

**Bid Documents**

for the

2009 WATERLINE REPLACEMENT PROJECT

**Project #PW0913**

**CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON**

**BIDS DUE:** 2:00 PM, Tuesday, July 28, 2009; West Linn City Hall, 22500 Salamo Road, Mail Stop #800, West Linn Oregon 97068.

**BID OPENING:** 4:00 PM, Tuesday, July 28, 2009; West Linn City Hall, 22500 Salamo Road, West Linn Oregon 97068.

**CITY OF WEST LINN**

**Public Works  
Engineering Division**

22500 Salamo Road  
West Linn, Oregon 97068  
503 722-5501 FAX 503 656-4106

**PROJECT DOCUMENTS FOR THE**

**for the**

**2009 WATERLINE REPLACEMENT PROJECT**

**Project #PW0913**

**Project #**

**CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON**

**THE OFFICIALS OF THE CITY OF WEST LINN**

Mayor	Patti Galle
Council President	Jody Carson
Councilor	Teri Cummings
Councilor	Scott Burgess
Councilor	John Kovash
City Manager	Chris Jordan
Public Works Director	Gene Green

**CITY OF WEST LINN**

**2009 WATERLINE REPLACEMENT PROJECT**

**Project # PW0913**

IN WEST LINN, CLACKAMAS COUNTY, OREGON

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ADVERTISEMENT FOR BID

**2009 WATERLINE REPLACEMENT PROJECT**

**Project # PW0913**

IN WEST LINN, CLACKAMAS COUNTY, OREGON

**CITY OF WEST LINN, OREGON**

Sealed bids for the 2009 Waterline Replacement Project #PW0913 in the City of West Linn, Clackamas County, Oregon, will be received by Pat Rich, Engineering Administrative Assistant at City Hall, 22500 Salamo Road, West Linn, Oregon, 97068 (Telephone (503) 722-5501, Fax (503) 656-4106) until 2:00 PM, Tuesday, July 28, 2009. Bids received after 2:00 PM will not be considered. First Tier Subcontractors Disclosure forms shall be submitted not later than 4:00 PM, Tuesday, July 28, 2009. Bids shall be publicly opened and read at 4:00 PM Tuesday, July 28, 2009. Bids shall be clearly marked "**Project #PW0913**".

The project is a public work subject to ORS 279C.800 to 279C.870 or the Davis-Bacon Act, 41 U.S.C. 3141 to 3148.

Work generally consists of approximately 3,650 feet of 8" ductile iron pipe, 175 feet of 2" rigid copper pipe, and valves, connections, transitions, and other associated fittings. The contract work must be completed within four (4) months following award; however, once work is commenced on site, all work must be completed and accepted within sixty (60) days from commencement of the work on-site. The Approximate budget range for this project is \$350,000 - \$450,000. Alternatives, if any, will be decided based on the available funds and the lowest bidders.

The project plans, specifications and proposed contract provisions may be reviewed at no cost through the City of West Linn's website at <http://westlinnoregon.gov/rfps> or obtained through the City of West Linn Engineering Division located at 22500 Salamo Road, West Linn, Oregon.

Bidders for this project must be pre-qualified by completing a pre-qualification application provided with the bid documents. The pre-qualification form may be submitted with the bidder's bid proposal; however, it must be submitted to the Owner at least three (3) days prior to the bid opening date in order for the prospective bidder to retain their right to appeal should they be disqualified by a public officer representing the Owner. If the pre-qualification form is submitted less than three (3) days prior to the bid opening date, the right of appeal is lost. The City shall consider no bid unless the bidder is registered with the Construction Contractor Board and the bidder has complied with all prescribed public-bidding procedures and requirements, bids not in compliance will be rejected. The City of West Linn reserves the right to reject any or all bids, to postpone the award for 60 days, to delete certain items from the proposal, and to award the contract to the lowest responsive, responsible bidder.

Dated this June 29, 2009

Jim Whynot  
Project Manager

Publication Date  
Daily Journal of Commerce: July 6, 2009



## **2009 WATERLINE REPLACEMENT PROJECT**

### **Project #PW0913**

CITY OF WEST LINN, OREGON

### ***PROJECT INFORMATION***

#### **PROJECT QUESTIONS**

More detailed information concerning the project may be obtained by contacting:

Jim Whynot  
City of West Linn, Engineering Division  
22500 Salamo Road, West Linn OR 97068  
Phone (503) 742-8615 FAX (503) 657-3237  
E-mail: jwhynot@westlinnoregon.gov

#### **GENERAL DESCRIPTION**

The Work generally consists of the following items:

1. 3,650 feet of 8" ductile iron pipe
2. 175 feet of 2" rigid copper pipe
3. valves, connections, transitions, reducers, etc. and other associated fittings necessary to complete the project.

In accomplishment of this scope, performance of additional and incidental work as called for by the specifications and plans or to be determined on site will be required and be included in the quoted bid and shall be paid based on the unit prices quoted in the bid of the successful bidder.

It is understood that these improvements are intended to become the property of the City of West Linn upon completion and acceptance by the City Engineer.

This is a Fixed Price Lump Sum type contract. A Schedule of Values (Unit Prices) must be submitted with the bid for use in pricing incidental changes to the contract work (additions or deletions not to exceed twenty (20) percent of the total proposal price to serve as basis for unit changes.

Estimated quantities for each bid item shall be shown in the bid.

**PRE-BID CONFERENCE** A **mandatory** pre-bid conference will be held on the July 15, 2009, at 9:00 a.m. at Public Works Operation Building located at 4100 Norfolk Street, West Linn, OR. No statement made by City's agents at such meeting not otherwise provided herein shall be binding on City unless confirmed by written addendum.

**TIME OF COMPLETION** The time of completion of the work to be performed under this contract is as follows:

The contract work must be completed within four (4) months following award; however, once work is commenced on site, all work must be completed and accepted within sixty (60) days from commencement of the work on-site.

Delays and extensions of the time may be allowed in accordance with section 108.06 of the City of West Linn Standard Construction Specifications.



**LIQUIDATED DAMAGES** The Contractor agrees that the "Time of Completion" is defined in the Bid and is four (4) months from date of contract award, and agrees to complete the work by said date. The Contractor and City agree that the City will suffer damages each day the work remains uncompleted after the Time of Completion and that the amount of those damages will be difficult to ascertain. Contractor and City agree that a reasonable amount of damages for late completion is **\$500.00 (Five hundred dollars)** per day for the first 7 calendar days starting the first day following the current contract completion date. Damages for late completion shall increase to **\$1,000 (One Thousand Dollars)** per day beginning the eighth day following the current contract completion date, and for every calendar day thereafter during which the work remains uncompleted. Contractor agrees to pay these sums as damages and agrees that they are not imposed as a penalty.

**BID SECURITY** Bids must be accompanied by a certified check drawn on a bank in good standing, or a bid bond issued by a surety company authorized to issue such bonds in the State of Oregon, in an amount of not less than **ten percent (10%)** of the total amount of the bid submitted. This check or bid bond shall be given as a guarantee that if awarded the contract, the successful bidder will execute the attached contract and furnish a properly executed performance bond in the full amount of the contract price within the time specified.

**PRE-QUALIFICATION OF BIDDERS** Pre-qualification is required for this project. Bidders who are not pre-qualified (as stated above) will not be considered. Pre-qualification must include local experience with ductile iron water line replacement within the last twelve months. Additionally, bidder must list applicable water line replacement projects within last twelve with contact information of the entity for whom the work was done.

Successful bidder must also have either a City of West Linn Business License or a current Metro License and must comply with ORS 279C.505(2) relating to employee drug-testing program (refer to Section 11 of contract). Bidder shall also identify whether it is a resident Bidder as defined in ORS 279A.120.

Bidders shall comply with the provisions of ORS 279C.800 to 279C.870 or the federal prevailing rate of wage required under the Davis-Bacon Act (40 U.S.C. 3141 et seq.), as applicable. No bid will be considered by the City unless the bid contains a statement by the bidder guaranteeing compliance with ORS 279C.838 or 279C.840 or 40 U.S.C. 3141, et seq. The Prevailing Wage Rates are available on the Bureau of Labor and Industries' (BOLI) website at [http://www.oregon.gov/BOLI/WHD/PWR/pwr\\_book.shtml](http://www.oregon.gov/BOLI/WHD/PWR/pwr_book.shtml) for downloading.

Bidder shall also certify in its bid that it has not and will not discriminate against any minority, women, or emerging small business enterprise in obtaining any required subcontract for this project.

**RECORD OF EXPERIENCE BY THE PRIME CONTRACTOR** At the time of submission of bids, all bidders must provide and certify information that clearly demonstrates a 3-year period of expanding experience. Said experience must be with products, similar to that specified in this contract. Experience must include projects of a similar size and scope of work and be within the local geographic area (within 200 miles). Information shall be provided on form provided in the bid packet and include project name, description of work, cost, location, point of contact, and telephone number. The City of West Linn reserves the right to reject bids that do not contain and confirm the required experience information.

**CONTRACT DOCUMENTS** The Contract Documents pertaining to this work consists of the material bound and attached herewith. Contract amount will be determined based on the available funds, selected alternatives, if applicable, and the lowest responsive bid. These Contract Documents are intended to provide all details reasonably required for the execution of the proposed work. Any person contemplating the submission of a bid and being in doubt as to the meaning or intent of said Contract Documents should request of the Project Manager, in writing, an interpretation thereof. Any interpretation or change in said Contract Documents should be made in writing, and a copy of such interpretation or change will be published, as shall be all other addenda, on City's Web site. Addenda may be downloaded off the City's Web site. Bidders should frequently check the City's Web site until closing, i.e., at least

once weekly until the week of Closing and at least once daily the week of the Closing. City will not be responsible for any other explanation or interpretation of said Documents.

**CONSTRUCTION STANDARDS APPLICABLE** The West Linn Public Works Design and Construction Standards and Standard Construction Specifications and AWWA standard construction practices in their entirety are hereby incorporated by reference. If there is a conflict, the more restrictive requirement shall prevail.

**WORK PERFORMED BY THE PRIME CONTRACTOR** At the time of submission of bids, all bidders must identify and certify their company will accomplish a minimum of 50% of on-site construction involving both labor and materials. The City of West Linn reserves the right to reject bids that do not clearly and accurately identify the minimum of on-site work to be performed by the contractor.

**SUPERVISION OF WORK BY THE PRIME CONTRACTOR.** Only an experienced, full-time employee of the prime contractor will supervise the work on behalf of the prime contractor. Said supervisor must have a demonstrated supervisory role of a minimum of three (3) years and be employed by the prime contractor for a minimum of twelve (12) months prior to the award of the contract.

**CONTRACTING LICENSE REQUIREMENT** The bidder must be registered with the Oregon Construction Contractors Board. Each bid must contain the license number of the bidder.

**PREPARATION OF BID** The bid for the work contemplated is to be submitted on the form prescribed in the bid herein. All blank spaces on the bid form must be filled in, in ink, in both words and numbers where applicable. No changes shall be made in the phrasing of the forms or in the items mentioned herein. Written amounts shall govern in cases of discrepancy between the amounts stated in writing and the amounts stated in numbers.

Any bid which contains omissions, erasures, alterations, additions of any kind, or items uncalled for, or which in any manner fail to conform to the conditions of the published Advertisement for Bids and associated addenda, may be rejected by the City of West Linn.

Bids made by corporations or partnerships shall contain names and addresses of the principal officers or partners.

**SUBMISSION OF BIDS** All bids must be submitted at the time and place and in the manner prescribed in the Advertisement for Bids. Bids must be made on the prescribed bid forms attached herewith, and submitted intact with the bid documents. Late bids will not be considered. Faxed or e-mailed bids will not be considered.

**FIRST TIER SUBCONTRACTOR DISCLOSURE** If a bid for the project is greater than \$100,000, within two working hours of the date and time the bids are due, the Bidder must submit a written disclosure of the names, addresses, Construction Contractor's Board Number, if applicable, and amount of subcontract for all first-tier subcontractors furnishing labor or labor and materials whose subcontracts are equal to or greater in value than 5% of the total project bid or \$15,000, whichever is greater, and the describe the Work that each Subcontractor will perform.

**WITHDRAWAL OF BID** Any bid may be withdrawn prior to the scheduled date and time for the opening of bids either by telegraph, telephone, written request, or in person. No bid may be withdrawn after the time scheduled for opening of bids unless the time specified for awarding bids has elapsed.

The City reserves the right to retain the bid security of the three (3) lowest bidders until the successful bidder has furnished a one hundred percent (100%) performance bond. Upon failure of the successful bidder to deliver performance bond within the specified time, the next lowest bid may be accepted at the City's discretion, whereupon the above instructions and requirements will apply to the said second bidder. Bid security of all bidders, except the three (3) lowest, will be returned promptly after the evaluation of bids; bid security of the three lowest bidders will be

returned within three (3) days after the contract has been executed or other disposition made thereof in accordance with the provisions stated herein.

**CONDITIONS OF WORK** Each bidder must inform himself of the conditions relating to the execution of the work, and it is assumed that he will inspect the site and make himself thoroughly familiar with all the Contract Documents. Failure to do so will not relieve the successful bidder of his obligation to enter into a contract and complete the contemplated work in strict accordance with the Contract Documents. Each bidder must inform himself on all laws and statutes, both Federal and State, relative to the regular execution of the work, the employment of labor, right-of-way, and access to the work, fire protection regulations, and similar requirements. Pursuant to ORS 279C.525, the City hereby alerts the bidders to federal, state and local agencies that have enacted ordinances, rules or regulations dealing with the prevention of environmental pollution and the preservation of natural resources that affect the performance of the contract by directing bidders to refer to the Commentary on page 55 of City of West Linn Resolution No. 05-03, where a list of such federal, state and local agencies is set forth.

**AWARD OR REJECTION** The contract will be awarded to the lowest responsive, responsible bidder complying with the bid specifications. Should the City have sufficient funding and desire alternates, the contract will be awarded the alternates selected by the City in the City's discretion.

As required by ORS 279A.120, the City shall add a percent increase to each out-of-state bidders bid price equal to the percent of preference given to local bidder's in the bidder's home state. The City reserves the right to reject any or all bids or to waive any formality, informality, irregularity, or technicality in any bid. No bidder may withdraw his bid for a period of ninety (90) days after the date of opening thereof. The acceptance of a bid will be by notice in writing, mailed or delivered to the office designated in the Bid. The City may reject any bid not in compliance with all prescribed public bidding procedures and requirements, and may reject for good cause any or all bids upon a finding by the City that it is in the public interest to do so.

**ADDENDA** Any addenda issued during the time of bidding and forming a part of the Contract Documents to the bidder for the preparation of his bid, shall be covered in the bid, and shall be made a part of the contract. Addenda will be handled as follows: City will not mail notice of Addenda, but will publish notice of any Addenda on City's Web site. Addenda may be downloaded off the City's Web site. Bidders should frequently check the City's Web site until the date of closing, i.e., at least once weekly until the week of Closing and at least once daily the week of the Closing. Each addendum shall be required to be acknowledged in writing by the bidder.

**EXECUTION OF CONTRACT** The contract is executed upon signature of the contract document by both the City Manager and the Contractor's representative authorized to sign the contract.

**PERFORMANCE, PAYMENT AND PUBLIC WORKS BOND** The successful bidder shall file with the City performance and payment bonds in the full amount of the contract price of the contract within five (5) working days of notification of award of the contract by the City. The surety company furnishing this bond shall have a sound financial standing and a record of service satisfactory to the City and shall be authorized to do business in the State of Oregon. The Attorney-in-Fact (Resident Agent) who executes this performance and payment bond in behalf of the surety company must attach a copy of his power-of-attorney as evidence of his authority. A notary shall acknowledge the power as of the date of the execution of the surety bond which it covers. Prior to commencing work, Contractor shall also furnish proof of filing of a public works bond in the form and amount specified in ORS 279C.836, with the Construction Contractor's Board.

**FAILURE TO FURNISH BOND** Should the successful bidder fail or refuse to execute the contract and furnish the performance and payment bonds, then the bid security deposited by said bidder shall be retained as liquidated damages by the City. It is agreed that this said sum is a fair estimate of the amount of damages the City will sustain in

case the bidder fails to comply as provided herein and is not a penalty. Bid security deposited in the form of a certified check shall be subject to the same requirement as a bid bond.

**RESPONSIBILITY OF PUBLIC AGENCY (CITY OF WEST LINN)** Advertise and accept bids for the project, award, administrate the contract and inspect the project for compliance with contract plans and specifications, and provide payment as provided for in this contract.

**CHANGES** City may at any time, and without notice, issue a written Change Order requiring additional work within the general scope of this Contract, or any amendment thereto, or directing the omission of or variation in work. If such Change Order results in a material change in the amount or character of the work, an equitable adjustment in the Contract price and other provisions of this Contract as may be affected may be made. Any claim by Contractor for an adjustment under this section shall be asserted in writing within thirty (30) days from the date of receipt from the Authorized Representative of City by Contractor of the notification of change, or the claim shall be deemed waived by contractor. The issuance of information, advice, approvals, or instructions by City's Representative or other City personnel shall not constitute an authorized change pursuant to this section. Whether made pursuant to this section or by mutual agreement, no change shall be binding upon City until a written Change Order is executed by the Authorized Representative of City, which expressly states that it constitutes a Change Order to this Contract. Nothing contained in this section or any claim by the Contractor shall excuse the Contractor from proceeding with the prosecution of the work in accordance with the Contract.

**CONTRACTOR'S RESPONSIBILITY** The Contractor shall complete the work as represented in these plans and specifications, and as modified by change order or written direction of the City. It is understood that the plans, specifications, and other contract documents do not purport to control the method of performing the work, but only the requirements as to the nature of the completed work. The Contractor assumes the entire responsibility for the method of performing and installing the work. Suggestions as to the method included in the contract documents shall be deemed advisory only and the feasibility of such methods or the lack thereof shall not affect the Contractor's liability or status as an independent Contractor under this contract.

**PAYMENTS** The City will make monthly payments as specified in the General Conditions, and as may be agreed by Contractor and Engineer. Progress payments may be submitted monthly to the City project manager. Projects lasting less than thirty (30) days in duration will not receive progress payments. If the City is notified that payment has not been made for labor or materials invoiced to the City, the City may withhold monies from payment to the Contractor in a sum sufficient to pay for such labor or materials. With the final contract payment request, the contractor must include a statement certifying that all persons/subcontractors/suppliers supplying labor and material, which costs are included with the current payment request, have been paid in full. Progress payments, less a five percent retainage as authorized by ORS 279C.555, shall be made to the Contractor within twenty (20) days of the City's receipt of the statement of services.

**FINAL PAYMENT:** The Contractor shall notify the City in writing when the Contractor considers the project complete, and the City shall, within 3 working days after receiving the written notice, either accept the work or notify the Contractor of work yet to be performed on the contract.

Upon acceptance by the City, the entire balance due to the Contractor, including the retained percentage, shall be paid to the Contractor, by the City within 30 days after the date of said final acceptance.

The City shall pay to the Contractor interest at the rate of one and one-half percent per month on the final payment due the Contractor, to commence 30 days after the work under the Contract has been completed and accepted and to run until the date when final payment is tendered to the Contractor. If the City does not, within three (3) working days after receiving written notice of completion, notify the Contractor of work yet to be performed to fulfill

contractual obligations, the interest provided by this subsection shall commence to run thirty (30) days after the end of the three (3) working day period.

As a further condition of final acceptance, the City may require the Contractor to submit evidence, satisfactory to the City's Representative, that all payrolls, material bills, and other indebtedness connected with the project have been paid, except that in case of any disputed indebtedness or liens, the Contractor may submit in lieu of evidence of payment, a surety bond satisfactory to the City guaranteeing payment of all such disputed amounts when adjudicated in cases where such payment has not already been guaranteed by surety bond.

**“AS BUILT” PLANS** The Contractor shall maintain a set of “as built” plans noting the actual work performed, including dimensions, depths, thickness, materials, and other pertinent information marked in red ink on a clean set of project plans. The contractor shall include detailed drawings and changes as necessary to supplement the plan information. The contractor shall record in the as built plans the depth, location, type of pipe, and other information about other utilities or facilities encountered while constructing this project. The contractor shall note the products, and manufacturers (where possible) of installed materials.

**WATER SUPPLY** The Contractor shall be responsible for providing for all water necessary for this project except for filling and testing of the new water line. The City of West Linn is the purveyor of water in this area. A locked water supply hydrant is available to contractors at 2042 8<sup>th</sup> Avenue in West Linn. Contact the City of West Linn, telephone 503-656-4261, to set up an account for this water source. Contractor shall comply with the instructions for use of City Water. Costs for handling the water shall be considered incidental to this contract.

**PROJECT WORK AREA CLEANLINESS** It is understood that the cleaning of the work areas is required at the end of each working day and after project completion is considered incidental and that no additional compensation will be paid individually for this work. Pavement areas will be swept clean and all construction debris will be disposed of in a way approved by the Project Engineer.

## **SPECIAL SPECIFICATIONS**



**2009 WATERLINE REPLACEMENT PROJECT**

**Project #PW0913**

CITY OF WEST LINN, OREGON

***SPECIAL SPECIFICATIONS***

**GENERAL INFORMATION**

These special specifications and provisions are for the work as described herein in conjunction with the associated project plans and other related documents. The construction drawings are to be considered a part of these specifications bound herein. It is understood that these improvements are intended to become the property of the City of West Linn upon completion and acceptance by the City Engineer.

Contact the following organizations before excavating in any area:

<u>Name of Utility</u>	<u>Telephone No.</u>	<u>Utility Lines</u>
Utility Notification Center	800 332-2344	Water, Sanitary Sewer, Stormwater, Electric, Gas, Cable TV, Telephone, and others

The contractor shall be responsible for repairing all damage to identified utility lines located within the construction limits. The City of West Linn holds no liability for the locations of sanitary sewer lateral service lines.

Estimated quantities for each bid item shall be as shown in the bid, and as broken down in the bid item quantity spreadsheet included in these documents. Actual quantities may vary and contract will be adjusted based upon bid unit prices on amounts not to exceed 25% of total estimated quantities.

Construction of the facilities shown in the plans and specifications for this project shall be in conformance with established good construction practices, any permit conditions, the Oregon Standard Specifications for Construction, the City of West Linn Public Works Design and Construction Standards, the current versions of the Uniform Building Code, Uniform Plumbing Code, Oregon State Plumbing Specialty Code, Oregon State Health Division Rules and Standards, Oregon State Department of Environmental Quality Rules and Standards, and product manufacturers' recommended procedures. Where any of these rules or standards is in conflict with one another, the City Engineer shall determine which rules or standards shall govern.

Payment for each bid item shall be as set forth in the bidder's bid and shall include, but is not limited to, providing all materials, labor, and equipment necessary to perform the work listed herein. Work listed in each bid item shall be performed in accordance with the appropriate sections of the standard specifications, special specifications, standard details, and construction plans, except as modified herein.

**PRE-CONSTRUCTION CONFERENCE** Pre-construction conference is required prior to start of this project. Traffic control plans and construction schedule shall be submitted to the City at least five (5) working days prior to pre-construction conference for approval.

**CONTRACTOR'S NOTIFICATION RESPONSIBILITY PRIOR TO BEGINNING WORK** It is the contractor's responsibility to notify the City's Project Manager ten (10) working days prior to beginning work on any portion of this project. It is also understood that it is the contractor's responsibility to notify residents within the project vicinity at least five (5)



working days prior to beginning work. Traffic control plan shall be submitted and approved three (3) weeks prior to beginning work with all the required signs to be installed at least two (2) weeks prior to beginning work.

Approval of the extent and duration of all temporary street closures by the City Engineer is required prior to any such closure.

**LIMIT ON WORKING HOURS:** Working hours shall be limited as follows unless specifically authorized by the City Engineer:

Monday through Friday - 7:00 am to 7:00 pm,  
Saturday – 9:00 am to 5:00 pm,  
Sunday - no work is permitted

**MATERIAL SUBMITTALS:** The Contractor is responsible for submitting information to the City Project Manager for approval on all construction materials. The City will allow using of the Recycled Asphalt Product (RAP) per Section 00745.03 of the 2008 Oregon Department of Transportation Standard Specifications with no more than 30% RAP will be allowed in the base courses (Class B) and no more than 20% RAP will be allowed in the wearing courses.

**CORRECTION OBLIGATION PERIOD:** The Contract will execute its work in strict accordance with the Contract Documents in a sound and workmanlike manner. Contractor warrants and guarantees its work against all defects and deficiencies in material and workmanship. The Contractor agrees to correct all defects appearing in the work or developing in the materials furnished for a period of **eighteen (18) months** after the date of final acceptance of the work by the City and further agrees to indemnify and save the City harmless from any costs encountered in correcting such defects and damage occurring as a result of the defects or deficiencies. Further, if defects are corrected during the correction obligation period, a new eighteen (18) month period for that portion of the work will commence upon acceptance of the corrected work by the City.

**TIME LIMIT OF UNSETTLED DISPUTES:** No action, suit or other legal proceedings shall be maintained by Contractor arising out of the contract or breach thereof or anything done in connection therewith, unless commenced within **eighteen (18) months** of the final acceptance of the project. All claims or causes of action by or of Contractor in any way resulting from this contract shall be deemed barred unless action or suit thereon shall have been commenced within such time.

**COMPLIANCE WITH OREGON REVISED STATUTES:** The contractor must comply with all of the Oregon Revised Statutes for Public Works contracts, which are incorporated herein by this reference. Contractor shall comply with all applicable provisions of ORS 279C.505, ORS 279C.510, ORS 279C.515, ORS 279C.520, and ORS 279C.530. The contractor is specifically reminded that Performance and Payment bonds in a form acceptable to the City are required.

**PAYMENT OF MINIMUM WAGE RATE:** The contractor shall comply fully with all statutory requirements for payment of prevailing wage rates on public works projects. The hourly rate of wage to be paid workers on this project shall not be less than the specified minimum hourly rate of wage in accordance with ORS 279C.838 and 279C.840. shall not be less than the prevailing rate of wage for an hour's work in the same trade or occupation in the locality of the project. This requirement shall apply to all workers employed on the project by the prime contractor, subcontractors, or other persons doing or contracting to do the whole or any part of the work required for the project. The existing prevailing rates of wages as established by the Commissioner of the Bureau of Labor and Industries pursuant to ORS 279C.815 are hereby incorporated into these Specifications. The contractor shall obtain copies of applicable schedules of prevailing wage rates from the Bureau of Labor, 1400 Southwest Fifth Avenue, Room 514, Portland, Oregon 97201 or online at [http://www.oregon.gov/BOLI/WHD/PWR/pwr\\_book.shtml](http://www.oregon.gov/BOLI/WHD/PWR/pwr_book.shtml). When a contractor or subcontractor is a party to a statewide collective bargaining agreement in effect with any labor organization, the rate of wages provided for in such agreement shall be considered to be the prevailing rate of wage to be paid to the workers on this project.

In conformance with State of Oregon regulations, the contractor or its surety and every subcontractor or its surety shall submit a statement in writing to the City in a form prescribed by the State Labor Commissioner certifying under oath the hourly rate of wage paid each classification of workers employed for work on the project, and further certifying that no worker has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in this contract. These statements are to be submitted to the City's Project Manager.

There is no representation on the part of the City that labor can be obtained at the hourly rates required by this contract. It is the responsibility of the contractor to be aware of local labor conditions and perspective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of a payment of wage rates in excess of the prevailing wage rates.

**WORKERS' COMPENSATION INSURANCE AS REQUIRED BY ORS 656.017:** The contractor, its subcontractors, and all employers working under this project subject to the Oregon Workers Compensation Law, shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers. Evidence of contractor compliance with this requirement shall be submitted and approved by the City prior to payment.

**PERMITS:** The Contractor shall obtain all permits and licenses, including a City business license (if required), and pay any fees connected therewith, having to do with his construction operations except those permits specifically stated to be obtained by the City. The contractor shall confine his operations to within the permanent or construction easement limits, and street right-of-way limits. Any damage to private property, either inside or outside of the aforementioned limits, shall be the responsibility of the Contractor. The City shall waive the cost of a public works permit.

**OSHA:** During performance of the contract, the contractor or vendor is required to comply with the conditions of the Federal Occupational Safety and Health Act (OSHA) and the standards and regulations issued thereunder. The contractor shall further agree to hold the City, its employees, agents, City Councilors, and assigns harmless and free from liability for failure to comply with said standards and regulations. It shall be the sole responsibility of the contractor or vendor to remain familiar with said standards and regulations and maintain their enforcement.

**CONSTRUCTION SEQUENCING:** Construction sequencing requirements for this contract is as follows:  
The contractor shall propose a plan of work that is acceptable to the City Project Manager, and update the plan as necessary to remain current and responsive throughout the project.

**EXISTING UNDERGROUND UTILITIES:** There are existing underground utilities in the project area. There may be conflicts between existing utilities and the planned improvements. The City Project Manager and the contractor shall cooperate as necessary to make adjustments to successfully construct the project. Minor adjustments will be considered incidental to the project, and will be included under unit price items. Significant added costs will be covered under extra work or other payment method as may be agreed upon between the contractor and City Project Manager.

**TRAFFIC CONTROL:** The contractor is solely responsible for providing for public traffic safety during the construction work. A traffic plan shall be developed by the contractor and submitted to the City Engineer for approval prior to commencement of any work. The contractor shall maintain safe conditions for pedestrian and vehicular traffic.

**BID BOND**  
**Project #PW0913**

KNOW ALL MEN BY THESE PRESENTS, that

\_\_\_\_\_ /  
hereinafter called the Principal, and

\_\_\_\_\_ /  
a Corporation duly organized under the Laws of the State of Oregon, having its principle place of Business at

\_\_\_\_\_ /  
in the State of \_\_\_\_\_, and authorized to do business in the State of Oregon as Surety, are held and firmly bound unto the City of West Linn Engineering Department, hereinafter called the Engineering Department, in the penal sum of

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_), for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the Principal herein is herewith submitting his Bid for the above noted project in the City of West Linn, Oregon, said Bid, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if the said Bid submitted by the said Principal be accepted, and the Contract be awarded to said Principal, and if the said Principal shall execute the proposed Contract as required by the bidding and the Contract Documents within the time set by said Documents, then this obligation shall be void. If the Principal shall fail to execute the proposed Contract, the Surety hereby agrees to pay to the Engineering Department the penal sum as liquidated damages.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Principal

By: \_\_\_\_\_

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

Attorney-in-Fact (A Certified Copy of the Agent's Power  
of Attorney must be attached)

BID



## **BID CHECKLIST**

### **Project # PW0913**

NOTE: This checklist has been prepared as an aid to contractors in preparing and checking bids for completeness. However, it is not intended to incorporate all requirements of the bid documents. The contractor is responsible for familiarizing himself with the documents and completing all requirements for bidding.

#### **BID**

- ✕ Familiar with conditions of work and documents
- ✕ All bid items entered in WORDS AND NUMBERS
- ✕ All bids, including Base Bid, Additive Accumulation Bids (if any) and Attachments shall be filled out.
- ✕ Base Bid and Additive Accumulation Bids (if any) shall be signed by authorized representative with Title shown
- ✕ All blank spaces filled in
- ✕ Copies of addenda attached and SIGNED (if any)
- ✕ Registered with Construction Contractors Board, and license number noted
- ✕ Resident Bidder statement completed
- ✕ Written clarification MAY be attached
- ✕ Certified check or bid bond in the amount of 10% of Base Bid Total bid
- ✕ Contract Agreement signed and enclosed.
- ✕ Bid SEALED and SIGNED.
- ✕ Pre-qualification submitted with or prior to bid submission

#### **PROJECT NOTES:**

Workers Comp Insurance  
Prevailing Wage Rate

#### **QUESTIONS?**

Contact: Jim Whynot

**BIDS DUE:** 2:00PM , Tuesday, July 28, 2009.  
**City Hall, 22500 Salamo Road, West Linn, OR 97068**

**BID SHEET**  
**2009 WATERLINE REPLACEMENT PROJECT**  
**Project No. PW0913**

**Bid to accomplish all work per plans and specifications: \$ \_\_\_\_\_**

In words \_\_\_\_\_

Unit price installed for adds:

8" Ductile Iron Pipe (DIP): \$ \_\_\_\_\_ per linear foot

2" Rigid Copper Pipe (CU) \$ \_\_\_\_\_ per linear foot

Asphalt Paving \$ \_\_\_\_\_ per square foot





**BID ATTACHMENT**

The Bidder agrees that the lump sum prices and the unit prices represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in these Contract Documents. The amounts shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.

It is agreed that if the Bidder is awarded the Contract for the work described herein and fails or refuses to execute the Contract and furnish the specified Performance and Payment Bond within ten (10) calendar days after receipt of notification of acceptance of the Proposal, then, in that event, the bid security in an amount not to exceed ten percent (10%) of the bid, or

\_\_\_\_\_ DOLLARS  
(\$ \_\_\_\_\_), deposited herewith according to the conditions of the Advertisement for Bids and Information for Bidders, shall be retained by the Owner, as liquidated damages; and it is agreed that the said sum is a fair measure of the amount of damage the Owner will sustain in case the Bidder shall fail or refuse to enter into the Contract for the said work and to furnish the Performance and Payment Bond as specified in the Contract Documents. Bid security in the form of a certified check shall be subject to the same requirements as a bid bond.

If the Bidder is awarded a construction Contract on this Proposal, the Surety that will provide the Performance and Payment Bond is:

\_\_\_\_\_  
whose address is:  
\_\_\_\_\_

The name of the Bidder who is submitting this Proposal is:

\_\_\_\_\_  
doing business at:  
\_\_\_\_\_

which is the address where the contract and all communications concerned with this proposal shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2009 WATERLINE REPLACEMENT PROJECT**

Project No. PW0913

Mandatory Pre-bid Site Visit

By signing this form, bidder acknowledges that he attended pre-bid project site and that the bidder is fully aware of the site conditions before developing a bid proposal for this project.

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Firm Representative

\_\_\_\_\_  
Date



## CONTRACT FOR CONSTRUCTION SERVICES

1. This Agreement is entered into by and between the City of West Linn, hereinafter referred to as "City", and \_\_\_\_\_, hereinafter referred to as "Contractor", to provide the services described in the attached Exhibit "A", for the 2009 WATERLINE REPLACEMENT PROJECT, PROJECT# PW0913, hereinafter referred to as "Project", which by this reference is made part of this contract.

The following provisions shall comprise this contract:

2. In addition to this Agreement, the entire Contract between the City and Contractor includes the Bid Documents for the Project, the Contract Documents for the Project, the Proposal Response, the West Linn Public Works Design and Construction Standards and Standard Construction Specifications and the 2008 edition of the Oregon Department of Transportation Standard Specifications (collectively, the "Documents") all of which are incorporated into this Agreement by this reference. The Documents and this Agreement shall be referred to collectively as the "Contract". In the event of an inconsistency, provisions in this Agreement shall prevail over any provision in the Documents, and the provisions in the Contract Documents for the Project shall prevail over the Bid Documents and the Standard Construction Specifications – West Linn. Before submitting a bid, Contractor made a careful examination of the Documents and became fully informed as to the quality and quantity of materials and the character of the work required and has made a careful examination of the location and conditions of the work and the sources of supply for materials. City is not responsible for any loss or unanticipated costs that may be suffered by Contractor as a result of Contractor's failure to acquire full information as to all conditions pertaining to the work to be performed. No oral agreements or representations have been made or relied on in connection with this Contract.

3. Contractor shall furnish all necessary labor, materials, equipment, tools, and services necessary to perform and complete in a workmanlike manner all work required for the completion of the Project, in strict compliance with the Contract.

4. City agrees to compensate Contractor on a fee-for-services basis as outlined in the Proposal Response, a copy of which is attached hereto and labeled Exhibit "B". This agreement covers the period beginning \_\_\_\_\_, 20\_\_ through \_\_\_\_\_, 20\_\_, inclusive. All work on the project shall be completed within \_\_\_\_\_ days of the date of the Field Mobilization as defined in the Standard Construction Specifications – West Linn and \_\_\_\_\_ days of the Written Notice to Proceed. In the event that the work is not completed on time, Contractor agrees to pay City liquidated damages as provided in Section 108.85 of the Standard Construction Specifications – West Linn. Contractor further agrees that the liquidated damage amounts set out in the Standard Construction Specifications – West Linn are reasonable estimates of the damages resulting from delay of this Project and that it would be difficult or impractical to accurately calculate actual damages. Contractor agrees that liquidated damages shall not be assessed as a penalty.

5. Contractor agrees to contractually bind every subcontractor to the terms set forth in this Agreement and the Documents as set forth in Section 2, above.

6. Contractor shall file with the City both performance and payment bonds in the full amount of the contract price at the time of execution of the contract. The surety company furnishing this bond shall have a sound financial standing and a record of service satisfactory to the City and shall be authorized to do business in the State of Oregon. The Attorney-in-Fact (Resident Agent) who executes this performance and payment bond in behalf of the surety company must attach a copy of his power-of-attorney as evidence of his authority. A notary shall acknowledge the power as of the date of the execution of the surety bond, which it covers. Contractor shall also have on file with the Construction Contractor's Board a public works bond in the amount of \$30,000, as required by ORS 279C.836.

7. Each worker in each trade or occupation employed in the performance of this Agreement by Contractor or any subcontractor shall be paid not less than the specified minimum hourly rate of wage in accordance with ORS 279C.838 and 279C.840. Contractor and all subcontractors shall comply fully with the applicable provisions of ORS 279C.800 to 279C.870.

8. Work shall be performed in accordance with a schedule prepared by Contractor and approved by the City. Invoices submitted for payment in connection with this agreement shall be properly documented and shall indicate pertinent City contract and/or purchase order numbers. City shall pay each undisputed invoice and any undisputed portion of a disputed invoice within 15 days of receipt, but withhold retainage as provided in paragraph B of this section. The guaranteed maximum compensation authorized under this contract shall be

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A. Invoices from Contractor shall separate the total charges into three categories. One category shall be the amounts paid to subcontractors and suppliers. The second category shall be a portion of the scheduled management fee equivalent to the extent of the work performed. The third category shall be the amount of Contractor's directly supplied services. Contractor shall provide the following documentation with each invoice:

I. Copies of invoices from each subcontractor and supplier for which payment is sought.

II. Proof of payment of all invoices from subcontractors and suppliers from the previous month.

B. City may withhold 5 percent of each invoice as retainage to ensure completion of the contract. All amounts withheld as retainage shall be paid within 30 days of final acceptance by City of the work. For purposes of this section, the "work" includes completion of all construction and related activities. In the event that Contractor does not complete the work, City may apply any amounts retained towards completion of the work and shall not be obligated to make any additional payments.

C. In the event that the total amount of all invoices from Contractor to the City totals less than the Guaranteed Maximum Price, the total price of the contract shall be the total amount of all invoices. Contractor, having guaranteed the maximum price, shall not submit invoices that total more than the guaranteed maximum price.

9. Contractor's responsibilities as Construction Manager/General Contractor include using value engineering and other construction management practices to reduce the overall cost to the City.

A. Any costs saved as a result of value engineering and other construction management practices shall be to the sole benefit of the City. Contractor's compensation as set forth in this agreement is in part based on Contractor's ability to reduce overall costs, and Contractor is not entitled to further compensation as a result of any cost savings.

B. On completion of construction, Contractor shall provide documentation to the City of amounts saved through value engineering and other construction management practices.

10. As required by ORS 279C.825, the City shall pay to the Commissioner of the Bureau of Labor and Industries a fee. The fee shall be delivered to the commissioner at the following address: Prevailing Wage Rate Unit, Wage and Hour Division, Bureau of Labor and Industries, 800 NE Oregon Street #32, Portland, OR 97232.

11. No person shall be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency or where the public policy absolutely requires it, and in such cases the laborer shall be paid at least time and a half (1.5 times base pay) for all time in excess of 8 hours a day or 40 hours a week in any week when the work week is five consecutive days, for all time in excess of 10 hours a day or 40 hours a week in any week when the work week is four consecutive days, and for all Saturdays and legal holidays specified in ORS 279C.540.

12. The Contract Administrator for the Project shall be \_\_\_\_\_. All work shall be done under the oversight of the Contract Administrator, who shall have the authority to inspect all work on the project at any time. The Contract Administrator shall decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of work, interpretation of drawings and specifications, and all questions concerning the acceptable fulfillment of the Contract by Contractor.

13. Contractor is an independent Contractor and is not an officer, employee or agent of City as those terms are used in ORS 30.265. Contractor is not a contributing member of the Public Employees' Retirement System and will be responsible for any federal or state taxes applicable to payment received under the Contract. Contractor will not be eligible for any benefits from these contract payments of federal Social Security, unemployment insurance, workers' compensation or the Public Employee's Retirement System.

14. Contractor shall comply with all applicable federal and state civil rights and rehabilitation statutes, rules, and regulations. Contractor shall maintain valid all required licenses and certificates required by law. Contractor shall comply with all relevant provisions of the ORS Chapters, and all applicable requirements of ORS 279C.505, ORS 279C.510, ORS 297C.515, ORS 279C.520, ORS 279C.530, and ORS 279C.800-279C.870.

15. This Agreement shall benefit and bind the City and Contractor and their partners, successors, assigns and legal representatives. Neither City nor Contractor may assign, sell, or transfer any interest or obligation under the Contract without the express written consent of the other party. No written approval shall relieve Contractor of any obligations of this Contract, and any transferee shall be considered the agent of the Contractor and bound to perform in accordance with the Contract. Contractor shall remain liable as between the original parties as if no assignment had occurred. Contractor is responsible for the actions of all its personnel, laborers, suppliers, and subcontractors on the Project.

16. Contractor agrees to furnish the City evidence of commercial general liability insurance in the amount of not less than \$1,000,000 combined single limit per occurrence / \$1,000,000 general annual aggregate for personal injury and property damage for the protection of the City, its officers, commissioners and employees against liability for damages because of personal injury, bodily injury, death or damage to property, including loss of use thereof in any way related to this contract. The City, at its option, may require a complete copy of the above policy.

17. All employers, including Contractor, that employ subject workers who work under this contract in the State of Oregon shall comply with ORS 656.017 and provide the required worker's compensation coverage, unless such employers are exempt under ORS 656.126. Contractor shall ensure that each of its subcontractors complies with these requirements. Contractor shall maintain employer's liability insurance with limits of \$100,000 each accident, \$100,000 disease each employee, and \$500,000 each policy limit.

18. If any other required liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of this contract for a duration of thirty-six (36) months or the maximum time period the Contractor's insurer will provide "tail" coverage as subscribed, or continuous "claims made" liability coverage for thirty-six (36) months following the contract completion. Continuous "claims made" coverage will be

acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this contract.

19. The Contractor agrees to furnish the City evidence of business automobile liability insurance in the amount of not less than \$1,000,000 combined single limit for bodily injury and property damage for the protection of the City, its officers, councilors, and employees against liability for damages because of bodily injury, death or damage to property, including loss of use thereof in any way related to this contract. The City, at its option, may require a complete copy of the above policy.

20. The Contractor agrees to furnish the City evidence of professional liability insurance in the amount of not less than \$1,000,000 combined single limit per occurrence / \$1,000,000 general annual aggregate for malpractice or errors and omissions coverage for the protection of the City, its officers, councilors and employees against liability for damages because of personal injury, bodily injury, death or damage to property, including loss of use thereof, and damages because of negligent acts, errors and omissions in any way related to this contract. The City, at its option, may require a complete copy of the above policy.

21. The insurance, other than the professional liability insurance, shall include the City as an additional insured and refer to and support the Contractor's obligation to hold harmless the City, its officers, commissioners and employees. Such insurance shall provide sixty (60) days written notice to the City in the event of a cancellation or material change and include a statement that no act on the part of the insured shall affect the coverage afforded to the City under this insurance. The insurance company will provide written notice to the City within sixty (60) days after any reduction in the general aggregate limit. This policy(s) shall be primary insurance as respects to the City. Any insurance or self-insurance maintained by the City shall be excess and shall not contribute to it.

22. All disputes relating to or arising from this contract, the works to be performed under this Contract, or the negotiations leading to this contract shall be submitted to binding arbitration by a single arbitrator, using the rules of the Arbitration Service of Portland or similar rules. The prevailing party shall be entitled to an award of its reasonable attorney fees and costs.

23. If any provision of the Contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the provision held to be invalid.

24. The Contract shall be effective when executed by both parties.

25. Each person signing below represents that he or she has the authority to sign this agreement and to fully bind the principal.

CITY OF WEST LINN, AN OREGON MUNICIPALITY

By: \_\_\_\_\_

Date: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Tax I.D. \_\_\_\_\_

Approved as to Form

\_\_\_\_\_

City Attorney



**FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM**

**PROJECT NAME: 2009 WATERLINE REPLACEMENT PROJECT, PW PROJECT, PW0913**

**BID #: \_\_\_\_\_ BID CLOSING: Date: July 28, 2009 Time: 2:00 PM**

**This form must be submitted at the location specified in the Invitation to Bid on the advertised bid closing date and within two working hours after the advertised bid closing time.**

List below the name of each subcontractor that will be furnishing labor or materials and that is required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract. Enter 'NONE' if there are no subcontractors that need to be disclosed. (ATTACH ADDITIONAL SHEETS IF NEEDED.)

NAME	DOLLAR VALUE	CATEGORY OF WORK
1) _____	\$ _____	_____
2) _____	\$ _____	_____
3) _____	\$ _____	_____
4) _____	\$ _____	_____

Failure to submit this form by the disclosure deadline will result in a non-responsive bid. A non-responsive bid will not be considered for award.

Form submitted by (bidder name): \_\_\_\_\_

Contact name: \_\_\_\_\_ Phone no.: \_\_\_\_\_

**THREE YEAR EXPERIENCE RECORD**

Recent projects first

#1 (Project Name, Location, Contract Cost)

Project description: \_\_\_\_\_  
\_\_\_\_\_

Project completion date: (contract) \_\_\_\_\_ (actual) \_\_\_\_\_

Contact name: \_\_\_\_\_

Telephone: \_\_\_\_\_

#2 (Project Name, Location, Contract Cost)

Project description: \_\_\_\_\_  
\_\_\_\_\_

Project completion date: (contract) \_\_\_\_\_ (actual) \_\_\_\_\_

Contact name: \_\_\_\_\_

Telephone: \_\_\_\_\_

#3 (Project Name, Location, Contract Cost)

Project description: \_\_\_\_\_  
\_\_\_\_\_

Project completion date: (contract) \_\_\_\_\_ (actual) \_\_\_\_\_

Contact name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Attach additional sheets if needed.

**RECYCLED MATERIALS**

Following is a list of the bid items in which recycled materials is to be used by the Contractor along with the percentage of recycled materials contained within the finished product:

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**RESIDENT BIDDER STATUS**

Is the Bidder a resident bidder, as defined in ORS 279A.120 \_\_\_\_\_.

If not, list the state of residence of the bidder: \_\_\_\_\_.

**CONTRACTOR'S LICENSE NUMBER**

List Contractor's License Number: \_\_\_\_\_

Tax I.D. : \_\_\_\_\_

**BONDING INFORMATION**

If the Bidder is awarded a construction Contract on this Bid, the Surety that will provide the Performance and Payment Bonds is:

\_\_\_\_\_ whose address is:

---

The name of the Bidder who is submitting this Bid is:

\_\_\_\_\_ doing business at:

---

which is the address where the contract and all communications concerned with this bid shall be sent.



## ATTACHMENTS



## INSURANCE REQUIREMENTS

Project Name: \_\_\_\_\_

**The contractor should have the following insurance per Section 107.06 of the West Linn Public Works Standard Construction Specifications reproduced below:**

### 107.06 INSURANCE

#### A. General

1. The Contractor shall provide and maintain during the life of this Contract the insurance coverage designated hereafter. All costs for such insurance shall be born by the Contractor and shall be included in the contract price.

2. Prior to execution by the City and before commencing work under this Contract, Contractor shall furnish the City Engineer with certificates of insurance specified herein showing the name of the insurance carrier, coverage, type, amount (or limits), policy numbers, effective and expiration dates, description of operations covered, and containing substantially the following cancellation provision:

"The insurance covered by this certificate will not be canceled or materially reduced, except after 30 days written notice has been received by the City."

3. In case of the breach of any provision of this Article, the City, at its option, may take out and maintain, at the expense of the Contractor, such insurance as the City may deem proper. The City may deduct the cost of such insurance from any monies which may be due or become due the Contractor under this Contract.

#### B. Review and Approval of Insurance

The Contractor shall not commence work under this Contract nor allow any subcontractor to commence work on a subcontract until [it] the Contractor has obtained all the insurance required hereunder and such insurance has been approved by the Attorney. All policies or insurance and certificates of insurance shall be satisfactory to the City. Approval of the insurance shall not relieve or decrease the liability of the Contractor hereunder.

#### C. Workers' Compensation, the Federal Longshoremens' and Harborworkers' Act and the Federal Jones Act

1. The Contractor shall provide and shall require all subcontractors to provide workers' compensation coverage for all persons employed under this Contract including the Contractors' partners and any individual regardless of relation to the Contractor's partners and any individual regardless of relation to the Contractor or to the partners who provide work under this Contract. The Contractor shall be required to assure

that subject workers will receive the compensation for compensable injuries provided in ORS Chapter 656 either by:

- a. a carrier-insured employer; or
- b. a self-insured employer as provided by ORS 656.407.

In addition to the statutory benefits outlined above, the Contractor and all subcontractors shall provide employers' liability insurance with limits of not less than:

- \$100,000 each accident for bodily injury by accident
- \$100,000 each employee for bodily injury for disease
- \$500,000 policy limit for bodily injury by disease

2. Evidence of such coverage, including the guarantee or warranty period, shall be filed with the City and maintained for the duration of the Contract.

3. The Contractor shall defend, indemnify, and hold harmless, the City and the City's officers, agents, and employees against any liability that may be imposed upon them by reason of the Contractor's or subcontractor's failure to provide workers' compensation and employers liability coverage.

4. Where work under this Contract is subject to the Federal Longshoremens' and Harborworkers' Act or the Federal Jones Act, the Contractor shall provide coverage for such exposure.

#### D. General Liability and Automobile Liability

1. The Contractor shall provide a general liability policy that provides coverage for bodily injury including personal injury and property damage liability insurance and automobile liability insurance. Such insurance must protect the Contractor, the City, and their officers and employees from all things or damage which may arise out of this Contract or in connection therewith, including all operations of Subcontractors. Such insurance shall provide coverage for not less than the amounts for which public bodies are responsible as set forth in Oregon Revised Statutes Chapter 30, Tort Actions against Public Bodies, but in no event less than the following limits of liability:

- \$1,000,000 each occurrence
- \$1,000,000 general aggregate
- \$1,000,000 product and completed operations aggregate
- \$1,000,000 personal and advertising injury
- \$1,000,000 combined single limit automobile liability for owned, non-owned, and hired automobiles.

The policy shall contain an endorsement that the aggregate applies separately to this Contract.

The insurance shall be written on a comprehensive form which includes broad form property damage on an occurrence basis. Unless excluded by Special Specification, the general liability policy shall include, without deductible, coverage for premises operations, explosion and collapse hazard, underground hazard, products, completed operations, contractual insurance, and independent contractors. Such insurance shall be maintained until the expiration of the guaranty period required by the Contract. Failure to maintain liability insurance as provided above shall, at City's option, be cause for immediate termination of the Contract.



2. The Contractor shall provide a letter from the insurance company which states that such insurance shall be without prejudice to coverage otherwise existing.

3. The City of West Linn, its officers, agents, and employees, shall be named additional insureds in the Contractor's General Liability Insurance policy by attaching ISO Endorsement number CG 20 09 11 85 ADDITIONAL INSURED - Owners, Lessees, or Contractors (Form A) or its equivalent.

The policy shall also provide for a Cross Liability Endorsement or Separation of Insureds Endorsement.

The policy shall be endorsed to provide an AMENDMENT - AGGREGATE LIMITS OF INSURANCE (per project) specifying that a separate aggregate limit of liability applies to this Contract.

If there are insufficient insurance proceeds and assets of the Contractor to fully indemnify the City of West Linn, its officers, employees, agents, and the City Engineer, then the City, its officers, employees, and agents would be indemnified first with any remaining insurance proceeds and assets to be used to indemnify the City Engineer.

4. If set forth in the Special Specifications, additional insureds may be the City's consultant, engineer, other governmental bodies with jurisdiction in the area involved in the project, and their officers and employees and such agents as may be specified.

#### E. Claims on Project

1. The Contractor, when notified of a claim by an affected party shall:
  - a. Refer claim to the Contractor's insurance carrier or claims administrator.
  - b. Contractor's insurer will copy City on acknowledgment of claim.
  - c. Contractor's insurer will copy City on notice to claimant of disposition of claim.

#### F. Builders Risk Insurance

During construction, Contractor shall obtain and maintain for the benefit of the parties to the Contract as their interest may appear, all-risk Builder's Risk insurance to the extent of 100 percent of the value of the project. Coverage shall also include: (1) formwork in place; (2) form lumber on site; (3) temporary structures; (4) equipment; and (5) supplies related to the work while at the site. Such insurance shall be endorsed to require thirty days' written notice to the City prior to cancellation or change of the policy. One copy of the policy and two certificates of such insurance shall be delivered to the City before commencing work and shall be subject to review and approval by the City. The City may temporarily waive delivery of the copy of the policy. In the event Contractor fails to maintain such insurance, the City may arrange therefore; and any premium incurred shall be to the account of Contractor.

## TECHNICAL SPECIFICATIONS



**REPRODUCED FROM THE CITY'S PUBLIC WORKS STANDARDS**

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**401 GENERAL**

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The following specifications, in conjunction with applicable requirements of other parts of the contract documents, the plans, and addenda, shall govern the character and quality of material, equipment and construction procedures for water work. All work done shall be in compliance with the requirements and restraints of OSHA, the State of Oregon Accident Prevention Division regulations and the Workers' Compensation Board. In addition, all work shall be completed in conformance with State of Oregon, Clackamas County, and/or City of West Linn Street Opening Permits.

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**402 WATER WORKS MATERIALS**

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**402.01 DUCTILE IRON FITTINGS**

All fittings shall conform to ANSI/AWWA Specification C110/A21.10 or ANSI/AWWA Specification C153/A21.53. All ductile iron fittings shall be Class 350. Fittings shall be furnished with flanged or mechanical joints as specified on the plans. Fittings shall be furnished with a standard outside coating, and a cement mortar lining with bituminous seal coat conforming to ANSI/AWWA Specification C104/A21.4. Fittings shall be factory lined with cement mortar or cement lined to factory standards. No field coating with cement will be approved, other than for minor repairs. Fittings shall be new and free of defects in coating, body, and lining. During installation, fittings shall be properly aligned and bolted securely to provide watertight joints. All buried units and bolts shall receive a protective coating of Koppers Super Tank or approved equal. Protective coating shall be dried and cured before fitting is placed and covered. If coating is not dry, 2 layers of 8 mil plastic shall be wrapped around fitting and coated areas.

Fittings shall be manufactured by Griffin, Trinity Valley, Tyler, Union Foundry, U.S. Pipe, or approved equal.

**402.02 MECHANICAL JOINTS**

Mechanical joints, including accessory glands, gaskets, and bolts, shall conform to the requirements of ANSI/AWWA C111/A21.11, except where specifically modified in AWWA C153 for compact ductile iron fittings. As stated in AWWA C111, T-bolts shall be made of either high-strength cast iron containing a minimum of 0.50% copper, or high-strength, low alloy, steel. Bolts shall be marked to identify material and producer. Contractor shall provide the Owner with the bolt manufacturer's specifications, which shall give the following information: manufacturer's name, type of material, and identifying mark. Follower glands for mechanical joints shall be domestic made only.

Mechanical joint gaskets shall be made of vulcanized synthetic rubber and shall be no more than three years old.

The recommended installation procedures in AWWA specification C111, Appendix A, "Notes on Installation of Mechanical Joints", including bolt torque ranges, shall be followed.

#### **402.02.01    *Megalug Retainer Glands***

Retainer glands on mechanical joints are allowed only where approved by the City Engineer on a case-by-case basis. Retainer glands shall be MEGALUG brand, as manufactured by Ebaa Iron Sales, Inc., ONLY. MEGALUG's shall be used on ductile iron pipe and fittings only.

#### **402.03    *FLANGED JOINTS***

Flanges shall conform to ANSI Specification B16.1 for class 125 flanges and shall conform in all other respects to ANSI/AWWA C110/A21.11. Bolts for assembly of flanged joints shall be of the size and quantity shown in Table 10.14 on Page 34 of AWWA C110. As stated in AWWA C110, bolts shall conform to ANSI B18.2.1, Square and Hex Bolts and Screws Inch Series, Including Hex Cap Screws and Lag Screws. Nuts shall conform to ANSI B18.2.2, Square and Hex Nuts. Threads shall conform to ANSI B1.1, Standard for Unified Inch Screw Threads (UN and UNR Thread Form), Class 2A, external, and Class 2B, internal.

Bolts and nuts shall be of low-carbon steel conforming to the requirements of ASTM A307, Standard Specifications for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength, Grade B.

Contractor shall provide the Owner with the manufacturer's specifications regarding the bolts to be used on the project.

Flange gaskets shall be full-face, 1/8" thick, red rubber or approved equal.

#### **402.04    *FLANGED PIPE OR SPOOLS***

Flanged pipe or spools shall conform to the latest edition of ANSI/ANWA C115/A21.15. Flanges shall conform to requirements as specified in Subsection 402.04 "Flanged Joints". Pipe used shall be Class 53 D.I.. Pipe shall be furnished with coatings as specified in "Ductile Iron Pipe". Threads on the flanges and pipe barrel shall be taper pipe threads (NPT) in accordance with ANSI B1.20.1.

When ordering, the following minimum information shall be provided to the manufacturer: Pipe size and finished length (flg. to flg., flg. to p.e.).

Manufacturer shall provide the following information: Length and weight shown on each pipe, flange manufacturer marking, country where cast, and D.I. or C.I. stamped on flanges. If fabricator is other than flange manufacturer, fabricator's mark shall be stamped with metal die on each flange after assembly. Also, manufacturer shall provide statement that the flange pipe complies with the specified standards.

#### **402.05    *DUCTILE IRON PIPE***

Ductile Iron pipe shall be Class 52. Physical properties shall not be less than 60-42-10 iron and pipe shall conform to the latest revision of ANSI/AWWA Specification C151/A21.51. Ductile Iron pipe shall be factory lined with cement mortar and bituminous seal coat and coated outside with asphaltic seal coat. Push-on rubber gasketed joints shall be provided unless mechanical, flanged, or locked joints are specified on the plans. Push-on and mechanical pipe joints shall conform to ANSI/AWWA Specification C111/A21.11 and flanged joints shall conform to ANSI/AWWA C115/A21.15.

#### **402.06    *POLYETHYLENE ENCASEMENT***

Polyethylene film shall conform to ASTM Standard Specification D-1248-78, having a minimum thickness of 0.008" (8 mil). Only polyethylene tubing, and not sheets, shall be installed.

Polyethylene tubing shall be held in place with two-inch wide adhesive tape, which is compatible with polyethylene, with plastic binder twine, with nylon tie straps, or other method approved by the City Engineer.

#### **402.07 VALVES (GENERAL)**

Direct-buried line valves of 12-inch size and larger shall be butterfly valves. All smaller, direct-buried line valves shall be gate valves. All valves shall be designed to AWWA specifications and shall have standard 2-inch-square operating nut unless otherwise shown on the plans. All pipe valves and fittings shall be pressure rated at 250 to 350 psi and shall open counter clockwise. All fittings shall be factory cement lined and coated.

#### **402.08 GATE VALVES**

Two-inch gate valves shall be resilient seat (RS) double disc, non-rising stem with "O" ring packing, complying with AWWA Class "C" Specifications. Gate valves 4" through 10" shall be resilient seat, non-rising stem with "O" ring packing, complying with AWWA Class C Specifications. The valves shall be designed to withstand water-working pressures of 150 psi or more. All valves shall be furnished with a two-inch (2") square operating nut and shall open counter clockwise when viewing valve from above.

Operation of the valve shall permit full withdrawal of the disc from the waterway to provide a clear unrestricted passage when the valve is in the open position. The valve shall be furnished with mechanical joint ends unless otherwise specified. Where flanges are furnished on valves, they shall conform to ANSI Specification B-16.1, Class 125.

Specified 2" gate valves shall have a resilient wedge.

#### **402.09 BUTTERFLY VALVES**

All butterfly valves shall be rubber-seat type and bubble-tight at 150-psi pressure with flow in either direction. They shall be designed for direct burial and be satisfactory for application involving valve operation after long periods of inactivity. Valves shall conform to AWWA Specification C-504. All valves shall be Mueller or approved equal. Operating nut for the valve shall be located on the side of the main shown on the plans.

#### **402.10 FIRE HYDRANT ASSEMBLY**

Fire hydrants shall conform to AWWA Specification C-502. The hydrants shall have a 5-1/4-inch minimum valve opening with a six-inch (6") mechanical joint inlet, a six-inch (6") mechanical joint by flanged resilient seat auxiliary gate valve, two (2) 2-1/2-inch hose nozzles, 1 - 4 1/2" pumper nozzle, a 1-1/2-inch pentagon operating nut (opening counter clockwise) and a safety flange. The hydrant color shall be yellow (Miller Safety Yellow OE 40). The fire hydrant shall be arranged for a 3-1/2-foot bury unless otherwise specified. See Standard Drawing No. WL-401 for additional requirements.

The auxiliary valve shall be Mueller resilient seat No. A-2370-16 only and be furnished complete with cast iron valve box, complete with cover, galvanized bolts and gaskets.

Fire hydrant shall be Mueller Centurion, A-423 or Clow Medallion F-2545, and no other manufacturer will be acceptable by the Owner.

#### **402.11 CAST IRON VALVE BOXES**

Valve boxes shall be the cast iron "Vancouver" pattern (18" tall casting only). Valve riser pipe from the valve to the cast iron top shall be six-inch PVC sewer pipe ASTM D3034, SDR35, or equal for the Vancouver box. See Standard Drawings WL-411 and WL-412.

Valve box castings shall be smooth and uniform. Box lid shall not protrude above the rim and lids shall seat flat without rocking. Boxes of uneven thickness, pitted, or otherwise flawed in the casting will be rejected. PVC sewer pipe shall be cut off smooth with no sharp edges.

#### **402.12 BLOW OFF UNITS**

Blow off units shall consist of RS gate valves, brass galvanized pipe and standard valve boxes and covers as specified in Subsection 403.08 and on Standard Drawing Nos. WL-404A and WL-404B.

#### **402.13 AIR RELEASE VALVE UNITS**

Air release valve unit shall consist of a double-strap 2" service saddle, 2-inch size with 1/4 bend adapt copper, Type K copper, 2" Val-matic No. 38 air release valve or approved equal, 2" Nibco No. 113 brass gate valve, 48" concrete manhole cone, taper-proof frame and cover, 3-12" concrete pier blocks, 1-12"x12"x4" concrete block, and brass ells, nipples and adapters as noted on Standard Drawing No. WL-405.

#### **402.14 2-INCH SERVICE SADDLES**

Service saddles shall be 2" I.P.T., double strap, stainless steel. Body of saddle shall be Ductile Iron coated with nylon, and straps, bolts, washers, and nuts shall be stainless steel.

#### **402.15 COPPER PIPE**

Service lines shall be soft temper, copper water tube type K, meeting ASTM B-88 Specifications.

#### **402.16 BRASS FITTINGS**

##### **402.16.01 Corporation Stops**

1" Corporation stops shall be Mueller H 15008 or Ford F1000 4Q. Two-inch corporation stop for air and vacuum valve shall have a with 1/4 bend coupling (Mueller 110 CTS compression outlet). See Standard Drawing No. WL-402.

##### **402.16.02 Angle Meter Stops**

1" Angle meter stops shall be Mueller H 14258 or Ford 1" - KV43-444W-Q. 2" Shall be Mueller H14277 or Ford, 2" FV23-777W. On 2" services, Mueller flanged angle meter stop with 110 CTS compression inlet, H-14277, is also allowed. See Standard Drawing No. WL-403.

##### **402.16.03 Copper Unions**

Three-part copper-to-copper union shall be equivalent to Mueller 110 compression union.

##### **402.16.04 Copper Couplings**



Straight couplings, copper to inside iron pipe thread shall be Mueller 110 compression or equal. Copper couplings, copper to outside iron pipe threads, shall be Mueller 110 compression union or equal.

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**403 CONSTRUCTION**  
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**403.01 STORAGE OF EQUIPMENT AND MATERIALS**

Unless otherwise noted on the plans or in the special provisions, it shall be the responsibility of the contractor to locate an approved storage site for all equipment and materials.

Prior approval shall be obtained from the governing agency for any storage of equipment or materials within the right of way (i.e., stringing of pipe).

**403.02 PLACING AND BLOCKING PIPE AND FITTINGS**

The pipe shall be laid true to line, without objectionable breaks in grade and shall be firmly bedded for the entire length of the pipe.

Where conflicts arise between the designed grade of the waterline and an existing underground structure, the depth of the trench may be increased to permit proper installation of the waterline. Payment for over excavation shall begin once the extra depth reaches 18" below the designed grade.

Care shall be taken to clean joints and to keep them free of water during construction. Whenever water is excluded from the interior of the pipe, adequate backfill shall be deposited on the pipe to prevent floating. In the event of any flotation occurring, the pipe so affected shall be removed from the trench, replaced and re-laid at the Contractor's expense.

Each section of the pipe and each fitting shall be thoroughly cleaned before it is lowered into the trench. Cleaning of each pipe or fitting shall be accomplished by swabbing out, brushing out, blowing out with compressed air, and washing to remove all foreign matter. The most efficient method of cleaning out pipe and fittings will be determined on the job by the City Engineer.

If clean pipe sections and fittings cannot be placed in the trench without getting dirt into the open ends, the City Engineer will require that a piece of tightly woven canvas be tied over the ends of the pipe or fitting until it has been lowered into position in the trench. After the pipe or fitting has been lowered into the trench, all foreign matter shall be completely brushed from the bell and spigot ends before assembly. At the end of each day, or during suspension of the work, the pipe ends shall be securely closed by means of a secure plug or approved equivalent. Water in the trench shall not be allowed to enter the pipe and fittings.

All tees, elbows and any major changes in direction of pipe alignment shall be securely blocked using appropriate size thrust block based on the size and pressure of the water main to be constructed, or approved equivalent. All pipe and fittings in contact with concrete shall be completely wrapped in 2 layers of 4 mil plastic prior to the placement of the concrete as approved by the City Engineer. Concrete used for thrust blocking shall have a slump of 2 to 4 inches and minimum 28-day strength of 3000 psi. Concrete mix shall be uniformly blended with appropriate quantity of water before being placed in the trench and shall not contain any dirt or other foreign

matter. Thrust blocks shall be formed so that fitting joints remain accessible, and blocks that are to be removed in future waterline extensions shall be supplied with a rebar pulling loop and formed so that the block may be pulled off without disturbing the fitting (See Standard Detail Drawing Nos. 408, 409, and 410). The cost of furnishing and installing blocking, rebar pull loops and plastic wrap shall be included in the unit prices bid.

If it is necessary to cut the pipe to lay it on curves or to cause a change in direction, the Contractor shall cut the pipe as required for proper installation. Where the cut length of pipe is to be installed into the bell end of another pipe, the cut end shall be beveled to ensure a proper seal. To set valves and fittings properly, the pipe shall be cut to the exact length required to obtain the designated locations. The cost of cutting the pipe shall be included in the unit prices bid.

Dead end lines, where a standard 2 or 4-inch blow-off assembly is not required by the plans, shall be provided with a 3/4-inch corporation stop 18 inches from the plugged end of the pipe. This will allow for air removal and release of line pressure during future waterline extension. No extra payment shall be made for this installation.

#### **403.03 WET (HOT) TAPPING EXISTING MAIN**

When specified, wet taps on existing water main are required to minimize interruption of service to customers. Wet taps will only be performed under the direction of City personnel. Tapping sleeve and valve shall conform to Standard Drawing No. WL-410.

Before attaching tapping sleeve, care shall be taken to clean water main of all debris and defects. Attach sleeve and valve to the main. Then attach proper tapping machine to valve. Pressure test this assembly before making tap. After making tap, remove the tapping machine and inspect fitting and valve for leaks. If any such leaks are found, contractor shall be required to repair the defect. Attach branch main to valve and install pipe. Tapping sleeve and valve shall be wrapped in 8 mil plastic and tape in accordance with 403.4. Taps shall be made no closer than 18" from end of sleeve to nearest joint.

Excavation for tap shall be such as to fully expose main with a minimum depth below main of 12 inches. A minimum of 18" of main shall be exposed from the end of the tapping sleeve. Also, excavate enough area to accommodate tapping machine and workers. Backfilling shall be in accordance with Section 204 EXCAVATION, EMBANKMENT, BEDDING AND BACKFILL.

#### **403.04 POLYETHYLENE ENCASEMENT OF PIPE AND FITTINGS**

When specified, install polyethylene encasement, tube type, on all pipe and appurtenances. Polyethylene film shall conform to ASTM Standard Specification D-1248-78, having a minimum thickness of 0.008" (8 mil). Install this encasement in accordance with AWWA C105, Method A, one length of polyethylene tube for each length of pipe. The use of polyethylene sheets will not be allowed. Sand backfill shall be placed within the pipe zone and bedding area wherever polyethylene encasement is used.

Cut tubing open if necessary to wrap valves and fittings. Valves shall be wrapped up to the bottom of the operating nut. Polyethylene shall be wrapped snugly around the pipe and held in place by using an adhesive tape compatible with polyethylene, plastic binder twine, or nylon tie straps. Backfill material shall not be allowed to get under the polyethylene, and pockets in the polyethylene, which can trap backfill material, shall be eliminated.

#### **403.05 PLACING VALVE UNITS**

A valve unit shall consist of a valve, bolts, gaskets, followers, PVC riser pipe, and cast iron valve box, complete with cover.

Valves shall be placed in a vertical position at locations shown on the plans. The Contractor shall check each valve to determine that the valve is properly adjusted to seat securely and open fully. Valves not meeting these requirements shall not be installed. Valve boxes and PVC riser pipe shall be placed in a vertical position over the valve operating nut and the backfill shall be carefully compacted around the box. Any valve boxes found off center from the valve-operating nut shall be removed and replaced into the proper position. The top of the valve box shall be adjusted to meet finish grade. PVC riser pipe shall extend up inside the valve box 7 inches on the Vancouver box and 9 inches on the Portland valve box to allow future rising of the box. Notches shall be cut into the rim of the valve box on a line passing through the center of the box as detailed on Standard Detail Drawings 414 and 415. Valve boxes shall be placed so that the notches line up parallel with the water main below. A collar of concrete with a depth of 4" and a width of 6" shall be placed around the top of all valve boxes not in a paved area.

The Contractor shall not operate any valve touching potable water.

#### **403.06 PLACING FIRE HYDRANT ASSEMBLIES**

The fire hydrant assembly shall consist of a mechanical joint hydrant, mechanical joint by flange auxiliary gate valve, cast iron valve box, galvanized bolts, gaskets and tie rods.

The fire hydrant shall be placed in a vertical position on a precast concrete slab having a bearing surface of not less than 1 square foot. The hydrant shall be securely blocked using not less than three (3) cubic feet of concrete. Hydrant drain holes shall not be blocked. Not less than four (4) cubic feet of clean drain rock shall be placed around the base of the hydrant for drainage. See Standard Drawing No. WL-401 for other requirements. **Fire hydrant extension kits are not allowed.**

#### **403.07 COPPER SERVICE INSTALLATION**

Where indicated on the drawings or as determined in the field, the contractor will be required to install copper water services. This will require the contractor to make all taps for the service, install new copper pipe or transfer existing copper pipe to new main and install either corporation stops or 2" gate valves. See Standard Drawings WL-402 and WL-403 for installation requirements.

Where new 1-inch copper service pipe is to be installed at the existing meter locations, the new angle meter stop shall be set at the same elevation as the existing angle meter stop with a maximum of 2-inches away from connection point on the existing meter. All new copper pipe and service fittings shall be kept clean and free of debris. City water crews will make connection of new angle meter stop to existing meter. City water crews shall only have to remove the existing angle meter stop, connect the new angle meter stop, and flush the new service. Any extra time and materials required due to the Contractor's negligence shall be recorded and deducted from the Contractor's final payment.

Where new services are installed, new meter boxes shall be set with the top of the box at finish grade. The longest dimension of the box shall be set perpendicular to the centerline of the street. A new meter box shall be provided where, in the opinion of the City Engineer, an existing meter box is cracked, broken, or has missing parts. Where an existing meter must be relocated, Contractor shall provide and install the new copper service, angle meter stop, and meter box complete and adjusted, to finished grade. City water crew will install the meter.

All copper and brass structures shall be bedded and covered with 3/4" minus crushed aggregate to a depth of 6 inches on all sides. However, the interior of the meter box shall be backfilled with soft earth free of gravel and organic matter.

Service lines shall be located in a direct line between the meter and a point on the main directly opposite the meter. Service lines shall have a minimum cover of thirty (30) inches except where crossing road ditches where the cover may be reduced to twenty-four (24) inches at said road ditch.

Where existing copper service is to be transferred to new main, and the existing main is to remain live, City crew shall disconnect corporation stop from old main and install a brass plug. Contractor shall provide excavation down to old corporation stop, select backfill and compaction. Excavation and backfill shall be considered incidental to the project. Contractor shall perform surface restoration according to the bid item for that work.

All new services crossing existing metal gas lines shall have PVC sleeves as shown on Standard Drawings No. WL-402 and WL-403.

Corporation stops shall be set at a thirty (30) degree angle up from horizontal. Taps shall be a minimum distance of 18 inches from the bell or spigot end of the main or another service tap.

Where a new section of copper service is to be installed, it shall be type K, seamless soft annealed copper pipe conforming with ASTM B-88. There shall be no splicing of copper unless service is longer than 60-feet or as approved by the City Engineer (unique conditions). When splicing is approved between two (2) pieces of copper, it shall be done with a three (3) piece copper to copper union. No more than one (1) splice per service shall be made and splicing shall be made outside of the existing or proposed travel lane. Existing galvanized service lines encountered by the contractor shall be replaced with copper service pipe up to and through the angle meter stop.

Where 1 1/2" and 2" services are to be installed, the new main shall be tapped 2", a double strap 2" I.P.T. service saddle, 2" x 6" brass I.P.T. nipple, 2" I.P.T. gate valve and 2" x 3" male I.P.T. X copper composite adapter. 2" copper tubing and 1 1/2" - 2" angle meter stop shall then be installed to the new meter location.

Once the Contractor installs the new copper services and the new waterline facilities are pressure tested, chlorinated and accepted, City water crews shall relocate existing meters to their new locations and replumb the service. It shall be the responsibility of the Contractor to coordinate this with the City Construction Inspector. Placement of new sidewalks or other surface restoration shall not take place until meters have been installed.

#### **403.08 PLACING PERMANENT BLOW OFF ASSEMBLIES**

A standard 2" blow off assembly shall consist of a plug tapped 2" I.P.T., 2" x 6" or 2" brass nipple, 2" RS gate valve, 2" x 2" galvanized tee with 2" plug, two (2) valve boxes with covers, steel shim, thrust blocking, 2" Schedule 40 galvanized pipe, and a standard blow off drain.

A 4" or 6" blow off assembly shall consist of a main size x 4" or 6" MJ x flange reducer, flange x flange RS gate valve, companion flange, galvanized 90° bend, schedule 40 galvanized piping, pier block, two valve boxes, galvanized coupling and galvanized bar plug.

The blow off assembly shall be placed as shown in Standard Drawing No. WL-404A and WL-404B, securely blocked with concrete as required.

The main line pipe shall be thrust restrained with a straddle block as shown on Standard Drawing No. WL-408 or concrete thrust block as shown on Standard Drawing No. WL-406. Blow-off pipe and fittings shall remain fully accessible for repair and replacement without disturbing thrust blocking.

Payment for the blow off assembly shall include furnishing, transporting, assembling and placing of the complete assembly, blocking, plus backfill and servicing. Main line thrust blocking shall be paid under separate bid item.

#### **403.09 PLACING AIR RELEASE VALVE UNITS**

An air release valve unit shall consist of a 2" double strap service saddle, 2" corporation stop with 1/4 bend copper adapter, 2" copper pipe, 2" brass gate valve, 2" air release valve, 48" concrete manhole cone with frame and cover and 12" concrete pier blocks, and other fittings for plumbing the unit and as noted on Standard Drawing No. WL-405.

The air release valve unit shall be placed as shown on the plans, secure in place with concrete block and all crushed gravels compacted as specified.

Placing the air release valve unit shall consist of transporting, assembling, and placing of the complete unit, tapping the water main, excavating and backfilling as specified and servicing.

#### **403.10 REMOVING EXISTING WATER WORKS MATERIALS**

When the Contractor removes existing pipe, gate valve units, fittings, fire hydrant units or other items to allow installation of the work specified herein, he shall haul the removed water works materials to the Owner's designated storage yard unless otherwise directed by the City Engineer. Title to the removed materials shall remain with the Owner.

The Owner reserves the right to designate other water works materials to be removed. The Contractor shall remove the designated water works materials and haul them to the Owner's designated storage yard.

#### **403.11 ABANDONING EXISTING MAINS AND VALVES**

Any existing water lines that are abandoned shall be severed and plugged as directed by the City Engineer. All abandoned valve boxes shall be cut off 12" below grade, gravel filled, and asphalt plugged at no additional cost.

#### **403.12 MAINTAINING SERVICE**

The Contractor shall schedule construction work specified herein to maintain a continuous water service to existing water users. Where it is necessary to shut down service to make required interties, the Contractor shall notify the Owner at least five working days prior to a planned water service shut down to allow the Owner to notify users of the impending loss of water service.

Notification to the City shall include both the Fire Department and the Public Works Department. Contractor may be required to make necessary service shutdowns of affected businesses after regular business hours at no additional cost to the Owner.

#### **403.13 FLUSHING**

The new pipeline shall be flushed, pressure tested, and disinfected before any connection to the existing water system is made. Temporary blow-offs shall be provided by contractor at all dead-ends and points of connection to the existing system. The new waterline shall be built as close as possible, as determined by the City Engineer, to the existing water system at points where connections are to be made.

All pipe, valves and fittings shall be thoroughly flushed prior to pressure testing and chlorination. Flushing shall be done through blow off units, hydrants, individual services, and main at a minimum velocity of 2.5 F/S. All water used during flushing operations shall be measured through a Pitot Blade and stopwatch. All results shall be reported to the City Engineer on a daily basis.

Prior to any flushing procedures taking place, the Contractor shall issue a flushing plan providing direction of flow, water damage control and a written schedule to the City Engineer for approval. A 48-hour notice shall be given to the City Engineer prior to any system shut-down or flushing procedures. Under no circumstance shall the Contractor operate any City valves without prior approval by the City Engineer.

The following chart shows minimum temporary blow-off/inlet sizes, which shall be provided by the Contractor. Gate valves shall be provided on blow-off and inlet pipes to pressure test against, and to keep the pipe interior clean when backflow device is removed. See Standard Detail Drawings 406A and 406B.

**REQUIRED OPENINGS TO FLUSH PIPELINES**

NOMINAL PIPE SIZE (INCHES)	FLOW REQUIRED TO PRODUCE 2.5 FPS VELOCITY (GPM)	MINIMUM INLET & OUTLET PIPE SIZE REQUIRED (INCHES)
4	110	2
6	240	2
8	430	4
10	660	4
12	950	4
14	1290	6
16	1690	6
18	2140	6
20	2640	6
24	3800	6

All flushing and testing water shall be delivered to the new waterline through Oregon State Health Division approved double check valve backflow prevention devices.

The Contractor shall provide or obtain a backflow prevention device. Certified backflow tester shall test device and furnish documentation to City Construction Inspector after device is installed on site.

After flushing, the new system shall be pressure tested and disinfected. Payment for this item shall be included in the price bid for pipeline installation work.

**403.14 TESTING AND CHLORINATION**

All of the pipe, fittings, services, and individual valves, except the last connection with the existing main, after being placed, must be pressure tested, conforming to AWWA C600 Section 4 specifications. If the contractor elects to test the line in sections, the lengths of the sections and provisions for testing shall be subject to approval by the City Engineer.

Before testing the pipeline for leakage, the pipeline shall be thrust blocked. The interior of the pipeline shall be thoroughly cleaned to remove all foreign matter.

The contractor shall furnish necessary thrust blocks, pumps, medium range pressure gauges, means of meaning water loss, and all other equipment, materials and labor required for making the tests.

All air vents shall be open during the filling of the pipeline with water. After a test section is completely filled, it shall be allowed to stand under slight pressure for at least twenty-four (24) hours to allow the lining to absorb what water it will and to allow the escape of air from any small air pockets. During this period, the bulkheads, valves and exposed connections shall be examined for leaks. If any are found, they shall be stopped. The pressure shall then be raised slowly to the minimum hydrostatic pressure of 180 pounds per square inch, or 1.5 times the normal working pressure, whichever is higher, measured at the point of highest elevation and shall be maintained for a period of at least one (1) hour, beginning at a time of day to be mutually agreed upon between the Contractor and the City Engineer.

Test pressure shall not exceed 150% of pipe pressure rating.

No leakage is acceptable. While the pipe is under pressure and stabilized, an inspection for leaks along the pipeline shall be made by the Contractor. The test shall last for approximately one hour at a test pressure of 180 psi. The gauges should be graduate at 2-psi increments. Any leaks found shall be recorded and shall be repaired by the Contractor. All such repairs shall be made subject to the approval of the City Engineer.

The Contractor, at his own expense, shall perform any excavation required to locate and repair leaks or other defects, which may develop under the test. He shall remove backfill and paving already placed, shall replace such removed material, and shall make all repairs necessary to secure the required water-tightness. All repairs and re-tests shall be made at the Contractor's sole expense.

All leakage tests shall be made in the presence of the City Engineer or his designee.

The pipeline shall be thoroughly chlorinated and flushed in accordance with the Oregon State Health Division's publication, "Public Water Systems", O.R.S. Chapter 333. All chlorinated water shall be discharged into the public sanitary sewer system. If a sanitary sewer is not available, the contractor shall employ the use of storage tanks, basins, or other means to transport or treat the chlorinated water for discharge to an approved point of disposal. Adequate quantities of chlorine in a water solution shall be added to the pipeline and shall be allowed to stand a sufficient length of time to sterilize the interior of the pipeline. The chlorinated water shall be flushed from the pipeline and a water sample shall be taken from the pipeline. The water sample shall be tested biologically and an acceptable certification that the water is safe for domestic water consumption shall be obtained before placing the pipeline into service. If the water is not safe, the Contractor shall chlorinate and flush the line and take new samples until an acceptable safe water certification is obtained.

Chlorine may be applied by the following methods: Liquid chlorine gas/water mixture, direct chlorine gas feed, or calcium hypochlorite and water mixture. The chlorination agent shall be applied at the beginning of the section adjacent to the feeder connection and shall be injected through a corporation cock, hydrant, or other connection ensuring treatment of the entire line. Water shall be fed slowly into new line with chlorine applied in amounts to produce a dosage greater than 50 ppm but not more than 200 ppm throughout the system. After 24 hours, a residual of not less than 25 ppm shall be produced in all parts of the line. If the check measurement taken after the twenty-four (24) hour period indicates a free chlorine residual of less than 25 ppm, the system shall be flushed, rechlorinated, and rechecked until a final residual of 25 ppm or more is achieved and at no additional expense to the Owner.

During the chlorination process, all valves and accessories shall be operated. All parts of the line and services shall be chlorinated. After chlorination, the water shall be flushed from the line at its extremities until the replacement water tests are equal chemically and bacteriologically to those of the permanent source of supply. Care shall be

taken to prevent discharge of chlorinated water directly to running streams. The water should be spread over the ground or held in ditches or seepage ponds. Water samples will be taken for bacteriological tests by the City of West Linn.

The Contractor shall furnish and place all necessary fittings required for the testing, chlorinating and flushing of the pipeline. If a corporation stop is removed, the hole shall be filled with a brass plug.

Water used in testing and flushing the pipeline shall be purchased from the City.

#### **403.15 CUT-IN AND CONNECTION TO EXISTING MAINS**

After new waterline is flushed, pressure tested and disinfected, but prior to any cut-in and connects, contractor shall hold an on-site pre-connection meeting. Those to attend shall include on-site foreman, City inspector, City operations personnel, and City Engineer.

This meeting shall take place prior to each connection and no longer than one (1) week prior to the connection. At this meeting, contractor shall have all fittings, pipe, chlorine swabbing equipment, pumps and hoses, and all equipment needed to make the cut-in connect. Cut-in schedule and coordination shall be discussed.

Once the bacteria test has been passed, the contractor shall make cut-ins and connections to the existing water system. All fittings necessary for the cut-in and pumps adequate to handle water in the trench shall be on hand and ready for service before connection is commenced. If the new waterline is opened to the air before contractor and City personnel are ready to proceed with the connection, or if new waterline is contaminated by dirt or dirty water, the new waterline shall be disinfected again.

Fittings and pipe for cut-ins shall be swabbed out thoroughly with a 1% chlorine solution (one-half pound of 64% calcium hypochlorite in 4 gallons of water). Swabbing equipment and solution shall be kept clean and fresh.

During each connection, work shall proceed without breaks until the connection is completed and water service is turned back on. Ground water shall not be allowed around any of the existing piping during the connection.

After the connection is completed and water service is turned back on, a visual leak inspection of all fittings shall be done by the inspector prior to backfilling.

#### **403.16 CLAY DAMS**

Where indicated on the plans, or as directed by the City Engineer, the Contractor shall place clay dams to prevent ground water movement along the trench. Dams shall be made of impervious backfill material composed of particles at least 50 percent of which pass a No. 200 sieve, and with a plasticity index not less than 20, unless otherwise indicated on the plans.

A dam shall fill the trench completely from side to side and top to bottom, except for the volume occupied by the pipeline and any materials required for surface restoration. Pipe in contact with clay dam will be wrapped with two layers of 8 mil polyethylene.

Flow shall be considered in design of water and storm drain system.



**PROJECT PLANS**

