copy in Adobe PDF format, delivered by email or FTP as directed by the Owner or Engineer, including each a stamped Contractor review cover sheet as specified below.
 - 2. Four (4) paper copies of all submittal materials, each accompanied by a stamped Contractor review cover sheet as specified below. All four copies will be retained by the Owner and/or Engineer.

- B. The Contractor shall review, approve, and submit, with reasonable promptness and in such sequence, so as to cause no delay in the Contract Work or in the Work of the Owner or any separate contractor, all shop drawings, product data, working drawings and samples required by the Contract Documents.
- C. Shop drawings, product data, working drawings and samples shall be furnished with the following information:
1. Number and title of the submittal.
 2. Date of drawing or revision.
 3. Name of project building, facility or system.
 4. Name of contractor, subcontractor, and manufacturer submitting drawing.
 5. Clear identification of contents, location of the work, and the sheet numbers where the product is found in the contract drawings.
 6. Contractor Certification Statement.
 7. Submittal Identification Number based on specification or drawing number.
- D. All items specified are not necessarily intended to be a manufacturer's standard product. Variations from specified items will be considered on an "or equal" basis. If submittals show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal and on the shop drawings along with notification of his intent to seek contract adjustment. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the Contractor fails to describe such variations he shall not be relieved of the responsibility for executing the work in accordance with the Contract, even though such drawings have been reviewed. Variations submitted but not described may be cause for rejection. Any variations initiated by the Contractor will not be considered as an addition to the scope of work unless specifically noted and then approved as such in writing by the Engineer.
- E. Data on materials and equipment shall include materials and equipment lists giving, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, material, size, finish and all other pertinent data.
- F. For all mechanical and electrical equipment furnished, the Contractor shall provide a list including the equipment name, and address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained. In addition, a maintenance and lubrication schedule for each piece of equipment shall be submitted
- G. All working drawings shall be scaled drawings and shall be generated using AutoCAD.
- H. The Contractor shall use the color "green" to make his remarks on the Submittals. Only the Engineer will utilize the color "red" in marking submittals.
- I. Not less than 21 calendar days shall be allowed for the review of submittals, not including the time necessary for delivery or mailing, and shall cause no delay in the work. Extension of the Contract time will not be granted because of the Contractor's failure to make timely and correctly prepared and presented submittals with allowance for the checking and review periods. The need for resubmission or delay in obtaining the Owner's review or approval of submittals will not entitle the Contractor to an extension of time for Contract Completion.

1.07 CONTRACTOR'S RESPONSIBILITY

- A. It is the duty of the Contractor to check, and coordinate with the work of all trades, all drawings, data, schedules and samples prepared by or for him before submitting them to the Engineer for review. Each and every copy of any drawing or data sheet larger than 11"x17" shall bear Contractor's stamp showing that they have been so checked and approved. Drawings or data sheets 11"x17" and smaller shall be bound together in an orderly fashion and bear the Contractor's stamp on the cover sheet. The cover sheet shall fully describe the packaged data and include a list of all sheet numbers within the package. Shop drawings submitted to the Engineer without the Contractor's stamp will be returned to the Contractor, without review at the Engineer's option, for conformance with this requirement.
- B. The Contractor shall review shop drawings, product data, and samples prior to submission to determine and verify the following:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Manufacturer's catalog numbers and similar data.
 - 4. Conformance with Specifications.
- C. Shop drawings shall indicate any deviations in the submittal from the requirements of the Contract Documents.
- D. The Contractor shall not begin any work affected by a submittal returned, "Rejected. Revise as indicated and resubmit". Before starting this work all revisions must be corrected by the Contractor. After resubmittal they will be reviewed and returned to him by the Engineer. If returned marked, "No Exceptions Noted" or "Exceptions as noted", then the Contractor may begin this work. Any corrections made to the shop drawings are to be followed without exception.
- E. The Contractor shall be responsible for and bear all cost of damages which may result from the ordering of any material or from proceeding with any part of work prior to review by the Engineer of the necessary shop drawings.
- F. All shop drawings, product data, working drawings and samples submitted by subcontractors for review shall be sent directly to the Contractor for checking. The Contractor shall be responsible for their submission according to the approved shop drawing schedule so as to prevent delays in delivery of materials and project completion.
- G. The Contractor shall check all subcontractor's shop drawings, product data, working drawings and samples regarding measurements, size of members, materials, and details to satisfy himself that they are in conformance to the Contract Documents. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractors for correction before submission to the Engineer.

1.08 ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

- A. The Engineer's review is for general conformance with the design concept and contract drawings. Markings or comments shall not be construed as relieving the Contractor from compliance with the Contract Drawings and Specifications or from departures therefrom. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
- B. The review of shop drawings, data, and samples will be general. They shall not be construed:
 - 1. As permitting any departure from the Contract requirements;

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Working Drawings and Samples)
(10/31/13)

2. As relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;
 3. As approving departures from details furnished by the Engineer, except as otherwise provided herein.
- C. If the shop drawings, data or samples as submitted describe variations per subparagraph (1.07H), and show a departure from the Contract requirements which Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the Engineer may return the reviewed drawings without noting an exception.
- D. Submittals will be returned to the Contractor under one of the following:
- "NO EXCEPTIONS NOTED" is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.
- "EXCEPTIONS AS NOTED" is assigned when notations or comments have been made on the submittal pointing out minor discrepancies as compared with the Contract Documents. Resubmittal or confirmation is not necessary prior to release for manufacturing.
- "EXCEPTIONS AS NOTED/CONFIRM." This combination of codes is assigned when a confirmation of the notations and comments is required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation is to address the omissions and/or nonconforming items that were noted. Only the items to be "confirmed" need to be resubmitted.
- "EXCEPTIONS AS NOTED/RESUBMIT." This combination of codes is assigned when a resubmittal is required by the Contractor. The Contractor may release a portion of the equipment or material for manufacture; however, all notations and comments must be incorporated into the final submittal. This resubmittal is to address the omissions and/or nonconforming items that were noted.
- "REJECTED. REVISE AS INDICATED AND RESUBMIT." This combination of codes is assigned when the submittal is in noncompliance with the Contract Documents and must be corrected and the entire package resubmitted. This code generally means that the equipment or material cannot be released for manufacture unless the Contractor takes full responsibility for providing the submitted items in accordance with Contract Documents.
- "FOR YOUR INFORMATION" is assigned when the package provides information of a general nature that may or may not require a response.
- E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall direct specific attention, in writing, on the letter of transmittal and on resubmitted shop drawings by use of revision triangles or other similar methods, to revisions other than the corrections requested by the Engineer on previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the Contractor. The Contractor shall make corrections to any work done because of this type revision that is not in accordance to the Contract Documents as may be required by the Engineer.
- F. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the Engineer within the time constraints defined by the General and Supplementary Conditions.

- G. The Engineer will review a submittal a maximum of two (2) times (original submittal plus one resubmittal) after which cost of review will be borne by the Contractor. The cost of engineering shall be equal to the Engineer's charges to the Owner at the Engineer's standard hourly rates.
- H. When the shop drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.
- I. Partial submittals may not be reviewed. The Engineer will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor. The Engineer may at his option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

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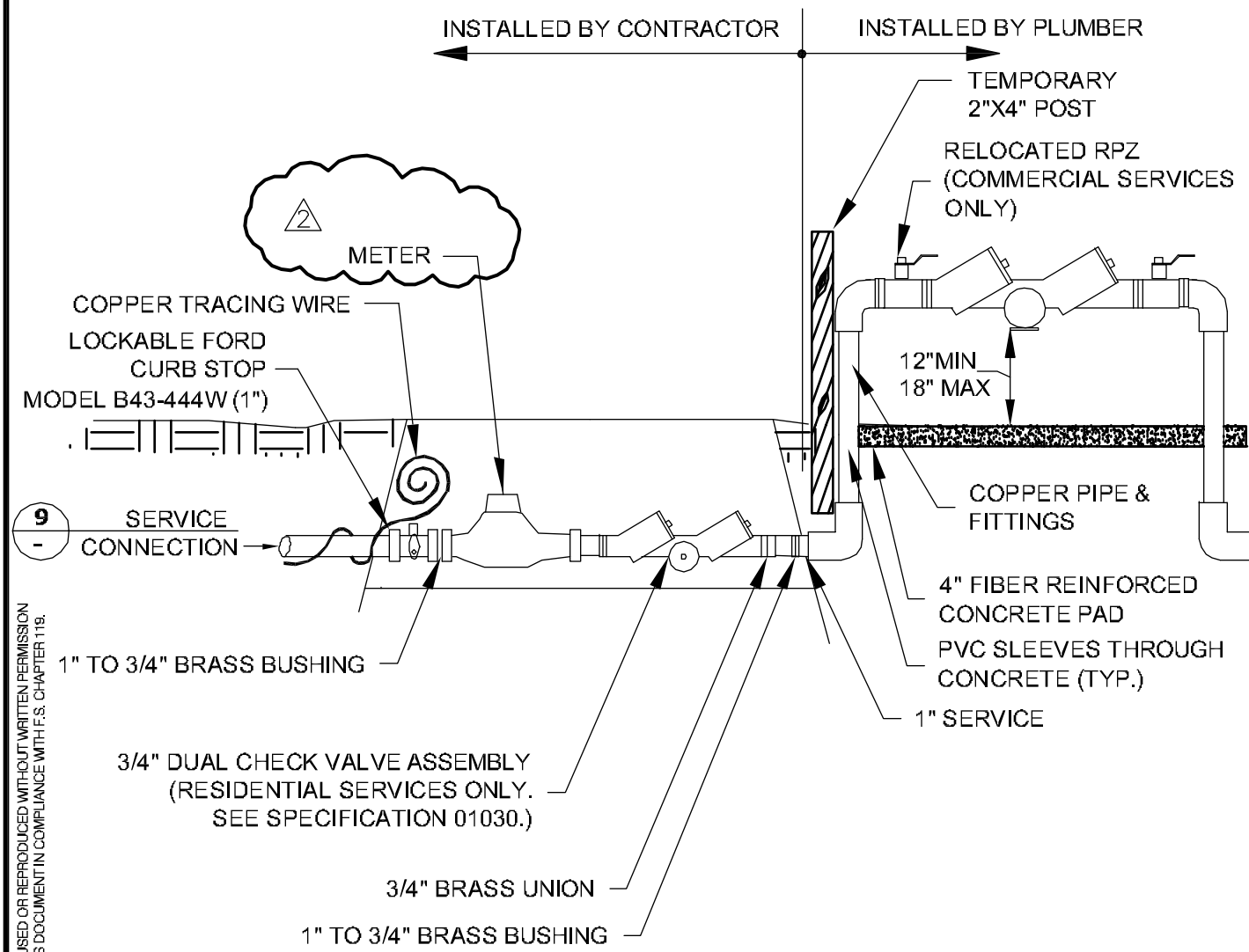
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BELOW GROUND WATER METER & REDUCED PRESSURE PRINCIPAL ASSEMBLY

NOTES:

1. THE POTABLE WATER SYSTEM SHALL USE A BROOKS/CARSON MODEL# 1220 JUMBO BLACK PLASTIC METER BOX WITH METAL READER AND BLACK SOLID RODS.
2. CENTER METER IN BOX.
3. BLOCK ENDS OF BOX.
4. COPPER/HEAD TRACING WIRE PART #1230HS #12 AWG SHALL BE USED. IT SHALL BE COLOR CODED TO REFLECT WHAT THE PIPE CARRIES. (BLUE = WATER).
5. CURB STOP MUST BE LOCATED IN BOX.
6. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AND/OR ASSE 1013.
7. ALL RPZ PIPING SHALL BE RIGID COPPER.
8. THE WATER METER AND BACKFLOW PREVENTER SHALL BE THE SAME SIZE.

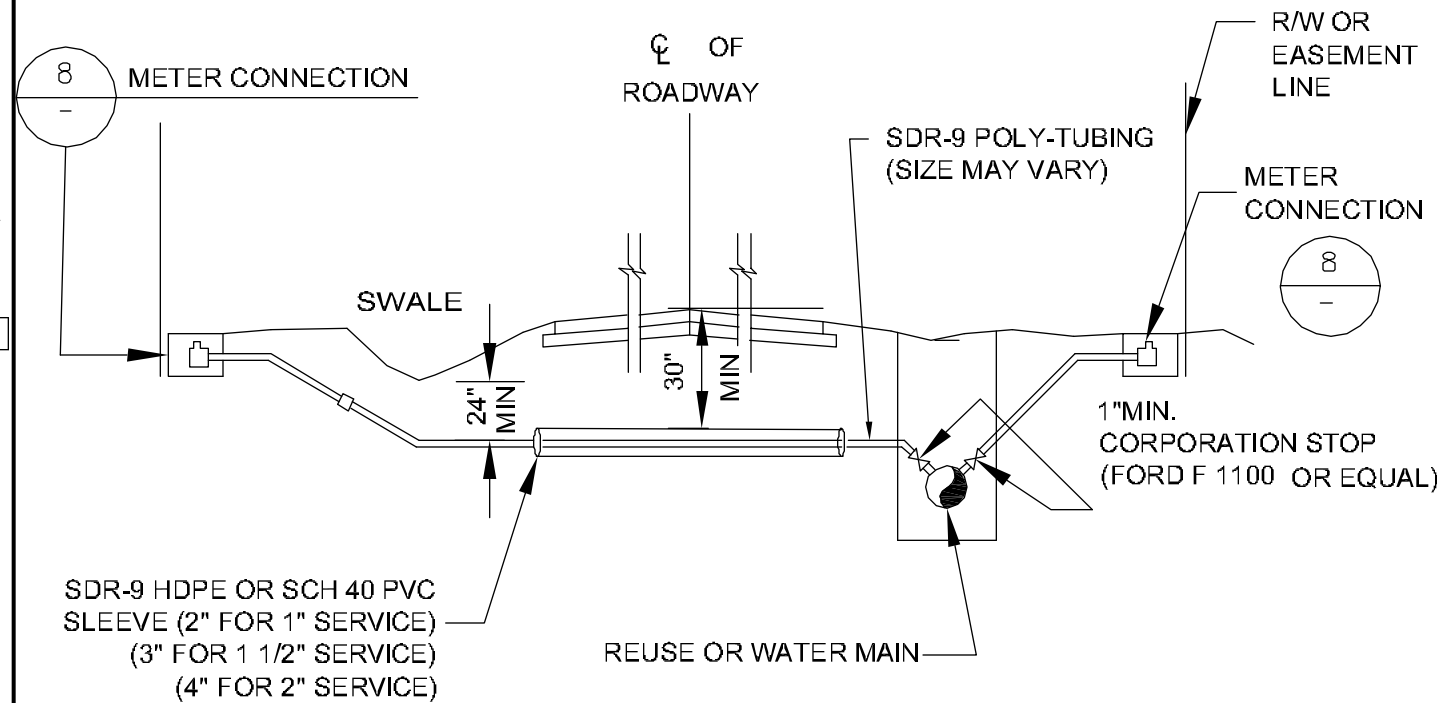


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SERVICE CONNECTIONS

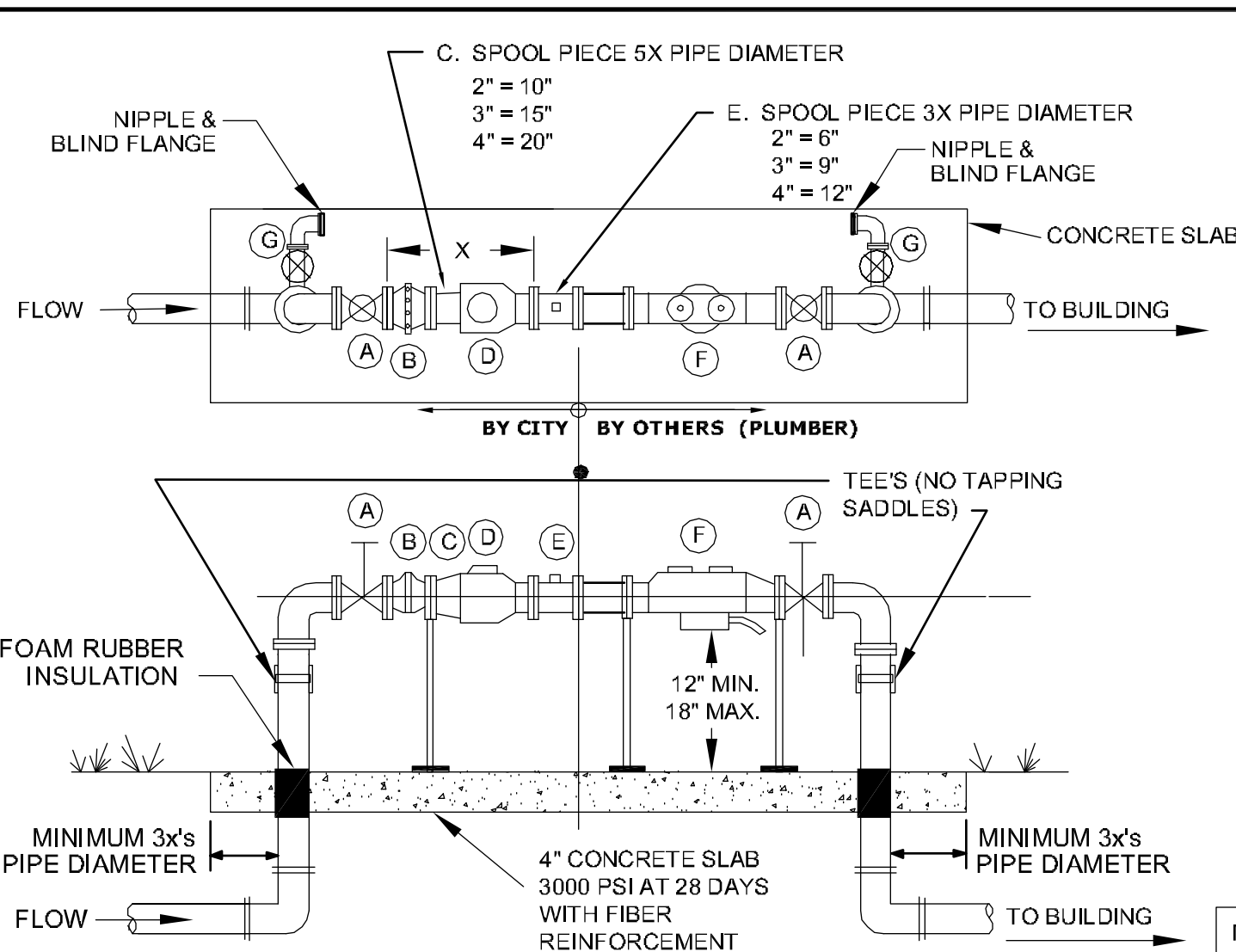
NOTES:

1. TAPS SHALL NOT BE CLOSER THAN TWO FEET APART OR WITHIN TWO FEET OF ANY JOINT.
2. TAPS IN MULTIPLE GROUPS SHALL NOT BE MADE IN THE SAME LONGITUDINAL LINE OF THE PIPE BUT MUST BE STAGGERED VERTICALLY.
3. TAPPING SADDLE SHALL BE EPOXY COATED, DUCTILE IRON BODY WITH STAINLESS STEEL BAND(S) AND HARDWARE.
4. BRASS FITTINGS AND BALL VALVES SHALL BE FORD F1100 OR EQUAL.
5. ALL SERVICES SHALL BE 1\"/>
6. ALL SLEEVE ENDS SHALL BE SEALED WITH FOAM SEAL.
7. STEEL INSERT STIFFENERS WILL NOT BE ACCEPTABLE.
8. SLEEVE SHALL BE INSTALLED UNDER THE ROADWAY BY PNEUMATIC BULLET OR DIRECTIONAL DRILL



NOTES:

- 1.) EITHER 90°-DEGREE OR 45°-DEGREE FITTINGS MAY BE USED WITH THE REQUIRED LENGTH OF RESTRAINED JOINT FITTINGS.
- 2.) B. F. P. A. SHALL BE REDUCED PRESSURE TYPE. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AND/OR ASSE 1013.
- 3.) ALL CONCRETE PENETRATIONS SHALL REQUIRE PIPE TO BE WRAPPED WITH INSULATING MATERIAL.
- 4.) VALVES SHALL BE NON-RISING STEM TYPE.
- 5.) ALL METERS 1 1/2 & UP WILL HAVE FLANGES.
- 6.) PIPE BETWEEN TAP & ISOLATION VALVE SHALL BE C900 PVC OR DUCTILE.
- 7.) THE WATER METER AND BACKFLOW PREVENTER SHALL BE THE SAME SIZE.
- 8.) 2\"/>
- 9.) NO SPOOL PIECE REQUIRED FOR 3/4\", 1\", OR 1 1/2\"/>
- 10.) ALL COMMERCIAL AND MULTI FAMILY UNIT METERS MUST BE ABOVE GRADE. BACKFLOW PREVENTION ASSEMBLY NOT REQUIRED FOR REUSE METER.

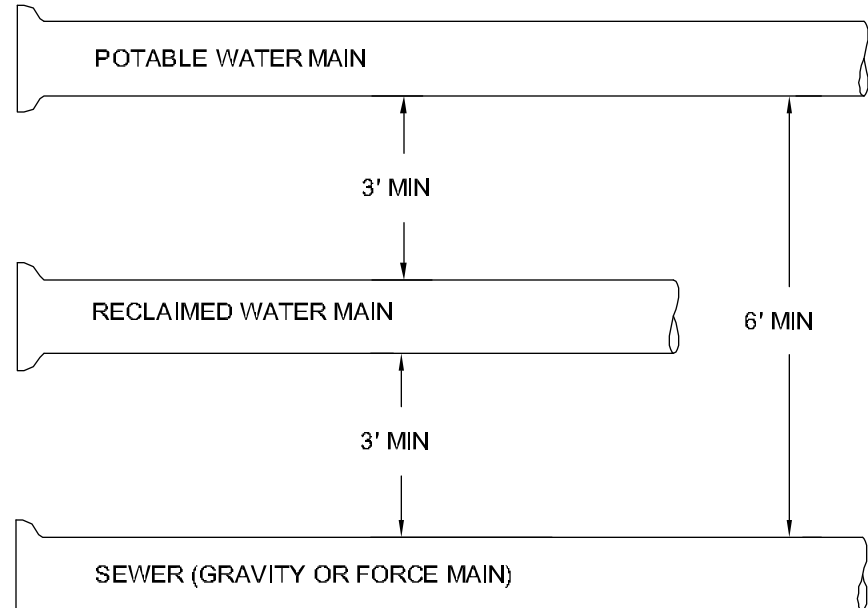


METER SIZE (IN.)	X (IN.)
3/4"	7 1/2"
1"	11"
1 1/2"	13 1/8"
2" PD	17"
2" COMPOUND	15 1/4"
3"	17"
4"	20"

METER SIZE (IN.)	BY-PASS SIZE
3/4"	3/4"
1"	3/4"
1 1/2"	1"
2"	1 1/2"
3"	2"
4"	3"

- (A) FLANGED GATE VALVE
- (B) STRAINER
- (C) SPOOL PIECE
- (D) METER (PROVIDED BY THE CITY)
- (E) SPOOL PIECE
- (F) BACKFLOW PREVENTION ASSEMBLY
- (G) LOCKABLE BALL VALVE

HORIZONTAL CLEARANCE



MINIMUM SEPARATION DISTANCES (FT)

(OUTSIDE OF PIPELINE TO OUTSIDE OF PIPELINE)

	WATER MAIN	FORCE MAIN	SANITARY SERVICE	REUSE MAIN	STORM WATER	OTHER UTILITIES (TELEPHONE, CABLE ETC.)
WATER MAIN	3	6	6	3	3	3
FORCE MAIN	6	3	3	3	3	3
SANITARY SEWER	6	3	3	3	3	3
REUSE MAIN	3	3	3	3	3	3
STORM WATER	3	3	3	3	3	3
OTHER UTILITIES	3	3	3	3	3	3

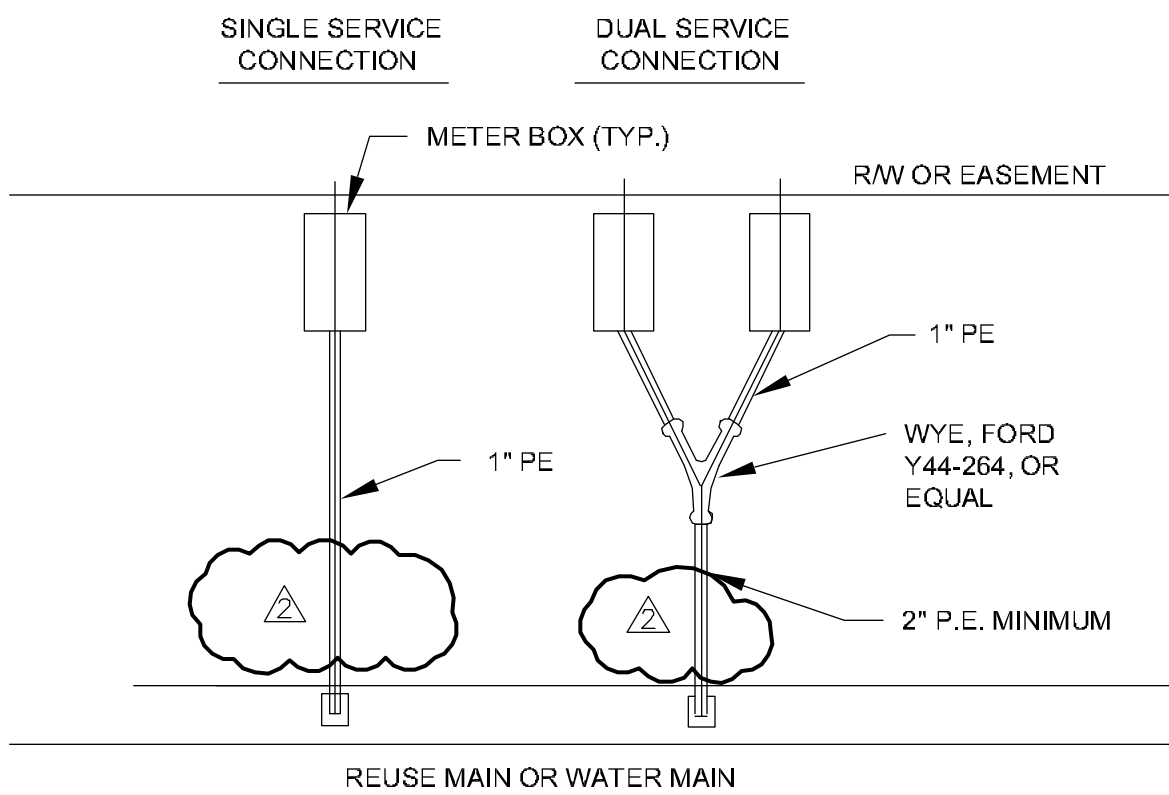
MINIMUM VERTICAL SEPARATION DISTANCES (IN)

(OUTSIDE OF PIPELINE TO OUTSIDE OF PIPELINE)

	WATER MAIN	FORCE MAIN	SANITARY SERVICE	REUSE MAIN	STORM WATER	OTHER UTILITIES (TELEPHONE, CABLE ETC.)
WATER MAIN	6	12	12	12	6	6
FORCE MAIN	12	6	6	6	6	6
SANITARY SEWER	12	6	6	6	6	6
REUSE MAIN	6	6	6	6	6	6
STORM WATER	6	6	6	6	6	6
OTHER UTILITIES	6	6	6	6	6	6

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WRS-2

UTILITY CONFLICT DETAILS



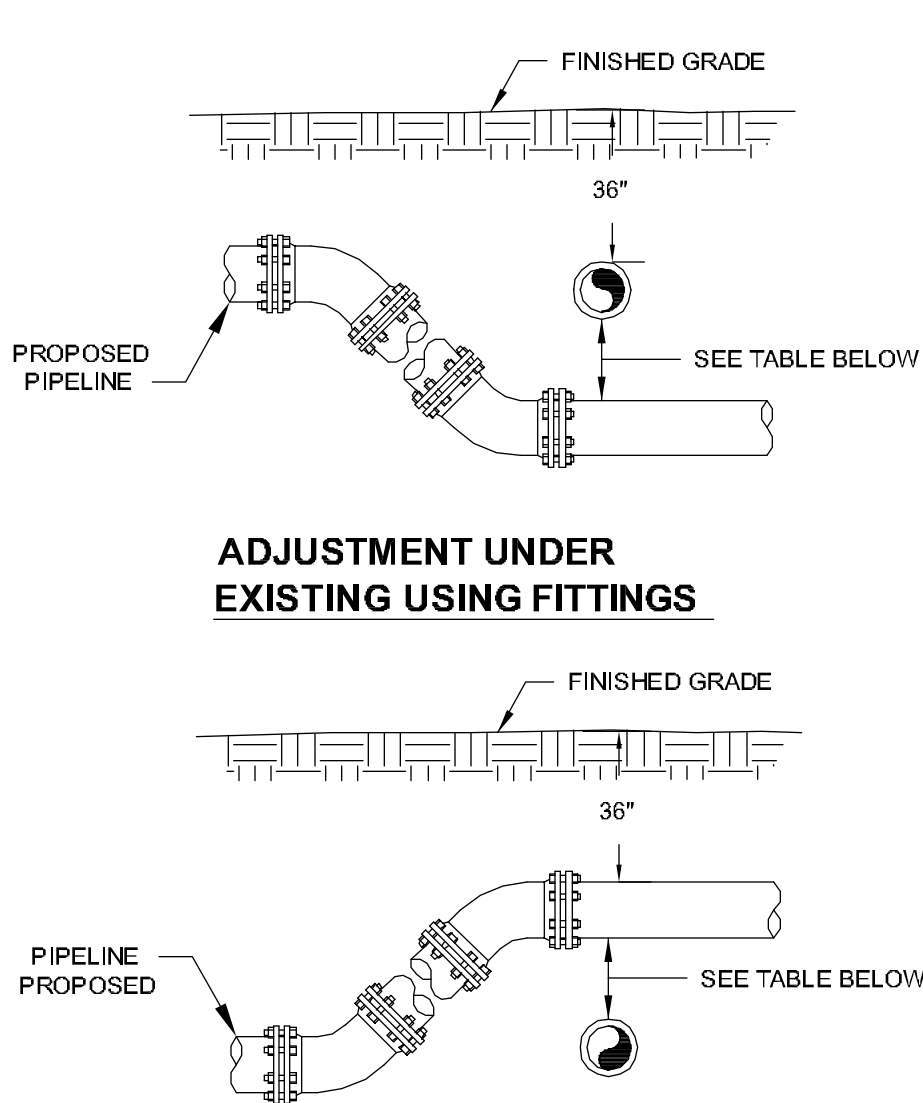
8
WRS-2

METER CONNECTION RESIDENTIAL USE ONLY

1. A DRILLING BORE LOG SHALL BE SUBMITTED WITHIN SEVEN (7) DAYS OF PERFORMING THE BORE. DEPTHS SHALL BE RECORDED AT A MAXIMUM OF EVERY TEN (10) FEET. RECORD DRAWINGS SHALL INDICATE ELEVATIONS.
2. ALL DBs SHALL BE HIGH-DENSITY POLYETHYLENE (HDPE) WITH DR-11 MINIMUM OR EQUAL.
3. PIPE SHALL BE COLOR-CODED BY THE PIPE MANUFACTURED DURING FABRICATION INDICATING APPROPRIATE SERVICE.
4. AIR RELEASE VALVES SHALL BE INSTALLED ON THE UPSTREAM SIDE OF THE BORE, IF SHOWN ON THE DRAWINGS.
5. WELDED MJ ADAPTERS ARE REQUIRED AT BOTH ENDS OF THE BORE. STEEL INSERT STIFFENERS WILL NOT BE ACCEPTABLE.
6. TRACE WIRES REQUIRED. SECURE TO PIPE PRIOR TO PULLING.
7. ISOLATION VALVE SHALL BE INSTALLED ON BOTH SIDES OF DIRECTIONAL BORE.
8. DIRECTIONAL BORING MUST BE COMPLETED BETWEEN THE HOURS OF 8:00 A.M. AND 3:00 P.M.
9. ALL D.B.'S CROSSING A DITCH/SWALE MUST BE AT LEAST 36" BELOW ACTUAL/DESIGN BOTTOM OF CONVEYANCE.

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WRS-2

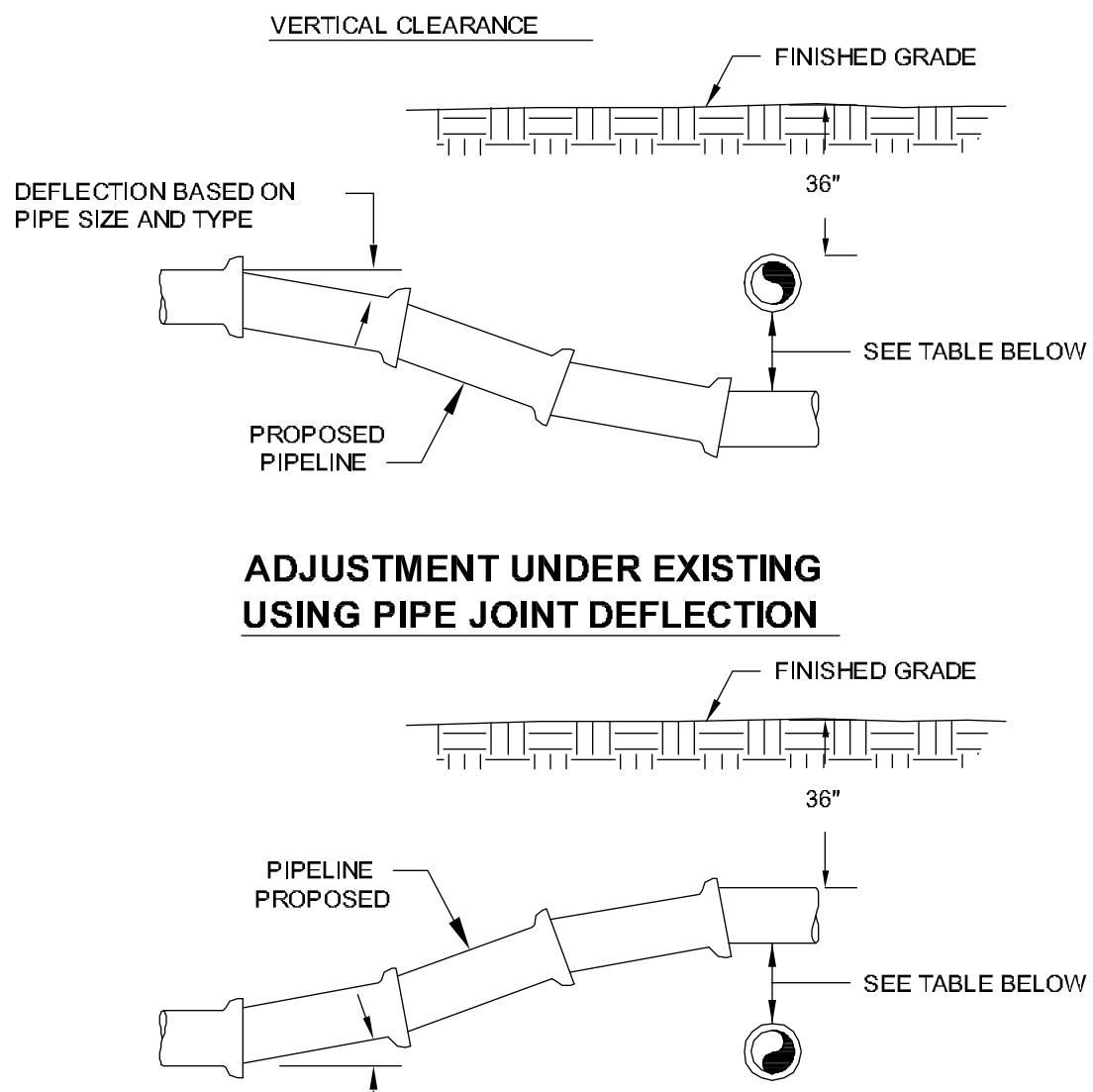
DIRECTIONAL BORING (DB)



ADJUSTMENT OVER EXISTING USING FITTINGS

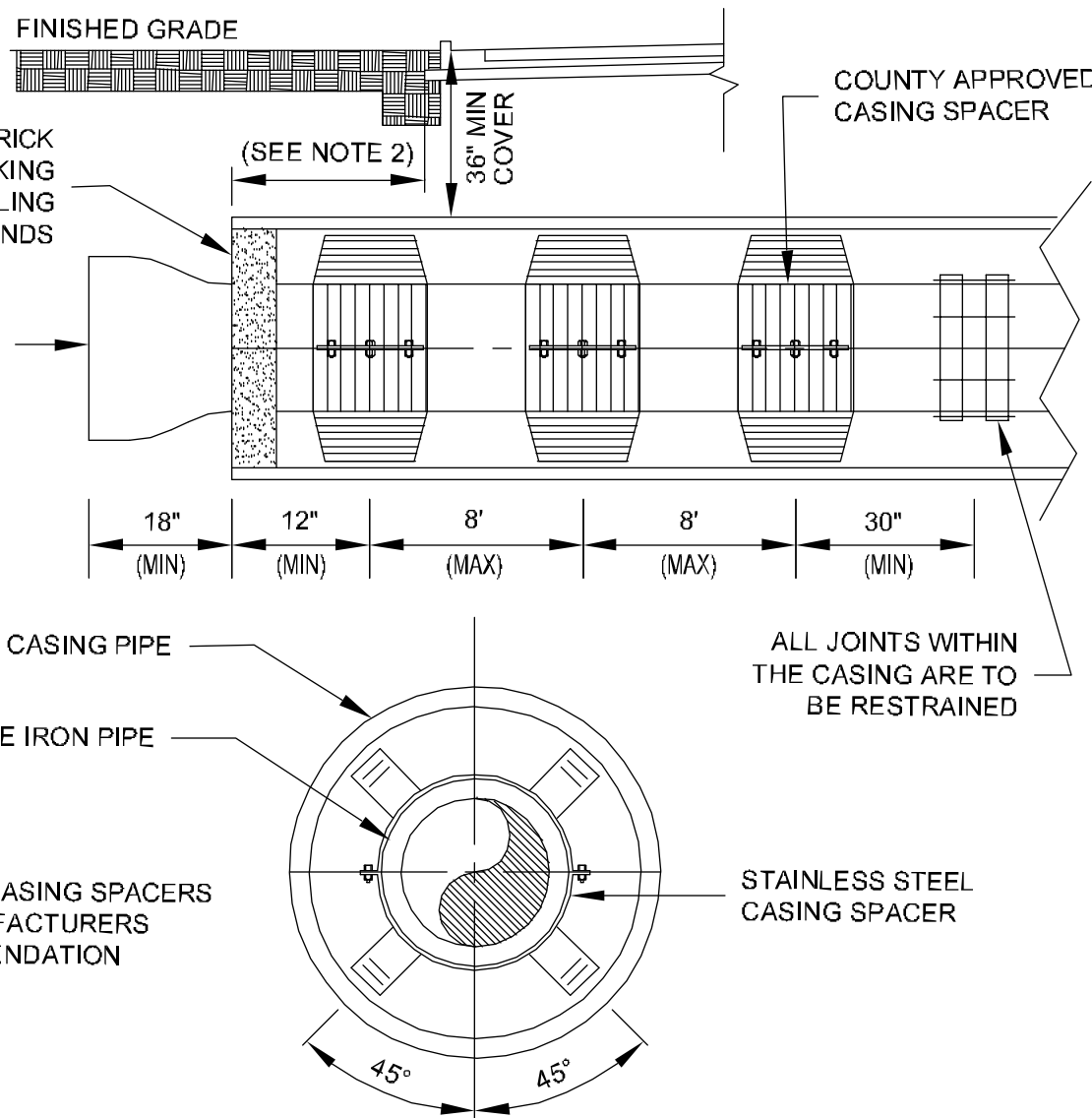
NOTES:

- 1.) MAXIMUM JOINT DEFLECTION SHALL BE 90% OF MANUFACTURER'S RECOMMENDATION.
- 2.) WHEREVER POSSIBLE, THE STRATIGRAPHY OF UTILITIES SHALL PLACE SANITARY SEWER AND SEWER FORCE MAINS BELOW RECLAIMED MAINS AND BELOW WATER MAINS, RESPECTIVELY. WHERE WATER MAINS ARE ABOVE GRAVITY SEWERS OR WASTEWATER FORCE MAINS, A VERTICAL CLEARANCE OF 6 INCHES IS ACCEPTABLE.
- 3.) ACCEPTABLE VARIANCES
 - A. WHERE HORIZONTAL SEPARATION CANNOT BE MAINTAINED, C900 DR14 PVC PIPE SHALL BE USED FOR ONE OF THE PIPELINES.
 - B. WHERE VERTICAL CLEARANCE CANNOT BE MAINTAINED, ONE FULL LENGTH OF DUCTILE IRON PIPE OR DR14 C900 PIPE SHALL BE INSTALLED CENTERED AT THE POINT OF CROSSING.
 - C. WHERE 30" MINIMUM DEPTH OF COVER CANNOT BE MAINTAINED, SPECIAL PROTECTION OR PIPE MATERIAL UPGRADE MAY BE REQUIRED, AT THE DISCRETION OF THE CITY ENGINEER.
- 4.) NO WATER PIPE SHALL PASS THROUGH, OR COME IN CONTACT WITH ANY PART OF A SANITARY MAN-HOLE OR STORMWATER STRUCTURE.



ADJUSTMENT UNDER EXISTING USING PIPE JOINT DEFLECTION

EXISTING STORM SEWER, WATER MAIN, TELEPHONE CABLE, SANITARY SEWER, POWER, CABLE TV, FORCE MAIN, GAS MAIN



CARRIER PIPE NOMINAL DIAMETER	CASING OUTSIDE DIAMETER	CASING WALL THICKNESS
6"	16"	0.250"
8"	20"	0.250"
10"	24"	0.250"
12"	30"	0.312"
16"	30"	0.312"
20"	36"	0.375"
24"	42"	0.500"
30"	48"	0.500"
36"	54"	0.500"
42"	60"	0.500"

NOTES:

1. PVC PIPE MAY BE USED UPON APPROVAL BY CITY OF VENICE.
2. WHERE POSSIBLE, CASING SHALL EXTEND 8' PAST E.O.P. AND NO LESS THAN 6' FROM E.O.P.
3. WHEN CONSTRUCTION IS WITHIN FOOT JURISDICTION, ADDITIONAL REQUIREMENTS MAY APPLY.
4. WOODEN CASING SPACERS ARE NOT ACCEPTED.

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JACK AND BORE DETAIL

DESIGNED
DRAWN
CHECKED
S.L.P.

City Of Venice
Utility Department
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Venice FL 34285
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www.kingengineering.com
Engineering License #2510

King
ENGINEERING ASSOCIATES, INC.

WATER MAIN REPLACEMENT PROGRAM PHASE-1

NO.	DATE	REVISION DOCUMENT	DESCRIPTION	APP'D BY
1	10/31/2013	ADDENDUM #1		
1	08/13/2013			

POTABLE WATER DETAILS (2)

THE SIGNATURE OF THE QUALITY CONTROL OFFICER IN THIS SPACE INDICATES THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED AND THAT CONSTRUCTION IS AUTHORIZED TO COMMENCE.

JOB NO.
4799-002-000
DATE
JUNE 2012
SCALE
AS SHOWN

SHEET NO.
D1.02

BID DOCUMENT
SEPT. 13, 2013