

Meeting Date: 4/22/2014

Report Type: Consent

Report ID: 2014-00257

Title: Contract Award: East Del Paso Heights Water Improvements Project (Z14010057)

Location: District 2

Recommendation: Pass a Motion approving the contract plans and specifications for the project and awarding the contract to Navajo Pipelines, Inc., for an amount not to exceed \$919,242.

Contact: Bill Busath, Engineering & Water Resources Manager, (916) 808-1434; Dan Sherry, Supervising Engineer, (916) 808-1419, Department of Utilities

Presenter: None

Department: Department Of Utilities

Division: Cip Engineering

Dept ID: 14001321

Attachments:

- 1-Description/Analysis
- 2-Background
- 3-Location Map
- 4-Exhibit A (Contract)

City Attorney Review

Approved as to Form
Joe Robinson
4/8/2014 12:14:57 PM

Approvals/Acknowledgements

Department Director or Designee: Dave Brent - 4/7/2014 10:30:51 AM

Description/Analysis

Issue Detail: The project replaces approximately 3,600 lineal feet of existing water main and places approximately 345 meters on existing water services.

Policy Considerations: This report's recommendation is consistent with the City's General Plan goal of funding critical water infrastructure in need of improvements and meeting the State's requirement of installing water meters citywide by 2025. The requested action is in conformance with City Code Chapter 3.60, Articles I and III, which provide that the City Council may award competitively bid contracts to the lowest responsible bidder.

Economic Impacts: The project is expected to create 3.7 total jobs (2.1 direct jobs and 1.6 jobs through indirect and induced activities), and create \$567,572 in total economic output (\$357,745 of direct output and another \$209,827 of output through indirect and induced activities).

The indicated economic impacts are estimates calculated using a calculation tool developed by the Center for Strategic Economic Research (CSER). CSER utilized the IMPLAN input-output model (2009 coefficients) to quantify the economic impacts of a hypothetical \$1 million of spending in various construction categories within the City of Sacramento in an average one-year period. Actual impacts could differ significantly from the estimates and neither the City of Sacramento nor CSER shall be held responsible for consequences resulting from such differences.

Environmental Considerations: The Community Development Department, Environmental Planning Services Division, has reviewed the proposed project and has determined that it is categorically exempt from the California Environmental Quality Act (CEQA), under State Class 2 and 3 and Section numbers 15302(c) and 15303 of the CEQA Guidelines, replacement of existing utility system involving negligible expansion of capacity and the installation of new equipment.

Sustainability: The project is consistent with the City's Sustainability Master Plan by improving infrastructure reliability, which will reduce energy-intensive maintenance efforts.

Commission/Committee Action: Not applicable.

Rationale for Recommendation: The project was advertised and four bids were received and opened on March 26, 2014. Navajo Pipelines, Inc. is the lowest responsible bidder.

Financial Considerations: The construction contract is for an amount not to exceed \$919,242, and the total cost is estimated to be \$1,315,000. There are sufficient water funds (Fund 6005) to award the construction contract and complete the project.

Local Business Enterprise (LBE): This project includes a minimum participation level of 5% for local business enterprises (LBEs) as required by Ordinance 2013-0036 and Resolution 2013-0373 relating to LBE participation goals and policies, adopted by the City Council on November 19, 2013. The lowest responsible bidder, Navajo Pipelines, Inc., exceeds the LBE minimum participation level with a participation level of 98.7%.

Background

On September 24, 2004, Assembly Bill 2572 was signed into law requiring the metering of all residential and commercial water service connections by the year 2025.

The East Del Paso Heights Water Improvement project contributes to the City's efforts to meet the requirements of the Assembly Bill by installing water meters at residential and commercial properties within Council District 2.

The project consists of replacing approximately 3,600 lineal feet of existing water mains and approximately 345 meters on water services. Included in the scope of work are fire hydrants, substandard water services and surface restoration.

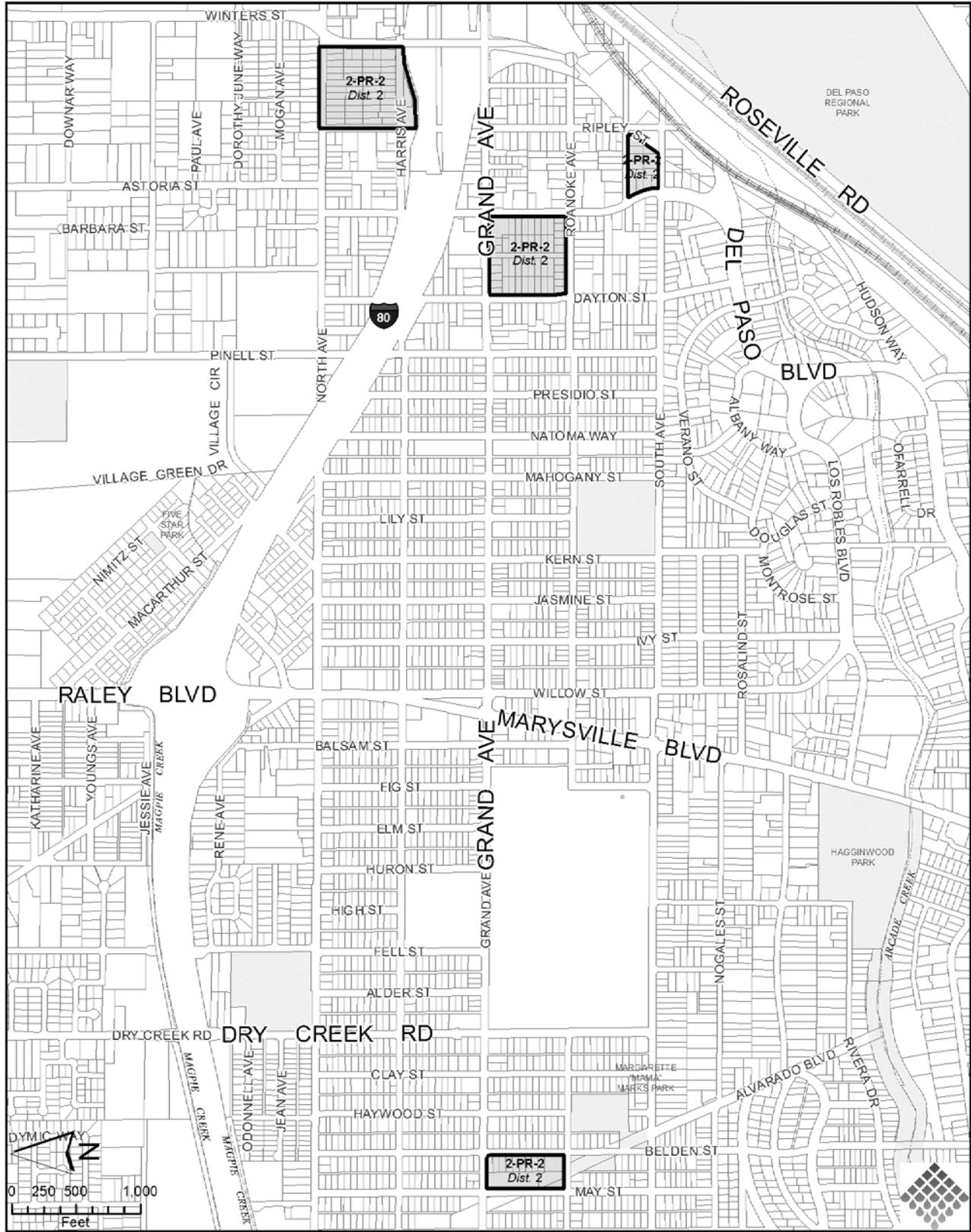
The project was advertised on February 28, 2014. Four bids were received and opened on March 26, 2014. The bids are summarized below:

Contractor	Bid Amount
Navajo Pipelines, Inc.	\$919,242
United Building Contractors	\$958,391
Martin General Engineering, Inc.	\$993,485
Florez Paving	\$1,386,600

The Engineer's estimate was \$950,000.

LOCATION MAP

Water Meter Retrofit Project



Date: 3/6/2013

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ENGINEERING SERVICES DIVISION

CONTRACT SPECIFICATIONS
FOR
EAST DEL PASO HEIGHTS WATER IMPROVEMENTS

PN: Z14010057
B14141321016
Engineer's Estimate: 950,000

Non-Refundable Fee

For Pre-Bid Information Call:

Sonia Lopez
Associate Engineer
(916) 808-1456

Separate Plans

Bid to be received before 2:00 PM
March 26, 2014
New City Hall, Office of the City Clerk
915 I Street, 4th Floor, Public Counter
Sacramento, CA 95814

LBE Program Participation

For information on meeting the City of Sacramento's Local Business Enterprise (LBE) project goals, please contact Lorrie Lowry at (916) 808-5448, or visit the City of Sacramento's small business web site at:
<http://www.cityofsacramento.org/econdev/business-open/small-business-certification.cfm>

**EAST DEL PASO HEIGHTS WATER IMPROVEMENTS
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SPECIAL PROVISIONS

LBE INFORMATION

The City of Sacramento's Local Business Development (LBE) program establishes an annual local business enterprise (LBE) participation goal for City contracts, and authorizes City departments to require minimum LBE participation levels in individual contracts. Under City Code section 3.60.270, all bidding contractors must meet or exceed participation goals established for this project in order to qualify as a responsible bidder.

For information on meeting the City of Sacramento's Local Business Enterprise (LBE) project goals, please contact Lorrie Lowry at (916) 808-5448, or visit the City of Sacramento's small business web site at: <http://www.cityofsacramento.org/econdev/business-open/small-business-certification.cfm>

NOTICE TO CONTRACTORS

CITY OF SACRAMENTO

Sealed Proposals will be received by the City Clerk of the City of Sacramento at the Office of the City Clerk, New City Hall, located at 915 I Street, 4th Floor, Public Counter, up to the hour of 2:00 p.m. on **March 26, 2014** and opened and read after 2:00 p.m. **March 26, 2014**, or as soon thereafter as business allows, in the Hearing Room, 2nd Floor Room, in Historic City Hall, for construction of:

EAST DEL PASO HEIGHTS WATER IMPROVEMENTS

(PN: Z14010057) (B14141321016)

as set forth in the Construction Documents.

Proposals received and work performed thereunder shall comply with the requirement of Chapter 3 of the Sacramento City Code. Each Bid Proposal shall be accompanied by bid security of at least 10% of the sum the Bid Proposal. The right to reject proposals or to waive any error or omission in any Bid Proposal received is reserved by the City. Signed proposals shall be submitted on the printed forms contained herein and enclosed in an envelope marked:

SEALED PROPOSAL FOR EAST DEL PASO HEIGHTS WATER IMPROVEMENTS

(PN: Z14010057) (B14141321016)

LBE CERTIFICATIONS ARE DUE BY THE CLOSE OF BUSINESS TWO DAYS AFTER BID OPENING to:
(if not included at the time of bid)

Sonia Lopez, Department of Utilities, Engineering Services Division
1395 35th Avenue, Sacramento, CA 95822

Phone: (916) 808-1456 / Fax: (916) 808-1497/ Email:SLopez@cityofsacramento.org

You can view and download the plans and Contract Documents from:

PLANET BIDS

<http://www.planetbids.com/portal/portal.cfm?CompanyID=15300#>

Subcontractors shall comply with the rates of wages currently established by the Director of Industrial Relations under provisions of Sections 1773 of the Labor Code of the State of California, a copy of which is on file in the office of the City Clerk. In accordance with Sacramento City Code Section 3.60.180 and Section 1771.5 of the California Labor Code, the payment of the general prevailing rate of per diem wages or the general prevailing rate of per diem wages for holiday and overtime is not required for any Public Construction project of \$25,000 or less, or Public Maintenance project of \$15,000 or less. The City of Sacramento has an approved Labor Compliance Program. **The City uses an electronic system for the submission of Labor Compliance Reports, which became effective May 1, 2007.** Each contractor and every lower-tier subcontractor submits certified payrolls and labor compliance documentation electronically at the discretion of and in the manner specified by the City of Sacramento.

Electronic submittal is via a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor is given a Log On identification and password to access the City of Sacramento's reporting system.

Use of the system may entail additional data entry of weekly payroll information including; employee identification, labor classification, total hours worked and hours worked on this project, wage and benefit rates paid, etc. The contractor's payroll and accounting software might be capable of generating a 'comma delimited file' that will interface with the software.

Disseminate these provisions to every lower-tier subcontractor and vendor required to provide labor compliance documentation.

All questions regarding this Labor Compliance Program should be directed to the department's contracts staff or Contracts Services at (916) 808-4011.

Pursuant to Sacramento City Code Section 3.60.250, any Agreement awarded pursuant to this Invitation to Bid shall contain a provision permitting the substitution of securities for any monies withheld to ensure performance under the Agreement. The terms of such provisions shall be according to the requirements and the form required by the City.

Bid protests must be filled and maintained in accordance with the provisions of Sections 3.60.460 through 3.60.560 of the Sacramento City Code. Bid protests that do not comply with Sections 3.60.460 through 3.60.560 of the Sacramento City Code shall be invalid and shall not be considered. A bid protest fee of \$750.00 is required at the time of filing to be considered valid in accordance with City of Sacramento Resolution No. 2003-231 dated April 29, 2003. As used herein, the term "bid protest" includes any bid protest that (1) claims that one or more bidders on this contract should be disqualified or rejected for any reason, or (2) contests a City staff recommendation to award this contract to a particular bidder, or (3) contests a City staff recommendation to disqualify or reject one or more bidders on this contract. A copy of Sections 3.60.460 through 3.60.560 of the Sacramento City Code may be obtained from the Project Manager, or from the City Clerk, located at 915 I Street, 5th Floor, Sacramento, CA 95814.

THE FOLLOWING DOCUMENTS
ARE TO BE COMPLETED AND
SUBMITTED WITH THE BID PACKAGE

Contractor's Name: _____
(Please print)

CITY OF SACRAMENTO

SEALED PROPOSAL

(MUST BE SIGNED BY BIDDER)

The Sealed Proposal will be received not later than **March 26, 2014**, at the Office of the City Clerk, New City Hall, at 915 I Street, 4th Floor, Public Counter, Sacramento, California and opened at 2:00 PM, or as soon thereafter as business allows, on **March 26, 2014**, by the Office of the City Clerk, 915 I Street, Historic City Hall, Hearing Room, 2nd Floor, Sacramento, California.

TO THE HONORABLE CITY COUNCIL:

The undersigned hereby proposes and agrees to furnish any and all required labor, material, transportation, and services for

**EAST DEL PASO HEIGHTS WATER IMPROVEMENTS
(PN: Z14010057) (B14141321016)**

in the City and County of Sacramento, California.

TOTAL BID: _____ (\$_____).

The work herein described is to be performed in strict conformity with the Plans, City of Sacramento Standard Specifications (Resolution No. 89-216) and these Special Provisions, all as on file in the Office of the City Clerk, at the following unit prices.

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total
1	Mobilization	1	LS	\$_____	\$_____
2	Construction Photographs	1	LS	\$_____	\$_____
3	8-Inch Water Main to Place	3550	LF	\$_____	\$_____
4	4-Inch Gate Valve to Install	4	EA	\$_____	\$_____
5	6-Inch Gate Valve to Install	5	EA	\$_____	\$_____
6	8-Inch Gate Valve to Install	17	EA	\$_____	\$_____
7	Standard Fire Hydrant to Install	6	EA	\$_____	\$_____
8	Fire Hydrant to Remove	4	EA	\$_____	\$_____
9	Connection to Existing Water System	10	EA	\$_____	\$_____
10	Meter Retrofit of 1-Inch Water Service	264	EA	\$_____	\$_____
11	Meter Retrofit of 1½ - Inch Water Service	2	EA	\$_____	\$_____
12	Meter Retrofit of 2-Inch Water Service	2	EA	\$_____	\$_____
13	Meter Retrofit of 4-inch Water Service	2	EA	\$_____	\$_____
14	Meter to Install	4	EA	\$_____	\$_____
15	Water Service to Install	5	EA	\$_____	\$_____
16	Hybrid Water Service to Install (Front Hose Bib)	30	EA	\$_____	\$_____

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total
17	Hybrid Water Service to Install (Rear Hose Bib)	39	EA	\$_____	\$_____
18	Additional 1-Inch Pipe to Place	150	LF	\$_____	\$_____
19	Additional 1 ½ Inch Pipe to Place	100	LF	\$_____	\$_____
20	Substandard Water Service to Replace	5	EA	\$_____	\$_____
21	Water Mains and Fittings to Remove or Abandon	1	LS	\$_____	\$_____
22	Concrete to Replace	1300	SF	\$_____	\$_____
23	Asphalt Concrete to Replace	700	SF	\$_____	\$_____
24	Unsuitable Material to Replace	60	TON	\$_____	\$_____

TOTAL BID: \$_____

If awarded the contract, the undersigned shall execute said contract and furnish the necessary bonds within ten (10) days after the notice of award of said contract and begin work within fifteen (15) days after the signing of the contract by the Contractor and the City or the Notice to Proceed has been prepared, whichever is applicable.

In determining the amount bid by each bidder, City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Proposal. When such a mathematical error appears on the Proposal, the City shall have the right to correct such error and to compute the total amount bid by said bidder on the basis of the corrected figure or figures.

When the unit price of an item is required to be set forth in the Proposal, and the total for the item set forth separately does not agree with a figure derived by multiplying the item unit price times the Engineer's estimate of the quantity of work to be performed for said item, the item unit price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the policy of the City's bidding procedures. The total paid for each such item of work shall be based upon the item unit price and not the total price.

Should the Proposal contain only a total price for an item and the item unit price is omitted, the City shall determine the item unit price by dividing the total price of the item by the Engineer's estimate of the quantity of work to be performed for the item of work.

If the Proposal contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Proposal shall be disregarded.

It is understood that this bid is based upon completion of the work within a period **of ninety (90) working days** commencing on the date specified in the Notice to Proceed.

The amount of liquidated damages to be paid by the Contractor for failure to complete the work by the completion date (as extended, if applicable) shall be **five hundred dollars (\$500.00) for each calendar day**, continuing to the time at which the work is completed. Such amount is the actual cash value agreed upon as the loss to the City resulting from the default of the Contractor.

The undersigned represents and warrants that he/she has examined the location of the proposed work and is familiar with the conditions at the place where the work is to be done. The undersigned further represents that he/she has reviewed and understands the Plans, Special Provisions, and other contract documents, and the undersigned is satisfied with all conditions for the performance of the work. **Additionally, the undersigned shall include written documentation with the Sealed Proposal of previous satisfactory experience in installation of water main pipeline, in accordance with the following:**

- **The undersigned shall provide documentation for a minimum of one (1) project of a minimum of 750 meter retrofits constructed or multiple projects combined that would equal a similar size and scope or a similar construction work as approved by the Engineer. The work shall have been performed by the undersigned for a municipality or other public agency within the last five years. The documentation for each project shall describe the work performed, including the size and number of meters installed, the contract amount and duration, and the time period of performance, and shall include the name, address and telephone number of the owner agency or municipality. The documentation also shall include the name of a contact person for each owner who is familiar with the work performed. The above documentation shall be included with the Sealed Proposal.**
- **A Sealed Proposal that does not include the above required documentation may be rejected as non-responsive.**

Please note that information included in the above documentation and/or obtained from such other owner agency or municipality or from another source regarding the bidder's performance on another public project also may be used by the City in determining whether the bidder is a responsible bidder.

The undersigned has carefully checked all of the above figures and understands that the City of Sacramento will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

This proposal shall not be withdrawn for the time periods specified in Section 3-2 of the City of Sacramento Standard Specifications for award of contract to respective low bidders. This proposal is submitted in accordance with Chapter 3.60 of the Sacramento City Code and Sections 1, 2, and 3 of the City of Sacramento Standard Specifications.

In accordance with Standard Specification Section 3-2, the City shall award this contract to the lowest responsible bidder, if such award is made, within forty-five (45) working days after opening of the Proposals. The City reserves the right to reject any and all bids.

BID DEPOSIT ENCLOSED IN THE FOLLOWING FORM:

\$_____ not less than ten (10) percent of amount bid.

____ CERTIFIED CHECK

____ MONEY ORDER

____ CASHIERS'S CHECK

____ BID BOND

FOR CITY USE ONLY

TYPE OF DEPOSIT

- Bid Bond
- Cashier/Certified Check
- Other _____

Reviewer's Initials: _____

CONTRACTOR

Addendum No. 1 _____

Addendum No. 2 _____ By: _____
(Signature)

Addendum No. 3 _____ Title: _____

Addendum No. 4 _____ Address: _____

No PO Box – Physical Address ONLY

City STATE ZIIP Code

Telephone No. _____

Fax No. _____

Email _____

(Federal Tax ID # or Social Security #)

Under penalty of perjury, I certify that the Taxpayer Identification Number and all other information provided here are correct.

Valid Contractor's License No. _____, Classification _____ is held by the bidder.

Expiration date _____. Representation made herein are true and correct under penalty or perjury

PN: Z14010057 (B14141321016)

KNOW ALL MEN BY THESE PRESENTS,

That we, _____

as Principal, and _____

a corporation duly organized under the laws of the State of _____ and duly licensed to become sole surety on bonds required or authorized by the State of California, as Surety, are held and firmly bound unto the City of Sacramento, hereinafter called the City, in the penal sum of ten percent (10%) of the (BASE OR LUMP SUM) Proposal of the Principal above named, or other amount as set forth in the Invitation to Bidders, submitted by said Principal to the City for the Work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH

That whereas the Principal has submitted the above mentioned proposal to the City, for which Proposals are to be opened by the Office of the City Clerk, Historic City Hall, Hearing Room, 2nd Floor, 915 I Street, Sacramento, California, on **March 26, 2014**, for the Work specifically described as follows:

EAST DEL PASO HEIGHTS WATER IMPROVEMENTS
(PN: Z14010057) (B14141321016)

NOW, THEREFORE, if the aforesaid Principal is award the Agreement and within the time and manner required under the Contract Documents, enters into a written Agreement, in the prescribed form, in accordance with the Proposal, and files two (2) bonds with the City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, and files the required insurance policies with the City, all as required by the Contract Documents or by law, then the obligation shall be null and void; otherwise it shall be and remain in full force and effect.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court, which sums shall be additional to the principal amount of this bond.

IN WITNESS THEREOF, We have hereunto set our hands and seal this _____ day of _____, 2014.

PRINCIPAL Seal
By: _____

Title

SURETY Seal
By _____

Title

Agent Name and Address

Agent Phone #

Surety Phone #

California License #



SACRAMENTO

Subcontractor and Local Business Enterprise (LBE)

Participation Verification Form

For Public Projects Over \$100,000

THIS FORM MUST BE SUBMITTED WITH THE SEALED BID PROPOSAL

To be eligible for award of this contract, the bidder shall list all subcontractors who perform work, labor, or render service in an amount in excess of one-half of 1 percent of the total bid amount. In the case of bids for the construction of streets and highways, including bridges, subcontractors whose subcontract value exceeds one-half of 1 percent of the total bid or ten thousand dollars (\$10,000), whichever is greater, shall be listed. In addition, the bidder shall list any business entity used to attain the 5% LBE requirement. Estimated dollar values shall be provided for **all** work/services/supplies listed. The inclusion of false information or the omission of required information will render the bid non-responsive.

Prime Contractor Name: _____ Address: _____ Total LBE Participation %: _____ No _____ Yes _____ Date: _____
 Bid Amount: _____ Is Prime Contractor a LBE? Yes _____ No _____

Business Entity Name/Address/Contact Person/Telephone/Email	Sub-contractor license number	Indicate LBE (subject to verification)	Describe Exact Type of Work/Services/Supplies to be provided to complete contract	Estimated Dollar Value of Work/Services/Supplies to be Performed or Provided	Percentage of Prime Contract	For Office Use Only (calculation)

I hereby certify that each subcontractor listed on this Subcontractor and LBE Participation Verification Form has been notified that it has been listed and has consented in writing to its name being submitted for this contract. Additionally, I certify that I shall notify each business entity listed on this Form, in writing, if the award is granted to my firm, and I shall make all documentation relevant to subcontractor and LBE participation available to the City of Sacramento upon request. I further certify that all information contained in this Form is true and correct and I acknowledge that the City will rely on the truth of the information in awarding the contract.

PRINCIPAL OF FIRM:

 (Signature) _____ (Title) _____ (Date)

COPY AND ATTACH ADDITIONAL SHEETS AS NECESSARY

DRUG-FREE WORKPLACE POLICY AND AFFIDAVIT

BID MAY BE DECLARED NONRESPONSIVE IF THIS FORM (COMPLETED) IS NOT ATTACHED.
Pursuant to City Council Resolution CC90-498 dated 6/26/90 the following is required.

The undersigned contractor certifies that it and all subcontractors performing under this contract will provide a drug-free workplace by:

1. Publishing a "Drug-Free Workplace" statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Establishing a Drug-Free Awareness Program to inform employees about:
 - a. The dangers of drug abuse in the workplace.
 - b. The contractor's policy of maintaining a drug-free workplace.
 - c. Any available drug counseling, rehabilitation, and employee assistance program.
 - d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.
3. Notify employees that as a condition of employment under this contract, employees will be expected to:
 - a. Abide by the terms of the statement.
 - b. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace.
4. Making it a requirement that each employee to be engaged in the performance of the contract be given a copy on the "Drug-Free Workplace" statement.
5. Taking one of the following appropriate actions, within thirty (30) days of receiving notice from an employee or otherwise receiving such notice, that said employee has received a drug conviction for a violation occurring in the workplace:
 - a. Taking appropriate disciplinary action against such an employee, up to and including termination; or
 - b. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement or other appropriate agency.

* I certify that no person employed by this company, corporation, or business has been convicted of any criminal drug statute violation on any job site or project where this company, corporation, or business was performing work within three years of the date of my signature below.

EXCEPTION:

Date	Violation Type	Place of Occurrence
If additional space is required use back of this form.		

*The above statement will also be incorporated as a part of each subcontract agreement for any and all subcontractors selected for performance on this project.

IN THE EVENT THIS COMPANY, CORPORATION, OR BUSINESS IS AWARDED THIS CONSTRUCTION CONTRACT, AS A RESULT OF THIS BID; THE CONTRACTOR WITH HIS/HER SIGNATURE REPRESENTS TO THE CITY THAT THE INFORMATION DISCLOSED IN THIS DOCUMENT IS COMPLETE AND ACCURATE. IT IS UNDERSTOOD AND AGREED THAT FALSE CERTIFICATION IS SUBJECT TO IMMEDIATE TERMINATION BY THE CITY.

The Representations Made Herein On This Document Are Made Under Penalty Of Perjury.

CONTRACTOR'S NAME: _____

BY: _____ Date: _____
Signature Title

Effects of violations: a. Suspension of payments under this contract. b. Suspension or termination of the contract. c. Suspension or debarment of the contractor from receiving any contract from the City of Sacramento for a period not to exceed five years.
FM 681 7/10/9

MINIMUM QUALIFICATIONS QUESTIONNAIRE

Sacramento City Code Section 3.60.020 authorizes the Sacramento City Council to adopt standard minimum qualifications for bidders on competitively bid public works construction projects, and requires, among other provisions, that a bidder meet such minimum qualifications at the time of bid opening in order to bid. On July 31, 2007, the City Council adopted Resolution No. 2007-574 establishing these standard minimum qualifications. Pursuant to City Code section 3.60.020, a bidder failing to meet these minimum qualifications at the time of bid opening shall not be considered a responsible bidder for purposes of bidding on the subject project.

All bidders must demonstrate compliance with the minimum qualifications established by Resolution No. 2007-574 by completing all of the questions contained in this questionnaire. Bidder responses shall be limited to those operating business units, offices, branches and/or subsidiary divisions of the bidder that will be involved with the performance of any project work if awarded the contract. If a bidder answers "yes" to any single question, fails to submit a fully completed questionnaire, or submits false information, this will result in a determination that the minimum qualifications are not met, and the bidder shall not be considered a qualified bidder for purposes of bidding on this contract. If two or more entities submit a bid on a contract as a Joint Venture, each entity within the Joint Venture must separately meet these minimum qualifications for the Joint Venture to be considered a qualified bidder.

The City of Sacramento ("City") shall make its determination on the basis of the submitted questionnaire, as well as any relevant information that is obtained from others or as a result of investigation by the City. While it is the intent of this questionnaire to assist the City in determining whether bidders possess the minimum qualifications necessary to submit bids on the City's competitively bid public works construction contracts, the fact that a bidder submits a questionnaire demonstrating that it meets these minimum qualifications shall not in any way limit or affect the City's ability to: (1) review other information contained in the bid submitted by the bidder, and additional relevant information, and determine whether the contractor is a responsive and/or responsible bidder; or (2) establish pre-qualification requirements for a specific contract or contracts.

By submitting this questionnaire, the bidder consents to the disclosure of its questionnaire answers: (i) to third parties for purposes of verification and investigation; (ii) in connection with any protest, challenge or appeal of any action taken by the City; and (iii) as required by any law or regulation, including without limitation the California Public Records Act (Calif. Gov't Code sections 6250 et seq.). Each questionnaire must be signed under penalty of perjury in the manner designated at the end of the form, by an individual who has the legal authority to bind the bidder submitting the questionnaire. If any information provided by a bidder becomes inaccurate, the bidder shall immediately notify the City and provide updated accurate information in writing, under penalty of perjury.

QUESTIONNAIRE

NOTICE: For firms that maintain other operating business units, offices, branches and/or subsidiary divisions that will not be involved with the performance of any project work if the firm is awarded the contract, references hereafter to “your firm” shall mean only those operating business units, offices, branches and/or subsidiary divisions that will be involved with the performance of any project work.

All of the following questions regarding “your firm” refer to the firm (corporation, partnership or sole proprietor) submitting this questionnaire, as well as any firm(s) with which any of your firm’s owners, officers, or partners are or have been associated as an owner, officer, partner or similar position within the last five years

The firm submitting this questionnaire shall not be considered a responsible bidder if the answer to any of these questions is “yes”, or if the firm submits a questionnaire that is not fully completed or contains false information.

1. **Classification & Expiration Date(s) of California Contractor’s License Number(s)** held by firm:

2. Has a contractor's license held by your firm and/or any owner, officer or partner of your firm been revoked at anytime in the last five years?
 Yes No
3. Within the last five years, has a surety firm completed a contract on your firm’s behalf, or paid for completion of a contract to which your firm was a party, because your firm was considered to be in default or was terminated for cause by the project owner?
 Yes No
4. At the time of submitting this minimum qualifications questionnaire, is your firm ineligible to bid on or be awarded a public works contract, or perform as a subcontractor on a public works contract, pursuant to either California Labor Code section 1777.1 (prevailing wage violations) or Labor Code section 1777.7 (apprenticeship violations)?
 Yes No
5. At any time during the last five years, has your firm, or any of its owners, officers or partners been convicted of a crime involving the awarding of a contract for a government construction project, or the bidding or performance of a government contract?
 Yes No

6. Answer either subsection A or B, as applicable:

A. Your firm has completed three or more government construction contracts in Sacramento County within the last five years: Within those five years, has your firm been assessed liquidated damages on three or more government construction contracts in Sacramento County for failure to complete contract work on time?

NOTE: If there is a pending administrative or court action challenging the assessment of liquidated damages on a government contract within the last five years, you need not include that contract in responding to this question.

Yes No Not applicable

OR

B. Your firm has not completed at least three government construction contracts in Sacramento County within the last five years: Within the last three years, has your firm been assessed liquidated damages on three or more government construction contracts for failure to complete contract work on time?

NOTE: If there is a pending administrative or court action challenging an assessment of liquidated damages on a government contract within the last three years, you need not include that contract in responding to this question.

Yes No Not applicable

7. In the last three years has your firm been debarred from bidding on, or completing, any government agency or public works construction contract for any reason?

NOTE: If there is a pending administrative or court action challenging a debarment, you need not include that debarment in responding to this question.

Yes No

8. Has CAL OSHA assessed a total of three or more penalties against your firm for any "serious" or "willful" violation occurring on construction projects performed in Sacramento County at any time within the last three years?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes No

9. Answer either subsection A or B, as preferred:

A. In the last three years has your firm had a three year average Workers' Compensation experience modification rate exceeding 1.1?

Yes No

OR

B. In the last three years has your firm had a three-year average incident rate for total lost workday cases exceeding 10?

NOTE: Incident rates represent the number of lost workday cases per 100 full-time workers and is to be calculated as: $(N/EH) \times 200,000$, where

N = number of lost workday cases (as defined by the U.S. Dept. of Labor, Bureau of Labor Statistics)
EH = total hours worked by all employees during the calendar year
200,000 = base for 100 equivalent full-time working (working 40 hours per week, 50 weeks per year)

Yes No

10. In the past three years, has the federal EPA, Region IX or a California Air Quality Management District or Regional Water Quality Control Board assessed penalties three or more times, either against your firm, or against the project owner for a violation resulting in whole or in part from any action or omission by your firm on a project on which your firm was a contractor in Sacramento County?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes No

11. In the past three years, has the federal EPA, Region IX or a California Air Quality Management District or Regional Water Quality Control Board assessed a single penalty of \$100,000 or more, either against your firm, or against the project owner for a violation resulting in whole or in part from any action or omission by your firm on a project on which your firm was the contractor in Sacramento County?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes No

12. In the past three years, have civil penalties been assessed against your firm pursuant to California Labor Code 1777.7 for violation of California public works apprenticeship requirements, three or more times?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes No

13. In the past three years, has a public agency in California withheld contract payments or assessed penalties against your firm for violation of public works prevailing wage requirements, three or more times?

NOTE: If there is a pending administrative or court action appealing a withholding or penalty assessment, you need not include that withholding or penalty assessment in responding to this question.

Yes No

14. Has your firm been assessed penalties for violation of public works prevailing wage requirements in California, in an aggregate amount for the past three years of \$50,000 or more?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes No

VERIFICATION AND SIGNATURE

I, the undersigned, certify and declare that I have read all the foregoing answers to this Minimum Qualifications Questionnaire, and know their contents. The matters stated in these Questionnaire answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signed at _____, on _____.
(Location) (Date)

Signature: _____

Print name: _____

Title: _____

NOTE: If two or more entities submit a bid on a contract as a Joint Venture, each entity within the Joint Venture must submit a separate Minimum Qualifications Questionnaire.

REQUIREMENTS OF THE NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

INTRODUCTION

The Sacramento Non-Discrimination In Employee Benefits Code (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

APPLICATION

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding \$100,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to permits for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

DEFINITIONS

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use or occupancy of real property owned by others, including leases, concessions, franchises and easements.

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

“Contractor” means any person or persons, firm partnership or corporation, company, or combination thereof, that enters into a Contract with the City. “Contractor” does not include a public entity.

“Domestic Partner” means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

“Employee Benefits” means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees. “Employee benefits” shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

CONTRACTOR’S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee’s name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form (attachment “A”), signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directing on a City contract, and (at the time of hire), each new employee, a copy of the notification provided as attachment “B.”

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as attachment “C.”

**DECLARATION OF COMPLIANCE
Equal Benefits Ordinance**

Name of Contractor

Address

The above named contractor ("Contractor") hereby declares and agrees as follows:

1. I have read and understand the Requirements of the Non-Discrimination In Employee Benefits Code (the "Requirements") provided to me by the City of Sacramento ("City") in connection with the City's request for proposals or other solicitations for the performance of services, or for the provision of commodities, under a City contract or agreement ("Contract").
2. As a condition of receiving the City Contract, I agree to fully comply with the Requirements, as well as any additional requirements that may be specified in the City's Non-Discrimination in Employee Benefits Code codified at Chapter 3.54 of the Sacramento City Code (the "Ordinance").
3. I understand, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance, are any of the following:
 - a. Bereavement Leave
 - b. Disability, life, and other types of insurance
 - c. Family medical leave
 - d. Health benefits
 - e. Membership or membership discounts
 - f. Moving expenses
 - g. Pension and retirement benefits
 - h. Vacation
 - i. Travel benefits
 - j. Any other benefit offered to employees

I agree that should I offer any of the above listed employee benefits, that I will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

4. I understand that I will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:
 - a. In the event that the actual cost of providing a benefit to a domestic partner or spouse, exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, I will not be required to provide the benefit, nor shall it be deemed discriminatory, if I require the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
 - b. In the event I am unable to provide a certain benefit, despite taking reasonable measures to do so, if I provide the employee with a cash equivalent, I will not be deemed to be discriminating in the application of that benefit.
 - c. If I provide employee benefits neither to employee's spouses nor to employee's domestic partners.
 - d. If I provide employee benefits to employees on a basis unrelated to marital or domestic partner status.
 - e. If I submit, to the Program Coordinator, written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies which are to be enacted before the

first effective date after the first open enrollment process following the date the Contract is executed with the City.

I understand that any delay in the implementation of such policies may not exceed one (1) year from the date the Contract is executed with the City, and applies only to those employee benefits for which an open enrollment process is applicable.

- f. Until administrative steps can be taken to incorporate, in the infrastructure, nondiscrimination in employee benefits

The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date the Contract is executed with the City.

- g. Until the expiration of a current collective bargaining agreement(s) where, in fact, employee benefits are governed by a collective bargaining agreement(s).
- h. I take all reasonable measures to end discrimination in employee benefits by either requesting the union(s) involved agree to reopen the agreement(s) in order for me to take whatever steps are necessary to end discrimination in employee benefits or by my ending discrimination in employee benefits without reopening the collective bargaining agreement(s).
- i. In the event I cannot end discrimination in employee benefits despite taking all reasonable measures to do so, I provide a cash equivalent to eligible employees for whom employee benefits (as listed previously), are not available.

Unless otherwise authorized in writing by the City Manager, I understand this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or no longer than three (3) months from the date the Contract is executed with the City.

- 5. I understand that failure to comply with the provisions of Section 4. (a) through 4. (i), above, will subject me to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full; deemed ineligible for future contracts for up to two (2) years; the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
- 6. I understand and do hereby agree to provide each current employee and, within ten (10) days of hire, each new employee, of their rights under the Ordinance. I further agree to maintain a copy of each such letter provided, in an appropriate file for possible inspection by an authorized representative of the City. I also agree to prominently display a poster informing each employee of these rights.
- 7. I understand that I have the right to request an exemption to the benefit provisions of the Ordinance when such a request is submitted to the Procurement Services Division, in writing with sufficient justification for resolution, prior to contract award.

I further understand that the City may request a waiver or exemption to the provisions or requirements of the Ordinance, when only one contractor is available to enter into a contract or agreement to occupy and use City property on terms and conditions established by the City; when sole source conditions exist for goods, services, public project or improvements and related construction services; when there are no responsive bidders to the Ordinance requirements and the contract is for essential goods or services; when emergency conditions with public health and safety implications exist; or when the contract is for specialized legal services if in the best interest of the City.

8. In consideration of the foregoing, I shall defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the Requirements or of the Ordinance by me.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind the Contractor to the provisions of this Declaration.

Signature of Authorized Representative

Date

Print Name

Title



YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S

NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

On (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination In Employee Benefits By City Contractors Ordinance (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employees.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

You May . . .

- Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:

City of Sacramento
Contract Services Unit
915 I St., 2nd Floor
Sacramento, CA 95814

- Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:
 - Reinstatement, injunctive relief, compensatory damages and punitive damages
 - Reasonable attorney's fees and costs



YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S

NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

If you feel you have been discriminated against by your employer . . .

You May . . .

- Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:

City of Sacramento
Contract Services Unit
915 I St., 2nd Floor
Sacramento, CA 95814
- Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

Discrimination and Retaliation Prohibited.

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance . . .

You May Also . . .

Submit a written complaint to the City of Sacramento, Contract Services Unit, at the same address, containing the details of the alleged violation.

Construction and Demolition (C&D) Debris Recycling Requirements

As a condition of receiving this Contract, Contractor agrees to fully comply with the requirements specified herein for all demolition projects, as well as projects with a valuation of \$250,000 or more:

1. **Definitions.** For purposes of this section, the following terms, words and phrases shall have the following meanings:

“Certified C&D sorting facility” means a facility that receives C&D debris and/or processes C&D debris into its component material types for reuse, recycling, and disposal of residuals and possesses a valid certificate as a C&D sorting facility from the Sacramento Regional County Solid Waste Authority.

“Construction and demolition debris” or “C&D debris” means used or commonly discarded materials resulting from construction, repair, remodel or demolition operations on any pavement, house, building, or other structure, or from landscaping that are not hazardous as defined in California Health and Safety Code section 25100 et seq. Such materials include, but are not limited to, concrete, asphalt, wood, metal, brick, dirt, sand, rock, gravel, plaster, glass, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, masonry, plastic pipe, trees, and other vegetative matter resulting from land clearing and landscaping.

“Divert” or “diversion” means to use materials for any purpose other than disposal in a landfill or transformation facility. Methods to divert materials include on-site reuse of the materials, delivery of materials from the project site to a certified C&D sorting facility or a recycling facility, or other methods as approved in regulations promulgated by the City Department of Utilities.

“Franchised waste hauler” means a person who possesses a valid commercial solid waste collection franchise issued by the Sacramento Regional County Solid Waste Authority.

“Mixed C&D debris” means loads that include commingled recyclable and non-recyclable C&D debris generated at a project site.

“Recyclable C&D debris” means C&D debris required to be diverted from landfills as specified in the Waste Management Plan and returned to the economic mainstream in the form of raw material for new, reused or reconstituted products that meet the quality standards necessary to be used in the marketplace.

“Recycling facility” means a facility or operation that receives, processes, and transfers source-separated recyclable materials.

“Source-separated C&D debris” means recyclable C&D debris that is separately sorted and containerized at the site of generation by individual material type and segregated from mixed C&D debris prior to collection and transporting.

“Waste log” means a record detailing the management of C&D debris generated by the covered project, including the date and weight/volume of material by type that was salvaged, reused, recycled or disposed.

2. **Waste Management Plan.** A completed WMP (see **Attachment 1**) must be submitted to and approved by the City prior to commencing any work on the project. The WMP must specify the types of C&D debris that will be generated from the project; the manner in which C&D debris will be managed and/or stored on the project site; the manner in which recyclable C&D debris generated from the project will be recycled or reuse; the person who will haul, collect or transport the recyclable C&D debris from the project site; and the certified C&D sorting facility or recycling facility where recyclable C&D debris will be delivered. The WMP must be approved by the City prior to commencing any work on the project.

3. Contractor shall be solely responsible for diverting the recyclable C&D materials specified on the WMP. Mixed C&D debris shall be delivered to a SWA-certified C&D sorting facility only. Only the permit holder, the person who generates the waste, a franchised waste hauler, or the City of Sacramento can transport or haul mixed C&D debris. Source-separated C&D debris may be delivered by any person to any recycling facility that accepts such materials. (See **Attachment 2** for list of C&D Debris Haulers and Facilities).

4. During the course of the project, Contractor shall maintain a waste log (see **Attachment 3**), and keep all weight tickets or weight receipts, for all C&D debris hauled away from the project. At a minimum, the waste log shall specify the C&D debris generated by the project; the manner in which C&D debris was recycled or re-used; and the facility where the C&D debris was delivered.

5. Within 30 days after submitting the project completion report, Contractor shall submit to the City a completed waste log, along with copies of supporting weight tickets. Contractor shall maintain and keep accurate and complete records of all bills, weight receipts or weight tickets that were issued for the collection, transport or disposal of C&D debris for a period of one-year after submittal of the waste log. The records shall be made available for inspection, examination and audit by the City during the one-year retention period to validate the information provided in the WMP and in the waste log. If the City determines noncompliance by the Contractor after an audit has been conducted, Contractor shall reimburse the City for all costs incurred in performing the audit.

6. Failure by Contractor to comply with any provisions specified herein will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; imposition of a penalty, payable to the City (\$50-\$250 for first offense, \$251-\$500 for second offense, and \$501-\$1500 for subsequent offenses); and/or submission of a performance security deposit fee when submitting a permit application to the City for a project within one year of imposition of the penalty.

For questions or to obtain more information about the Recycling Requirements for C&D debris, contact the City of Sacramento, Solid Waste Services Division, 2812 Meadowview Road, Building 1, Sacramento, CA 95832, or telephone (916) 808-4833, or email C&D@cityofsacramento.org

C&D Debris Waste Management Plan

C&D Debris Waste Management Plan
 City of Sacramento Solid Waste Services
 2812 Meadowview Road, Building 1
 Sacramento, CA 95832
 Phone: (916) 808-4839 / Fax: (916) 808-4999
 C&D@cityofsacramento.org

Form
submitted by:

Please attach a business card, or put your name with a phone number and/or an email address.

This Waste Management Plan (WMP) must be submitted and approved before work can begin. Only one WMP is required for each public construction project. The administration fee and, if applicable, a security deposit must be submitted with this form to be approved. Administration fee is 0.04% of project bid amount (min \$40, max \$800); security deposit, if applicable, is 1% of bid amount (max \$10,000). The accompanying Waste Log must be submitted within 30 days of the project completion report, or a penalty may be imposed.

A. Building Project Information:

Job Address: _____
 Contractor: _____
 Address: _____

Engineering
 Estimate: _____
 Phone: _____
 Email: _____

B. Briefly describe the project:

C. Materials Required to be Recycled

50% of all debris must be recycled if generated during the course of your project. You can either **source-separate** them, which may be hauled by anyone, or mix them in one container and send the **mixed C&D debris** load to a **Certified Mixed C&D Sorting Facility**. Mixed C&D loads can only be hauled by a franchised hauler or self-hauled. Please see the Definitions section, on the next page, for more information.



D. Material Management.

1. How will C&D debris will be stored on the project site: _____ Mixed C&D _____ Source-Separated
2. Company to haul away debris: _____
3. Facilities to receive debris: _____

C&D Debris Waste Management Plan

C&D Debris Waste Management Plan
City of Sacramento Solid Waste Services
2812 Meadowview Road, Building 1
Sacramento, CA 95832
Phone: (916) 808-4839 / Fax: (916) 808-4999
C&D@cityofsacramento.org

E. Definitions.

Please read and understand these terms. Call Solid Waste at (916) 808-4833 if these terms are not clear to you. More information is also available online at <http://www.cityofsacramento.org/utilities/>.

1. **Self-haul or self-hauling:** This is when the general contractor or a subcontractor *who is doing work on the project* hauls their own waste materials for recycling or disposal. Note that a *jobsite cleanup crew is not doing other work on the project and is not self-hauling*. Jobsite cleanup crews need to be franchised in order to haul mixed C&D debris away.
2. **Franchised hauler:** Check the Department of Utilities (DOU) website for a list of these haulers. Only these companies and the City of Sacramento can collect and haul mixed C&D debris generated within the City for a fee.
3. **Source separation:** This means keeping wood, metal, cardboard, or other recyclables in separate containers, and sending the materials to an authorized recycler. A list of authorized recyclers can be found on the DOU web site. Source-separated materials may be hauled by anyone.
4. **Mixed C&D debris:** This means putting all recyclable debris into one container. Mixed materials must be sent to a certified mixed C&D sorting facility. Mixed materials may be either self-hauled or hauled by a franchised hauler. If your job site is crowded, this option saves the most space.
5. **Certified Mixed C&D Sorting Facility:** See the DOU web site for a list. These facilities have been certified by the Sacramento Regional Solid Waste Authority (SWA) to extract recyclable materials from mixed C&D debris.

F. Terms and Conditions

- Your approved Waste Management Plan and Waste Log must be kept on the job site for the duration of the project.
- City of Sacramento Solid Waste Services staff may enter the jobsite to inspect waste collection areas.
- **ALL Clean Wood Waste** (unpainted, untreated lumber, plywood and OSB), **Inert Materials** (concrete, asphalt paving, brick, block, and dirt), **Wooden Pallets**, **Scrap Metal**, and **Corrugated Cardboard** must be recycled.
- Only SWA-Certified Mixed C&D Sorting Facilities may be used to recycle these materials if mixed with other materials.
- Only the City of Sacramento, SWA-Franchised Haulers, or self-haulers (as defined above) may collect and transport mixed C&D material from the jobsite.
- C&D Debris may not be burned or dumped illegally.
- Your Waste Log must be completed and submitted, with supporting weight tickets, within 30 days of submitting your project completion report. All waste hauling and disposal or recycling activity must be entered on the Waste Log, including information from any subcontractors who self-hauled their own debris off-site.
- You must keep all receipts or weight-tickets from your project for a period of one year from the submittal of your waste log.
- Failure to comply with these terms and conditions may result in a fine and payment of a security deposit on future projects

C&D Debris Haulers & Facilities

C&D Debris Waste Management Plan
City of Sacramento Solid Waste Services
2812 Meadowview Road, Building 1
Sacramento, CA 95832
Phone: (916) 808-4833 / Fax: (916) 808-4999
C&D@cityofsacramento.org

Certified Mixed C&D Facilities

Allied Waste / Elder Creek Transfer and Recovery	(916) 387-8425
Florin-Perkins Public Disposal	(916) 443-5120
L&D Landfill	(916) 737-8640
Waste Management / K&M Recycle America	(916) 452-0142

Franchised Haulers

ACES Waste Services, Inc.	(866) 488-8837	Elk Grove Waste Management, LLC	(916) 689-4052
Allied Waste Services	(916) 631-0600	Mini Drops, Inc.	(916) 686-8785
All Waste Systems, Inc.	(916) 456-1555	Norcal Waste Services of Sacramento	(916) 381-5300
Atlas Disposal Industries, LLC	(916) 455-2800	North West Recyclers	(916) 686-8575
California Waste Recovery Systems	(916) 441-1985	Waste Management of Sacramento	(916) 387-1400
Central Valley Waste Services, Inc.	(209) 369-8274	Waste Removal & Recycling	(916) 453-1400
City of Sacramento Solid Waste	(916) 808-4839	Western Strategic Materials, Inc.	(916) 388-1076

Recyclers*

Recovery Stations & Landfills

Bell Marine	(916) 442-9089	Elder Creek Recovery & Transfer Station	(916) 387-8425
C & C Paper Recycling	(916) 920-2673	Kiefer Landfill	(916) 875-5555
EBI Aggregates	(916) 372-7580	L & D Landfill	(916) 383-9420
International Paper	(916) 371-4634	North Area Recovery Station	(916) 875-5555
Modern Waste Solutions	(916) 447-6800	Sacramento Recycling & Transfer Station	(916) 379-0500
PRIDE Industries, Inc.	(916) 640-1300	Waste Management Recycle America	(916) 452-0142
Recycling Industries, Inc.	(916) 452-3961		
Sacramento Local Conservation Corps	(916) 386-8394		
Smurfit-Stone Container Corporation	(916) 381-3340		
Southside Art Center	(916) 387-8080		
Spencer Building Maintenance, Inc.	(916) 922-1900		

More updated information can be found online at:
<http://www.cityofsacramento.org/utilities/>

* Please note that any facility may receive source-separated recyclable materials as long as it is authorized to do so by the State of California. This is not meant to be a complete list.

Green Contracting Survey (Voluntary)

The City of Sacramento and the Sacramento Metropolitan Air Quality District (SMAQMD) are conducting a joint pilot project to help meet Federal Clean Air Standards for the Sacramento region.

Attached is a Green Contracting Fleet Inventory Form. Please complete the form, remove it from the bid package and return it to SMAQMD in the postage paid envelope provided with the bid package. Please do not return the Green Contracting Fleet Inventory Form to the City of Sacramento with the bid documents or otherwise.

A limited amount of funds and other financial incentives may be available to qualified contractors participating in this joint project to assist qualified contractors with upgrading and/or replacing equipment and/or trucks.

Completing and returning the Green Contracting Fleet Inventory Form is strictly voluntary

Voluntary Green Contracting Fleet Inventory List (On-Road Equipment)

In partnership with the City of Sacramento and the Sacramento Metropolitan Air Quality Management District

Company Name:	
Contact Name:	
Company Address:	
City, State, ZIP:	
Company Phone:	

City Bid Information	
Department	
Project #	
LBE?	

Instructions:

- a) Please enter the vehicle / equipment information for each unit used in conjunction with your City of Sacramento Bid.
- b) All fields are required for both on-road heavy-duty vehicles and off-road construction equipment over 50 HP.
- c) Electronic version available at <http://www.airquality.org/ceqa/index.shtml>
For additional questions, please call (916) 874-4892
- d) 4892

Please Submit To:

Kristian Damkier, P.E.
 Sacramento Metropolitan AQMD
 777 12th St, 3rd Floor
 Sacramento, CA 95814-1908

#	VIN	License Plate	Vehicle Information			Engine Information				Annual Usage (miles)	Received Funding
			Make	Model	Year	Make	Model	Year	HP		
(ex)	1XP5AAC35RG339402	1T45678	Kenworth	T-300	2002	Cummins	ISB	2002	250	35,000	No

Voluntary Green Contracting Fleet Inventory List (On-Road Equipment)

In partnership with the City of Sacramento and the Sacramento Metropolitan Air Quality Management District

Company Name:	
Contact Name:	
Company Address:	
City, State, ZIP:	
Company Phone:	

	City Bid Information
Department	
Project #	
LBE	

Instructions:

- a) Please enter the vehicle / equipment information for each unit used in conjunction with your City of Sacramento Bid.
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- d) 4892

Please Submit To:
Kristian Damkier, P.E. Sacramento Metropolitan AQMD 777 12th St, 3rd Floor Sacramento, CA 95814-1908

Equipment Serial Number	Equipment Information				Engine Information				Annual Usage (hours)
	Make	Model	Type	Year	Make	Model	Year	HP	
48W34456	Caterpillar	631G	Scraper	2003	Caterpillar	3408E	2003	485	1,600

**LOCAL BUSINESS ENTERPRISE (LBE)
PARTICIPATION REQUIREMENTS
FOR PUBLIC PROJECTS OF \$100,000 OR MORE**
(City Contracts no Federal Funds Used)

I. LBE PARTICIPATION REQUIREMENT

On April 3, 2012, the Sacramento City Council adopted a Local Business Enterprise (LBE) Preference Program to provide enhanced opportunities for the participation of local business enterprises (LBEs) in the City's contracting and procurement activities. On November 19, 2013, the City Council increased the LBE preference percentage and authorized City departments to require minimum LBE participation levels in specific contracts. Under City Code section 3.60.270, when the bid specifications for a City contract establish a minimum participation level for LBEs, no bidder on the contract shall be considered responsive unless its bid meets the minimum LBE participation level required by the bid specifications.

The City has established **a minimum 5% participation level for LBEs on this contract.** Pursuant to City Code Section 3.60.270, no bidder on this contract shall be considered responsive unless its bid meets or exceeds this minimum participation level.

Bidder and any other business entity listed on the LBE forms submitted shall comply with all applicable laws relating to licensing, permitting, and payment of taxes and fees in the City of Sacramento or County of Sacramento; and shall not be in arrears to the City of Sacramento or County of Sacramento, upon award of a contract.

II. LBE QUALIFICATION

- A. A LBE designated in the bid must be qualified as a LBE prior to the time set for submission of bids.
- B. Local Business Enterprise means a business enterprise, including but not limited to, a sole proprietorship, partnership, limited liability company, corporation, or other business entity that has a legitimate business presence in the City or unincorporated county of Sacramento. Proof of legitimate business presence in the City or unincorporated county of Sacramento shall include:
 - 1. Having a current City of Sacramento Business Operation Tax or County of Sacramento Business License for at least twelve (12) consecutive months prior to submission of bid; and
 - 2. Having either of the following types of offices or workspace operating legally within the City or unincorporated county of Sacramento for at least twelve (12) consecutive months prior to submission of bid:
 - a. The LBE's principle business office or workspace; or
 - b. The LBE's regional, branch or satellite office with at least one full time employee located in the City or unincorporated county of Sacramento.

- C. A LBE must provide a physical address for the basis of location. This excludes P.O. Box addresses.
- D. A LBE must provide a current copy of the City of Sacramento Business Operations Tax Certificate or County of Sacramento Business License.

III. DETERMINATION OF LBE PARTICIPATION LEVEL

- A. LBE Participation: The percentage of LBE participation is determined based on the dollar value of the work to be performed or supplies to be furnished by certified LBEs designated in the bidder's Subcontractor and LBE Participation Verification Form, relative to the total dollar amount of the bid.
- B. Participation Credit: To receive credit for participation:(1) a LBE subcontractor must be responsible for the execution of a distinct element of the work, must possess any license or certification required for the work, and must actually perform, manage, or supervise the work without subcontracting or otherwise shifting any portion of the work to another subcontractor; and (2) a LBE supplier must furnish materials, equipment, or supplies that the supplier sells as a recurring, although not necessarily primary, part of its business, and that are necessary for performance of the work.
- C. Suppliers: Credit for a LBE supplier of materials, equipment, or supplies is counted as one hundred (100) percent of the amount paid to the supplier for the material, equipment, or supplies. To receive this credit, LBE suppliers must be listed on the bidder's Subcontractor and LBE Participation Verification Form.
- D. Subcontractors (including truckers): To receive credit for a LBE subcontractor, the subcontractor must be listed on the bidder's Subcontractor and LBE Participation Verification Form.
 - Truckers: Credit for a LBE trucker is counted as one hundred (100) percent of the amount paid to the trucker for trucking services, not including any amount paid to the trucker for the cost of any materials, equipment, or supplies being transported by the trucker.

IV. LBE REQUIREMENTS FOR CONTRACTOR

- A. LBE Records: The Contractor shall maintain records of all subcontracts with verified LBE subcontractors and records of materials purchased from verified LBE suppliers for one (1) year after receiving final payment from the City. Such records shall show the name and business address of each LBE subcontractor or supplier and the total dollar amount actually paid each LBE subcontractor or supplier.

Not later than 30 days after completion of the work performed under the contract, a summary of these records shall be prepared, certified correct by the Contractor's authorized representative and furnished to the City. The Contractor shall provide such other information, records, reports, certifications or other documents as may

be required by City, to determine compliance with any provision of the LBE program or these specifications.

- B. Performance of LBE Subcontractors and Suppliers: The LBEs listed by the Contractor shall perform the work and supply the materials, equipment, and supplies for which they are listed unless the Contractor has received prior written authorization from the City to perform the work with other forces or to obtain the material, equipment, or supplies from other sources. Reasons for requesting such authorization would include:
1. The listed LBE fails to execute a written contract based upon the general terms, conditions, plans, and specifications for the project.
 2. The listed LBE becomes bankrupt or insolvent.
 3. The listed LBE subcontractor fails to meet the bond requirements of the Contractor.
 4. The work performed or the materials/equipment/supplies provided by the listed LBE are unsatisfactory or are not in accordance with the plans and specifications, or the listed LBE fails to perform its contractual obligations.
 5. It would be in the best interest of the City.
- C. Subcontractor Substitution: No substitution of a LBE subcontractor shall be made at any time without compliance with the Subletting and Subcontracting Fair Practices Act. If a LBE subcontractor is unable to perform successfully and is to be replaced, the Contractor shall make reasonable efforts to replace the original LBE subcontractor with another verified LBE subcontractor. The new LBE subcontractor must be verified at the time of substitution.
- D. Reporting and Utilization Requirements and Sanctions: Failure to provide specific information, records, reports, certifications, or any other documents required for compliance with these specifications, or failure to utilize one or more LBEs in substantial compliance with the LBE utilization indicated in the Contractor's bid (unless otherwise authorized by City as provided herein, or when such failure results from changes to the work approved by the City), shall be considered a breach of the contract, and a deduction may be made from the contract amount. The deduction shall be not more than ten (10) percent of the value of the work or materials/equipment/supplies that the subject LBE(s) were listed to perform/provide in the Contractor's bid, and shall be deducted from any payment due to the Contractor. This is in addition to any deduction that may be made under any other provision of the contract, the Sacramento City Code, or State law.
- E. Hearing and Review of Division Manager Decision: Prior to making a deduction pursuant to Section IV (D), above, the City shall provide written notice of the proposed deduction to the Contractor, and the Contractor may, not later than five (5) working days after receiving such notice, provide a written request to City for a hearing to contest the proposed deduction. Upon receipt of a timely written

request from the Contractor, the City shall schedule a hearing before the Division Manager (as defined in the City's Standard Specifications for Public Construction), and written notice of the date, time and location of the hearing shall be provided to the Contractor not less than five (5) working days prior to the date of the hearing. The hearing shall be conducted in the manner specified in Section 4-8 of the Standard Specifications, and the Division Manager shall prepare and forward to the Contractor a written decision as soon as practicable after the hearing. The Division Manager's decision shall be subject to review in accordance with the provisions of Section 4-9 of the Standard Specifications. Failure to request such review in compliance with the requirements set forth in Section 4-9 shall constitute acceptance of the Division Manager's decision by the Contractor.

The written notices and requests described above shall be provided by registered or certified mail (return receipt requested), by telecopy, by personal delivery, or by any other method that provides reliable evidence of the date of receipt. Written notice provided by telecopy shall be deemed received on the date that it is transmitted and transmission is confirmed by the transmitting machine. Written notice provided by personal delivery shall be deemed received on the date of delivery.

V. DEFINITIONS

- A. Local Business Enterprise (LBE): A business enterprise, including but not limited to, a sole proprietorship, partnership, limited liability company, corporation, or any other business entity that has a legitimate business presence in the City of Sacramento or unincorporated county of Sacramento.
- B. Contractor: The sole proprietorship, partnership, limited liability company, corporation, or any other business entity entering into a contract with the City of Sacramento.
- C. Subcontractor: The sole proprietorship, partnership, limited liability company, corporation, or other business entity entering into a contract with the prime contractor to perform a portion of the work.
- D. Supplier: The sole proprietorship, partnership, limited liability company, corporation, or other business entity to provide materials, equipment, or supplies necessary for performance of the work.
- E. Proposal: Any response to a City solicitation for Proposals or Qualifications.
- F. Bid: Any response to a City solicitation for bids.

FOLLOWING FORMS TO BE FILLED OUT AND SIGNED

ONLY

IF AWARDED CONTRACT

WORKER'S COMPENSATION INSURANCE CERTIFICATION

TO THE CITY OF SACRAMENTO:

The undersigned does hereby certify that he is aware of the provisions of Section 3700 et seq. of the Labor Code which require every employer to be insured against liability for worker's compensation claims or to undertake self-insurance in accordance with the provisions of said Code, and that he/she will comply with such provisions before commencing the performance of the work on this contract.

Bidder

BY: _____

Title: _____

Address: _____

Date: _____

PLEASE READ CAREFULLY BEFORE SIGNING

To be signed by authorized corporate officer or partner or individual submitting the bid. If bidder is: (example)

1. An individual using a firm name, sign: "John Doe, and individual doing business as Blank Company".
2. An individual doing business under his own name, sign: Your name only.
3. A co-partnership, sign: "John Doe and Richard Doe, co-partners doing business as Blank Company, by, John Doe, Co-Partner".
4. A corporation, sign: "Blank Company, by John Doe, Secretary". (Or other title)

AGREEMENT
(Construction Contract Over \$25,000)

THIS AGREEMENT, dated for identification _____, 20___, is made and entered into between the CITY OF SACRAMENTO, a municipal corporation (“City”), and _____ (“Contractor”).

The City and Contractor hereby mutually agree as follows:

1. CONTRACT DOCUMENTS

The Contract Documents, sometimes also referred to as the “Contract,” consist of the following items, which are hereby incorporated by reference as if set forth in full in this Agreement:

- The Notice to Contractors
- The Proposal Form submitted by the Contractor
- The Instructions to Bidders
- The Local Business Enterprise (LBE) Requirements
- The Requirements for the Non-Discrimination in Employee Benefits by City Contractors Ordinance and the Declaration of Compliance
- The City’s Reference Guide for Construction Contracts
- The Addenda, if any
- This Agreement
- The Standard Specifications
- The Special Provisions
- The Plans and Technical Specifications
- The drawings and other data and all developments thereof prepared by City pursuant to the Contract
- Any modifications of any of the foregoing made or approved by City, including but not limited to duly authorized change orders.

Unless specifically noted otherwise, references to the “Standard Specifications” shall mean and refer to the Standard Specifications for Public Construction of the City of Sacramento approved by the Sacramento City Council on June 4, 2007 (Resolution No. 2007-350), and any subsequent amendments thereto approved by the Sacramento City Council or the Sacramento City Manager. Work called for in any one Contract Document and not mentioned in another is to be performed and executed as if mentioned in all Contract Documents. The table of contents, titles and headings contained in the Contract Documents are provided solely to facilitate reference to various provisions of the Contract Documents and in no way affect or limit the interpretation of the provisions to which they refer.

2. DEFINITIONS

Unless otherwise specifically provided herein, all words and phrases defined in the Standard Specifications shall have the same meaning and intent in this Agreement.

3. AGREEMENT CONTROLS

In the event of a conflict between any of the terms and conditions set forth in this Agreement and the terms and conditions set forth in other Contract Documents, the terms and conditions set forth in this Agreement shall prevail, except that the provisions of any duly authorized change order shall prevail over any conflicting provisions of this Agreement.

4. SCOPE OF CONTRACT

Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, material and transportation necessary to perform and complete in a good and workmanlike manner to the satisfaction of City, all the Work called for in the Contract Documents entitled:

_____ (PN:)

including the Work called for in the following alternative bid items described in the Proposal Form:

Contractor agrees to perform such Work in the manner designated in and in strict conformity with the Contract Documents.

5. CONTRACT AMOUNT AND PAYMENTS

City agrees to pay and Contractor agrees to accept, as complete payment for the above Work, in accordance with the schedule and procedures set forth in the Contract Documents and subject to deductions, withholdings and additions as specified in the Contract Documents, a total sum that shall not exceed the total bid amount set forth in Contractor's Proposal Form. In addition, subject to deductions, withholdings and additions as specified in the Contract Documents, payment for individual items of the Work shall be computed as follows:

(A) For items of the Work for which a lump sum price is specified in Contractor's Proposal Form, Contractor shall be paid the lump sum price(s) specified in Contractor's Proposal Form; and

(B) For items of the Work for which a unit price is specified in Contractor's Proposal Form, Contractor shall be paid the sum computed at such unit price, or computed at a different price if such different price is determined by City in accordance with the Standard Specifications, based on the actual amount of each such item performed and/or furnished and incorporated in the Work; provided that in no event shall the total sum for a unit price item exceed the total bid amount set forth for such item in the Contractor's Proposal Form, unless authorized by Change Order.

6. PROGRESS PAYMENTS

Subject to the terms and conditions of the Contract, City shall cause payments to be made upon demand of Contractor as follows:

(A) On or about the first of the month, the Engineer shall present to the Contractor a statement showing the amount of labor and materials incorporated in the Work through the twentieth (20) calendar day of the preceding month. After both Contractor and Engineer approve the statement in writing, and the City's labor compliance officer provides written approval, the City shall issue a certificate for ninety-five (95) percent of the amount it shall find to be due, subject to any deductions or withholdings authorized or required under the Contract or any applicable Laws or Regulations.

(B) No inaccuracy or error in said monthly estimates shall operate to release Contractor from damages arising from such Work or from enforcement of each and every provision of the Contract Documents, and City shall have the right subsequently to correct any error made in any estimate for payment.

(C) Contractor shall not be paid for any defective or improper Work.

(D) The remaining five (5) percent of the value of the Work performed under the Contract, if unencumbered and subject to any deductions or withholdings authorized or required under the Contract or any applicable Laws or Regulations, shall be released not later than sixty (60) days after completion and final acceptance of the Work by City. Acceptance by Contractor of the final payment shall constitute a waiver of all claims against the City arising under the Contract Documents, except for disputed claims in stated amounts that the Contractor specifically reserves

in writing, but only to the extent that the Contractor has complied with all procedures and requirements applicable to the presentation and processing of such claim(s) under the Contract Documents. Contractor shall be entitled to substitute securities for retention or to direct that payments of retention be made into escrow, as provided in Public Contract Code Section 22300, upon execution of the City's Escrow Agreement for Security Deposits in Lieu of Retention.

(E) The parties agree that, for purposes of the timely progress payment requirements specified in Public Contract Code Section 20104.50, the date that the City receives a statement jointly approved by the Contractor and the Engineer as provided above shall be deemed to constitute the date that City receives an undisputed and properly submitted payment request from the Contractor. Progress payments not made within 30 days after this date may be subject to payment of interest as provided in Public Contract Code Section 20104.50.

7. RETENTION OF SUMS CHARGED AGAINST CONTRACTOR

When, under the provisions of this Contract or any applicable Laws or Regulations, City is authorized or required to withhold, deduct or charge any sum of money against Contractor, City may deduct and retain the amount of such charge from the amount of the next succeeding progress estimate(s), or from any other moneys due or that may become due Contractor from City. If, on completion or termination of the Contract, sums due Contractor are insufficient to pay City's charges, City shall have the right to recover the balance from Contractor or its Sureties.

8. COMMENCEMENT AND PROSECUTION OF WORK

Contractor shall commence the Work not later than fifteen (15) working days after the date of the written Notice to Proceed from City to Contractor and shall diligently prosecute the Work to final completion. The phrase "commence the Work" means to engage in a continuous program on-site including, but not limited to, site clearance, grading, dredging, land filling and the fabrications, erection, or installation of the Work. The Notice to Proceed shall be issued within fifteen (15) calendar days following execution of the Agreement by the City and the filing by Contractor of the required Bonds and proof of insurance, provided that the Engineer may delay issuance of the Notice to Proceed if the Engineer determines in the Engineer's sole discretion that conditions on the site of the Work are unsuitable for commencement of the Work. After the Notice to Proceed is issued, the continuous prosecution of Work by Contractor shall be subject only to Excusable Delays as defined in this Agreement.

9. TIME OF COMPLETION

The entire Work shall be brought to completion in the manner provided for in the Contract Documents on or before **ninety (90) working** days from the date of the Notice to Proceed (hereinafter called the "Completion Date") unless extensions of time are granted in accordance with the Contract Documents.

Failure to complete the entire Work by the Completion Date and in the manner provided for in the Contract Documents shall subject Contractor to liquidated damages as provided in this Agreement. Time is and shall be of the essence in the performance of the Contract and the Work.

10. PAYMENTS DO NOT IMPLY ACCEPTANCE OF WORK

The payment of any progress payment, or the acceptance thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof and shall in no way reduce the liability of Contractor to replace unsatisfactory work or material, whether or not the unsatisfactory character of such work or material was apparent or detected at the time such payment was made.

11. ACCEPTANCE NOT RELEASE

Contractor shall correct immediately any defective or imperfect work or materials that may be discovered before final acceptance of the entire Work, whether or not such defect or imperfection was previously noticed or identified by the City. The inspection of the Work, or any part thereof, shall not relieve Contractor of any of its obligations to perform satisfactory work as herein specified.

Failure or neglect on the part of City or any of its officers, employees or authorized agents to discover, identify, condemn or reject defective or imperfect work or materials shall not be construed to imply an acceptance of such work or materials, if such defect or imperfection becomes evident at any time prior to final acceptance of the entire Work, nor shall such failure or neglect be construed as barring City from enforcing Contractor's warranty(ies) or otherwise recovering damages or such a sum of money as may be required to repair or rebuild the defective or imperfect work or materials whenever City may discover the same, subject only to any statutes of limitation that may apply to any such claim.

12. CITY'S RIGHT TO TAKE POSSESSION OF THE WORK IN WHOLE OR IN PART

The City shall have the right at any time to enter upon the Work and perform work not covered by this Contract, or to occupy and use a portion of the Work, prior to the date of the final acceptance of the Work as a whole, without in any way relieving Contractor of any obligations under this Contract.

13. NO WAIVER OF REMEDIES

Neither the inspection by City, its officers, employees or agents, nor any certificate or other approval for the payment of money, nor any payment for, nor acceptance of the whole or any part of the Work by City, nor any extensions of time, nor any position taken by City, its officers, employees or its agents shall operate as a waiver of any provision of the Contract Documents nor of any power herein reserved to City or any right to damages herein provided, nor shall any waiver of any breach of this Agreement be held to be a waiver of any other or subsequent breach. All remedies provided in the Contract Documents shall be taken and construed as cumulative; in addition to each and every other remedy herein provided, the City shall have any and all equitable and legal remedies that it would in any case have.

14. WARRANTY

Except as otherwise expressly provided in the Contract Documents, and excepting only items of routine maintenance, ordinary wear and tear and unusual abuse or neglect by City, Contractor warrants and guarantees all Work executed and all supplies, materials and devices of whatsoever nature incorporated in or attached to the Work, or otherwise provided as a part of the Work pursuant to the Contract, to be absolutely free of all defects of workmanship and materials for a period of one year after final acceptance of the entire Work by the City. Contractor shall repair or replace all work or material, together with any other work or material that may be displaced or damaged in so doing, that may prove defective in workmanship or material within this one year warranty period without expense or charge of any nature whatsoever to City.

In the event that Contractor shall fail to comply with the conditions of the foregoing warranty within ten (10) days after being notified of the defect in writing, City shall have the right, but shall not be obligated, to repair, or obtain the repair of, the defect and Contractor shall pay to City on demand all costs and expense of such repair. Notwithstanding anything herein to the contrary, in the event that any defect in workmanship or material covered by the foregoing warranty results in a condition that constitutes an immediate hazard to public health or safety, or any property interest, or any person, City shall have the right to immediately repair, or cause to be repaired, such defect, and Contractor shall pay to City on demand all costs and expense of such repair. The foregoing statement relating to hazards to health, safety or property shall be deemed to include both temporary and permanent repairs that may be required as determined in the sole discretion and judgment of City.

In addition to the above, the Contractor shall make a written assignment of all manufacturer's and other product warranties to the City, prior to completion and final acceptance of the Work by City.

The Contractor's Performance Bond shall secure the performance of the Contractor's obligations under this Section 14, and the Contractor and its Surety shall be jointly and severally liable for these obligations.

15. LIQUIDATED DAMAGES IF WORK NOT COMPLETED ON TIME

(A) The actual fact of the occurrence of damages and the actual amount of the damages that City would suffer if the entire Work, and/or any specified portion thereof, were not completed within the time(s) specified herein are dependent upon many circumstances and conditions that could prevail in various combinations, and for this reason, it is impracticable and extremely difficult to fix the actual damages. Damages that City would suffer in the event of such delay include: loss of the use of the project; expenses of prolonged assignment to the project of an architectural and/or engineering staff; prolonged costs of administration, inspection, and supervision; increased operational expenses and/or impaired operation of other facilities dependent upon completion of the project; and the loss and inconvenience suffered by the public within the City of Sacramento by reason of the delay in the completion of the project or portion thereof. Accordingly, the parties agree, and by execution of this Agreement, Contractor acknowledges that it understands and agrees, that the amount(s) set forth herein as liquidated damages reflect the parties' best efforts at the time of entering into the Contract to estimate the damages that may be incurred by City and the public due to the Contractor's delay in completion of the Work and/or any specified portion thereof, and shall be presumed to be the amount of damages sustained by the failure of Contractor to complete the entire Work and/or any specified portion thereof within the time(s) specified herein.

(B) Contractor shall pay liquidated damages to City for failure to complete the entire Work by the Completion Date (as extended in accordance with the Contract Documents, if applicable) in the amount of **five hundred dollars (\$500.00) for each calendar day** for each calendar day after the Completion Date (as extended in accordance with the Contract Documents, if applicable), continuing to the time at which the entire Work is completed. Such amount is the actual cash value agreed upon by the City and Contractor as the loss to City and the public resulting from Contractor's default.

The parties agree, and by execution of this Agreement, Contractor acknowledges that it understands and agrees, that the foregoing provisions provide for the imposition of liquidated damages from the Completion Date (as extended in accordance with the Contract Documents, if applicable) until the date of completion of the entire Work as determined by the Engineer in accordance with Section 8-4 of the Standard Specifications, whether or not the Work or any portion thereof is claimed or determined to be substantially complete prior to such date of completion.

(C) In the event Contractor shall become liable for liquidated damages, City, in addition to all other remedies provided by law, shall have the right to withhold any and all payments that otherwise would be or become due Contractor until the liability of Contractor under this section is finally determined. City shall have the right to use and apply such payments, in whole or in part, to reimburse City for all liquidated damages due or to become due to City. Any remaining balance of such payments shall be paid to Contractor only after discharge in full of all liability incurred by Contractor under this section or otherwise under any provision of the Contract Documents or any applicable Law or Regulation. If the sum so retained by City is not sufficient to discharge all such liabilities of Contractor, Contractor shall continue to remain liable to City until all such liabilities are satisfied in full. No failure by City to withhold any payment as specified above shall in any manner be construed to constitute a release of any such liabilities nor a waiver of the City's right to withhold payment for such liabilities.

16. INDEMNITY AND HOLD HARMLESS

(A) Contractor shall defend, hold harmless and indemnify the City, its officers, employees, and

agents, and each and every one of them, from and against any and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, whether arising on or off the site of the Work, including, but not limited to, any fees and/or costs reasonably incurred by City's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform the Work by the Contractor, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not (i) such Liabilities are caused in part by a party indemnified hereunder, or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for damages for death or bodily injury to persons, injury to property, or other loss, damage or expense to the extent arising from (i) the sole negligence or willful misconduct of, or defects in design furnished by, City, its agents, servants, or independent contractors who are directly responsible to City, or (ii) the active negligence of City.

(B) The existence or acceptance by City of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of City's rights under this Section 16, nor shall the limits of such insurance limit the liability of Contractor hereunder. The provisions of this Section 16 shall survive any expiration or termination of the Contract.

17. CONTRACTOR SHALL ASSUME RISKS

Until the completion and final acceptance by City of all Work under this Contract, the Work shall be under Contractor's responsible care and charge, and Contractor, at no cost to City, shall rebuild, repair, restore and make good all injuries, damages, re-erectations, and repairs occasioned or rendered necessary by accidental causes of any nature, to all or any portions of the Work.

18. GENERAL LIABILITY OF CONTRACTOR

Except as otherwise herein expressly stipulated, Contractor shall perform all the Work and furnish all the labor, materials, tools, equipment, apparatus, facilities, transportation, power and light, and appliances, necessary or proper for performing and completing the Work herein required in the manner and within the time herein specified. The mention of any specific duty or liability of Contractor shall not be construed as a limitation or restriction of any general liability or duty of Contractor, and any reference to any specific duty or liability shall be construed to be solely for the purpose of explanation.

19. INSURANCE

During the entire term of this Contract and until completion and final acceptance of the Work as provided in the Contract Documents, Contractor shall maintain in full force and effect the insurance coverage described in this section.

Full compensation for all premiums that Contractor is required to pay for the insurance coverage described herein shall be included in the compensation specified for performance of the Work under the Contract. No additional compensation will be provided for Contractor's insurance premiums.

It is understood and agreed by the Contractor that its liability to the City shall not in any way be limited to or affected by the amount of insurance coverage required of or carried by the Contractor.

(A) Minimum Scope and Limits of Insurance Coverage

(1) Commercial General Liability Insurance, providing coverage at least as broad as ISO

CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide contractual liability and products and completed operations coverage for the term of the policy.

(2) Automobile Liability Insurance providing coverage at least as broad as ISO Form CA 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide coverage for owned, non-owned and/or hired autos as appropriate to the operations of the Contractor.

(3) Workers' Compensation Insurance with statutory limits, and Employers' Liability Insurance with limits of not less than one million dollars (\$1,000,000). The Worker's Compensation policy shall include a waiver of subrogation.

(B) Additional Insured Coverage

(1) Commercial General Liability Insurance: The City, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insureds as respects general liability arising out of activities performed by or on behalf of Contractor, products and completed operations of Contractor, and premises owned, leased or used by Contractor. The general liability additional insured endorsement must be signed by an authorized representative of the insurance carrier.

If the policy includes a blanket additional insured endorsement or contractual additional insured coverage, the above signature requirement may be fulfilled by submitting that document with a signed declaration page referencing the blanket endorsement or policy form.

(2) Automobile Liability Insurance: The City, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insureds as respects auto liability.

(C) Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

(1) Contractor's insurance coverage shall be primary insurance as respects City, its officials, employees and volunteers. Any insurance or self-insurance maintained by City, its officials, employees or volunteers shall be in excess of Contractor's insurance and shall not contribute with it.

(2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officials, employees or volunteers.

(3) Coverage shall state that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(4) City will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

(D) Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:V. Self-insured

retentions, policy terms or other variations that do not comply with the requirements of this Section 19 must be declared to and approved by the City Risk Management Division in writing prior to execution of this Agreement.

(E) Verification of Coverage

(1) Contractor shall furnish City with certificates and required endorsements evidencing the insurance required. The certificates and endorsements shall be forwarded to the City representative designated by City. Copies of policies shall be delivered to the City on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.

(2) The City may withdraw its offer of contract or cancel the Contract if the certificates of insurance and endorsements required have not been provided prior to execution of this Agreement. The City may withhold payments to Contractor and/or cancel the Contract if the insurance is canceled or Contractor otherwise ceases to be insured as required herein.

(F) Subcontractors

Contractor shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

20. FAILURE TO MAINTAIN BONDS OR INSURANCE

If, at any time during the performance of this Contract, Contractor fails to maintain any item of the bonds and/or insurance required under the Contract in full force and effect, Contractor shall immediately suspend all work under the Contract and notify City in writing of such failure. After such notice is provided, or if City discovers such failure and notifies Contractor, the City thereafter may withhold all Contract payments due or that become due until notice is received by City that such bonds and/or insurance have been restored in full force and effect and that the premiums therefor have been paid for a period satisfactory to the Division of Risk Management. Contractor shall not resume work until notified by City to do so, and the City shall have no responsibility or liability for any costs incurred by Contractor as a result of such suspension of Work.

In addition to the foregoing, any failure to maintain any item of the required bonds and/or insurance at any time during the performance of this Contract will be sufficient cause for termination of the Contract by City.

The Contractor shall be solely responsible for, and shall defend, indemnify and hold harmless the City, its officers, employees and agents against and from, any and all damages, claims, losses, actions, costs or other expenses of any kind incurred by any party as a direct or indirect result of any suspension of Work or termination of the Contract under the provisions of this Section.

21. EXCUSABLE DELAYS

For the purpose of these Contract Documents, the term "Excusable Delay" shall mean, and is limited to, delay caused directly by: acts of God; acts of a public enemy; fires; inclement weather as determined by the Engineer; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; sitdowns; acts of a governmental agency; priorities or privileges established for the manufacture, assemble, or allotment of materials necessary in the Work by order, decree or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; changes in the Work ordered by City insofar as they necessarily require additional time in which to complete the Work; the prevention of Contractor from commencing or prosecuting the Work because of the acts of others, excepting Contractor's subcontractors or suppliers;

or the prevention of Contractor from commencing or prosecuting the Work because of a Citywide failure of public utility service.

The term "Excusable Delay" shall specifically not include: (i) any delay that could have been avoided by the exercise of care, prudence, foresight and diligence on the part of Contractor; (ii) any delay in the prosecution of any part of the Work that does not constitute a Controlling Operation, whether or not such delay is unavoidable; (iii) any reasonable delay resulting from time required by City for review of any Contractor submittals and for the making of surveys, measurements and inspection; and, (iv) any delay arising from an interruption in the prosecution of the Work on account of reasonable interference by other Contractors employed by City that does not necessarily prevent the completion of the entire Work within the time specified. Excusable Delays, if any, shall operate only to extend the Completion Date (not in excess of the period of such delay as determined by City) and shall not under any circumstances increase the amount City is required to pay Contractor except as otherwise provided in these Contract Documents.

22. CONTRACTOR TO SERVE NOTICE OF DELAYS

Whenever Contractor foresees any delay in the prosecution of the Work, and in any event as soon as possible (not to exceed a period of ten (10) calendar days) after the initial occurrence of any delay that Contractor regards as or may later claim to be an Excusable Delay, the Contractor shall notify the Engineer in writing of such delay and its cause, in order that the Engineer: (i) may take immediate steps to prevent if possible the occurrence or continuance of the delay; or (ii) if this cannot be done, may determine whether the delay is to be considered excusable, how long it continues, and to what extent the prosecution and completion of the Work are delayed thereby. Said written notice shall constitute an application for an extension of time only if the notice requests such an extension and sets forth the Contractor's estimate of the additional time required together with a full description of the cause of the delay relied upon.

After the completion of any part or whole of the Work, the Engineer, in estimating the amount due Contractor, will assume that any and all delays that may have occurred in its prosecution and completion were not Excusable Delays, except for such delays for which the Contractor has provided timely written notice as required herein, and that the Engineer has found to be excusable. Contractor shall not be entitled to claim Excusable Delay for any delay for which the Contractor failed to provide such timely written notice.

23. EXTENSION OF TIME

If the Contractor complies with Section 22, above, and the Engineer finds a delay claimed by the Contractor to be an Excusable Delay, the Contractor shall be allowed an extension of time to complete the Work that is proportional to the period of Excusable Delay determined by the Engineer, subject to the approval by City of a change order granting such time extension. During a duly authorized extension for an Excusable Delay, City shall not charge liquidated damages against the Contractor for such delay.

If the City extends the time to complete the Work as provided herein, such extension shall in no way release any warranty or guarantee given by Contractor pursuant to the provisions of the Contract Documents, nor shall such extension of time relieve or release the sureties of the Bonds provided pursuant to the Contract Documents. By executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such extension of time. The granting of any extension of time as provided herein shall in no way operate as a waiver on the part of City of its rights under this Contract, excepting only extension of the Completion Date for such period of Excusable Delay as may be determined by the Engineer and approved by a duly authorized change order.

24. NO PAYMENT FOR DELAYS

No damages or compensation of any kind shall be paid to Contractor or any subcontractor because of delays in the progress of the Work whether or not such delays qualify for extension of time under this Agreement; except that this provision shall not preclude the recovery of damages for a delay caused by the City that is unreasonable under the circumstances and that is not within the contemplation of the parties, provided that the Contractor timely submits all such written notice(s) and fully complies with such other procedures as may be specified in the Contract Documents or any Laws or Regulations for Contractor to claim damages for such delay.

25. CHANGES IN THE WORK

Changes in the Work authorized or directed in accordance with the Contract Documents and extensions of time of completion made necessary by reason thereof shall not in any way release any warranty or guarantee given by Contractor pursuant to the provisions of the Contract Documents, nor shall such changes in the Work relieve or release the Sureties on Bonds provided pursuant to the Contract Documents. By executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such change in Work and to any extension of time made by reason thereof.

26. TERMINATION AFTER COMPLETION DATE

In addition to any other rights City may have, if any services or work required under the Contract (including but not limited to punch list items) are not completed as of the Completion Date (as adjusted by any extensions of time for Excusable Delays granted pursuant to the Contract Documents), City may terminate the Contract at any time after the Completion Date (as adjusted by any extensions of time for Excusable Delays granted pursuant to the Contract Documents), by providing a written notice to Contractor specifying the date of termination. Such notice also may specify conditions or requirements that Contractor must meet to avoid termination of the Contract on such date. If Contractor fails to fulfill all such conditions and requirements by such termination date, or, if no such conditions or requirements are specified, Contractor shall cease rendering services and performing work on such termination date, and shall not be entitled to receive any compensation for services rendered or work performed after such termination date. In the event of such termination, Contractor shall remain liable to City for liquidated damages incurred for any period of time prior to the termination date.

In addition to any other charges, withholdings or deductions authorized under the Contract or any Laws or Regulations, if City terminates the Contract pursuant to this section, City may withhold and deduct from any payment and/or retention funds otherwise due Contractor any sum necessary to pay the City's cost of completing or correcting, or contracting for the completion or correction of, any services or work under the Contract that are not completed to the satisfaction of the City or that otherwise are deficient or require correction as of such termination date, including but not limited to incomplete punch list items. Such costs shall include all of the City's direct and indirect costs incurred to complete or correct such services or work, including the City's administrative and overhead costs. If the amount of payment(s) and/or retention funds otherwise due the Contractor are insufficient to pay such costs, City shall have the right to recover the balance of such costs from the Contractor and/or its Surety(ies).

27. TERMINATION FOR CONVENIENCE

Upon written notice to the Contractor, the City may at any time, without cause and without prejudice to any other right or remedy of the City, elect to terminate the Contract for the convenience of City. In such case, the Contractor shall be paid (without duplication of any items, and after deduction and/or withholding of any amounts authorized to be deducted or withheld by the Contract Documents or any Laws or Regulations):

(A) For Work executed in accordance with the Contract Documents prior to the effective date of termination and determined to be acceptable by the Engineer, including fair and reasonable sums for overhead and profit on such Work;

(B) For reasonable claims, costs, losses, and damages incurred in settlement of terminated contracts with subcontractors, suppliers, and others; and

(C) For reasonable expenses directly attributable to termination.

Contractor shall not be paid for any loss of anticipated profits or revenue for any Work not performed prior to termination, nor for any economic loss arising out of or resulting from such termination, except for the payments listed in this section. Contractor's warranty under Section 14 of this Agreement shall apply, and Contractor shall remain responsible for all obligations related to such warranty, with respect to all portions of the Work performed prior to the effective date of the termination for convenience pursuant to this section. The City shall be entitled to have any or all remaining Work performed by other contractors or by any other means at any time after the effective date of a termination for convenience pursuant to this section.

28. TERMINATION FOR BREACH OF CONTRACT

If Contractor abandons the Work under this Contract, or if the Contract or any portion of the Contract is sublet or assigned without the consent of the City, or if the Engineer determines in the Engineer's sole discretion that the conditions of the Contract in respect to the rate of progress of the Work are not being fulfilled or any part thereof is unnecessarily delayed, or if Contractor violates or breaches, or fails to execute in good faith, any of the terms or conditions of the Contract, or if Contractor refuses or fails to supply enough properly skilled labor or materials or refuses or fails to make prompt payment to subcontractors for material or labor, or if Contractor disregards any Laws or Regulations or proper instruction or orders of the Engineer, then, notwithstanding any provision to the contrary herein, the City may give Contractor and its Sureties written notification to immediately correct the situation or the Contract shall be terminated.

In the event that such notice is given, and, in the event such situation is not corrected, or arrangements for correction satisfactory to the City are not made, within ten (10) calendar days from the date of such notice or within such other period of time as may be specified by the City in the notice, the Contract shall upon the expiration of said period cease and terminate. In the event of any such termination, City may take over the Work and prosecute the Work to completion, or otherwise, and the Contractor and its Sureties shall be liable to City for any cost occasioned City thereby, as hereinafter set forth.

In the event City completes the Work, or causes the Work to be completed, no payment of any kind shall be made to Contractor until the Work is complete. The cost of completing the Work, including but not limited to, extra costs of project administration and management incurred by City, both direct or indirect, shall be deducted from any sum then due, or that becomes due, to Contractor from City. If sums due to Contractor from City are less than the cost of completing the Work, Contractor and its Sureties shall pay City a sum equal to this difference on demand. In the event City completes the Work, and there is a sum remaining due to Contractor after City deducts the costs of completing the Work, then City shall pay such sum to Contractor. The Contractor and Contractor's Sureties shall be jointly and severally liable for all obligations imposed on Contractor hereunder.

No act by City before the Work is finally accepted, including, but not limited to, exercise of other rights under the Contract, actions at law or in equity, extensions of time, payments, assessments of liquidated damages, occupation or acceptance of any part of the Work, waiver of any prior breach of the Contract or failure to take action pursuant to this section upon the happening of any prior default or breach of Contractor, shall be construed to be a waiver or estoppel of the City's right to act pursuant to this Section upon any subsequent event, occurrence or failure by Contractor to fulfill the terms and conditions of the Contract. The rights of City to terminate the Contract pursuant to this Section and pursuant to Sections 26 and 27 are cumulative and are in addition to all other rights of City pursuant to the Contract and at law or in equity.

29. CONTRACTOR BANKRUPT

If Contractor should commence any bankruptcy proceeding, or if Contractor is adjudged a bankrupt, or if Contractor makes any assignment for the benefit of creditors, or if a receiver is appointed on account of Contractor's insolvency, then the City may, without prejudice to any other right or remedy, terminate the Contract and complete the work by giving notice as provided in Section 28 above.

30. SURETIES' OBLIGATIONS UPON TERMINATION

If the City terminates the Contract pursuant to Section 28 or Section 29 above:

(A) The Surety under Contractor's performance bond shall be fully responsible for all of the Contractor's remaining obligations of performance under the Contract as if the Surety were a party to the Contract, including without limitation Contractor's obligations, as provided in the Contract Documents, to complete and provide a one-year warranty of the entire Work, pay liquidated damages and indemnify, defend and hold harmless City, up to the full amount of the performance bond.

(B) The Surety under Contractor's payment bond shall be fully responsible for the performance of all of the Contractor's remaining payment obligations for work, services, equipment or materials performed or provided in connection with the Work or any portion thereof, up to the full amount of the payment bond.

31. ACCOUNTING RECORDS OF CONTRACTOR

During performance of the Contract and for a period of three (3) years after completing the entire Work, Contractor shall maintain all accounting and financial records related to the Contract and performance of the Work in accordance with generally accepted accounting practices, and shall keep and make such records available for inspection and audit by representatives of the City upon reasonable written notice.

32. USE TAX REQUIREMENTS

During the performance of this Agreement, CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

(A) Use Tax Direct Payment Permit: For all leases and purchases of materials, equipment, supplies, or other tangible personal property used to perform the Agreement and shipped from outside California, the Contractor and any subcontractors leasing or purchasing such materials, equipment, supplies or other tangible personal property shall obtain a Use Tax Direct Payment Permit from the California State Board of Equalization ("SBE") in accordance with the applicable SBE criteria and requirements.

(B) Sellers Permit: For any construction contract and any construction subcontract in the amount of \$5,000,000 or more, Contractor and the subcontractor(s) shall obtain sellers permits from the SBE and shall register the jobsite as the place of business for the purpose of allocating local sales and use tax to the City. Contractor and its subcontractors shall remit the self-accrued use tax to the SBE, and shall provide a copy of each remittance to the City.

(C) The above provisions shall apply in all instances unless prohibited by the funding source for the Agreement.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement on the date set for opposite their names.

CONTRACTOR

Under penalty of perjury, I certify that the taxpayer identification number and all other information provided here are correct.

DATE _____

BY _____

Print Name

Title

BY _____

Print Name

Title

Federal ID#

State ID#

City of Sacramento Business Operation Tax Certificate No. (City will not award contract until Certificate Number is obtained)

Type of Business Entity (*check one*):
____ Individual/Sole Proprietor
____ Partnership
____ Corporation
____ Limited Liability Company
____ Other (*please specify:* _____)

CITY OF SACRAMENTO
a municipal corporation

DATE _____

BY _____

For: _____
City Manager

Original Approved As To Form:

Attest:

City Attorney

City Clerk

CITY OF SACRAMENTO
PERFORMANCE BOND
Department of Utilities

Bond #: _____
Premium: _____
Page 1 of 1

WHEREAS, the City of Sacramento, in the State of California, hereinafter called City has conditionally awarded to *(here insert full name and address of Contractor)*:

as principal, hereinafter called Contractor, an agreement for construction of:

EAST DEL PASO HEIGHTS WATER IMPROVEMENTS
(PN: Z14010057) (B14141321016)

in accordance with the plans, specifications, drawings, conditions, and project manual prepared therefore, which agreement is by reference made a part hereof, and is hereinafter referred to as the Contract; and

WHEREAS, under the terms of the Contract, Contractor is required to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, we the Contractor and *(here insert full name and address of Surety)*:

_____, a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, as obligee, in the sum of _____ DOLLARS \$ _____), for the payment of which sum well and truly to be made, we the Contractor and Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally. The condition of this obligation is such that, if the Contractor, Contractor's heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and fully perform all covenants, conditions and agreements required to be kept and performed by Contractor in the Contract and any changes, additions or alterations made thereto, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meanings, and shall indemnify and save harmless the City, its officers, employees and agents, as therein provided, then this obligation shall be null and void; otherwise shall be and remain in full force and effect. This obligation shall remain in full force and effect until (1) the date that the Contractor no longer has any remaining obligation of performance under the Contract, or (2) the date that is one year after the date that the work to be performed under the Contract is accepted as complete by the City, whichever occurs later.

As part of the obligation secured hereby and in addition to the sum specified above, there shall be included all costs, expenses and fees, including attorney's fees, reasonably incurred by City in successfully enforcing such obligation, all to be taxed as costs and included in any judgement rendered.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract, or to the work to be performed thereunder, or to the specifications accompanying the same, shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

IN WITNESS WHEREOF, this instrument has been duly executed by authorized representatives of the Contractor and Surety.
SIGNED AND SEALED on _____, 2014.

(Contractor) (Seal)

By _____

Title _____

ORIGINAL APPROVED AS TO FORM:

City Attorney

(Surety) (Seal)

By _____

Title _____

Agent Name and Address _____

Agent Phone # _____

Surety Phone # _____

California License # _____

Surety Email: _____

WHEREAS, the City of Sacramento, in the State of California, hereinafter called City, has conditionally awarded to:

hereinafter called Contractor, a contract for construction of:

EAST DEL PASO HEIGHTS WATER IMPROVEMENTS
(PN: Z14010057) (B14141321016)

Which contract is by reference incorporated herein and made a part hereof, and is hereinafter referred to as the Contract; and

WHEREAS, under the terms of the Contract and pursuant to Chapter 5 of Title 3 of Part 6 of Division 4 of the California Civil Code (commencing with Civil Code Section 9550), Contractor is required to furnish a good and sufficient payment bond to secure payment of the claims to which reference is made in Civil Code Section 9554.

NOW, THEREFORE, we the Contractor and (*here insert full name and address of Surety*):

_____, a corporation a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, and unto all persons or entities entitled to assert a claim against a payment bond under any of the aforesaid Civil Code provisions in the sum of _____ DOLLARS (\$_____), on the condition that if Contractor shall fail to pay for any materials or equipment furnished or used in performance of the Contract, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board or the Employment Development Department from the wages of employees of the Contractor and all subcontractors with respect to such work or labor, then the Surety shall pay the same in an amount not exceeding the sum specified above. If suit is brought upon this bond, Surety shall pay, in addition to the above sum, all costs, expenses and fees, including attorney's fees, reasonably incurred by any party in successfully enforcing the obligation secured hereby, all to be taxed as costs and included in any judgment rendered. Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect, and shall bind Contractor, Surety, their heirs, executors, administrators, successors and assigns, jointly and severally.

It is hereby stipulated and agreed that this bond shall inure to the benefit of all persons, companies, corporations, political subdivisions, State agencies and other entities entitled to assert a claim against a payment bond under any of the aforesaid Civil Code provisions, so as to give a right of action to them or their assigns in any suit brought upon this bond. The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

IN WITNESS WHEREOF, this instrument has been duly executed by authorized representatives of the Contractor and Surety.
SIGNED AND SEALED on _____ 2014.

(Contractor) (Seal)
By _____
Title _____

(Surety) (Seal)
By _____
Title _____
Agent Name and Address _____

ORIGINAL APPROVED AS TO FORM:

City Attorney

Agent Phone # _____
Surety Phone # _____
California License # _____
Surety Email: _____

CALIFORNIA LABOR CODE RELATING TO APPRENTICES ON PUBLIC WORKS PROJECTS

See following links: www.dir.ca.gov and/or www.leginfo.ca.gov

SPECIAL PROVISIONS

**Request for Taxpayer
 Identification Number and Certification**

**Give Form to the
 requester. Do not
 send to the IRS.**

Print or type See Specific Instructions on page 2.	Name (as shown on your income tax return)	
	Business name/disregarded entity name, if different from above	
	Check appropriate box for federal tax classification: <input type="checkbox"/> Individual/sole proprietor <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ <input type="checkbox"/> Other (see instructions) ▶ _____	Exemptions (see instructions): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____
	Address (number, street, and apt. or suite no.)	Requestor's name and address (optional)
	City, state, and ZIP code	
List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number										
Employer identification number										

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below), and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. The IRS has created a page on irs.gov for information about Form W-9, at www.irs.gov/w9. Information about any future developments affecting Form W-9 (such as legislation enacted after we release it) will be posted on that page.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, payments made to you in settlement of payment card and third party network transactions, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the

withholding tax on foreign partners' share of effectively connected income, and

4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

2014 Withholding Exemption Certificate

590

The payee completes this form and submits it to the withholding agent.

Withholding Agent (Type or print)

Name _____

Payee

Name _____

SSN or ITIN FEIN CA Corp no. CA SOS file no.

Address (apt./ste., room, PO Box, or PMB no.) _____

City (If you have a foreign address, see Instructions.) _____

State _____ ZIP Code _____

Exemption Reason

Check only one reason box below that applies to the payee.

By checking the appropriate box below, the Payee certifies the reason for the exemption from the California income tax withholding requirements on payment(s) made to the entity or individual.

- Individuals — Certification of Residency:**
I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.
- Corporations:**
The corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.
- Partnerships or limited liability companies (LLCs):**
The partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.
- Tax-Exempt Entities:**
The entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 _____ (insert letter) or Internal Revenue Code Section 501(c) _____ (insert number). If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.
- Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit Sharing Plans:**
The entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.
- California Trusts:**
At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return. If the trustee or noncontingent beneficiary becomes a nonresident at any time, I will promptly notify the withholding agent.
- Estates — Certification of Residency of Deceased Person:**
I am the executor of the above-named person's estate or trust. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return.
- Nonmilitary Spouse of a Military Servicemember:**
I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

CERTIFICATE OF PAYEE: Payee must complete and sign below.

Under penalties of perjury, I hereby certify that the information provided in this document is, to the best of my knowledge, true and correct. If conditions change, I will promptly notify the withholding agent.

Payee's name and title (type or print) _____ Telephone (____) _____

Payee's signature ► _____ Date _____

SPECIAL PROVISIONS
FOR
EAST DEL PASO HEIGHTS
WATER IMPROVEMENTS
(PN: Z14010057)

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SECTION 1. GENERAL CONSTRUCTION REQUIREMENTS

1.01 Scope of Work

These Special Provisions cover, in general, the replacement of water facilities in certain areas in the East Del Paso Heights neighborhood in Sacramento, CA. The work to be performed consists of placing water mains, services, valves, fire hydrants, meters, and associated work.

The Contractor shall provide all labor, materials, tools, and equipment, and shall perform all work necessary to complete the subject project in place and make all required connections to the existing water distribution system, including disinfection and pressure testing, as shown on the Plans and as specified herein.

1.02 Specifications

The work to be performed under this contract shall be done in accordance with the Special Provisions contained herein. In these Special Provisions, reference is made to the Standard Specifications of the City of Sacramento, adopted June 2007, referred to herein as "Standard Specifications".

The general requirements of this contract shall be governed by these Special Provisions first, followed by Sections 1 through 8 of the Standard Specifications. Other standards or specifications specified in these Special Provisions govern only the applicable technical specifications.

1.03 Interpretation of Contract Documents

Questions from bidder's concerning the interpretation of any portion of the contract documents may be directed to Sonia Lopez of the City of Sacramento, Department of Utilities, 1395 35th Ave, Sacramento, California, 95822, phone (916) 808-1456.

Interpretation, where necessary, will be made by the City in the form of an addendum to the contract documents and, when issued, will be sent as promptly as is practicable to all parties to whom the bid documents have been issued. All such addenda shall become part of the contract.

It shall also be the bidder's responsibility to call to the attention of the Engineer any missing pages or drawings in the contract documents, including the addenda. These items shall be brought to the attention of the Engineer at least seven (7) calendar days prior to the bid opening date.

1.04 Governing Documents

- 1) All work performed under this contract shall be in accordance with the following general requirements:
 - a) Sealed Proposal
 - b) Agreement
 - c) Standard Specifications - Sections 1 through 8

- 2) All work performed under this contract shall be in accordance with the following provisions:
 - a) Special Provisions
 - b) Contract Plans
 - c) Standard Specifications - Sections 10 through 38
 - d) California Labor Code - Chapter 4 of Division 3

In the event of a conflict in the Contract Documents, the governing priorities, when appropriate, shall be in accordance with section 5-3 of the Standard Specifications.

1.05 Shop Drawings and Submittals

In accordance with Section 5-7 of the Standard Specifications, Contractor shall prepare and submit for review the following shop drawings:

1. Construction schedule
2. Traffic control plan
3. Proposed pipe materials and fittings
4. Gate valves
5. Fire hydrant assemblies
6. Meters (including registers)
7. Public notification information
8. Phasing plan
9. Meter boxes and lids
10. Water quality control plan
11. Dewatering plan
12. Concrete mix design
13. Record drawings (upon completion of work)

Contractor is advised that at the Engineer's discretion, the above list may be expanded to include additional items to which Section 5-7 of the Standard Specifications will apply.

To achieve standardization of appearance, maintenance, and replacement, like items of materials provided under these Special Provisions shall be the end product of one manufacturer.

1.06 Project Signs

Prior to beginning any onsite work the Contractor shall install a total of two (2) project signs. The signs will be supplied by the City and are approximately 30 inches by 54 inches. In general, the signs shall be affixed to a 4"x4" post and installed a minimum of seven (7) feet and a maximum of ten (10) feet above surrounding grade. If acceptable to the Engineer an existing sign post may be used, otherwise, the Contractor shall be required to install a new post.

Suggested locations of signs are:

- Grand Ave and Belden St
- May St and Roanoke St
- Roanoke St and Schutt Way
- Riley St and Piercy Way

In addition, the Contractor will be provided one (1) small sign, approximately two (2) by three (3) feet. Placement shall be on barricades and located on at the end of the work area where only retrofits are being performed. Sign shall be removed at the end of each work day and placed accordingly on the next construction day.

All signs shall be removed at the end of the project and returned to the City. Posts installed by Contractor shall also be removed.

1.07 Manufacturer's Instructions

Contractor shall provide and comply with manufacturer's installation instructions and procedures in accordance with Section 5-16 of the Standard Specifications.

1.08 Materials and Equipment

All materials and supplies called for in these Special Provisions shall be new and currently manufactured items.

Contractor is responsible for the care and protection of all materials and equipment until the completion and final acceptance of the work, in accordance with Section 5 of the Standard Specifications and these Special Provisions.

1.09 Proof of Compliance with Contract

In order that the Engineer may determine whether the Contractor has complied with the requirements of the contract documents not readily determinable through inspection and tests of plant, equipment, work, or materials, the Contractor shall at any time when requested, at the Contractor's expense, submit to the Engineer properly authenticated documents or other satisfactory proofs as to his compliance with such requirements.

1.10 Construction Activity Time Schedule

The Contractor shall submit a detailed schedule showing the critical path relationship of all items of work a minimum of three (3) days before beginning work. The schedule shall be submitted, reviewed and updated in accordance with Section 7-2 of the Standard Specifications. No progress payments will be made for work completed prior to acceptance of the schedule.

The activity time schedule shall indicate the chronological sequence in which the Contractor proposes to carry out each aspect of the work, the calendar dates on which the Contractor will begin the several salient elements of the work (procurement and delivery of materials, posting of "No Parking" signs, notification of property owners, scheduling of equipment, excavation of trenches, placement of pipe, etc.), and the contemplated dates for completing said salient elements.

The Contractor shall contact the Engineer at least forty-eight (48) hours in advance of any change in the work schedule. If the Contractor desires to make a major change in his method or operations after commencing construction, or if the activity time schedule fails to reflect the actual progress of the work, the Contractor shall submit a revised schedule to the Engineer in advance of beginning revised operations.

The schedule shall be updated every thirty (30) days, minimum.

1.11 Weekly Updates

Every Monday the Contractor shall submit an address list of all residential water service connections installed and/or connected the prior week and a list of addresses scheduled for installation in the upcoming week.

To allow the Engineer the opportunity to determine or adjust the new service diameter and location, the Contractor shall include potholing information in the weekly update. This shall include the address, existing service location and the existing diameter of both City and Residential Service lines. This potholing information shall be on file with the engineer five (5) working days prior to scheduling and/or installing the new service.

1.12 Contractor Personnel

Contractor shall maintain the same personnel throughout the duration of the work performed under this contract. Contractor may not change any crew member prior to completion of the work, unless approved in writing by the Engineer.

1.13 Water Quality Control

The Contractor is responsible for the requirements consisting of the regulations contained in the National Pollution Discharge Elimination System (NPDES) Stormwater

Permit, issued to the City, and in accordance with Section 16 of the Standard Specifications. The Contractor shall prepare and submit for review an erosion, sediment and pollution control plan (ESC Plan). The Contractor shall not begin work until an accepted ESC Plan is on file with the Engineer. In addition, the approved plan shall be kept at the project site at all times while construction is in progress.

The City reserves the right to take corrective action and withhold the City's costs for corrective action from progress payments or final payment in accordance with Section 7, "Retention of Sums Charged against the Contractor", of the Agreement, contained herein. Any fines, including third-party claims, levied against the City as a result of the Contractor's non-compliance are the Contractor's sole responsibility and will be withheld from progress payments or final payment in accordance with Section 7, of the Agreement.

1.14 Record Drawings

Record drawings shall be in accordance with Section 5-8 of the Standard Specifications.

Record drawings shall include final layout and locations of all piping and conduit, and other facilities, including but not limited to: gate valves, fire hydrants, blow-offs, meters, piping material type. Examples of location descriptions can be found in Appendix C.

1.15 Definitions

For definitions not found herein refer to Section 1 of the Standard Specifications.

"Hybrid Water Service" shall consist of a one (1) inch City Service (including meter setter assembly) followed by 1½ inch diameter Residential Water Service materials.

"Provide" shall mean furnish and install.

"Residential Water Service" shall mean the water service pipe and appurtenances from the property owner's side of the curb stop (or meter box) to and including all points of connection at the house.

"Retrofit" shall mean intercepting existing Water Service Laterals, and placing metering appurtenances and a water meter box in accordance with the Plans and Specifications.

"Water Distribution Personnel" shall mean an appointed representative from the Department of Utilities.

"Water Service Lateral" or "City Service" shall mean the water service pipe placed from the water main up to and including the curb stop (or meter setter).

1.16 Project Closeout

Project closeout and completion of work shall be in accordance with Section 8-4 of the Standard Specifications. When the Contractor provides notification that the project is complete, the Engineer will perform a walk through and develop a list of deficient work items. A completion report will be prepared after all punch list items have been completed, to the satisfaction of the Engineer, and as-built drawings are completed and submitted.

1.17 Permanent Survey Monuments

Contractor is responsible for verifying that the arrangements have been made for preserving and/or perpetuating all permanent survey monuments that will be affected by the work in accordance with Section 5-6 of the Standard Specifications.

1.18 Administrative Penalty Ordinance

The Contractor shall become familiar with Chapter 12.20 of the City Code which contains minimum requirements and restrictions relating to construction activities within City right-of-way and establishes administrative penalties for non-compliance of these requirements. The Contractor may be assessed the administrative penalty for each violation of any provision addressed by the ordinance, unless modified herein, and amounts can be deducted from the contract. The ordinance includes the following general categories:

- A. Working hours for the City's "Primary Streets"
- B. Traffic control plan requirements
- C. Access to private property
- D. Maintenance of construction areas
- E. Repair of traffic control systems
- F. Care of existing known facilities
- G. Public notification
- H. Noise levels
- I. Administrative Penalties

Copies of the ordinance are available from the City Clerk's Office, 915 I Street, Sacramento, CA 95814 and at www.cityofsacramento.org.

1.19 Daily Coordination

In addition to the responsibilities detailed in Section 5-4 of the Standard Specifications, the Contractor shall meet with the Engineer daily. The purpose of the meetings is so that the Contractor and Engineer maintain close coordination between the pertinent aspects of the work. Discussion or coordination can be, but not limited to: projected work schedule, completed work, customer notifications, placement of meter boxes, type

of meter box to place at each property identified on the daily work schedule, valve placements and abandonments, scheduled concrete work, completed services per day, pay estimates.

1.20 Lead Free Materials

Notwithstanding any other provision of this Contract, all materials installed shall comply with the requirements of Section 116875 of the California Health & Safety Code and NSF 61 Annex G.

1.21 Payment

No separate payment will be made to the Contractor for complying with the requirements of this section. The cost of such work shall be included in whatever bid item the Contractor deems appropriate.

END OF SECTION

SECTION 2. PUBLIC CONVENIENCE & PROTECTION OF EXISTING IMPROVEMENTS

2.01 Public Right-of Way and Easements

All water, sewer and drainage mains constructed as part of this project are to be placed within public right-of-way, including alleys and easements. The Contractor shall confine his or her operations within the limits of existing street right-of-way or easements as much as practicable.

In additions, encroachment onto private property will be necessary. Tenants and property owners are required to provide access, per City Code 13.04.065. Should access be refused, Contractor shall notify Engineer who will then pursue proper authorization for access.

In the event the Contractor finds it necessary to encroach onto private property for any other reason except for placement of water services, Contractor shall make all necessary arrangements with the owner of the property for such encroachment. A copy of any written agreements entered into between the Contractor and the property owner concerning encroachment onto such private property shall be provided to the Engineer prior to beginning any work on the property described in the agreement.

2.02 Existing Utilities

Protection and maintenance of existing utilities shall meet the applicable requirements of Section 13 of the Standard Specifications and these Special Provisions.

The location, alignment, and depth of existing underground utilities as shown on the Plans are taken from public records and no responsibility is assumed for the accuracy thereof. For the most part, underground utility services are not shown on the Plans. Attention is directed to the provisions in Section 6-19 of the Standard Specifications.

The Contractor will insure that utility services to customers in the project are maintained.

The cost of relocating existing overhead or underground utilities not specified on plans to be relocated, but which the Contractor elects to relocate or cut and reconnect for his/her own convenience, shall be borne by the Contractor.

2.03 Maintaining Water, Sewer, and Drainage Flows

The Contractor shall be responsible for maintaining water, sewer, and drainage flows including emergency repairs and temporary bypasses in accordance with Section 13 of the Standard Specifications.

All landscaping irrigation water lines cut or broken by the Contractor shall be immediately repaired. In the event repairs cannot be made, irrigation lines can be capped for up to five (5) days. In the interim, the Contractor shall be responsible for ensuring all locations served by the irrigation lines continue to be provided adequate water. Any landscaping that dies, or fails to recover as a result of the Contractors actions shall be replaced in kind.

2.04 Maintaining Electrical Facilities

Maintenance of existing electrical facilities and temporary shutdowns of traffic signals shall be in accordance with Section 34-7 of the Standard Specifications.

Any damage caused by the Contractor to existing electrical facilities shall be repaired immediately and at the Contractor's expense. The Contractor shall trench under all existing traffic signal and street lighting conduits.

2.05 Work Performed by City Crews

The Contractor is advised that the City retains the option of performing with City crews, all or a portion of any work involved in relocation, repairing, or otherwise restoring existing sewer, water, and drainage systems and services to developed properties within the limits of the project that may be in conflict with the proposed project improvements. Any such work performed by City forces will be at the discretion and convenience of the City. All work performed and materials provided by the City will be paid for by the Contractor or removed from this contract at no additional cost to the City.

2.06 Maintenance of Traffic and Public Safety

The Contractor's attention is directed to Sections 6-6 through 6-11, 7-4, and 16-3 of the Standard Specifications.

Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately by the Contractor, and at his expense. Water or dust palliative shall be applied if ordered by the Engineer for the alleviation or prevention of dust nuisance.

Work in and around railroad crossings shall be in accordance with Section 6-6 of the Standard Specifications.

Contractor shall repair or replace to previous condition or better, all exiting traffic control system markers or devices that are damaged or destroyed during work within three (3) calendar days of the completion of work unless written direction extending the time period is provided by the Engineer.

The Contractor shall be required to establish traffic scheduling and control measures acceptable to the Engineer prior to starting any work. The Contractor shall submit to the Engineer for review and approval a plan in accordance with Section 6-10 of the Standard Specifications. This plan shall be submitted a minimum of ten (10) working days prior to the scheduled commencement of any work by the Contractor. The Contractor will not be allowed to begin work until an approved plan is on file with the Engineer. In addition, the approved plan shall be kept on hand at the project site at all times while construction is in progress.

The Contractor's traffic control plan shall include location of proposed work area, locations of areas where the public right-of-way will be closed or obstructed, any proposed phases of traffic control and time period of when traffic control will be in effect. The traffic control plan shall include name and business address of Contractor.

The Contractor shall be solely and completely responsible for furnishing, installing, and maintaining all warning signs and devices necessary to safeguard the general public and the work, and to provide for the safe and proper routing of all vehicular and pedestrian traffic during the performance of the work. The requirement shall apply continuously and shall not be limited to normal working hours.

The Contractor shall perform the following requirements included in the City ordinance Chapter 12.20:

1. Contractor shall not cause public right-of-way, public property or public easement to be covered with construction related trash, debris, garbage, waste material or soil. Areas affected by the construction must be cleaned to the satisfaction of the Engineer prior to re-opening traffic to the public.
2. Trench plates shall not be utilized for more than seven (7) calendar days in one location and temporary surfacing shall not be utilized for more than ten (10) calendar days in one location without prior written approval of the Engineer.
3. Contractor shall provide access to all driveways or alleys at all times unless other arrangements are made with the property tenant. The Contractor shall take precautions so as not to entrap vehicles on private property during the progress of the work. Access for emergency vehicles shall be available on all streets at all times.
4. Rear access to building and existing parking areas behind buildings shall be maintained. Contractor may close such access for a limited time only if arrangements have been made with property owners. Contractor shall give property owners forty-eight (48) hour written notice in advance of the closure.
5. Provide pedestrian traffic at all times except where closures are approved in advance by the Engineer.
6. At night and at other times when work is not in progress, the entire roadway shall be open to the public for traffic.

7. For work done before 7:00 A.M. or after 6:00 P.M., or during all daylight hours between 6:00 P.M. Friday to 7:00 A.M. Monday, roadway may be closed provided proper detours are provided and only if arrangements have been made with the property owners in advance and approved by the Engineer. A minimum of five (5) working days shall be given to property owners in advance of closure.

The Contractor is hereby alerted that Northgate Blvd, Norwood Ave and Rio Linda Blvd are designated as "Primary Streets" and as such the requirements of and administrative penalties of Chapter 12.20 of the City ordinance apply. Contractor shall not impede traffic in primary streets in any fashion outside the work hours of 8:30 A.M. and 4:00 P.M.

Prior to closing a street or alley, Contractor shall contact the following agencies:

1. Police Department - Provide the Police Communications Center with the street/alley closure limits and estimated duration of closure, by calling 264-5025 and faxing the information to 264-7770 one (1) working day prior to the closure.
2. Fire Department - Provide the Fire Communications Center with the street/alley closure limits and estimated duration of closure, by calling 228-3035 and faxing the this information to 228-3075 one (1) working day prior to the closure.
3. Solid Waste Division - Provide the street/alley closure limits and estimated duration of closure, by calling 808-4952 and faxing the information to 808-1494 five (5) working days prior to the street closure.
4. On Street Parking Division - Provide the street/alley closure limits and estimated duration of closure, by calling 808-5874 and faxing the information to 808-7501 five (5) working days prior to the street closure.
5. Regional Transit - Provide the street/alley closure limits and estimated duration of closure, by calling Lynn Cain at 321-5375 and faxing the information to 557-4541 five (5) working days prior to the street closure.

The information faxed to the above shall include:

- Name of Project
- Project Number
- Contractor Name and phone number
- City Inspector Name and phone number
- Department of Utilities Project
- Name and Limits of Street being closed
- Duration of closure

A copy of such notifications shall be given to the Engineer.

2.07 Storage of Equipment or Materials

Materials and equipment shall be stored in accordance with Section 5-15 of the Standard Specifications.

2.08 Public Notifications

The Contractor shall notify all property occupants and management companies adjacent to the work in writing seven (7) calendar days in advance of beginning work on public right-of-way.

In addition, Contractor shall notify each property occupant and/or owner for work on private property as follows:

- Seven (7) calendar days in advance of commencing any work
- A second notice 24 hours in advance of commencing work
- 24 hours prior to a water main and/or service shutdown
- Repeat the seven (7) day and 24 hour notice for all subsequent work

Examples of notifications are located in Appendix D of these Special Provisions. These are provided for guidance only and should be modified and relevant to the work. Notification(s) shall be submitted in accordance with Section 5-7 of the Standard Specifications, and these Special Provisions.

2.09 Removal of On-Street Parking

In locations where the Contractor's operations require removal of on-street parking shall be in accordance with Section 6-18 of the Standard Specifications.

2.10 Excavations on Private Property

Unless otherwise approved by the Engineer, all excavations on private property shall be backfilled with native material on a daily basis.

2.11 Payment

No separate payment will be made to the Contractor for complying with the requirements of this section. The cost of such work shall be included in whatever bid item the Contractor deems appropriate.

END OF SECTION

SECTION 3. WATER CONSTRUCTION REQUIREMENTS

3.01 AWWA Standards - Water Mains

These Special Provisions contain reference to certain standards of the American Water Works Association (AWWA). Copies of these standards are available for reference at the City of Sacramento, Department of Utilities, Engineering Services Division located at 1395 35th Ave in Sacramento.

In submitting a bid, the Contractor certifies familiarity the AWWA Standards, including, but not limited to: field handling, installation, inspection, disinfection, pressure testing.

3.02 Opening Direction of Valves and Fire Hydrants

The opening direction of valves and fire hydrants shall be in accordance with Section 27-7 of the Standard Specifications.

3.03 Trench Excavation and Backfill

Trench excavation and backfill shall conform to the construction Plans and the provisions of Section 27-3 and 27-8 of the Standard Specifications.

3.04 Pavement Cutting and Surface Restoration

Pavement cutting and surface restoration shall conform to the applicable sections of 19, 22, 24, and 27 of the Standard Specifications, except that the structural section shall be no less than four (4) inches of asphalt concrete over twelve (12) inches of Class 2 aggregate base. Contractor shall restore surfaces in kind (using the same material as existing), including speed bumps, unless otherwise noted on the Plans or in these Special Provisions. Payment for restoring the surface in kind within any excavation shall be included in the associated item of work unless otherwise stated in these Special Provisions. Pavement cutting shall be perpendicular and parallel to the centerline of the road.

The Contractor has the option to saw cut after the pipe has been placed and just prior to pavement placement. Pavement cutting shall not precede trenching by more than five (5) calendar days except when saw cutting is used. If pavement is not saw cut, the Contractor shall fill the pavement cuts with asphalt concrete patching mix to maintain a smooth riding surface until trenching begins.

Temporary paving shall be in accordance with Section 14-4 of the Standard Specifications.

When removing sidewalk for the purpose of placing a meter box, an entire single flag of concrete shall be replaced. Contractor shall saw cut, repair or replace existing sidewalk,

driveway, alley or street surface, up to 54" X 54" (20.25 square feet), typical. The Contractor shall attempt to place the meter box such that only one flag of concrete need be removed without causing damage to the existing curb and gutter. But, if the placement of a meter box falls in a joint or between two flags of concrete, both flags shall be removed and replaced.

The Contractor shall repair disturbed lawn areas by carefully and evenly cutting the lawn to preserve the sod until the water service lateral is backfilled and compacted. All vegetation removed during construction shall be replaced to match preconstruction conditions. Sod may be reused and placed over the backfilled trench provided it is in an acceptable condition. Sod that is unsuitable for re-use or has fails to take shall be replaced with new sod to match preconstruction conditions.

All fences or shrubbery in the way of construction shall be removed and replaced. The Contractor may re-use the existing fence material provided it is in the same condition to serve the same use as before.

Private property or existing improvements damaged by the construction operations shall be replaced with new materials at no additional cost. Masonry work damaged as a result of the construction shall be repaired by an experienced brick mason to match existing improvements. Existing bricks shall be salvaged and reused to preserve the integrity of the improvement.

Driveways consisting of exposed aggregate concrete or flat concrete shall be replaced by an experienced concrete finisher to match existing improvements.

3.05 Disinfection and Pressure Testing of Water Mains

Disinfection and pressure testing of all water pipe, related valves and fittings, as well as flushing of the water pipe, shall conform to Section 27 of the Standard Specifications. All pressure and disinfection testing shall be made in the presence of the Engineer.

3.06 Distribution System Shutdowns for Water Mains

After successful completion of hydrostatic pressure testing and disinfection, the Contractor shall connect the new water mains to the existing water system where indicated on the Plans and in accordance with Section 27 of the Standard Specifications.

Contractor shall coordinate and schedule shutdowns by providing the Engineer a two (2) week (minimum) notification of said shutdown. Failure to provide adequate notification will postpone water main shutdown.

Contractor shall have each tie-in location pre-dug and plated. All parts, equipment and personnel necessary shall be at job site prior to beginning shutdown to complete the work within a four (4) hour period.

Where indicated in the Plans, the Contractor shall cut existing pipe, remove existing plugs or bulkheads, clean pipe ends, prepare connections and make the new connections to existing water mains. The Contractor shall temporarily cap existing mains as necessary and as approved by the Engineer to maintain service to customers.

Water released from existing mains shall be removed and disposed of by the Contractor. Excavations shall be kept dry until all necessary work within the work area has been completed.

Without exception, all opening and closing of the valves on existing water mains will be performed by City crews only.

3.07 Water Shutdowns for Residential Water Service Tie-Ins

Contractor shall prepare water service tie-ins so the length of time for any water service shutdown is minimized. Shutdowns will be approved once complete preparation, to the satisfaction of the Engineer, is made in order to minimize the length of time of the shutdown. Contractor shall limit the time of interruption of water to any parcel to a maximum of four (4) hours.

3.08 Plugged Fixtures

The Contractor shall remove sediment build up at faucets, sprinklers, etc. which clogged the interior house plumbing as a result of placing residential water services.

The Contractor shall open all exterior faucets and/or ask the occupant to open all interior faucets to help prevent fixtures from plugging.

3.09 Construction of Residential Water Services

All residential water services shall be a minimum 1½ inch diameter from the new meter to the existing above ground tee at the hose bib connection. Water services shall be Type K copper or HDPE pipe in accordance with Section 10 of the Standard Specifications and these Special Provisions. Locating wire shall be installed on HDPE pipe, in accordance with Section 27 of the Standard Specifications. Some detail drawings are located in Appendix C of these Special Provisions.

If it's necessary to route and connect the residential water system to a second above ground tee, Schedule 40 PVC pipe is acceptable. Installation and connection of residential water systems shall be performed in accordance with the applicable sections of the latest revised Uniform Plumbing Code (hereinafter called UPC). No connections shall be made until installation and testing of the distribution system and water service laterals are complete. All underground work shall be inspected prior to backfilling.

Pipe alignment shall not pass under any dwelling.

All work relating to placing and connecting residential water systems and abandoning existing water systems at each residence shall be completed within five (5) consecutive working days. The valve at the meter shall be left in an open position and the system shall be operational before the Contractor's work is considered complete.

The Contractor is encouraged to visit the project site and become better acquainted with the properties in the scope of work and the water service connections.

3.10 Placement of Meter Boxes

Meter boxes shall be placed as follows:

- For existing service located in an alley, the meter box shall be placed in right-of-way at the property line.
- Where a park strip exists between sidewalk and curb, place meter box in the park strip.
- Where there sidewalk is adjacent to curb, meter box shall be placed in the sidewalk.
- If only curb exists, meter box shall be placed in the non-traffic area behind the curb.
- For unimproved streets (no sidewalk or curb), meter box shall be placed adjacent to the property line within the street right-of-way.
- Two feet from new water main on Piercy Way.

For situations not conforming to the above, meter box placement will be determined by the Engineer.

Meter boxes shall be placed flushed to match surrounding grade, to a maximum angle of 45 degrees. Should field conditions exceed this maximum angle, then the placement will be determined by the Engineer.

Excavation for meter boxes shall be a minimum of eight (8) inches around all sides of the box to allow for proper backfill compaction and surface restoration around the box, unless otherwise determined by the Engineer.

3.11 Water Meters

The definition of "meters" outside of section 3.11 shall mean the meter, register, and all other components assembled as one unit as specified in this section.

METERS AND REGISTERS

All meters and registers shall be compatible with ASCII communication protocol. All meters shall be guaranteed free from manufacturing defects in materials and workmanship and must be adaptable to field programmable registers without interruption of the customer's service.

Testing of meters for compatibility for ASCII communication protocol will be completed by the Engineer, and costs borne by the City. Meters that fail to meet the compatibility requirement shall be retested. Cost for all retests of meters will be borne by the Contractor and deducted from payment due Contractor for work performed under the terms of the contract. Any meter that is defective or not compatible with the ASCII communication protocol for any reason, shall be replaced with a compliant meter within 10 (ten) days or pay \$200, per meter, in liquidated damages to compensate the City for staff time and delay.

Unless otherwise noted in these contract documents, all meters supplied for the project shall be positive displacement type meters. Two (2) inch and smaller positive displacement meters shall have absolute encoder type registers.

All irrigation services that are 1½" and greater shall be turbine meters and shall have an absolute encoder type register.

Absolute Encoder Type Registers for Positive Displacement, Compound and Turbine Meters

General Description

Registers furnished under these specifications shall be the product of a manufacturer with at least ten years of experience in the manufacture of absolute encoder-based registers. The registers shall have the capability of providing encoded meter information as described in the following specification. Specifications for the required cold-water meters can be found below in separate specifications. Registers provide low voltage conversions are acceptable; however, registers utilizing generator pulses are not acceptable under this standard.

Construction

Registers shall be of the absolute encoder type and permanently, hermetically sealed in a copper or stainless steel can to provide protection from moisture, high strength, and resistance to handling damage. Similar size, type and registration or registers shall be interchangeable.

All registers 1½ inch and large must be removable without disassembly of the water meter or the service line. Registers must be free of opening to protect the internal electronics of the register.

Registers shall be equipped with low flow indicators. Registers shall read in cubic feet. The register is independent of the meter. Therefore, register's Manufacture Date and Identification Number shall be printed on the face of the register. The manufacturer of the meter and register shall provide meter serial numbers with barcodes on the meter, register lid and shipping box. In addition, the contractor will supply for each shipment an electronic spreadsheet providing meter serial numbers for the City to expedite tracking and inventory purposes.

Register lenses constructed of minimum ¼ inch tempered are preferred but not required; glass domed (non-tempered) register lenses are acceptable for durability in pit installations. All other register assembly and material requirements stated herein shall also apply. Registers shall be equipped with a hinged lid to completely protect the register lens.

The absolute Encoder Register output shall be a factory-potted NICOR Hydroconn AMR Series III in-line male connector with female metal contacts and Hydroconn AMR Series II End Cap (No Substitute). The register cable shall be Nicor's three (3) conductor cable and measure 36" long from surface of the register to the end of the connector for 5/8 through two (2) inch meters.

Operation

Upon inquiry from a remote location, the absolute encoder register shall disclose the exact position of the six most prominent number rollers. All power necessary for data transmission shall be supplied from the interrogation device. All registers shall be fully compatible with ASCII communication protocol. All registers shall employ a device to offer a reliable transfer of the roller bank assembly to ensure accuracy and to prevent ambiguous readings. For reliability and durability, the position of each roller shall NOT be determined by using any type of mechanical contacts which can wear out over time. Optical character recognition (OCR) is the preferred technology, but is not required, for determining roller position, as this method reads the actual position of the index odometer wheels when interrogated by a ASCII communication protocol.

Data transmission shall be instantaneous and supplied in an ASCII format without conversion or modification. Registers must operate reliably down to at least 4.5 volts.

Pin out connection: When meter side connector is viewed end-on with the molded arrow at the 12 o'clock position, the contacts occupy the 2, 6 and 10 o'clock positions.

<u>O'clock Position</u>	<u>Function</u>
2	Power/Clock
6	Ground/common/return
10	Encoder Data

Warranties

All encoded registers shall be free from defects in materials and workmanship for ten (10) years from the date of purchase.

Positive Displacement Type Meters 1" - 2"

General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years of experience in meter manufacturing for the American

Market. Meters shall be new, first line quality, positive displacement type cold water service. Meters must be of the oscillating piston or nutating disc type. Multi-jet and Single-jet meters are not acceptable under this specification. Meters shall comply with AWWA Standard C700 latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees Fahrenheit.

Type

Cold water service meter for measuring potable water in residential services, positive displacement meters only, sealed register.

Cases: 1"

All meters 5/8 through one (1) inch shall have an NSF approved, low lead bronze outer main case body with a separate, removable measuring element. The low lead bronze case shall not have less than 85% copper content. The meter case casting shall have raised characters denoting the meter size and the direction of water flow. The casting shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from above. All bottom plates shall be isolated from the potable water by a full rubber liner. Meters shall be provided with bronze bottom plate and held in place with stainless steel bolts with integral washer heads. Cases must be capable of withstanding working pressures of one hundred fifty (150) psi. Thread protectors shall be supplied for the connection ends.

Length

Meters must conform to AWWA C700 standard as most recently revised.

Main cases: 1 1/2" through 2"

All meters 1 1/2 through two (2) inch shall have a body main case made of high quality copper alloy, with a separate, removable measuring element. The meter casting shall have raised characters denoting the size meter and the direction of water flow. The casting shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from above. Meters shall be of the split case design.

Laying Length

Meters must conform to AWWA C700 standard as most recently revised. The laying length of PD meter and/or strainer assembly shall be as follows:

Meter Size	Meter
1 1/2"	13" Max
2"	17" Max

Register Housings

Register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Registers shall comply with AWWA C700 section 4.1.3 performance requirements in the latest revision. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locked devices are acceptable.

Measuring Chambers

The measuring chamber shall be of the two-piece oscillating piston or nutating disc design. No inferential-type meters will be allowed. Chambers shall be manufactured from an engineered polymer. Chambers shall be separate from the outer casing and so secured in the main case that the accuracy of the meter will not be affected by any distortion of the case. All wear prone surfaces shall be reinforced with a nylon material. All measuring chamber assemblies shall operate smoothly and be capable of sustaining long-term accuracy.

All motion from the piston shall be transferred to the register via magnetic drive. Piston oscillations or disc nutations must not exceed the figure recommended in Table one (1) of AWWA Standards C-700 latest version for the size of the meter being bid.

Registration Accuracy

All meters shall meet or exceed the following flow requirements:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Continuous Flow GPM
1"	$\frac{3}{4}$	3-50	25
1 ½"	1 ½	5-100	50
2"	2	8-160	80

Magnetic Coupling

The piston oscillations will be transferred to the sealed register through the use of a magnetic coupling. Meters with stuffing boxes, spindles and packing glands will not be acceptable.

Headloss

Meters shall conform to AWWA C-700 specifications as currently revised.

Pressure Capability

Meters shall operate up to a working pressure of 150 psi without damage or leakage. Accuracy shall not be affected by pressure variation up to 150 psi.

Strainers

All meters shall be provided with a strainer screen installed in the meter. Strainer screens shall be rigid, fit securely, be easy to remove and have an effective straining area at least two times that of the main case inlet.

Warranties

Meters shall be warranted by the manufacturer to meet AWWA new meter accuracy standards according to the following time periods and registered usage amounts, whichever occurs first:

Size Meter	Years Guaranteed	Registered Usage
1" C700	5 years from date of shipment	1,100,000 US Gallons
1 ½" C700	5 years from date of shipment	1,600,000 US Gallons
2" C700	5 years from date of shipment	2,100,000 US Gallons

Turbine Type Meters 1 ½" through 4"

General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten years of experience in meter manufacturing for the American Market. Meters shall be new, first line quality, turbine type for cold-water service. Meter sizes shall be inclusive and shall comply with the Class II AWWA Standard C701 latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees Fahrenheit.

Registration Accuracy

All Turbine Type Meters shall meet or exceed the AWWA latest standard, as follows:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Minimum Intermittent Flow GPM
1 ½"	3	4-160	200
2"	3	4-200	250
3"	4	8-450	550
4"	7	15-1000	1200

Main Cases

The body main case shall be of bronze composition of a high tensile strength or epoxy coated ductile iron on 1½ to four (4) inch sizes and be capable of resisting distortion under pressure up to one hundred and fifty (150) psi. All meters shall have the size and direction of flow indicated on the case and shall be designed for easy removal of all interior parts without disturbing the connections to the pipeline.

Register Housings

The register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamperproof screws, or other locking devices are also acceptable.

Measuring Chambers

The measuring elements or chamber for all meters shall be of engineered polymer and shall be separate from the case and easily detached and removed there from.

Rotor spindles shall be of tungsten carbide, stainless steel or titanium alloy supported by radial bearings made of PTFE graphite compounds, synthetic sapphire, or sapphire/ceramic jewel.

Laying Length

The laying length of Turbine meters and/or strainer assembly shall be as follows:

Meter Size	Meter/Meter & Strainer	Strainer	* Test Plug
1 ½"	13"	7" Max	1" NPT
2"	17"	7" Max	1 ½" NPT
3"	12"	7" Max	2" NPT
4"	14"	9" Max	2" NPT

*Spool pieces with a test port are acceptable

Rotors

The measuring impellers, vanes or rotors for all meters shall be polypropylene, nylon, hard rubber or engineered polymers and shall be mounted on a horizontal axis in the center of the measuring element with rotations of the turbine transmitted to the register by means of magnets. Straightening vanes of corrosion resistant material as required shall precede the rotor.

Strainers

Integrally-cast stainless steel plate type strainers are required on sizes 1½ through four (4) inch turbine meters. Strainers shall be rigid, easily removable, and have an effective straining area at least double that of the meter main case inlet. External strainer connections shall conform to the main case and shall be accompanied by gaskets, bolts and nuts.

Warranties

At a minimum, all meters shall carry the following published warranties; Meters shall be guaranteed to be free from defects in materials and workmanship for a period of 24 months after installation and to meet AWWA C-701 Accuracy Standards for two (2) years from date of shipment.

3.12 City Supplied Material

The City will supply the lid locks Contractor shall install on meter box lids, as well as the four (4) inch meters. The Contractor shall pick up materials at the City's Corporation Yard located at 5730 24th Street. The Contractor shall be responsible for scheduling pick-up, receiving and transporting these items from the City of Sacramento Corporation Yard. Once received, materials shall become the responsibility of the Contractor. Replacement of lost or damaged material shall be at the Contractors expense.

The Contractor shall submit a request for parts to the Engineer. The Contractor shall coordinate with the Engineer on an appropriate time schedule and quantity of materials. Parts are typically available for pickup within five (5) business days from date of request. The Contractor shall schedule operations so that the number of occasions where these materials are picked up is kept to a minimum. Exceptions shall be coordinated with the Engineer.

Upon completion of the project, any unused city supplied materials shall be returned to the Corporation Yard. All equipment shall be like new condition to the satisfaction of the Engineer. The cost of damaged or unreturned material will be charged against the Contractor's retention at closeout. The Contractor shall coordinate with the Engineer on an appropriate time schedule for returning unused parts.

3.13 Meter Boxes and Lids

Meter Boxes and lids shall be constructed of materials in accordance with the appropriate sections of ANSI/SCTE and shall be tested per the appropriate ASTM sections.

The meter box lids shall provide a slip resistant surface with a coefficient of friction greater than 0.5. Materials shall be resistant to chemicals, sunlight exposure, water absorption, and flammability. Lids shall have a 1¾ inch diameter hole with a four (4) inch diameter, ⅛ inch deep recessed area centered over the 1¾ inch diameter hole to accommodate an automated meter reading endpoint and lid lock. All meter box lids shall sit flush with the rim of the meter box body and shall be seated no more than 1/16-inch into the body of the meter box. Lids shall be compatible with the automated meter reading infrastructure specified in the Water Meter section of these specifications.

For one (1) inch services the nominal meter box size shall be 13"W x 24"L x 12"D. For 1 ½-inch and 2-inch services the nominal size shall be 17"W x 30"L x 12"D.

The manufacturer shall submit documentation showing compliance with material strength and proof of design testing.

Sidewalk and Driveway Meter Boxes and Lids

Meter boxes and lids shall be constructed of a polymer concrete material with fiber reinforced plastic or a bulk moulding compound. All meter box and lids shall be identical

in composition and have a matching “concrete gray” appearance. Meter boxes and lids shall meet all test provisions of the latest edition of the ANSI/SCTE 77 Tier 15 application or ASTM-C857: Load Category A-16.

The lids shall be marked “WATER”, with a nominal lettering height of 1-inch and shall be indented into the surface of the lid to resist wear. To facilitate removal, the lid shall include two $\frac{1}{2}$ ” x $2\frac{5}{8}$ ” - 4” ($2\frac{5}{8}$ ” minimum length, and not to exceed 4” in length) pockets with integrated lifting bar to accommodate a standard manhole hook. No lids shall have a reading lid.

Landscape Meter Boxes and Lids

Meter boxes and lids shall be constructed of a concrete or a polymer concrete material with fiber reinforced plastic material.

Meter boxes constructed of a polymer concrete material with fiber reinforced plastic material shall meet all test provisions of the latest edition of the ANSI/SCTE 77 Tier 8 application.

Concrete meter boxes and lids shall have a compressive strength at yield of 3000 psi when tested per ASTM C-39: Load Category A-0.3.

Lids shall be “concrete gray” in appearance. To facilitate removal, the lid shall include two $\frac{1}{2}$ ” x $2\frac{5}{8}$ ” - 4” ($2\frac{5}{8}$ ” minimum length, and not to exceed 4” in length) pockets with integrated lifting bar to accommodate a standard manhole hook. No lids shall have a reading lid. The lids shall be marked “WATER”, with a nominal lettering height of 1-inch and shall be indented into the surface of the lid to resist wear.

Alley, Traffic or Unimproved Street Location Meter Boxes and Lids

Meter boxes shall be constructed of an H20 traffic rated (per AASHTO-H20 load test) concrete material and shall meet the Cal Trans No. 5T or 6T State Specification. Lids shall be H20 rated.

The lid shall be “locked” into the meter box body with a 300 series $\frac{3}{8}$ inch-16 stainless steel button head with pin in hex bolt with washer. The hex shall be $\frac{7}{32}$ ” hex with pin. Each Lid shall have the term "PROPERTY OF CITY OF SACRAMENTO" welded onto the top. The letters shall be one (1) inch in height. No lids shall have a reading lid.

Meter Boxes for 4 inch Meters

The nominal meter box size shall be 30”W x 48”L x 12”-18”D. Meter boxes for four (4) inch meters shall meet the applicable specifications above for the specific application of the meter box.

3.14 Contractor Source Documents

Contractor shall collect and record certain information on water services on an electronic spreadsheet provided by the Engineer. The spreadsheet will include address and assessor's parcel number (APN). The Contractor shall provide the following:

- Meter number/serial number
- Meter manufacturer
- Meter location
- Meter size
- Service size and material type
- Bid items completed
- Extra concrete quantity
- Comments detailing unusual situations
- Date Paid
- Indicate if an address was Added or Deleted
- Total Concrete (SF)

A barcode reader shall be used to record the serial number of each meter. Manual entry shall not be used.

The Contractor shall make any address corrections on the electronic spreadsheet.

An example of the spreadsheet is located Appendix D of these Special Provisions. Contractor shall submit a copy of the electronic spreadsheet as well as a hard copy with each monthly billing.

3.15 De-watering

A determination of groundwater level has not been made for this project. The Contractor shall be responsible for the control, removal, and disposal of any groundwater in accordance with Section 27-3 of the Standard Specifications.

3.16 Tree Preservation Requirements

Trees within the project area shall be protected by the following means:

1. The contractor shall hire an International Society of Arboriculture (ISA) certified arborist to do any required pruning for equipment clearance. The contractor shall contact the City Arborist (Dan Pskowski, 768-8604) for a root inspection(s) for trenching activities within the dripline(s) of the trees.
2. If during excavation for the project, tree roots greater than two inches in diameter are encountered, work shall stop immediately until the project arborist can perform an on-site inspection. All roots shall be cut clean and the tree

affected may require supplemental irrigation/fertilization and pruning as a result of the root cutting. The project sponsor will be responsible for any costs incurred. Depending upon the amount of roots encountered and the time of year, wet burlap may be required along the sides of the trench.

3. The contractor shall be held liable for any damage to existing trees, i.e. trunk wounds, broken limbs, pouring of any deleterious materials, or concrete washout under the dripline of the trees. Damages will be assessed using the A Guide to Plant Appraisal eighth edition, published by the International Society of Arboriculture. An appraisal report shall be submitted for review by the City Arborist.
4. Tree protection methods noted above shall be identified on all construction plans for the project.

3.17 Payment

No separate payment will be made to the Contractor for complying with the requirements of this section. The cost of such work shall be included in whatever bid item the Contractor deems appropriate.

END OF SECTION

SECTION 4. ITEMS OF THE PROPOSAL

Item No. 1 Mobilization

Mobilization shall consist of preparatory work and operations including those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; and for other work and operations which must be performed or costs incurred prior to beginning work on the various contract items. Compensation for this item shall not exceed three (3) percent of the total bid amount.

Payment shall be on a lump sum basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for performing work necessary to complete this item in place.

Item No. 2 Construction Photographs

This item shall conform to Section 11 of the Standard Specifications, except as modified herein.

Pre-construction photographs or video of all work on private property shall also be included in this item and shall conform to Section 11 of the Standard Specifications. The addresses of the properties affected by construction shall be clearly identified on each photograph, or video. Pre-construction photographs or video shall be submitted to the Engineer prior to the start of construction. Photographs or video shall include all pavement and landscaping features in and around the work area. The Contractor shall submit as many photographs or as much video as necessary to clearly show the condition of existing pavement and landscaping. Special emphasis shall be placed on existing pavement, structures, flowerbeds, trees, or any other improvements in close proximity to the construction area. Upon completion of work at each affected property, the Contractor shall have post-construction photographs or video taken at the same locations and from the same perspective that the pre-construction photos or video were taken. All photographs or video shall be taken with a digital still camera or video recorder.

Pre and post photographs, or video, for each property worked on shall be submitted to the Engineer written to DVD or portable hard drive. The photographs on the DVD or portable hard drive shall be cataloged as follows: a folder for each street; a sub-folder with each property. Videos for each property worked on each street shall be located in a chapter named after the street

A table of contents shall be included with each DVD or portable hard drive.

Contractor shall be paid half of the lump sum price upon submittal of the pre-construction photos. The remaining amount upon submittal the post-construction photographs.

Payment for construction photographs shall be at the contract lump sum price bid and shall include full compensation for furnishing all labor, materials, tools, required processing, and equipment, and for performing all work necessary to complete this item in accordance with the Standard Specifications, these Special Provisions, and as directed by the Engineer.

Item No. 3 8 Inch Water Main to Place

Where shown on the Plans, ductile iron pipe or polyvinyl chloride pipe (PVC) water pipe and fittings shall be provided and placed in accordance with the Plans, manufacturer's recommendations, and in conformance with Sections 10 and 27 of the Standard Specifications.

Included in this item are fittings used to change both vertical and horizontal alignments as shown on the Plans, connect to the existing distribution system, eliminate conflicts with existing utilities, or maintain depth of bury.

Fire hydrant lead pipe and tee shall also be included in this item.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item.

Payment shall be at the unit price bid per linear foot of water main placed and shall include full compensation for furnishing all labor, materials, tools, and equipment, and for doing all work necessary to complete this item in place including pavement cutting and removal, trenching, furnishing and placing pipe, backfilling, removing or abandoning existing pipe, testing, disinfection, repaving or other surface restoration.

Item No. 4 4 Inch Gate Valve to Install

Item No. 5 6 Inch Gate Valve to Install

Item No. 6 8 Inch Gate Valve to Install

Gate valves and gate valve boxes shall be placed where shown on the Plans or directed by the Engineer in conformance with Sections 10, 27 and 38 of the Standard Specifications. Included in this item are gate valves and boxes for fire hydrants.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item

Payment shall be at the unit price bid per each gate valve installed and shall include full compensation for furnishing all labor, materials, tools and equipment, and for performing all work necessary to complete this item in place.

Item No. 7 Standard Fire Hydrant to Install

Standard fire hydrant shall be installed where indicated on the Plans in accordance with Sections 10 and 27, and Standard Drawing W-201 in Section 38 of the Standard Specifications.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item.

Payment shall be at the unit price bid for each fire hydrant installed and shall include full compensation for furnishing all labor, materials, tools and equipment, and for performing all work necessary to complete this item in place.

Item No. 8 Fire Hydrant to Remove

The Contractor shall remove existing fire hydrant including the existing gate valve, stand pipe, gate valve box and lid where indicated on the Plans. The existing fire hydrant lead shall be abandoned by plugging each end by filling with a minimum of two (2) feet of Class "D" concrete, in accordance with Section 10 of the Standard Specifications.

The existing fire hydrant shall be delivered to the City of Sacramento Corporation Yard, 5730 24th Street, Bldg. 9.

Work on this item shall not begin until all new water systems are connected and operable and old water mains are capped or abandoned as indicated on the Plans.

All items removed shall become the property of the Contractor, and shall be disposed of away from the project site.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item.

Payment shall be at the unit price bid for each fire hydrant removed and shall include full compensation for furnishing all labor, materials, tools and equipment, and for performing all work necessary to complete this item in place.

Item No. 9 Connection to Existing Water System

This item shall consist of connecting the new water main to the existing water distribution main at the locations indicated and to the details shown on the Plans, in

accordance with Section 27 of the Standard Specifications and these Special Provisions.

The Contractor shall locate and expose existing water mains and verify tie-in locations to locate existing water mains.

Pipe, fittings and restraints necessary to connect mains shall be included in this item. The Contractor shall use 45 degree (maximum) elbows to connect to existing pipe and match existing elevations, in accordance with Standard Drawing W-103 of the Standard Specifications.

Surface restoration associated with this item shall be performed as specified elsewhere in these Special Provisions and paid for under this item.

Payment shall be at the contract unit bid price for each connection to the existing water distribution system and shall include full compensation for furnishing all labor, materials, tools and equipment, and for performing all work necessary to complete this item in place.

Item No. 10 Meter Retrofit of 1 inch Water Service

Item No. 11 Meter Retrofit of 1½ inch Water Service

Item No. 12 Meter Retrofit of 2 inch Water Service

Existing water services shall be retrofitted by installing meters, meter boxes and lids in accordance with Section 10, 27 and 38 of the Standard Specifications and methods outlined in American Water Works Association Standards M6 - Manual of Water Supply Practices (AWWA), the UPC. Some standard drawings are located in Appendix C of these Special Provisions.

A one (1) inch meters shall be installed on ¾ inch services. One (1) inch meters shall also be installed on single family residential properties with 1¼ inch service. Multi-family residential properties with a 1¼ inch service shall be retrofitted with a 1½" meter. Contractor shall supply pipe and fittings necessary to transition and connect the existing service to the new meter as specified herein.

Contractor shall field mark all water service laterals from the corporation stop at the distribution main to the curb stop. Locating services shall be by a qualified person, per Underground Service Alert Law. Contractor shall verify all USA markings. All cost associated with this work including all re-work if the USA markings are found to be incorrect shall be included in this item.

Located in Appendix A of these Special Provisions is a list of addresses identifying the properties to be retrofitted as part of the scope of the Contract. Water service locations are included as a reference only and in no guarantee is made of their accuracy.

Contractor shall furnish and install pipe, fittings, meter valves (straight and angled), meter setters, meters, meter boxes, lids, and all other materials required to complete the installation of the service retrofit.

If a backflow prevention assembly is found at any of the listed retrofit addresses, the Contractor shall contact the Engineer for direction on replacement, removal, or other required action.

The quantity of water service retrofits shown on the bid proposal is for bidding purposes only. The unit price indicated water service retrofits will not be adjusted because the actual number of required meter service retrofits varies from the quantity shown on the bid proposal.

Water main shut downs to turn off the service during the meter retrofit of a water service will not be allowed. The Contractor shall be responsible for shutting off the service during the meter retrofit of the water service by crimping the service or utilizing other AWWA approved method.

The Contractor shall reconnect the existing water service on the property owner's side of the meter box so that the residential water service is operable when this item is complete. If the residential water service is in such poor condition that the contractor cannot reconnect to the service, the Contractor shall replace a portion of the service until a suitable connection point can be found. This item shall include replacing up to five (5) feet of pipe. Additional footage shall be paid under a separate item.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item. Surface restoration beyond 20.25 sq. ft. per each retrofit location, as directed by the Engineer, shall be paid under a separate bid item.

Surface restoration shall also include new sod, shrubbery, fencing, and repair or replacement of existing improvements on private property that are damaged as a result the work.

Payment shall be at the unit price bid per each retrofit and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved with water service retrofits as specified in these Special Provisions and as directed by the Engineer.

Item No. 13 Meter Retrofit of 4 inch Water Service

This item shall consist of installing a four (4) inch water meter on existing water services in accordance with where indicated on the list of addresses, in accordance with Section 10 and 27 of the Standard Specifications, Standard Drawing W-509 and W-515, and these Special Provisions. Meter will be supplied by the City.

The list of addresses is located in Appendix A of these Special Provisions. It identifies the properties to be retrofitted. Water service locations are included as a reference only and in no guarantee is made of their accuracy.

Additional work for the Crestgate Taylor Homes is shown on a map located in Appendix A of these Special Provisions.

It is the Contractor's responsibility to locate the existing water service laterals and curb or corporation stops. Contractor shall verify all USA markings identifying water features. All cost associated with this work including all re-work if the USA markings are found to be incorrect shall be included in this item.

Contractor shall furnish and install pipe, fittings, meter boxes, lids, valves, standpipes, bypass, valve boxes, concrete, supports and all other necessary components to properly install four (4) inch meters.

This item shall include the cost of saw cutting and repairing or replacing existing curb, gutter, sidewalk, alley or street surface, providing any new sod, shrubbery, fencing, and repair or replacement of other existing improvements on private property damaged as a result of this work.

The Contractor shall reconnect the existing water service on the property owners side of the meter box so that the water customer's water service is in service when this item is complete.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item. Surface restoration beyond 20.25 sq. ft. per each retrofit location, as directed by the Engineer, shall be paid under a separate bid item.

Payment shall be at the unit price bid per each 3-inch and larger water meter retrofit and shall include full compensation for furnishing all labor, tools, equipment and incidentals and for doing all work involved with the installation of 3-inch and larger water meters as specified in these Special Provisions and as directed by the Engineer.

Item No. 14 Meter to Install

Contractor shall install a one (1) inch meter in an existing meter setter where indicated on the list of addresses in these Special Provisions.

Located in Appendix A of these Special Provisions is a list of addresses identifying the properties where a meter shall be dropped into existing meter assembly and meter box. Water service locations are included as a reference only and in no guarantee is made of their accuracy.

Contractor shall shut off water to the existing service, remove and replace the existing idler and install a new meter. Once the meter is installed, Contractor shall turn on the water and flush the service.

If the depth from the top of the meter box to the top of the idler is less than twelve (12) inches, a retrofit shall be performed.

Payment shall be at the unit price bid for each meter installed shall include full compensation for furnishing all labor, material, tools, equipment and incidentals and for doing all work to complete this item in place.

Item No. 15 Water Service to Install

This item shall consist of installing a one (1) inch water service where indicated on the list of addresses beginning at the water main to the point of service at the property in accordance with Section 10 and 27 of the Standard Specifications, these Special Provisions and the UPC. Each water service shall include pipe, saddle, corporation stop, meter, meter box, and meter lid.

The list of addresses is located in Appendix A of these Special Provisions. It identifies the properties where a water service shall be installed. Water service locations are included as a reference only and in no guarantee is made of their accuracy.

All USA markings identifying water features will be verified by the Contractor. All costs associated with this work including all re-work if the USA markings are found to be incorrect shall be included in this item.

The Contractor shall reconnect the existing water service on the property owner's side of the meter box so that the customer's water service is in service when this item is complete.

If the residential water service is in such poor condition that the contractor cannot reconnect to the service, the Contractor shall replace a portion of the service until a suitable connection point can be found. This item shall include replacing up to five (5) feet of the customer's service. Addition footage shall be paid under a separate item.

Contractor shall abandon existing water services, once the new water service is connected and operable. Contractor shall turn off the corporation stop and cut and abandon service at the corporation stop prior to making the new water service connection.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item. Surface restoration beyond 20.25 sq. ft. per each property, as directed by the Engineer, shall be paid under a separate bid item.

Surface restoration shall also include new sod, shrubbery, fencing, and repair or replacement of existing improvements on private property that are damaged as a result the work.

The quantity of water services shown on the Proposal is for bidding purposes only. The unit price indicated will not be adjusted because the actual number of water services placed may vary from the quantity show on the Plans and in the Proposal.

Where shown on the Plans, Contractor shall transfer the existing water meter to the new meter box.

Payment shall be at the contract unit bid price for each water service and shall include full compensation for furnishing and installing all labor, materials, tools and equipment, and for performing all work necessary to complete this item in place

Item No. 16 Hybrid Water Service to Install (Front Hose Bib)
Item No. 17 Hybrid Water Service to Install (Rear Hose Bib)

These items shall consist of installing a new water service where indicated on the list of addresses beginning at the water main to the hose bib located to the front, side, or rear of the house in accordance with Sections 10, 27 & 38 of the Standard Specifications, these Special Provisions, and the UPC. Each hybrid water service shall include furnishing and placing pipe, saddle, corporation stop, meter box and lid, meter, and all necessary fittings to properly connect to the existing hose bib.

The list of addresses is located in Appendix A of these Special Provisions. It identifies the properties where a hybrid water service shall be installed. The locations described are a reference only and in no guarantee of accuracy is made thereof.

For properties located on a corner and where the Contractor elects to connect to the rear of the house to minimize the length of the water service shall be paid for under a "Front Hose Bib" item.

Connections to existing hose bibs shall include, but are not limited to, furnishing and installing shut off valves, unions and other fittings that are missing, broken, of galvanized material, or inoperable.

For services connected to the front (or side) of the structure, up to eighty feet of pipe shall be included as part of the Front Hose Bib. For services connected to the back of the structure, up to 150 feet of pipe shall be included as part of the Rear Hose Bid item. Additional footage shall be paid under a separate item.

Contractor shall abandon existing water services, once the new water service is connected and operable. The Contractor shall turn off the corporation stop and cut and abandon service at the corporation stop and hose bib prior to making the new water service connection. If there are hose bibs off the service, the Contractor shall cut and

cap the service on the far side of the hose bib so that the hose bibs remain operable. If the Contractor is unable to locate either the curb or corporation stops, he shall use an Engineer approved alternate construction method to abandon the existing water service.

Contractor shall remove the existing house shut off valve and riser, and plug the above ground tee.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item. Surface restoration beyond 20.25 sq. ft. per each property, as directed by the Engineer, shall be paid under a separate bid item.

Surface restoration shall also include new sod, shrubbery, fencing, and repair or replacement of existing improvements on private property that are damaged as a result the work.

The quantity of water services shown on the Proposal is for bidding purposes only. The unit price indicated will not be adjusted because the actual number of water services placed may vary from the quantity show on the Plans and in the Proposal.

The replacement of existing concrete patios and walkways, driveways, and sidewalks on private property in order to construct this item, shall be paid for under a separate item.

Payment shall be at the contract unit price bid for each water service installed and connected from the main to hose bib and shall include full compensation for furnishing all labor, materials, tools and equipment, and for performing all work necessary to complete this item in place

Item No. 18 Additional 1 inch Water Pipe to Place

Item No. 19 Additional 1½ inch Water Pipe to Place

This item shall consist of placing residential water pipe where field conditions require service lengths in excess of limits identified in other bid items of this contract. Pipe and installation shall be in accordance with Sections 10, 27, and 38 of the Standard Specifications and these Special Provisions.

Surface restoration shall be in accordance with the section entitled "Pavement Cutting and Surface Restoration" of these Special Provisions, and shall be paid for under this item. The Contractor shall restore surfaces in kind unless otherwise specified on the Plans or in these Special Provisions.

The quantity of residential water pipe to furnish and install as shown on the Proposal is for bidding purposes only. The unit price for additional water pipe installed will not be adjusted because the actual amount of pipe required to be installed varies from the quantity shown on the Proposal.

Payment shall be at the unit price bid per lineal foot of water service installed and shall include full compensation for furnishing all labor, materials, tools and equipment, and for performing all work necessary to complete this item in place

Item No. 20 Substandard Water Service to Replace

Substandard water services encountered during construction shall be removed and replaced. A water service that is not made of copper or HDPE is considered substandard. Water service shall be replaced in accordance with Sections 10, 27, and 38 of the Standard Specifications. Pipe of HDPE shall have locating wire installed. Only substandard water services two (2) inches and smaller shall be replaced under this item.

Included in this item is the installation of a new curb stop and pipe. Water service shall be replaced from the water main to the existing curb stop or meter box at the property. The service piping placed shall match existing size, or a minimum of 1-inch diameter, whichever is greater.

If the existing curb stop or meter box is located behind the sidewalk, the Contractor shall replace the service pipe back to the existing curb stop. If the curb stop is located under a concrete surface, the Contractor may tunnel no more than three (3) feet under the concrete to connect to the existing curb stop. If tunneling is used, the Contractor shall use a CDF material to backfill the area. The service must be embedded in six (6) inches of sand prior to placing CDF. If existing corporation stop or gate valve cannot be reused through no fault of the Contractor, the work associated with installing a new corporation stop or gate valve will be considered extra work and paid per Section 8 of the Standard Specifications.

The Contractor shall reconnect the existing water service on the property owner's side of the meter box so the residential water system is operable when this item is complete. (The installation of the meter box shall be paid for under a separate item.)

Existing material shall be disposed of by the Contractor.

The exact number and location of substandard water services to replace shall be determined in the field. The quantity of substandard water services to be replaced shown on the Proposal is for bidding purposes only. The unit price indicated for substandard services to be replaced will not be adjusted because the actual number of required substandard services varies from the quantity shown in the Proposal.

Contractor shall saw cut and repair or replace existing surface. Surface restoration shall include any surface, including street, curb, gutter, sidewalk, sod, shrubbery, fencing, and repair or replacement of other existing improvements on private property that may be damaged as a result of the replacement of the water service.

Surface restoration associated with this item shall be performed as specified elsewhere in these Special Provisions and paid for under this item.

Payment shall be at the unit price bid for each substandard water service replaced and shall include full compensation for furnishing all labor, material, tools, equipment and incidentals and for doing all work involved in replacing substandard water services as specified in these Special Provisions and as directed by the Engineer

Item No. 21 Water Mains and Fittings to Remove or Abandon

Existing main pipes, valves, tees, crosses, saddles, and taps shall be removed or abandoned as shown on the Plans, in accordance with these Special Provisions, and as directed by the Engineer.

Work to abandon main between Astoria Street and Ripley Street is shown on a map located in Appendix A of these Special Provisions.

All abandoned taps from live mains shall be removed such that no protrusions remain. All portions of pipe to be abandoned shall be plugged at each end by filling with a minimum two (2) feet of concrete. Steel pipe shall be abandoned by welding a ¼ inch thick steel plate on cut ends. In the event that a valve shutdown does not result in a positive shutdown, use of a restrained mechanical joint cap will be subject to approval of the Engineer. All methods of abandonment shall be paid for under this item.

Removal of existing valves shall include removing all appurtenances associated with the valve, including, but not limited to, riser, valve box and lid.

All removed items shall become the property of the Contractor, and shall be disposed of away from the project site.

Surface restoration associated with this item shall be performed as specified elsewhere in these Special Provisions and paid for under this item. Asphalt concrete and concrete removal and replacement required to complete this item in place shall be paid for under separate bid items.

Payment shall be at the contract lump price indicated in the proposal, and shall include full compensation for disposal of removed items, pugging of all abandoned pipe, pipe repairs, surface restoration, and all work necessary to complete this item in place.

Item No. 22 Concrete to Replace

Concrete encountered on private property shall be removed and replaced as necessary to install and connect residential water services and to abandon back yard water services and shall be paid for under this item. Concrete shall meet the applicable portions of Sections 10, 19, and 24 of the Standard Specifications. Limits of concrete removal and replacement shall be approved by the Engineer prior to work.

All concrete used for surface restoration in public right-of-way shall be included in the appropriate bid items of these Special Provisions.

The quantity of concrete shown on the Proposal is for bidding purposes only. The unit price indicated will not be adjusted because the actual quantity varies from the quantity shown on the Proposal.

This item shall cover all concrete pavement replacement not specified in the previous bid items. The removal and replacement of on-site concrete patios and walkways, driveways, and sidewalks in order to construct new water services, shall be paid for under this item. Where directed by the Engineer, the Contractor shall remove concrete pavement and replace the surface in accordance with the section of the Water Construction Requirements of these Special Provisions, entitled "Pavement Cutting and Surface Restoration" and shall be paid for under this item of the contract. Unless otherwise directed by the Engineer, newly placed concrete paving shall match existing pavement edges. Limits of concrete removal and replacement shall be approved by the Engineer prior to work.

Included in this item are the saw cutting, excavation, removal and disposal of existing concrete pavement. Existing manhole/vault head and covers, valve or meter box and lids, castings and other associated appurtenances shall be salvaged and reset at the proposed grades. At the Engineer's discretion, any box or lids damaged by the Contractor's operation shall be repaired or replaced by the Contractor for no additional charge.

Payment shall be at the unit price bid per square foot of concrete to remove and replace and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals, and for performing all work necessary to complete this item in place.

Item No. 23 Asphaltic Concrete to Replace

This item shall include miscellaneous asphaltic concrete removal and replacement for right-of-way and private property repairs. This work is not shown on the Plans but shall be performed by the Contractor at the direction of the Engineer.

Asphaltic concrete requiring removal and replacement for installation of the water main, water service laterals, capping and abandoning water main, connecting existing and new mains, and gate valves shall not be included in this item.

Asphaltic concrete shall be removed and replaced in accordance with the Standard Specifications and these Special Provisions on Pavement Cutting and Surface Restoration.

The quantity of asphalt paving shown on the Proposal is for bidding purposes only. The unit price indicated will not be adjusted because the actual quantity varies from the quantity shown on the Proposal.

Payment shall be at the unit price bid per square foot of asphaltic concrete to remove and replace and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals, and for performing all work necessary to complete this item in place.

Item No. 24 Unsuitable Material to Replace

This item shall consist of furnishing all labor, equipment and materials to remove and replace unsuitable materials in accordance with the requirements in Section 14-8 of the Standard Specifications, these Special Provisions and as directed by the Engineer.

Measurement for payment for unsuitable material shall be based upon a weight of the material placed based on conversion factor of 140 lbs/cf to verify unsuitable material replaced.

Payment shall be at the contract unit price bid per ton for unsuitable material removed and replaced and shall include full compensation for furnishing all labor, materials, tools and equipment, and for performing all work necessary to complete this item in place.

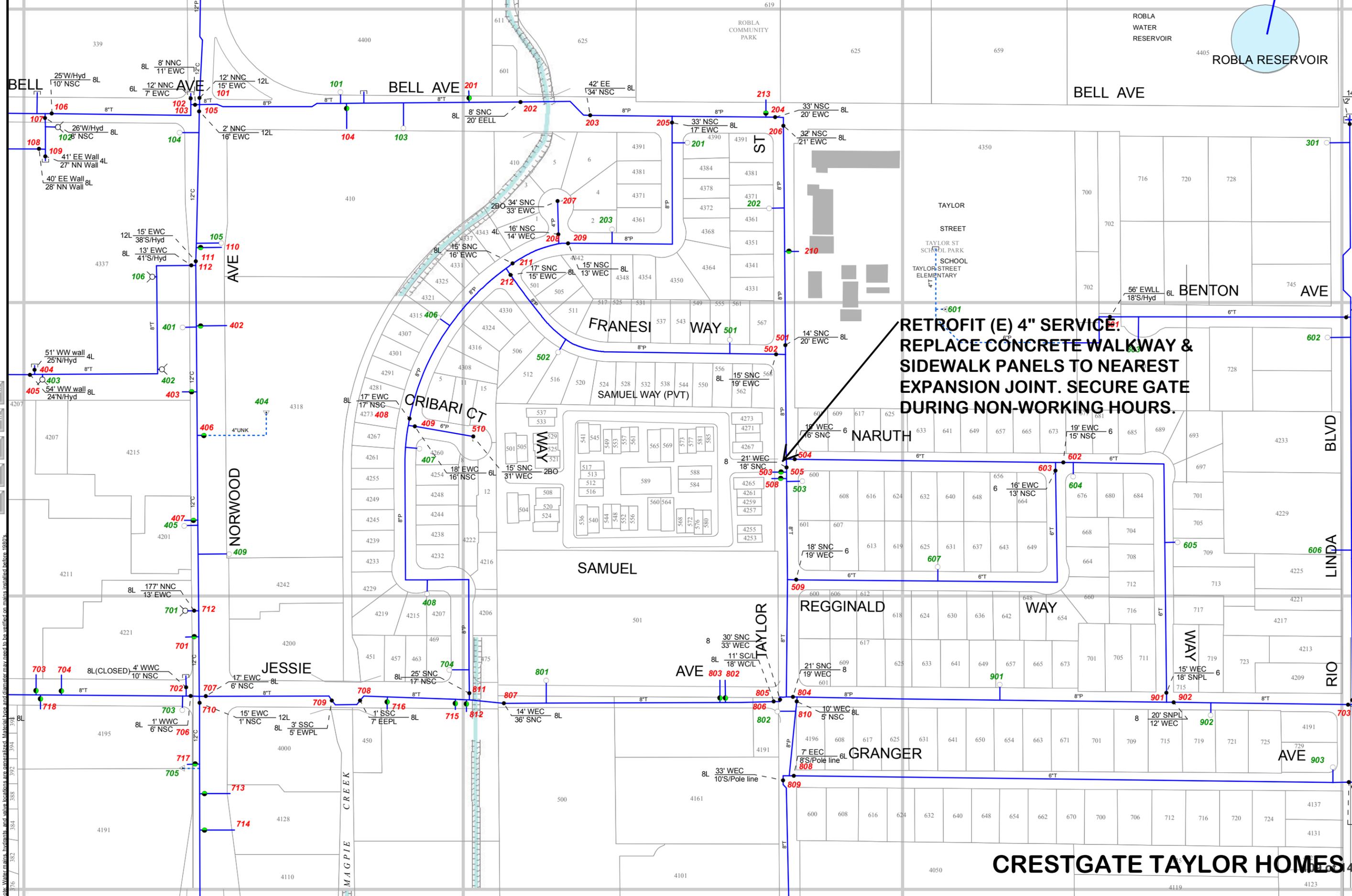
END OF SECTION

APPENDIX A

Crestgate Taylor Homes – 4” service

Work on Astoria & Ripley Street

Project Addresses



**RETROFIT (E) 4" SERVICE.
REPLACE CONCRETE WALKWAY &
SIDEWALK PANELS TO NEAREST
EXPANSION JOINT. SECURE GATE
DURING NON-WORKING HOURS.**

- T-MAIN / AGE MAPS
- W-PRESSURE MAPS
- W-AERIAL MAPS
- SWR/DRN MAPS
- FIBER MAPS

INTRANET MAP LINKS

More Watermain, hydrant, and valve locations are operational. Material lists and diameter maps need to be verified on main installation before 10/28/20.



CRESTGATE TAYLOR HOMES

- T-MAIN / AGE MAPS
- W-PRESSURE MAPS
- W-AERIAL MAPS
- SWR/DRN MAPS
- FIBER MAPS

**REMOVE (E) TEE & G.V.
REPAIR MAIN ON ASTORIA ST.
ABANDON MAIN TO EAST.
REPLACE CONCRETE DRIVEWAY
TO EXPANSION JOINTS.**

**REMOVE (E) TEE & G.V.
REPAIR MAIN ON RIPLEY ST
ABANDON MAIN TO WEST.**

WORK ON ASTORIA & RIPLEY ST

Addresses East of Rio Linda Boulevard

Street #	Street Name	WS TapSize	Approximate WS CurbStop Location	(E) Meter Status	(P) Work
3604	ASTORIA ST	0.75	10' WWC, 8' SNLL	NO METER	Retrofit
3705	ASTORIA ST		5' SSC - 20' WELL	NO METER	Hybrid
3709	ASTORIA ST			NO METER	Hybrid
3713	ASTORIA ST			NO METER	Hybrid
3717	ASTORIA ST	0.75	Same - 6' EWPL in S/P in Driveway	NO METER	Hybrid
3721	ASTORIA ST	0.75	17' SNLL - 8' EWLL	NO METER	Hybrid
3725	ASTORIA ST	0.75	18' SNLL - 1' WW Fence line	NO METER	Hybrid
3729	ASTORIA ST	0.75	6' SNLL - WPL	NO METER	Hybrid
3733	ASTORIA ST			NO METER	Hybrid
3713	BELDEN ST	0.75		NO METER	Hybrid
3715	BELDEN ST	1.0	22' NSLL, 29' SNLL, 2' EWPL in S/P in Backyard	NO METER	Hybrid
3721	BELDEN ST	1.0	11' SNLL - 39' NSLL - 1' EWPL of Lot	NO METER	Hybrid
3725	BELDEN ST	1.0	33' SNLL, 1' EWPL in Rt. of Way	NO METER	Hybrid
3729	BELDEN ST	0.75	6' NSLL, 4' EWPL	METERED	Hybrid
3733	BELDEN ST	1	21' SNLL, 7' EWLL Under Tree	NO METER	Hybrid
3737	BELDEN ST	1.0	27' NSLL - 22' SNLL - 6'EWPL in box	METERED	Hybrid
3741	BELDEN ST	0.75	49' SNLL, 7' EWPL in S/P	NO METER	Hybrid
2208	CONIFER WY	2.0	6' NSLL, 9' EEC of Astoria Street in meter Box	NO METER	Meter
2212	CONIFER WY		32' WELL - 29' EWLL - 2' NSPL of Street	NO METER	Retrofit
2216	CONIFER WY			NO METER	Hybrid
2220	CONIFER WY	0.75	6' WELL - 6' SSC of Conifer	NO METER	Retrofit
2224	CONIFER WY	0.75	13' EWLL - 5' NSLL	NO METER	Hybrid
2228	CONIFER WY	0.75	27' N of Utility Pole Line - 33' EWLL - 14' WWC of Ripley	NO METER	Retrofit
3704	DAYTON ST	0.75	25 1/2' WELL - 5' NNC of Roanoke	NO METER	Retrofit
3708	DAYTON ST	0.75	15' SNLL - 10' WEPL of Lot	NO METER	Hybrid
3712	DAYTON ST			NO METER	Hybrid
3716	DAYTON ST	0.75	22' NSLL - 17' SNLL - 7' WEPL	NO METER	Hybrid
3720	DAYTON ST	0.75	12' SNLL - 38' NSLL - 6' WEPL of Lot	NO METER	Hybrid
3724	DAYTON ST	0.75	18' SNLL, 4' WEPL	NO METER	Hybrid
3728	DAYTON ST	0.75	34' NSLL - 6' WEPL	NO METER	Hybrid
3732	DAYTON ST	0.75	17' SNLL - 6' WEPL in ROW in box	NO METER	Hybrid
3736	DAYTON ST	0.75	17 1/2' NSLL - 4' EEC of Dayton	NO METER	Retrofit
3740	DAYTON ST	0.75	Same - 6' SSC of Grand	NO METER	Retrofit
1050	GRAND AV	1.0	36' SSC of Grand Av, 6' EWPL in box	NO METER	Hybrid
2104	GRAND AV	1.0	14' EWLL - 1' SNPL of Grand	NO METER	Retrofit
2108	GRAND AV	1.0	14' EWLL - 1' SNPL of Grand Ave	NO METER	Retrofit
2112	GRAND AV	1.0	13' EWLL, 5' SSC of Grand Av	NO METER	Retrofit

Street #	Street Name	WS TapSize	Approximate WS Curbstop Location	(E) Meter Status	(P) Work
2132	GRAND AV	2.0	1)4' SSPL-30' WELL in bx 2)21' WELL, 2' SSPL in c/s bx	NO METER	Retrofit - 2"
2245	HARRIS AV			NO METER	Service
2305	HARRIS AV	0.75	10' N of Pole Line on Harris, 16' WELL in box	NO METER	Retrofit
2309	HARRIS AV	0.75	4' WELL, 5' SNLL in c/s box	NO METER	Hybrid
2317	HARRIS AV	0.5	17' WELL - 1' NSPL of Lot	NO METER	Retrofit
2321	HARRIS AV		Same - 10' SNPL of lot	NO METER	Retrofit
2325	HARRIS AV			NO METER	Hybrid
2329	HARRIS AV			NO METER	Hybrid
2333	HARRIS AV	1.0	1.25"WV: 22'WELL, on NPL of 2333 Harris in S/P	NO METER	Retrofit
3740	MAY ST	4.0	WV 177' SSC Grand Avenue - 10' WELL	NO METER	Retrofit - 4"
2305	PIERCY WY		18'E'WELL-3'SNPL in ROW	NO METER	Hybrid
2308	PIERCY WY	1.0	Same - 4' NSLL	NO METER	Hybrid
2309	PIERCY WY			NO METER	Hybrid
2310	PIERCY WY	1.0	Same & 23' NSPL	NO METER	Hybrid
2312	PIERCY WY	1.0	19' EWLL - 1' NSPL of Lot	NO METER	Hybrid
2313	PIERCY WY			NO METER	Hybrid
2315	PIERCY WY		15' EWLL - 30' WELL - 6' SNPL of Lot	NO METER	Hybrid
2316	PIERCY WY	0.75	17' WELL, 1' NSPL of 2316 Piercy Way	NO METER	Hybrid
2320	PIERCY WY			NO METER	Hybrid
2321	PIERCY WY	0.75	25' WELL, 1' SNPL	NO METER	Hybrid
2324	PIERCY WY			NO METER	Hybrid
2328	PIERCY WY			NO METER	Hybrid
2329	PIERCY WY			NO METER	Hybrid
2332	PIERCY WY	0.75	28' EWLL - 2' NSPL	NO METER	Hybrid
2333	PIERCY WY	1.0	36' SNPL of Lot - 5' EWLL	NO METER	Hybrid
2336	PIERCY WY	1.0	21' WELL - 10' NSLL	METERED	Hybrid
2337	PIERCY WY	0.75	23' WELL - 3' SNPL of Lot	NO METER	Hybrid
3900	RIPLY ST		10' WELL - 4' NSLL	NO METER	Service
3909	RIPLY ST			METERED	Service
3921	RIPLY ST			NO METER	Service
3924	RIPLY ST	0.75	6' WELL - 31' NSLL	NO METER	Service
3930	RIPLY ST		45' EEPL of Ripley - 3' SNLL	NO METER	Hybrid
3933	RIPLY ST			NO METER	Meter
1061	ROANOKE AV	0.75	64' NNC of Roanoke, 3' WELL	NO METER	Hybrid
1075	ROANOKE AV	1.0	4' WELL, 61' NNC of Roanoke Ave	METERED	Hybrid
1075	ROANOKE AV			NO METER	Hybrid
2105	ROANOKE AV	0.75	1' WELL of Roanoke, 54' NNC of Roanoke	NO METER	Retrofit
2109	ROANOKE AV			NO METER	Hybrid
2113	ROANOKE AV			NO METER	Retrofit

Street #	Street Name	WS TapSize	Approximate WS CurbStop Location	(E) Meter Status	(P) Work
2131	ROANOKE AV	0.75	32' EWLL - 25' WELL - 2' SSPL	NO METER	Retrofit
2135	ROANOKE AV			NO METER	Retrofit
2139	ROANOKE AV			NO METER	Hybrid
3704	SCHUTT WY	0.75	36' EWLL - 20' WELL - 5' NNC of Roanoke	NO METER	Retrofit
3705	SCHUTT WY	0.75	4' NNC of Roanoke, 2' WWPL	NO METER	Retrofit
3708	SCHUTT WY			NO METER	Hybrid
3709	SCHUTT WY	0.75	31' NSLL - 21' SNLL - 2' EWPL of Easement in Meter box	NO METER	Hybrid
3712	SCHUTT WY	0.75	13' NSLL, 3' WEPL in ROW	NO METER	Hybrid
3713	SCHUTT WY			NO METER	Hybrid
3716	SCHUTT WY		1' SNLL - 26' NSLL, 2' EELL	NO METER	Hybrid
3717	SCHUTT WY	0.75	21' SNLL - 29' NSLL - 4' EWLL	NO METER	Hybrid
3720	SCHUTT WY	0.75	18' NSLL - 2' WELL in a box	NO METER	Hybrid
3721	SCHUTT WY	0.75	16' SNLL, 2' EWLL of 3721 Schutt	NO METER	Hybrid
3724	SCHUTT WY	0.75	11' NSLL - 1' EWPL of Alley	NO METER	Hybrid
3725	SCHUTT WY	0.75	16' NSLL - 3' EEPL of Easement	NO METER	Hybrid
3728	SCHUTT WY	0.75	24' NSLL, 1' EEPL of Alley in concrete meter box	NO METER	Hybrid
3729	SCHUTT WY	0.75	28' NSLL - 3' EWLL	NO METER	Hybrid
3732	SCHUTT WY			NO METER	Hybrid
3733	SCHUTT WY		16' NSLL - 3' EWLL	NO METER	Hybrid
3736	SCHUTT WY	0.75	7' NNLL of 3732 Schutt - EPL of Alley	NO METER	Hybrid
3737	SCHUTT WY	0.75	21' SNLL - 1' EEPL of Easement	NO METER	Hybrid
3740	SCHUTT WY	0.75	40' EEPL of Schutt - 1' SSPL of Grand	NO METER	Retrofit
3741	SCHUTT WY	1.0	Same - 1' SNPL of Grand	NO METER	Retrofit
2201	SOUTH AV		20' SNLL, 7 1/2' EEC	NO METER	Retrofit
2215	SOUTH AV	0.75	26' WELL - 1' SNPL in box	NO METER	Retrofit
2221	SOUTH AV	0.75	4' WELL & 1' NNPL of 2221 South in Meter box	NO METER	Retrofit
2225	SOUTH AV	0.75	43' WELL & 1 1/2' SNPL	NO METER	Hybrid
3925	WINTERS ST	0.75	6' WWC - 27' SNLL	NO METER	Retrofit
3929	WINTERS ST	1.0	Same - 6' WWC Winters	NO METER	Retrofit

Addresses West of Rio Linda Boulevard

Street #	Street Name	WS TapSize	Approximate WS CurbStop Location	(E) Meter Status	(P) Work
3813	ALTOS AV			NO METER	Retrofit
3829	ALTOS AV	1.0	6' EWLL of 3833 Altos - 1' NSPL of Alley	NO METER	Retrofit
3833	ALTOS AV	1.0	62' WWC on SPL of Alley	NO METER	Retrofit
3841	ALTOS AV	1.0	124' WWC of Altos - NPL of Alley	NO METER	Retrofit
530	DISPLAY WY			NO METER	Retrofit
536	DISPLAY WY			NO METER	Retrofit

Street #	Street Name	WS TapSize	Approximate WS Curbstop Location	(E) Meter Status	(P) Work
542	DISPLAY WY			NO METER	Retrofit
548	DISPLAY WY			NO METER	Retrofit
555	DISPLAY WY			NO METER	Retrofit
565	DISPLAY WY			NO METER	Retrofit
401	GRAND AV		29' EEC of Norwood, 1' NSPL of Alley	NO METER	Retrofit
410	GRAND AV	1.0	76' EEC Norwood - 2' SNPL Alley	NO METER	Retrofit
411	GRAND AV	0.75	27' EWLL - 43' WELL - 2' NSPL of Alley	NO METER	Retrofit
420	GRAND AV	1.0	Same & 1' NNPL Alley	NO METER	Retrofit
421	GRAND AV		26' WELL of 421 Grand Ave. on SPL of Alley	NO METER	Retrofit
430	GRAND AV	1.0	10' WELL - 2' SNPL of Alley in C/S Box	NO METER	Retrofit
431	GRAND AV	1.0	1) 24' WELL, 1' SSPL Alley; 2) 23' WELL, 1' SNPL	NO METER	Retrofit
440	GRAND AV	0.75	2' WELL - 1' NNPL of alley in meter box	NO METER	Retrofit
441	GRAND AV		30' EWLL - 1' SSPL of Alley	NO METER	Retrofit
450	GRAND AV	0.75	5 1/2' EWLL, 1' NNPL of alley in meter box	NO METER	Retrofit
460	GRAND AV	0.75	79' EWLL, 2' NNPL of alley in standpipe (inside fence)	NO METER	Retrofit
470	GRAND AV	0.75	16' WELL - 2' NNPL of Alley	NO METER	Retrofit
471	GRAND AV		18' WELL - on NPL of Lot	NO METER	Retrofit
490	GRAND AV	1.0	64' WWC o/Vern St - 1' SNPL o/alley	NO METER	Retrofit
500	GRAND AV	1.0	Same & 20' NSPL Alley	NO METER	Retrofit
509	GRAND AV	0.75	18' EWLL, SPL of Alley	NO METER	Retrofit
516	GRAND AV	0.75	23' EWLL, on NPL of Alley	NO METER	Retrofit
517	GRAND AV	0.75	7' WELL of 2' NSPL of Alley	NO METER	Retrofit
524	GRAND AV		11' WELL - 2' SNPL	NO METER	Retrofit
525	GRAND AV		16' NSLL - WPL of Alley	NO METER	Retrofit
533	GRAND AV			NO METER	Retrofit
541	GRAND AV	0.75	14' WELL, 1' SSPL of alley, 1' SNPL of 541 Grand Av in box	NO METER	Retrofit
549	GRAND AV	0.75	23' WELL - 1' NSPL of Alley	NO METER	Retrofit
557	GRAND AV	1.0	1' NSPL in Alley of 557 Grand Ave. - 13' WELL in Alley 557 Grand.	NO METER	Retrofit
565	GRAND AV	0.75	42' WELL, 6' EWLL, 2' NSPL of Alley in c/s box	NO METER	Retrofit
572	GRAND AV		38' WELL - 11' EWLL - NPL of Alley	NO METER	Retrofit
580	GRAND AV	1.0	1) 4' EWLL - 3' SNPL o/alley in box (6/5/06)	NO METER	Retrofit
581	GRAND AV		16' EWLL - 1' NSPL of Alley	NO METER	Retrofit
588	GRAND AV	1.0	62' WWC, 4' EWLL, on NPL of Alley in S/P	NO METER	Retrofit
589	GRAND AV			NO METER	Retrofit
600	GRAND AV	0.75	3' NNPL of Alley - 2' EELL	NO METER	Retrofit
601	GRAND AV	0.75	31' SNLL - 31' NNC of Grand - 8' EEC of Taylor	NO METER	Retrofit
604	GRAND AV			NO METER	Retrofit
605	GRAND AV	.75	20' WELL - 1' NSPL of Alley	NO METER	Retrofit
612	GRAND AV			NO METER	Retrofit

Street #	Street Name	WS TapSize	Approximate WS CurbStop Location	(E) Meter Status	(P) Work
613	GRAND AV	0.75	31' EWPL - SPL of Alley	NO METER	Retrofit
615	GRAND AV	0.75	1) 26' ewll-1' nsll 2) 26' EWLL- 24' WELL-1' NSPL of Alley	NO METER	Retrofit
620	GRAND AV	0.75	25' WELL - 1' SNPL of Alley	NO METER	Retrofit
621	GRAND AV	0.75	25' WELL, 22' EWLL 2' NSPL of Alley in concrete box	NO METER	Retrofit
624	GRAND AV		24' EWLL - 1' SNPL of Alley	NO METER	Retrofit
628	GRAND AV	1.0	16' EWLL - NPL Alley	NO METER	Retrofit
629	GRAND AV	0.75	1' WELL, 1' NSPL of Alley in box	NO METER	Retrofit
632	GRAND AV	1.0	Same - 1' SNPL of Alley	NO METER	Retrofit
633	GRAND AV	1.0	Same & on SPL of Alley	NO METER	Retrofit
636	GRAND AV	1.0	Same & 1' NNPL Alley	NO METER	Retrofit
637	GRAND AV	0.75	20' WELL - 2' NSPL of Alley	NO METER	Retrofit
639	GRAND AV	0.75	37' EWLL - on SPL of Alley - 12' WELL	NO METER	Retrofit
640	GRAND AV	1.0	15' NSPL of Alley - 9' EWLL of 640 Grand Ave.	NO METER	Retrofit
645	GRAND AV			NO METER	Retrofit
704	GRAND AV	0.75	3' EWLL - 1' SNPL of Alley	NO METER	Retrofit
708	GRAND AV	0.75	18' EWLL, 1' SNPL of alley in standpipe	NO METER	Retrofit
712	GRAND AV	1.0	1' SNPL of Alley, 22' EWLL of 712 Grand Ave.	NO METER	Retrofit
713	GRAND AV			NO METER	Retrofit
715	GRAND AV		4' WELL - 1' NSPL of Alley	NO METER	Retrofit
716	GRAND AV	1.0	9' WELL, on NPL of alley in standpipe	NO METER	Retrofit
718	GRAND AV	0.75	34' EWLL - 16' WELL - 2' SSPL of Lot	NO METER	Retrofit
721	GRAND AV	0.75	41' EWLL - 9' WELL - 3' NSPL of Alley	NO METER	Retrofit
724	GRAND AV	1.0	24' EWLL, 1' SNPL of Alley in meter box	NO METER	Retrofit
725	GRAND AV		20' EWLL, 2' NSPL of Alley in box	NO METER	Retrofit
728	GRAND AV	1.0	Same & 1' SNPL Alley	NO METER	Retrofit
729	GRAND AV	0.75	8 1/2' WELL - 3' NNPL of Alley	NO METER	Retrofit
733	GRAND AV	1.0	1' NSPL of Alley, 22' EWLL of 733 Grand	NO METER	Retrofit
810	GRAND AV	1.0	10' EWLL, 10' SSC in box	NO METER	Retrofit
500	HARRIS AV	1.0	2' SNPL of Alley - 13' EEC of Vern Street	NO METER	Retrofit
502	HARRIS AV	1.0	25' EWLL @ NPL of Alley, 100' EEC of Vern Street	NO METER	Retrofit
508	HARRIS AV	0.75	4' EWLL, 1' SNPL of Alley	NO METER	Retrofit
524	HARRIS AV	0.75	14' EWLL - 2' SNPL of Alley	NO METER	Retrofit
532	HARRIS AV	1.0	15' WELL, 1' SNPL of Alley in S/ P	NO METER	Retrofit
540	HARRIS AV	1.0	16' WELL - 6' NNC of Harris	NO METER	Retrofit
548	HARRIS AV	1.0	13' WELL - 7' NNPL of Alley	NO METER	Retrofit
556	HARRIS AV	1.0	24' WEPL - 2' NNPL	NO METER	Retrofit
564	HARRIS AV			NO METER	Retrofit
572	HARRIS AV	1.0	1) 24' WELL - 4' NNPL in alley 2) Same & 12' NSPL Alley	NO METER	Retrofit
580	HARRIS AV	1.0	86'WVC of Taylor, 19'SNPL, 6'SNPL, 10' NSPL Alley in box	NO METER	Retrofit

Street #	Street Name	WS TapSize	Approximate WS Curbstop Location	(E) Meter Status	(P) Work
588	HARRIS AV	1.0	Same & 9' NSPL Alley	NO METER	Retrofit
604	HARRIS AV	0.75	10' EWLL - 1' SNLL of Alley	NO METER	Retrofit
608	HARRIS AV	1.0	1' SNPL of Alley, 36' EWLL	NO METER	Retrofit
612	HARRIS AV	1.0	Same & 1' SNPL Alley	NO METER	Retrofit
616	HARRIS AV			NO METER	Retrofit
620	HARRIS AV	1.0	Same & NPL Alley	NO METER	Retrofit
623	HARRIS AV	1.0	3' WELL - 5' NNC	NO METER	Retrofit
624	HARRIS AV	1.0	20' WELL - 13' SNPL Alley	NO METER	Retrofit
628	HARRIS AV	1.0	2' EWLL - 10' NNC of Harris Avenue	NO METER	Retrofit
631	HARRIS AV	1.0	Same & 1' NNPL of Harris	NO METER	Retrofit
632	HARRIS AV	0.75	16' EWLL - on NPL of Alley	NO METER	Retrofit
633	HARRIS AV	1.0	Same as Corp; 1' NNPL of Harris Avenue	NO METER	Retrofit
636	HARRIS AV	0.75	14' EWLL - 1' SNPL of Alley	NO METER	Retrofit
704	HARRIS AV			NO METER	Retrofit
705	HARRIS AV	1.0	1) service enters approx 3' WELL & 1' SNPL of Harris	NO METER	Retrofit
708	HARRIS AV	1.0	23' EWLL - 27' WELL - 1' SNPL of Alley	NO METER	Retrofit
712	HARRIS AV	1.0	Same & 6' SSC Harris	NO METER	Retrofit
716	HARRIS AV	1.0	21' WELL of 716 Harris, 1' SNPL of Alley	NO METER	Retrofit
720	HARRIS AV	0.75	17' WEPL, 1' SSPL	NO METER	Retrofit
721	HARRIS AV	1.0	Same as Corp, and at NPL of Harris Avenue	NO METER	Retrofit
724	HARRIS AV	1.0	1) 2" NSPL, 16' EWPL 2) 27' WELL, 2' NNPL of alley in box	NO METER	Retrofit
725	HARRIS AV	1.0	46' EWLL & 104' WELL & 1' NNPL of Harris Ave.	NO METER	Retrofit
728	HARRIS AV		23' WELL - 2' SNPL	NO METER	Retrofit
736	HARRIS AV		16' EWLL - 1' SNPL of Alley	NO METER	Retrofit
736	HARRIS AV			NO METER	Retrofit
740	HARRIS AV	0.75	26' EWLL - NPL of Alley	NO METER	Retrofit
401	KESNER AV	0.75	1' SNLL of 401 Kesner - 7' EEC of Norwood in S/P	NO METER	Retrofit
415	KESNER AV	0.75	18' WELL of 415 Kesner & 11' SNPL of 415 Kesner	NO METER	Retrofit
435	KESNER AV	0.75	101' WWPL of vern - 3' SNPL of Alley	NO METER	Retrofit
441	KESNER AV		12' ewll - 8' snpl in meterbox (1/30/07)	NO METER	Retrofit
3800	KNIGHTLINGER ST			NO METER	Retrofit
3810	KNIGHTLINGER ST			NO METER	Retrofit
3817	KNIGHTLINGER ST			NO METER	Retrofit
3818	KNIGHTLINGER ST	0.75	7'WELL, 1'NNPL of Alley in box	NO METER	Retrofit
3821	KNIGHTLINGER ST	1.0	100' WWC of Knight linger 1' SNPL of Alley	NO METER	Retrofit
3840	KNIGHTLINGER ST			NO METER	Retrofit
3841	KNIGHTLINGER ST			NO METER	Retrofit
430	MOREY AV	1.0	47' WELL - 28' EWLL - 1' NNPL Alley	NO METER	Retrofit
440	MOREY AV	0.75	16' EWLL - 3' SSPL of Morell in S. Pipe line	NO METER	Retrofit

Street #	Street Name	WS TapSize	Approximate WS CurbStop Location	(E) Meter Status	(P) Work
100	MORRISON AV	1.0	37' EWLL, 1' SNPL in meter box.	NO METER	Retrofit
110	MORRISON AV	1.0	27' EWLL, 1' SSPL	NO METER	Retrofit
120	MORRISON AV	1.0	59' EWLL, on NPL of 120 Morrison Av in c/s box	NO METER	Retrofit
140	MORRISON AV	1.0	30' WELL - 16' SSPL of Street	NO METER	Retrofit
15	MORRISON AV			NO METER	Retrofit
150	MORRISON AV	1.0	Same - 1' SSPL Morrison Ave	NO METER	Retrofit
160	MORRISON AV	1.0	Same - SPL of Morrison	NO METER	Retrofit
170	MORRISON AV			NO METER	Retrofit
210	MORRISON AV	1.0	12' EWLL, 2' SNPL in box	NO METER	Retrofit
240	MORRISON AV	1.0	3' EELL - on NPL of Lot	NO METER	Retrofit
30	MORRISON AV	1.0	61' WELL, 2' W of Utility Pole Line	NO METER	Retrofit
310	MORRISON AV			NO METER	Retrofit
37	MORRISON AV			NO METER	Retrofit
376	MORRISON AV		58' SSC of Morrison WPL of 376	NO METER	Retrofit
378	MORRISON AV	1.0	1' SSPL of Morrison - 5' WELL	NO METER	Retrofit
380	MORRISON AV	2.0	11' SSC, 7' EWLL of 380 Morrison Av in cement c/s box	NO METER	Retrofit - 2"
386	MORRISON AV	0.75	6' WELL, 5' SSC of Morrison in meter box.	NO METER	Retrofit
400	MORRISON AV			NO METER	Retrofit
404	MORRISON AV			NO METER	Retrofit
408	MORRISON AV	0.75	21' EWLL, on th NPL of the Alley in box	NO METER	Retrofit
41	MORRISON AV			NO METER	Retrofit
411	MORRISON AV	1.0	75' EWLL, 145' NNC of Morrison	NO METER	Retrofit
431	MORRISON AV			NO METER	Retrofit
440	MORRISON AV	0.75	28' EWLL - 3' SNPL of Alley	NO METER	Retrofit
441	MORRISON AV	1.5	WV 39' EWLL, 8' SNLL	NO METER	Retrofit
45	MORRISON AV			NO METER	Retrofit
450	MORRISON AV	1.0	29' EWLL - 1' SNPL of Alley	NO METER	Retrofit
460	MORRISON AV	1.0	23' EWLL - 1' SNPL of Alley	NO METER	Retrofit
461	MORRISON AV	0.75	17' WELL, 14' SNPL in meter box	NO METER	Retrofit
470	MORRISON AV	1.0	1' SNPL, 21' WELL	NO METER	Retrofit
471	MORRISON AV	0.75	35' WELL - 16' SNLL	NO METER	Retrofit
480	MORRISON AV			NO METER	Retrofit
481	MORRISON AV	0.75	28'WVC of Vern, 2'SNPL of alley or 12'S of Pole Line	NO METER	Retrofit
490	MORRISON AV	1.0	1'SNPL of Alley, 5'EWLL in c/s box	NO METER	Retrofit
501	MORRISON AV	0.75	8' WELL - 48' EWLL - 4' NSLL	NO METER	Retrofit
508	MORRISON AV	0.75	37' WELL, 14' EWLL, 1' SSPL in alley, in meter box	NO METER	Retrofit
509	MORRISON AV	0.75	3' NSPL of Alley - 22' EWLL - 84' EEC of Vern	NO METER	Retrofit
511	MORRISON AV	0.75	3' NSPL of Alley, 3' WELL	NO METER	Retrofit
516	MORRISON AV	0.75	16' WELL - 34' EWLL - 2' SNPL of Alley	NO METER	Retrofit

Street #	Street Name	WS TapSize	Approximate WS Curbstop Location	(E) Meter Status	(P) Work
521	MORRISON AV	0.75	39' EWLL - 1' NSPL of Alley	NO METER	Retrofit
530	MORRISON AV	0.75	16' EWLL, 3' SNPL of alley in B-12 box	NO METER	Retrofit
531	MORRISON AV			NO METER	Retrofit
540	MORRISON AV	0.75	(1) 21' well - 3' snpl (3/5/07) 2) 21' WELL - 3' SNPL o/alley	NO METER	Retrofit
541	MORRISON AV		11 1/2' EWLL	NO METER	Retrofit
548	MORRISON AV			NO METER	Retrofit
549	MORRISON AV	1.0	Same & 3' NSPL of Alley	NO METER	Retrofit
550	MORRISON AV	0.75	27' EWLL - 1' SNPL of Alley 21' EWLL of 5' SSPL of Lot	NO METER	Retrofit
556	MORRISON AV		46' EWLL - 3 1/2' SNPL of Alley	NO METER	Retrofit
557	MORRISON AV	1.0	29' EWLL - 22' WELL - 6' SSPL Alley	NO METER	Retrofit
564	MORRISON AV		20' WELL - 1' SNPL of alley	NO METER	Retrofit
565	MORRISON AV			NO METER	Retrofit
572	MORRISON AV	1.0	28' EWLL of 572 Morrison Avenue 1' SNPL of Alley	NO METER	Retrofit
573	MORRISON AV		7' NNPL of 13' WELL - 37' EWLL	NO METER	Retrofit
577	MORRISON AV			NO METER	Retrofit
580	MORRISON AV	0.75	1" Curb stop, 1' SNP of Alley, 1' EWPL	NO METER	Retrofit
581	MORRISON AV			NO METER	Retrofit
590	MORRISON AV	0.75	47' WWC of Taylor - 1' SNPL of Alley	NO METER	Retrofit
60	MORRISON AV	1.0	24' EWLL - 4' SNPL in Standpipe	NO METER	Retrofit
600	MORRISON AV			NO METER	Retrofit
604	MORRISON AV	0.75	24' WELL, 1 1/2' SNPL of Alley	NO METER	Retrofit
605	MORRISON AV	0.75	30' WELL, 1' SSPL of Alley in C/S Box	NO METER	Retrofit
608	MORRISON AV	0.75	24' EWLL - 1' SNPL of Alley	NO METER	Retrofit
609	MORRISON AV		1' NSPL of Alley, 19' WELL	NO METER	Retrofit
612	MORRISON AV	0.75	3' SSPL of alley, 22' EWLL in concrete meter box	NO METER	Retrofit
613	MORRISON AV	1.0	3' SSPL of Alley, 13' EWLL	NO METER	Retrofit
616	MORRISON AV	1.0	25 1/2' EWLL 9' SNPL of Alley	NO METER	Retrofit
617	MORRISON AV			NO METER	Retrofit
620	MORRISON AV	0.75	34' WELL - 1' SNPL of Alley	NO METER	Retrofit
621	MORRISON AV			NO METER	Retrofit
624	MORRISON AV	1.0	1' SNPL of Alley, 16' EWLL	NO METER	Retrofit
625	MORRISON AV	0.75	18' WELL - 3' SSPL	NO METER	Retrofit
628	MORRISON AV	1.0	22' WELL - 11' NSPL of Alley	NO METER	Retrofit
629	MORRISON AV		20' EWLL - 17' SNPL of Alley	NO METER	Retrofit
632	MORRISON AV	1.0	Same - 1' NNPL of Alley	NO METER	Retrofit
633	MORRISON AV	0.75	30' WELL, 22' EWLL - 1' SSPL of Alley in box	NO METER	Retrofit
636	MORRISON AV			NO METER	Retrofit
637	MORRISON AV			NO METER	Retrofit
641	MORRISON AV	1.0	35' WEPL, 1' NSPL of alley in c/s box	NO METER	Retrofit

Street #	Street Name	WS TapSize	Approximate WS CurbStop Location	(E) Meter Status	(P) Work
645	MORRISON AV	1.0	Same as Corp. and at SPL of Alley	NO METER	Retrofit
70	MORRISON AV	1.0	Same & 2' SSPL Morrison	NO METER	Retrofit
705	MORRISON AV	0.75	1) 5' WELL on SPL o/alley in the meterbox 2) 5' WELL, 1' NSPL	NO METER	Retrofit
709	MORRISON AV	1.0	27' EWLL - 2' SNPL of 709 Morrison	NO METER	Retrofit
712	MORRISON AV	1.0	6'EWLL, 1'SSPL in box	NO METER	Retrofit
716	MORRISON AV	1.0	16' WELL, 2' NSPL of alley	NO METER	Retrofit
719	MORRISON AV	1.0	2' NSPL in Alley - 3' EWLL in box	NO METER	Retrofit
720	MORRISON AV		30' WELL, 32' EWLL, 1' SNPL of Alley in old meter box	NO METER	Retrofit
721	MORRISON AV	0.75	7' EWLL - 1' SSPL of Alley	NO METER	Retrofit
725	MORRISON AV	1.0	2' WELL - 2' NSPL of Alley	NO METER	Retrofit
728	MORRISON AV	0.75	WV 20' EWLL - 1' SNPL of Alley	NO METER	Retrofit
729	MORRISON AV	0.75	2' WELL - 1' NSPL Alley (In meter box)	NO METER	Retrofit
730	MORRISON AV	1.0	22' WELL - NPL of Alley	NO METER	Retrofit
733	MORRISON AV	1.0	18' EWLL - 1' NSPL of Alley 34' WELL in Standpipe	NO METER	Retrofit
80	MORRISON AV	1.0	5' WELL, 2' SSPL	NO METER	Retrofit
3751	RIO LINDA BL			NO METER	Retrofit
3822	RIO LINDA BL	0.75	22' NSLL - 27' SNLL - on PL of Alley	NO METER	Retrofit
3824	RIO LINDA BL	0.75	29' SNLL on WPL of Alley	NO METER	Retrofit
3828	RIO LINDA BL	1.0	Same & 1' WWPL Alley	NO METER	Retrofit
3832	RIO LINDA BL	1.0	14' SNLL, 1' EWLL	NO METER	Retrofit
3836	RIO LINDA BL	1.0	28' SSSL - EPL of Alley	NO METER	Retrofit
3840	RIO LINDA BL		3' SNLL - EPL of Alley	NO METER	Retrofit
3947	RIO LINDA BL			NO METER	Retrofit
4261	TAYLOR ST	4.0	18' EWC Taylor St - 20' SSC Naruth Wy	NO METER	Retrofit - 4"
3812	TAYLOR ST	0.75	17' EEC of Taylor - On NPL of Alley	NO METER	Retrofit
3840	TAYLOR ST	0.75	53' EEPL of Taylor - NPL of Alley	NO METER	Retrofit
3800	VERN ST		7 1/2' WELL, 3' SSPL of Alley	NO METER	Retrofit
3801	VERN ST	1.0	1)61' WWC on SPL O/ALLEY 2) 60' WWC of Vern SPL o/alley in SP	NO METER	Retrofit
3820	VERN ST		6' WELL - 48' EWLL - 2' SSSL	NO METER	Retrofit
3835	VERN ST			NO METER	Retrofit
700	WILLIAMS AV	1.0	3' WELL - on NPL of Williams	NO METER	Retrofit
704	WILLIAMS AV	1.0	44' EWLL - 8' WELL - 1' SSPL Williams Avenue	NO METER	Retrofit
708	WILLIAMS AV	1.0	Same & 1' NNPL of Williams	NO METER	Retrofit
712	WILLIAMS AV	1.0	Same & 1' SSPL of Williams Avenue	NO METER	Retrofit
720	WILLIAMS AV	1.0	Same - on NPL of Williams	NO METER	Retrofit
724	WILLIAMS AV	1.0	25' EWLL & SPL Williams	NO METER	Retrofit
728	WILLIAMS AV	1.0	Same - 1' SSPL Williams Avenue	NO METER	Retrofit
732	WILLIAMS AV	1.0	6' EWLL - 42' WELL and at SPL of Williams Avenue	NO METER	Retrofit

APPENDIX B

Water Book Legend

Water Book Page Q18

Water Book Page R22

Water Book Page S21

Water Book Page S22

Legend

Water Mains

-  City owned
-  Owned by another water agency; Privately owned
-  Abandoned Mains

Valves

- Gate Valve; Gate Valve with Bypass
- ⌘ Butterfly Valve
- Blow Off Valve
- ◀ Air Release Valve
- ∇ Check Valve
- Service Valve
- Wheel Valve
- ✂ Abandoned Valves

Fittings

- ⊥ End of Main
- ┆ Reducer

Hydrants

- ⌘ Double Pumper Hydrant
- ⌘ Private Hydrant (serviced by Owner)
- Standard Hydrant
- ◇ Wharf Hydrant

- ⊕ Wells
- ⊙ Manholes
- Reservoirs
- ⊠ Water Pump
- ⊞ Water Meter Box
- ⊞ Water Sampler
- Ⓢ Water Test Station
- ◁ Breakpoint
-  Water Enclosed Storage Facility

Cadastral

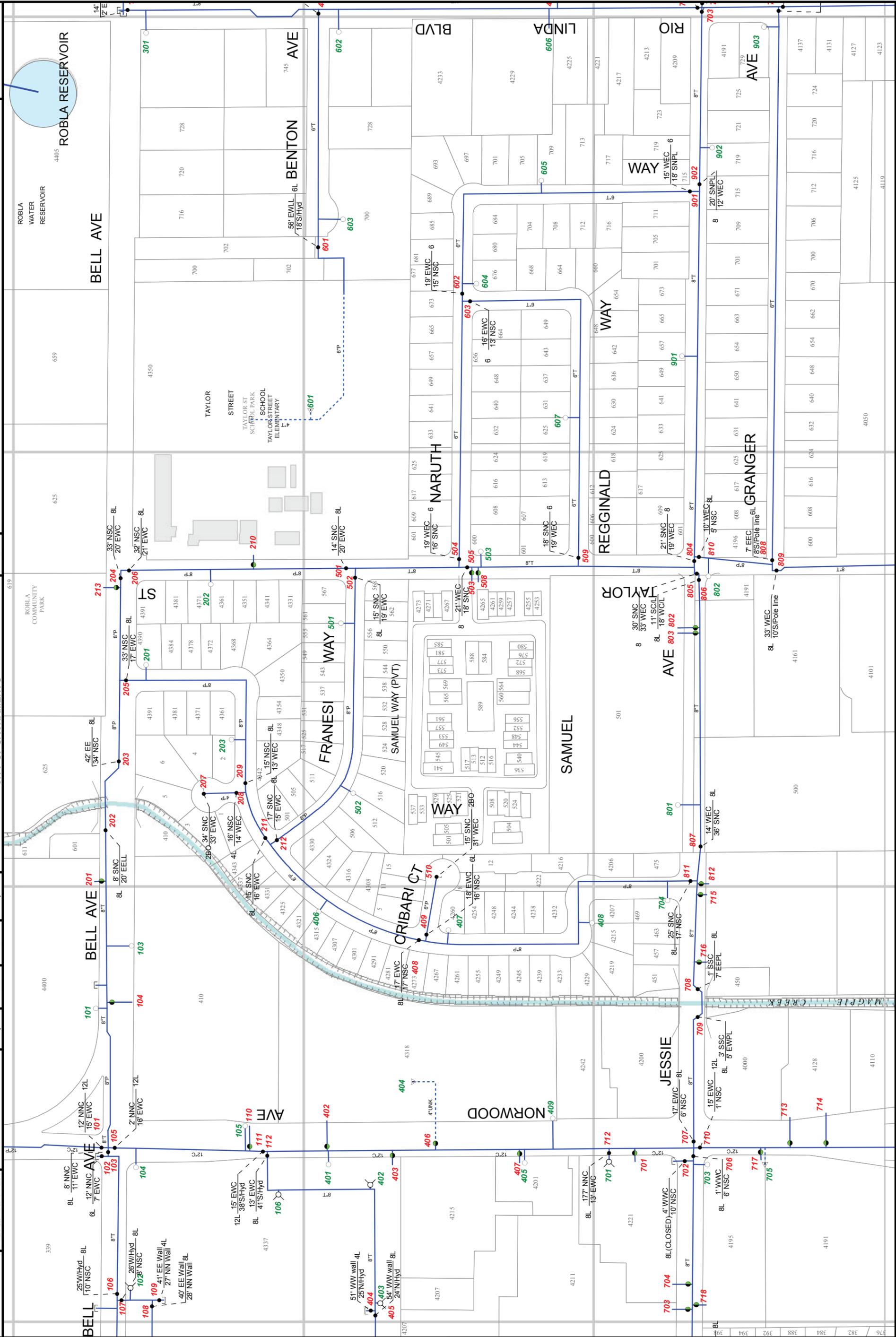
-  Lot Lines
-  Right of Way Line
-  Building Outline
-  City of Sacramento Boundary
-  Rails
-  Stream Banklines
-  Major Levee
-  Hold Harmless Agreement

ABBREVIATIONS

NE	NORTH OF EAST
SN	SOUTH OF NORTH
NS	NORTH OF SOUTH
NNC	NORTH OF NORTH CURB
SSC	SOUTH OF SOUTH CURB
NSC	NORTH OF SOUTH CURB
SNC	SOUTH OF NORTH CURB
WWC	WEST OF WEST CURB
EEC	EAST OF EAST CURB
EW	EAST OF WEST CURB
WEC	WEST OF EAST CURB
SC	SOUTH CURB
NC	NORTH CURB
EC	EAST CURB
WC	WEST CURB
NNLL	NORTH OF NORTH LOT LINE
SSLL	SOUTH OF SOUTH LOT LINE
EELL	EAST OF EAST LOT LINE
WWLL	WEST OF WEST LOT LINE
NSLL	NORTH OF SOUTH LOT LINE
SNLL	SOUTH OF NORTH LOT LINE
EWLL	EAST OF WEST LOT LINE
WELL	WEST OF EAST LOT LINE
NNPL	NORTH OF NORTH PROPERTY LINE
SSPL	SOUTH OF SOUTH PROPERTY LINE
EEPL	EAST OF EAST PROPERTY LINE
WWPL	WEST OF WEST PROPERTY LINE
NSPL	NORTH OF SOUTH PROPERTY LINE
SNPL	SOUTH OF NORTH PROPERTY LINE
EWPL	EAST OF WEST PROPERTY LINE
WEPL	WEST OF EAST PROPERTY LINE
NPL	NORTH PROPERTY LINE
SPL	SOUTH PROPERTY LINE
EPL	EAST PROPERTY LINE
WPL	WEST PROPERTY LINE
(N)(S)(E)(W)	LOOKING THIS PARTICULAR DIRECTION
C/L	CENTERLINE
SVC	SERVICE
L	LINE
LH	LEFT HAND
RH	RIGHT HAND
Cor.	CORNER

PIPE MATERIAL

C	Cast Iron
T	Transite Pipe
G	Galvanized
P	Plastic
CU	Copper
W	Wrought Iron
S	Steel
BT	Boiler Tubing
WS	Welded Steel
RS	Riveted Steel
LB	Steel Lockbar Joint
SM	Steel Mortar Lined and Coated
SC	Steel Coal-Tar Coated and Lined
SMC	Steel Mortar Lined and Coal-Tar Coated
SMA	Steel Cement Mortar Lined and Asphalt Mastic Coated
CCP	Concrete Cylinder Pipe
D	Ductile Iron
RW	Redwood
UNK	Unknown



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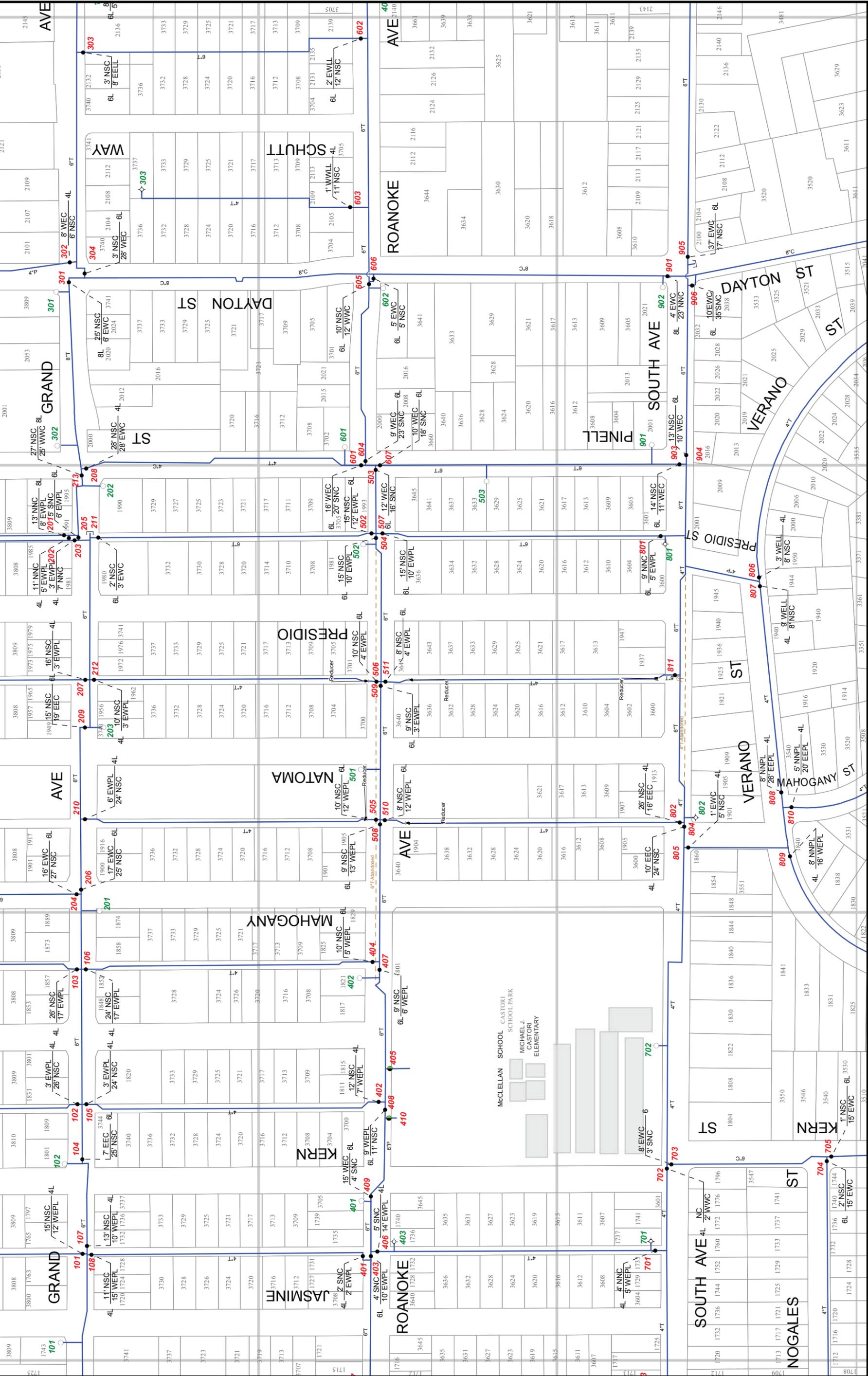
VALVES									
New ID	Old ID	Old Map	Size	Open	Type	Turns	SVC Type	Location	SVC Address
101	61	49N	12L		GTVLV			12' NNC Bell Av - 15' EWC Norwood Av	
102	53	49N	6L		GTVLV			12' NNC Bell Av - 7' EWC Norwood Av	
103	52	49N	8L		GTVLV			8' NNC Bell Av - 11' EWC Norwood Av	
104	155	49N	8L		SVVLV		FS	F.S. to 410 Bell Ave - 17' East of hydrant 104 - 8' SNC Bell Ave	410 Bell Ave
105	60	49N	12L		GTVLV			2' NNC Bell Av - 16' EWC Norwood Av	
106	128	49N	8L		GTVLV			25' West of hydrant 102 - 10' NSC Bell Ave.	
107	129	49N	8L		GTVLV			26' West of hydrant 102 - 8' NSC Bell Ave.	
108	130	49N	8L		GTVLV			40' EE Wall - 28' NN Wall 4339 Sacramento Place	
109	131	49N	4L		GTVLV			41' EE Wall 4339 - 27' NN Wall Sacramento Place	
110	156	49N	6L		SVVLV		DS	D.S. to 410 Bell Ave - 17' EWC Norwood Ave - 57' NSPL 410 Bell Ave	410 Bell Ave
111	135	49N	12L		GTVLV			15' EWC Norwood Ave. - 38' South of hydrant 105	
112	134	49N	8L		GTVLV			13' EWC Norwood Ave. - 41' South of hydrant 105	
201	136	49N	8L		SVVLV			5' SNC - 102' WELL 415 Bell Avenue	403 Bell Ave
202	122	48N	8L		GTVLV			8' SNC Bell Ave - 20' EELL 415 Bell Ave	
203	121	48N	8L		GTVLV			42' EE end of bridge - 34' NSC	
204	123	48N	8L		GTVLV			33' NSC Bell Ave - 20' EWC Taylor St	
205	120	48N	8L		GTVLV			33' NSC Bell Ave - 17' EWC Burgess Ct.	
206	124	48N	8L		GTVLV			32' NSC Bell Ave - 21' EWC Taylor St	
207	117	48N	2BO		BLVLV			34' SNC - 33' EWC Bogle Ct.	
208	118	48N	4L		GTVLV			16' NSC Burgess Dr - 14' WEC Bogle Ct.	
209	119	48N	8L		GTVLV			15' NSC Burgess Dr - 13' WEC Bogle Ct.	
210	126	48N	8L		SVVLV		FS	Fire Svc- 17' SNLL 4341 Taylor - 21' EWC Taylor St	
211	116	48N	8L		GTVLV			15' SNC Franesi Wy - 16' EWC Burgess Dr.	
212	115	48N	8L		GTVLV			17' SNC Franesi Wy - 15' EWC Burgess Dr.	
213			4L		SVVLV		IS	33' NSC BELL AVE. - 3' EWC TAYLOR ST.	
402	67	49N	4L		SVVLV		DS	Dom Svc - 17' North of hydrant 401 - 16' EWC Norwood Av	
403	150	49N	8L		SVVLV		FS	Fire Svc-13' EWC Norwood Ave - 48' SNLL 4215 Norwood Ave	4201 Norwood Ave
404	133	49N	4L		GTVLV			51' WW Wall 4301 - 25' North of hydrant 403	
405	132	49N	8L		GTVLV			54' WW Wall 4301 - 24' North of hydrant 403	
406	68	49N	4L		SVVLV		DS	Dom Svc - 35' SN Wall 4215 - 16' EWC Norwood Av	
407	151	49N	6L		SVVLV		FS	Fire Svc-13' EWC Norwood Ave - 46' SN Wall 4201	
408	0				GTVLV			17' EWC - 17' NSC	
409	0				GTVLV			18' EWC - 16' NSC	
501	112	48N	8L		GTVLV			14' SNC Franesi Wy - 20' EWC Taylor St.	
502	113	48N	8L		GTVLV			15' SNC Franesi Wy - 19' EWC Taylor St.	
503	109	48N	8L		SVVLV		FS	18' EWC Taylor St - 4' NSC Naruth Wy	
504	21	48N	6		GTVLV			19' WEC Taylor St - 16' SNC Naruth Wy	
505	22	48N	8		GTVLV			21' WEC Taylor St - 18' SNC Naruth Wy	
508	108	48N	4L		SVVLV		DS	18' EWC Taylor St - 20' SSC Naruth Wy	
509	25	48N	6		GTVLV			18' SNC Regginald Wy - 19' WEC Taylor St	
510	0				BLVLV			15' SNC - 31' WEC	
601	19	48N	6L		GTVLV			56' EWLL 700 Benton Av - 18' South of pole line	
602	24	48N	6		GTVLV			19' EWC Regginald Wy - 15' NSC Naruth Wy	
603	23	48N	6		GTVLV			16' EWC Regginald Wy - 13' NSC Naruth Wy	
701	0	49N	4L		SVVLV			10' South of hydrant 701 - 13' EWC Norwood	4221 Norwood Ave
702	38	49N	8L	CLOSED	GTVLV			4' WWC Norwood Av - 10' NSC Jessie Av (Closed)	
703	148	49N	4L		SVVLV		DS	Dom Svc-141' EEC Du Bois Ave - 7' NSC Jessie Ave	
704	149	49N	8L		SVVLV		FS	Fire Svc-197' EEC Du Bois Ave - 7' NSC Jessie Ave	
706	39	49N	8L		GTVLV			1' WWC Norwood Av - 6' NSC Jessie Av	
707	59	49N	8L		GTVLV			17' EWC Norwood Av - 6' NSC Jessie Av	
708	123	49N	8L		GTVLV			1' SSC Jessie - 7' EEPL Magpie Creek	
709	122	49N	8L		GTVLV			3' SSC Jessie - 5' EWPL Magpie Creek	
710	58	49N	12L		GTVLV			15' EWC Norwood Av - 1' NSC Jessie Av	
712	0	49N	8L		GTVLV			177' NNC OF JESSIE AVE - 13' EWC OF NORWOOD AVE	
713			8L		SVVLV		FS	11' SNLL of 4110 Norwood Ave - 22' EWC Norwood Ave	
714			8L		SVVLV		FS	100' SNLL of 4110 Norwood Ave - 22' EWC of Norwood Ave	
715			4L		SVVLV		DS	29' EWC of Burgess Dr. - 37' SNC of Jessie Ave.	
716			8L		SVVLV		FS	151' WWC of Burgess Dr. - 31' SNC Jessie Ave	
717			6L		SVVLV		FS	149' SSC Jessie Ave - 14' EWC Norwood Ave	4195 Norwood Ave
718			8R		SVVLV		FS	45' EWLL - 6' NSC of Jessie Ave	4195 Norwood Ave
802	18	48N	6L		SVVLV		FS	Fir Service - 10' NSPL Jessie Av - 138' WELL 501 Jessie Avenue	501 Jessie Ave
803	17	48N	4L		SVVLV		DS	Dom Service - 4' NSC Jessie Av - 144' WELL 501 Jessie Ave	501 Jessie Ave
804	26	48N	8		GTVLV			21' SNC Jessie Av - 19' WEC Taylor St	
805	27	48N	8		GTVLV			30' SNC Jessie Av - 33' WEC Taylor St	
806	1	48N	8L		GTVLV			11' SC/L Jessie Av - 18' WC/L Taylor St	
807	128	48N	8L		GTVLV			14' WEC Burgess Dr. - 36' SNC Jessie Ave - 76' WWLL 501 Jessie Ave	
808	2	48N	6L		GTVLV			7' EEC - 8' South of pole line	
809	125	48N	8L		GTVLV			33' WEC - 10' South of pole line	
810			8L		GTVLV			10' WEC Taylor St. - 5' NSC Jessie Ave.	
811	127	48N	8L		GTVLV			25' SNC & 17' NSC Jessie Ave - 78' WWLL 501 Jessie Ave	
812			8L		SVVLV		FS	3' WEC of Burgess Dr. - 3' of Jessie Ave.	
901	28	48N	6		GTVLV			18' SNPL - 15' WEC Naruth Wy	
902	29	48N	8		GTVLV			20' SNPL - 12' WEC Jessie Ave	

HYDRANTS								
New ID	Old ID	Old Map	Make	Type	Pic Code	Valve Distance	Main Distance	Location
101	31	49N	G	STD	G2-4 1/2T (W)	9' S	10' N	N side Bell Av - In front of 401
102	77	49N	AD	DP	AD3-5 1/4K	25' W	26' E	S Side Bell Ave. - 296' WWC Norwood Ave.
103	86	49N	M	STD	M7-5 1/4L	72' N	73' S	S Side Bell Ave - 250' WW edge canal
104	37	49N	K	STD	K11-5 1/4H	26' E	27' W	SW Cor Bell & Norwood Avs
105	87	49N	M	STD	M7-5 1/4L	67' W	68' E	E Side Norwood Ave - 72' NSLL 410 Bell Ave
106	75	49N	AD	DP	AD3-5 1/4K	10' E	11' N	NE Cor Atp. #49 Bldg #4305 Sac. Place
201	62	48N	K	STD	K11-5 1/4H	23' E	24' W	SE Cor. Burgess Dr & Bell Ave
202	63	48N	K	STD	K11-5 1/4H	26' W	27' E	W Side Taylor St - NLL 4361
203	61	48N	K	STD	K11-5 1/4H	21' N	22' S	N Side Burgess Dr - On ELL #2 Bogle Ct
301	20	48N	D	STD	D1-4 1/2H	4' E	7' W	SW Cor Rio Linda Blvd & Bell Av
401	36	49N	K	STD	K4-4 1/2H	18' E	20' W	W side Norwood Av - 143' NSLL 4337 Norwood Ave

VALVES									
New ID	Old ID	Old Map	Size	Open	Type	Turns	SVC Type	Location	SVC Address
101	146	46N	2BO		BLVLV			24' SNC Westley Ct - 31' WEC Westley Ct.	
102	145	46N	6L		GTVLV			12' EWC Astoria St - 15' SNC Westley Ct.	
103	144	46N	6L		GTVLV			13' EWC Astoria St - 16' SNC Westley Ct.	
104	70	42N	6L		GTVLV			1' WELL 2251 Dorothy June Way - 21' North of pole line	
105	0	41N	6L		GTVLV			16'EWC - 5'S OF HYDRANT 102	
106			8L		GTVLV				
107			6L		GTVLV				
108			8L		GTVLV				
109			6L		GTVLV				
110			8L		GTVLV				
111			8L		GTVLV				
112					GTVLV				
113					GTVLV				
114			6L		GTVLV				
201			8R		GTVLV				
202	36	42N	6L		GTVLV			11' SNC Mogan Av - 22' EWC Winters St	
203			6L		SVVLV		FS	18' SNC - 45' EE Side of Driveway	
401	34	42N	6L		GTVLV			4'EWLL of 2332 - 20'N OF POLE	
402	86	41N	6L		GTVLV			12' North pole line - 5' EWLL 2216 North Av	
403	83	41N	6L		GTVLV			11' EWPL - 10' North of pole line	
404	85	41N	6L		GTVLV			10' North of pole line - 17' WPL 2144 North Av	
405	88	41N	6L		GTVLV			10' North of pole line - 9' EWLL 2216 North Av	
407	84	41N	6L		GTVLV			5' North of pole line - 14' EWPL 2144 North Av	
410	14	42N	2BO		BLVLV		BO	20' EWPL Ripley St - 11' SSPL Piercy Wy (Buried)	
411					GTVLV			(2008 LIYA SILCHUK, DWN# 51-2508 PROJECT)	
412					GTVLV			(2008 LIYA SILCHUK, DWN# 51-2508 PROJECT)	
413					BLVLV		BO	(2008 LIYA SILCHUK, DWN# 51-2508 PROJECT)	
501	35	42N	6L		GTVLV			72' EEC Winters St - 1' SSC North Av	
502	37	42N	6L		GTVLV			18' EELL #2412 - 2' SSC North Av	
503	44	42N	6L		GTVLV			14' NSC North Av - 38' WWC Winters St	
506	41	42N	2WE		WHVLV			3' SNLL 3929 Winters St - 6.5' WWC Winters St	
507	40	42N	2		GTVLV			6.5' SNLL - 17' EELL 3929 Winters St	
508	42	42N	2(CLOSED)		GTVLV			8.5' SNLL - 17' EELL 3929 Winters (Closed & Plugged)	
510			6L		SVVLV		FS	11'NSC - 20'EWLL 2442 NORTH AVE.	
601	25	42N	6L		GTVLV			36' WEC Tate St - 12' NSC North Av	
602	66	42N	6L		GTVLV			23' NSC North Ave. - 12' WWLL 2504 North Ave.	
603	61	42N	6L		GTVLV			10' NSC North Av - 39' WEC Tate St	
604	67	42N	6L		GTVLV			20' NSC - 20' W of Pole Line of Talent St.	
701	23	42N	2		GTVLV			8' EWPL Ripley St - 41' SNLL 3909 Ripley St	
702	24	42N	2WE		WHVLV			3' NSLL 3924 Ripley St - 2' EWLL 3924 Ripley St	
703	54	42N	6L		GTVLV			24' S of N Pole Line - 30' W of East pole line	
704	63	41N	6L		GTVLV			7' NSC Harris Av - 10' EWPL Astoria St	
705	31	42N	4L		GTVLV			28' South Pole line - 45' West Pole line	
707	139	41N	6L		GTVLV			7' EWPL Harris Av - 3' NSC Astoria St	
708	62	41N	6L(CLOSED)		GTVLV			10' EWPL - 1' NSPL Harris Av	
709			6L(CLOSED)		GTVLV			Closed and painted red - 36' WEC - 15' NNC of Cul-de-sac	
801	64	42N	6L		SVVLV		FS	Fire Svc - 44' WEC Winters St. - 12' NSLL 3904 Winters St.	3904 Winters St
802	38	42N	2WE		WHVLV			4' NSPL 3903 Winters St - 4' WWPL Winters St	
803	30	42N	2		WHVLV				
804	65	42N	6L		SVVLV		FS	Fire Svc - 44' WEC Winters St. - 2' SNLL 3900 Winters St.	3900 Winters St
805	28	42N	6L		GTVLV			24' EWLL - 15' SS wal 3900l	
806	27	42N	4L		GTVLV			51' EWC Winter St - 17' SS wall 3900	
807	29	42N	4L		GTVLV			7' EWC Winters - 20' SS wall 3900	
808	49	42N	6(CLOSED)		GTVLV			24' EWC Winters St - 39' SS wall 3900	
901	77	42N	6L		SVVLV		FS	Fire Svc-106' WWC Talent St - 17' SNC Harris Ave	
902	69	42N	6L		GTVLV			21' SNC Harris Ave. - 19' EWC Talent St.	
903	62	42N	6L		GTVLV			39' South of hydrant 904 - 15' WEC Tate St	
904	50	42N	6		GTVLV			16' SNC Harris Av - 4' EWC	
905	26	42N	4R(CLOSED)		GTVLV			31' WEC - 43' South of hydrant 904 (Closed B.O.)	

HYDRANTS								
New ID	Old ID	Old Map	Make	Type	Pic Code	Valve Distance	Main Distance	Location
101	71	46N	M	STD	M5-4 1/2H	22' S	23' N	NW Cor. Granville & Granville Ct.
102	41	41N	M	STD	M4-4 1/4G	17' E	21' W	W side Astoria St - 1' SLL #4101
103			M	STD	M7-5 1/4L	21' E	22' W	Dorothy June Wy - 30' WWLL 2300 Dorothy June Wy
104			M	STD	M7-5 1/4L	21' S	22' N	
105			M	STD	M7-5 1/4L	21' E	22' W	
106			M	STD	M7-5 1/4L	21' S	22' N	
201	10	42N	M	STD	M4-4 1/4G	30' E	31' W	W side Winters St bet Rene Av & Dorothy June Wy
202	8	42N	M	STD	M4-4 1/4G	7' S	11' N	N side Mogan Av (E-W) - on ELL 2305 Mogan Wy
203			M	STD	M7-5 1/4L	24' S	25' N	
204			M	STD	M7-5 1/4L	30' S	31' N	
401	42	41N	M	STD	M4-4 1/4G	8' W	53' SE	NE Cor North Av & Astoria St
402	22	41N	K	STD	K-81-D 5 1/4	10' N	11' S	(HYD REPL. 2013) SW Cor North Av & Astoria St (RO128526)
403		42N	M	STD	M8 5-1/4H	12' N	16' S	(HYD REPL. 2009) (O.L.) S side North Av - on ELL 2324 North Av
501	12	42N	M	STD		28' E	29' W	SW Cor. Morgan & Winters
502	11	42N	W	STD		8' E & 17' N	15' S	Intersection of Winters & North
601	22	42N	M	STD	M4-4 1/4G	13' N	16' S	SW Cor Tate St & North Av - 5' WWPL Tate St
602	2	42N	AD	STD	AD2-5 1/4H	27' N	28' S	S side North Av - 15' WWLL #2504
603	4	42N	AD	STD	AD2-5 1/4H	40' W	41' E	E Side Tate St - Across from 3921 Tate St.
701	6	42N	WH	WH	4R(4x2-2 1/2)	Use GV 29 31	54' S	SE Cor Harris Av & Ripley St
702	18	41N	WH	WH	4R(4x2 1/2)	Use GV 704,707	708,805	SE Cor. Harris Av & Astoria St
703	1	42N	WH	WH	4R(4x2 1/2)	2' N	EOM	E side Ripley St - 83' S of Harris St
801	13	42N	K	STD	K11-5 1/4H	51' W	52' E	E side Winters St - 8' SNLL 3900 Winters St
901	5	42N	AD	PRIV	AD2-5 1/4H	135' W	136' E	108' EEC Tate St - NWC Storage Bldg M
902	17	42N	W	STD	W1-5 1/4H	22' S	23' N	NW Cor Harris Av & Talent St
903	25	42N	AD	STD	AD2-5 1/4H	26' S	27' N	N.side Harris Ave - 108' WWC Talent St

Map Created: 2/24/2014 200 Feet



VALVES								
New ID	Old ID	Old Map	SizeOpen	Type	Turns	SVC Type	Location	SVC Address
101	169	41N	4L	GTVLV			26' NSC Grand Av - 17' EWPL alley (between Lily & Mahogany Sts)	
102	168	41N	4L	GTVLV			3' EWPL alley (between Kern St & Lily St) - 26' NSC Grand Av	
103	166	41N	6L	GTVLV			7' EEC Kern St - 25' NSC Grand Av	
104	35	41N	4L	GTVLV			15' NSC - 7' WEPL Grand Av	
105	170	41N	4L	GTVLV			24' NSC Grand Av - 17' EWPL alley (between Lily & Mahogany Sts)	
106	167	41N	4L	GTVLV			3' EWPL alley (between Kern St & Lily St) - 24' NSC Grand Av	
107	36	41N	4L	GTVLV			13' NSC - 10' WEPL Grand Av	
108	135	41N	4L	GTVLV			11' NSC Grand Av - 15' EWPL alley (Jasmine & Kern Sts)	
201	112	41N	8L	GTVLV			13' NNC Grand Av - 8' EWPL alley	
202	113	41N	4L	GTVLV			11' NNC Grand Av - 5' EWPL alley	
203	44	41N	4L	GTVLV			3' EWPL - 7' NNC 1985 Grand Av	
204	171	41N	6L	GTVLV			16' EWC Mahogany St - 27' NSC Grand Av	
205	176	41N	6L	GTVLV			5' SNC Grand Av - 6' EWPL alley (between Presidio & Pinell Sts)	
206	172	41N	6L	GTVLV			17' EWC Mahogany St - 25' NSC Grand Av	
207	178	41N	4L	GTVLV			28' NSC Grand Av (W) - 28' EWC Pinell St (S)	
208	174	41N	6L	GTVLV			15' NSC Grand Av - 19' EEC Natoma Wy	
209	173	41N	4L	GTVLV			6' EWPL alley (between Mahogany St & Natoma Wy) - 24' - NSC Grand Av	
210	42	41N	4L	GTVLV			16' NSC - 3' EWPL 1962 Grand Av	
211	43	41N	4L	GTVLV			10' NSC - 3' EWPL 1962 Grand Av	
212	45	41N	6L	GTVLV			2' NSC - 3' EWC Grand Av	
213			8L	GTVLV				
301	179	41N	8L	GTVLV			25' NSC Grand Av - 6' EWC Dayton St	
302	37	41N	4L	GTVLV			6' NSC Grand Av - 8' WEC Dayton	
303	49	41N	6L	GTVLV			3' NSC - 8' EELL 2131 Grand Av	
304	116	41N	6L	GTVLV			3' NSC Grand Av - 28' WEC Dayton St	
401	20	41N	4L	GTVLV			2' SNC Roanoke Av - 2' EWPL alley (Jasmine & Kern Sts)	
402	118	41N	4L	GTVLV			12' NSC Roanoke - 7' WEPL alley	
403	117	41N	6L	GTVLV			4' SNC Roanoke Av - 10' EWPL alley	
404	119	41N	6L	GTVLV			10' NSC Roanoke - 5' WEPL Roanoke Av	
405	165	41N	4L	SVVLV			64' WWC Lily St - 11' NSC Roanoke Av	
406	19	41N	4L	GTVLV			5' SNC Roanoke Av - 14' EWPL alley (Jasmine & Kern Sts)	
407	120	41N	6L	GTVLV			9' NSC Roanoke Av - 6' WEPL Roanoke Av	
408			6L	GTVLV				
409			6L	GTVLV				
410			6L	SVVLV		PVT FH	8' NSC of Roanoke Ave - 13' WEPL of alley	
502	195	41N	6L	GTVLV			15' NSC Roanoke Av - 12' EWPL Roanoke Av	
503	193	41N	6L	GTVLV			12' WEC Pinell St - 16' SNC Roanoke Av	
504	197	41N	6L	GTVLV			15' SNC Roanoke Av - 10' EWPL 1993 Roanoke Av	
505	121	41N	6L	GTVLV			10' NSC Roanoke Av - 12' WEPL Roanoke Av	
506	199	41N	6L	GTVLV			10' NSC Roanoke Av - 4' EWPL alley	
507	122	41N	6L	GTVLV			9' NSC Roanoke Av - 13' WEPL Roanoke Av	
508	125	41N	6L	GTVLV			9' NSC Roanoke Av - 3' EWPL alley	
509	196	41N	6L	GTVLV			15' NSC Roanoke Av - 10' EWPL 1993 Roanoke Av	
510	123	41N	6L	GTVLV			8' NSC Roanoke Av - 12' WEPL 1905 Roanoke Av	
511	200	41N	6L	GTVLV			8' NSC Roanoke Av - 4' EWPL alley	
601	25	41N	4L	GTVLV			1' WLL 2109 - 11' NSC of Roanoke Av	
602	27	41N	6L	GTVLV			2' EWLL 2137 - 12' NSC of Roanoke Av	
603	192	41N	6L	GTVLV			16' WEC Pinell St - 21' SNC Roanoke Av	
604	191	41N	6L	GTVLV			14' WEC Pinell St - 23' SNC Roanoke Av	
605	190	41N	6L	GTVLV			10' NSC Roanoke Av - 12' WWC Dayton St	
606	189	41N	6L	GTVLV			5' EWC Dayton St - 5' NSC Roanoke Av	
607	194	41N	6L	GTVLV			10' WEC Pinell St - 18' SNC Roanoke Av	
701	14	41N	4L	GTVLV			4' NNC - 5' WEPL 1737 South Av	
702	126	41N	4L	GTVLV			On NC South Av - 2' WWC Kern St	
703	203	41N	6	GTVLV				
704	43	22N	6L	GTVLV			2' NSC Nogales St - 15' EWC Kern St	
705	44	22N	6L	GTVLV			1' NSC Nogales St - 15' EWC Kern St	
801	11	41N	6L	GTVLV			9' NNC South Av - 5' EWPL 3600 Presidio St	
803	13	41N	4L	GTVLV			26' NSC South Av - 16' EEC Mahogany St	
804	128	41N	4L	GTVLV			10' EEC Mahogany Av - 24' NSC South Av	
805	127	41N	4L	GTVLV			1' EWC Mahogany Av - 5' NSC South Av	
806	29	22N	4L	GTVLV			3' WELL 1994 Verano St - 8' NSC Verano St	
807	30	22N	4L	GTVLV			9' WELL 1944 Verano St - 8' NSC Verano St	
808	31	22N	4L	GTVLV			8' NNPL 1840 Verano St - 26' EEPL 1840 Verano St	
809	33	22N	4L	GTVLV			8' NNPL 1840 Verano St - 16' WEPL 1840 Verano St	
810	32	22N	4L	GTVLV			5' NNPL 1840 Verano St - 20' EEPL 1840 Verano St	
811				GTVLV			(measurements needed, valve installed in 1986)	
901	10	41N	8L	GTVLV			4' EWC Dayton St - 23' NNC South Av	
903	24	41N	6L	GTVLV			14' NSC South Av - 11' WEC Pinell St	
904	38	41N	6L	GTVLV			13' NSC South Av - 10' WEC Pinell St	
905	163	41N	6L	GTVLV			7' WEC Dayton St - 16' NSC South Av	
906			6L	GTVLV			10'EWC DAYTON - 35'SNC SOUTH AVE.	

HYDRANTS								
New ID	Old ID	Old Map	Make	Type	Pic Code	Valve Distance	Main Distance	Location
101	44	41N	K	STD	K11-5 1/4H	40' S	41' N	NW Cor Grand Av & Jasmine St
102	45	41N	K	STD	K11-5 1/4H	51' S	52' N	NE Cor Grand Av & Kern St
201	46	41N	K	STD	K11-5 1/4H	30' N	31' S	SW Cor Grand Av & Mahogany St
202	48	41N	K	STD	K11-5 1/4H	30' N	31' S	SW Cor Grand Av & Pinell St
203	47	41N	W	STD	W1-5 1/4H	17' N	18' S	SE Cor Grand Av & Natoma Wy
301	36	41N	M	STD	M2-4 1/4G	27' S	28' N	NW Cor Grand Av & Dayton St
302	35	41N	K	STD	K-81-D	27' S	28' N	(HYD REPL. 2013) NE Cor Grand Av & Pinell St
303	43	41N	WH	WH		3'E & 1'S	3' E	3736 Dayton St easement (rear)
401			M	STD	M2-4 1/4G	2' S	3' N	NW Cor Roanoke Av & Kern St
402	32	41N	M	STD	M2-4 1/4G	32' S	33' N	N side Roanoke Av in front 1821 Roanoke Av
403	8	41N	WH	WH	4R(4x2 1/2)	Use GV14_19	5' E	S side Roanoke Av - on NW Cor 1736 Roanoke Av
501	33	41N	K	STD	K11-5 1/4H	27' S	28' N	NW Cor Natoma Wy & Roanoke Av

VALVES								
New ID	Old ID	Old Map	SizeOpen	Type	Turns	SVC Type	Location	SVC Address
101	156	41N	6L	GTVLV			7' EWC Astoria St - 10' SNC Grand Ave	
102	50	41N	6L	GTVLV			6' EWC Astoria St - 12' NSC Grand Av	
103	13	42N	6L	GTVLV			12' NSC Grand Av - 9' WEC Ripley St	
104	51	41N	6L	GTVLV			8' EWC Astria St - 5' NSC Grand Av	
105	12	42N	6L	GTVLV			10' NSC Grand Av - 8' WEC Ripley St	
106	52	41N	6L	GTVLV			6' SSC Grand Av - 8' EEC	
107			8L	GTVLV			9' NSC of Grand Ave - 7' EWC of Immaculata Way	
108			8L	GTVLV			8' NSC of Grand Ave - 9' EWC of Immaculata Way	
109			2BO	BLVLV		BO	9' EWC of Immaculata Way - 1' NSPL	
201	11	42N	6L	GTVLV			10' NSC Grand Av (E) - 15' EWC Winter St (N)	
202	10	42N	6L	GTVLV			7' NSC Grand Av (E) - 10' EWC Winter St	
203	8	42N	6L	GTVLV			7' NSC Grand Av (E) - 18' EWC Winter St (N)	
204	4	42N	6L	SVVLV		FS	Fire Svc - 128' WELL - 9' SSC 2430 Grand Av	2430 Grand Ave
205	6	42N	6	SVVLV		FS	Fire Svc - 59' EEC Winters St - 6' NSC Grand Av	
206	45	42N	6L	GTVLV			6' SSC Grand Av - 8' EWC Cameron Rd	
207	9	42N	6L(CLOSED)	GTVLV			23' SC/L Grand Av - 13.5' WC/L Winter St (Buried)	
208	7	42N	6	SVVLV		FS	Fire Svc - 59' EEC Winters St - 10' SSC Grand Av	
301	63	42N	6L	SVVLV		FS	Fire Svc - 30' EWLL 2500 Grand Av - 10' SSC Grand Av	2500 Grand Ave
401	186	41N	6L	GTVLV			11' EWC Astoria St - 23' NSC Roanoke Av	
402	17	42N	6L	GTVLV			11' NSC - On EC of Ripley St	
403	198	41N	6L	GTVLV			7' SNC Roanoke Av - 20' EWLL 2225 Roanoke Av	
404	16	42N	6L	GTVLV			1' WEC Ripley St - 10' NSC	
405	187	41N	6L	GTVLV			14' EWC Astoria St - 19' NSC Roanoke Av	
406	18	42N	6L	GTVLV			1' EEC - 10' NSC Ripley St	
407	188	41N	6L	GTVLV			11' EWC Astoria St - 16' NSC Roanoke Av	
408	15	42N	6L	GTVLV			On EC of Ripley St - 9' NSC	
409	20	42N	6L	GTVLV			6' NNC Conifer Wy - 2' WEC Ripley St (N)	
501	46	42N	6L	GTVLV			30' NSC - 8' EWC Roanoke Av	
502	47	42N	6L	GTVLV			5' EWC - 10' NSC Roanoke Av	
503	48	42N	10L	GTVLV			4' NN Fence Line - 8' EW Fence Line Well 155	
701	19	42N	6L	GTVLV			1' EEC Ripley St - 25' SNC Conifer Way	
702	4	41N	6L	GTVLV			13.5' WC/L Astoria St - 52.5' NSLL 3613 Astoria St	
703	3	41N	6L	GTVLV			12' EWC Astoria St - 6' SSC Conifer	
704	52	42N	6L	GTVLV			145' SSC Conifer Wy - 22' EWC Ripley St	
705	1	41N	6L	GTVLV			1' SNLL 3604 Astoria St - 12' EEC Astoria St	
706	2	41N	6L	GTVLV			1' WWC Astoria St - 7' SNLL 3605 Astoria St	
707	202	41N	6L	GTVLV				
708	5	41N	6L	GTVLV			11' NSC South Av - 19' WWC Astoria St	

HYDRANTS								
New ID	Old ID	Old Map	Make	Type	Pic Code	Valve Distance	Main Distance	Location
101	3	42N	K	STD	K8-5 1/4H	13' W	14' E	SE Cor Grand Av & Ripley St
102	16	41N	MH	STD	MH3-4 1/2H	26' N	29' S	SW Cor Grand Av & Astoria St
103			K	STD	K8-5 1/4H	17' W	15' E	
201	18	42N	K	STD	K11-5 1/4H	12' N	16' S	S side Grand Avenue - 127' EEC Winters
202	14	42N	D	STD	D1-4 1/2H	10' E	14' W	SW Cor Cameron Rd & Grand Av
301	19	42N	D	STD	D1-4 1/2H	8' N	12' S	S side Grand Av - ELL 2500 Grand Av
401	24	42N	AD	STD	AD2-5 1/4H	27' S	28' N	NW Cor. Roanoke Ave & Ripley St
402	11	41N	M	STD	M6-5 1/4H	16' W	17' S	SW Cor Astoria St & Roanoke Av
403			AD	STD	B-62-B	12' S	13' N	4' EWLL 2225
501	15	42N	AD	STD	B-84-B	35' S	36' N	NW Cor Cameron Rd & Roanoke Av
701	52	41N	AD	STD	AD2-5 1/4H	18' E	19' W	W Side Astoria St - 33' SSC Conifer Way
702	20	42N	D	STD	D1-4 1/2H	30' E	31' W	SW Cor Conifer Wy & Ripley St
703	1	41N	WH	WH		13'N	14'S	SE Cor South Av & Astoria St
704	53	41N	AD	STD	AD2-5 1/4H	15' N	16' S	SE Cor. South Ave & Astoria St

S22

APPENDIX C

Standard Drawing No. W-105

Standard Drawing No. W-402HB

Standard Drawing No. W-402PR

Standard Drawing No. W-402R

Standard Drawing No. W-403

Standard Drawing No. W-507R

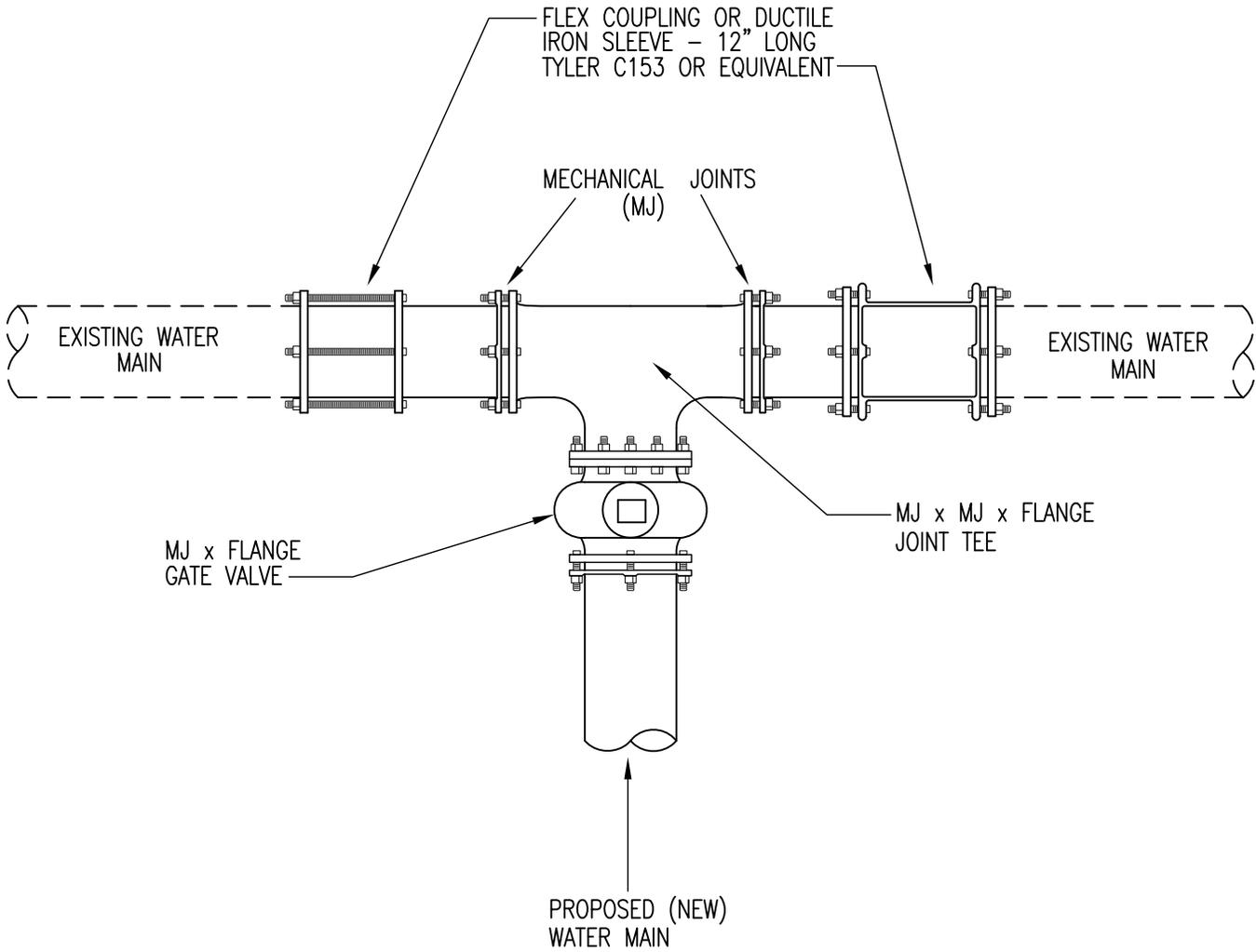
Standard Drawing No. W-515

Drawing No. XXX_30p

Drawing No. YYY_Op1

Drawing No. YYY_Op3

Measurement Examples



NOTE:
 ALL INSTALLATIONS REQUIRE A SHUT DOWN AND
 DEWATERING OF THE EXISTING WATER MAIN.

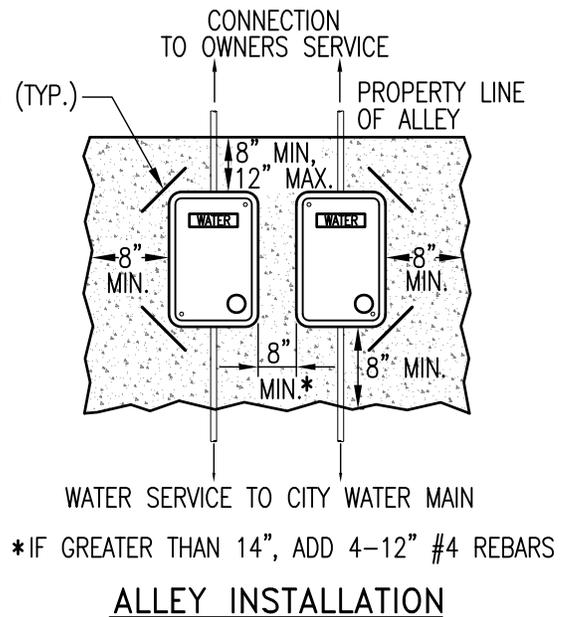
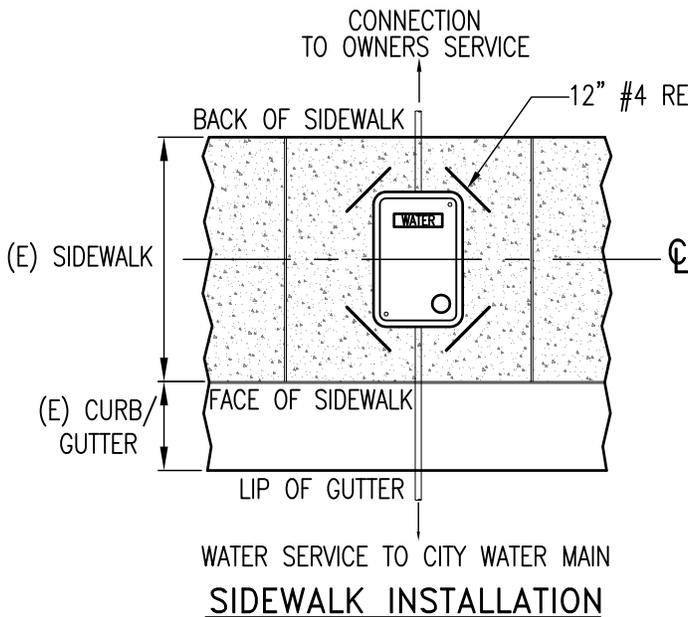
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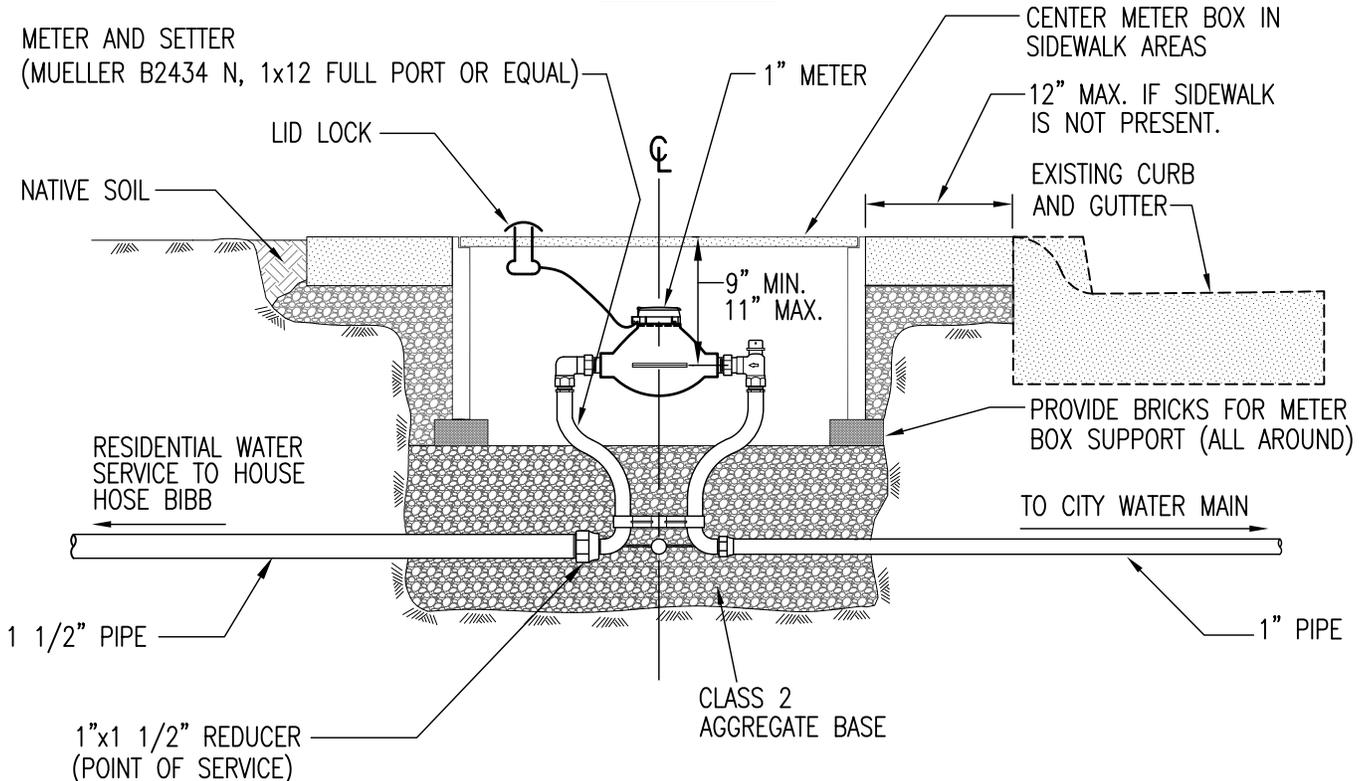
CITY OF SACRAMENTO
 DEPARTMENT OF UTILITIES

WATER MAIN
"CUT-IN" INSTALLATIONS

APPR'D BY: *DOB* NO SCALE
 DATE: MAY 2007 DWG. NO. **W-105**



PLAN VIEW



SECTION VIEW

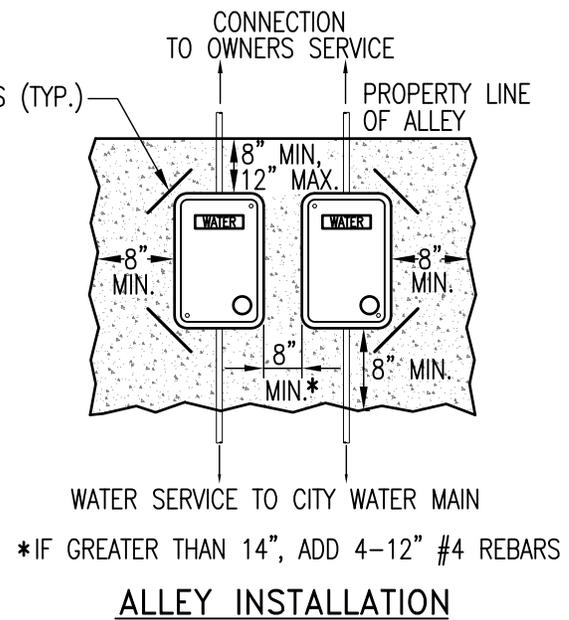
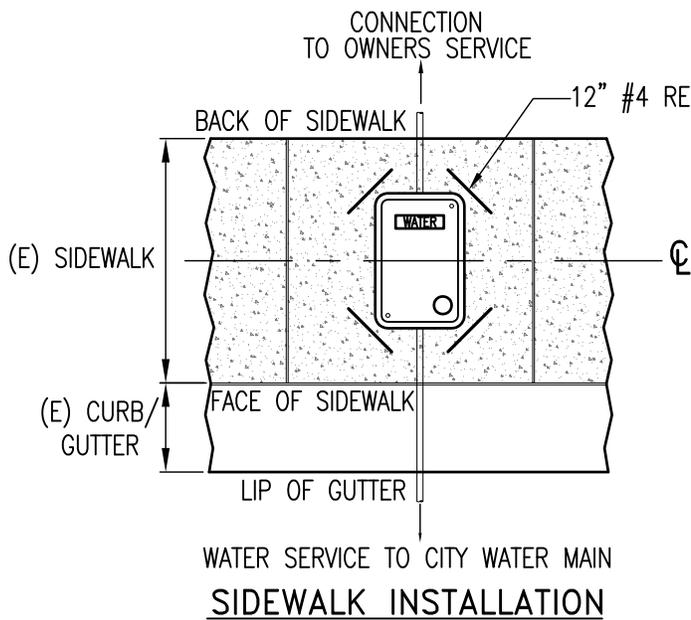
NOTES:

- 1. STRAIGHT, METER VALVE MAY BE USED IN LIEU OF METER SETTER ON SERVICES WITH 20" OR LESS OF COVER.

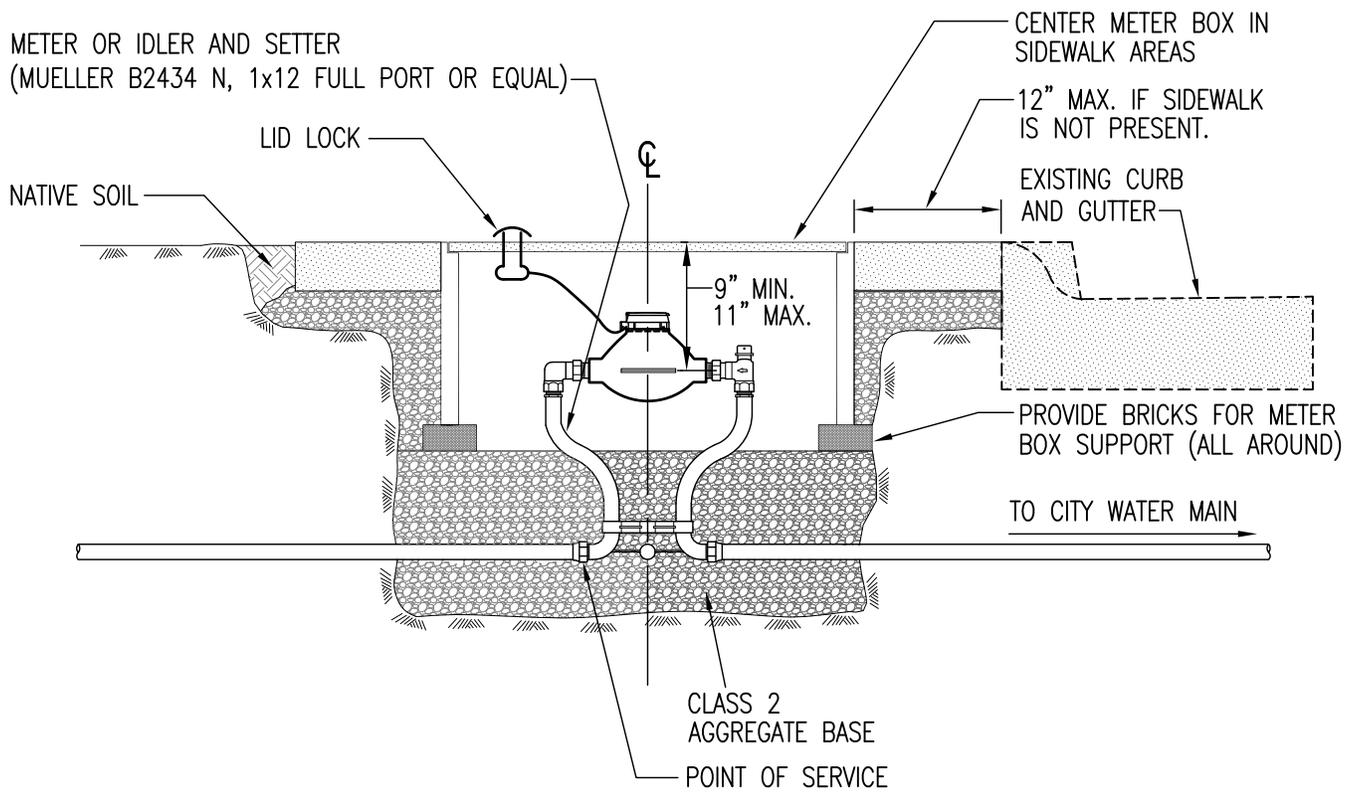
INSTALLATION OF HYBRID WATER SERVICES W/METER BOX AND METER WITHIN EXISTING SIDEWALKS

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PLAN VIEW



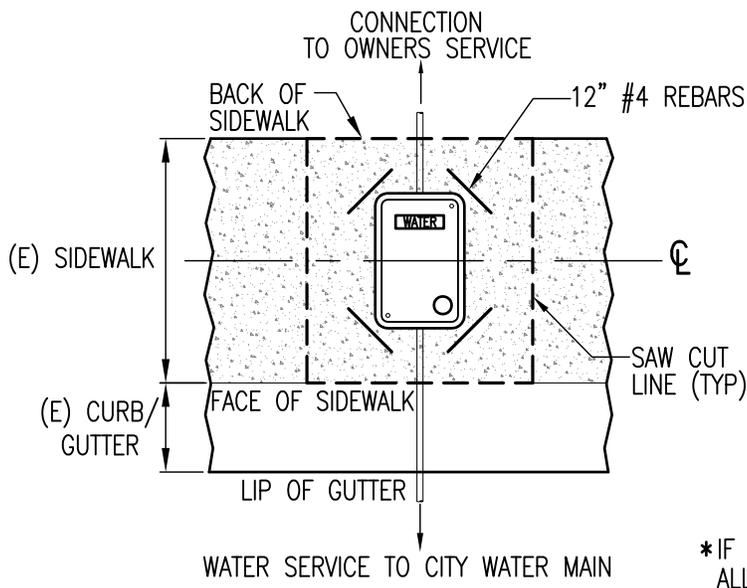
SECTION VIEW

NOTES:

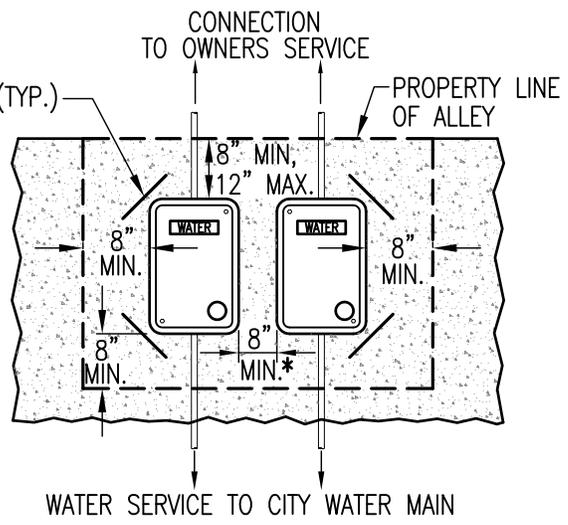
- 1. STRAIGHT METER VALVE MAY BE USED IN LIEU OF METER SETTER ON SERVICES WITH 20" OR LESS OF COVER.

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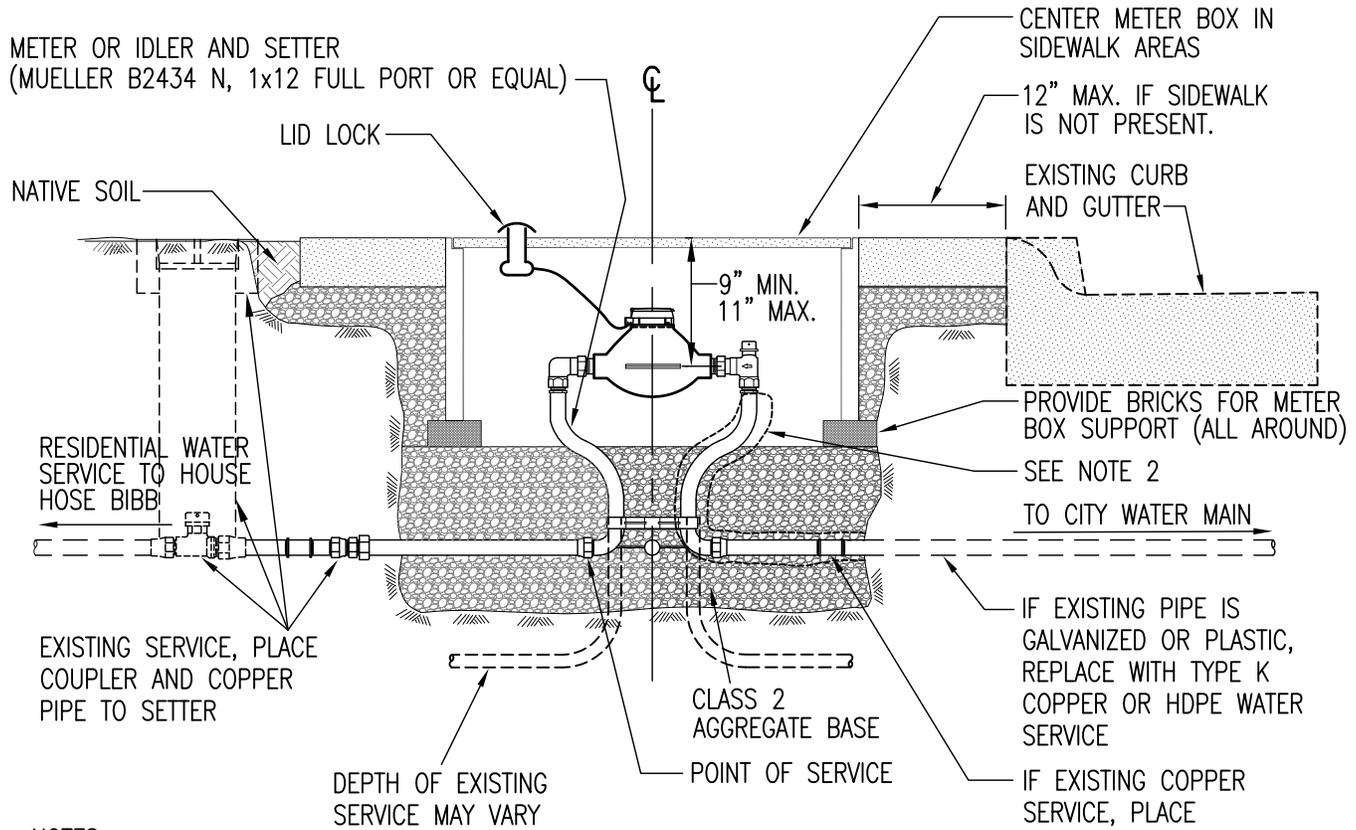
SIDEWALK INSTALLATION



ALLEY INSTALLATION

*IF GREATER THAN 14", ADD REBAR @ ALL BOX CORNERS
ALL METER BOXES IN ALLEYS SHALL BE H20 RATED PER CITY STANDARDS

PLAN VIEW

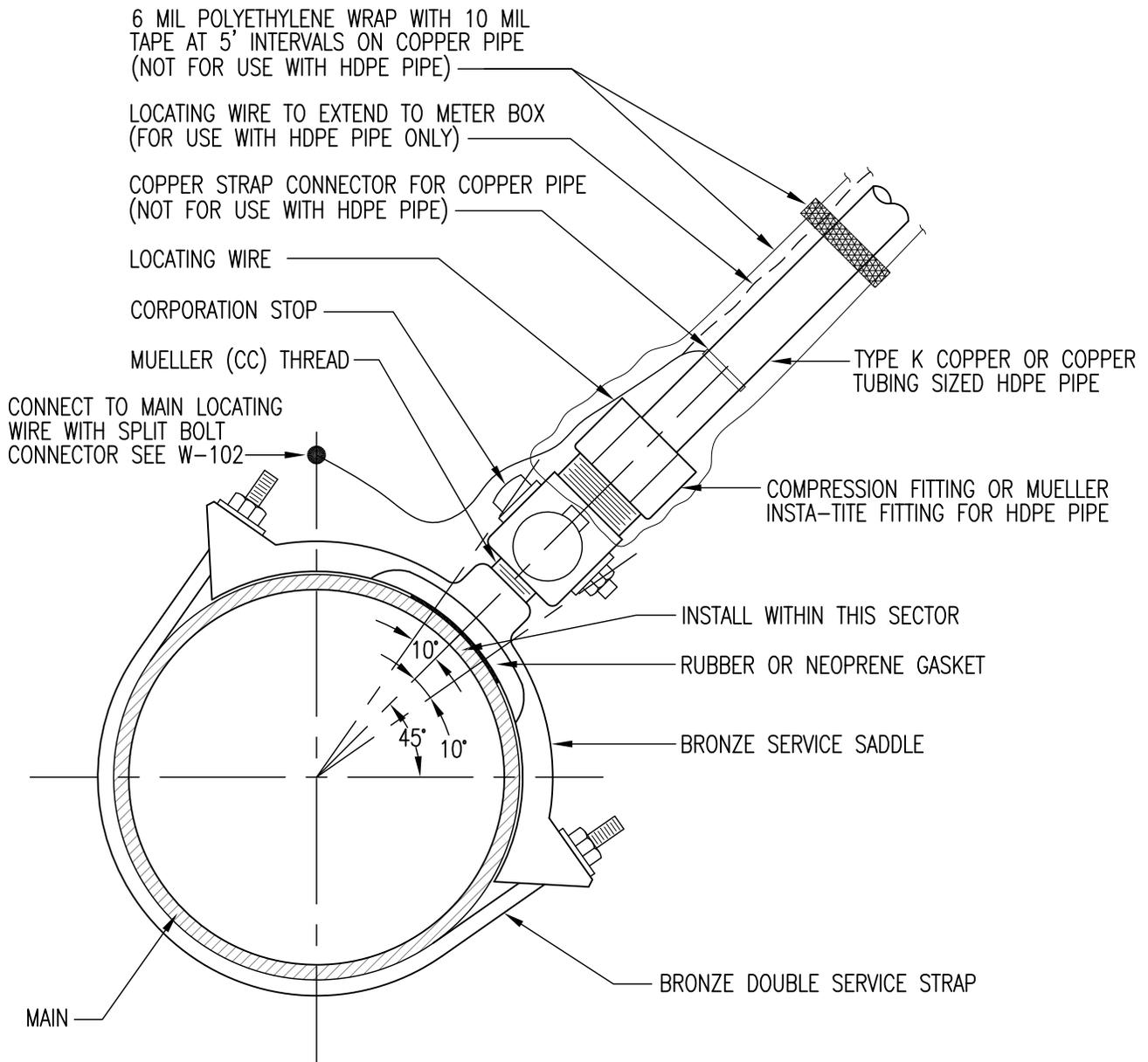


NOTES:

1. STRAIGHT METER VALVE MAY BE USED IN LIEU OF METER SETTER ON SERVICES WITH 20" OR LESS OF COVER.
2. 6 MIL POLYETHYLENE WRAP WITH 10 MIL TAPE SHALL BE REQUIRED ON COPPER TUBBING.
3. IF THERE IS LESS THAN 3 FEET FROM THE (E) CS TO THE BOW, THEN THE (E) WATER SERVICE BETWEEN THEM SHALL BE REPLACED PER CITY STANDARD.

REV.	DATE	DESCRIPTION

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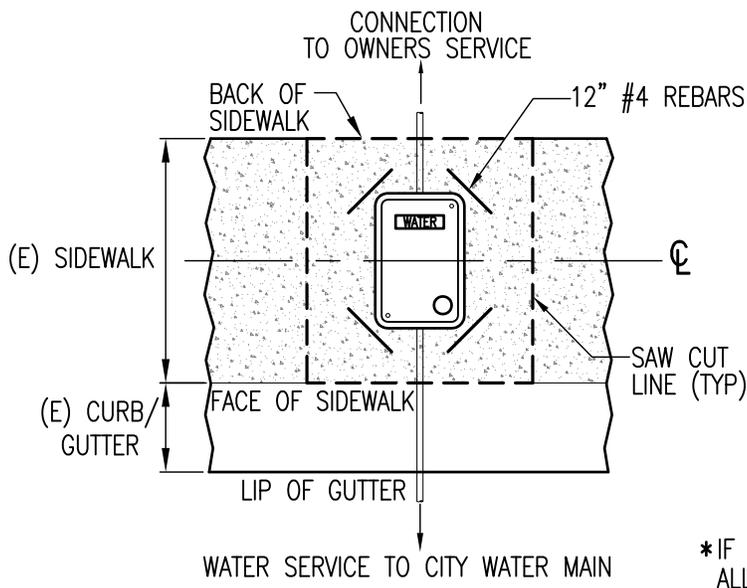


NOTES:

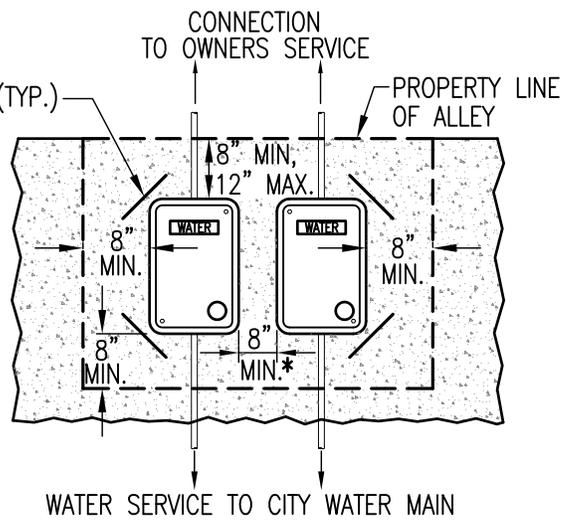
1. ALL CORPORATION STOPS TO HAVE A.W.W.A. STANDARD CORPORATION STOP THREAD (MUELLER CC) ON INLET END. OUTLET END CONNECTIONS SHALL BE FLARED OR COMPRESSION FITTINGS.
2. A BRONZE DOUBLE STRAP SERVICE SADDLE IS REQUIRED ON ALL WATER SERVICE TAPS 1" THRU 2" EXCEPT C-900.
 ▲ FOR C-900 SHALL BE CAMBRIDGE SERIES 811 OR EQUAL.

REV.	DATE	DESCRIPTION
1	02/19/13	C900 SADDLE
▲		
▲		

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SIDEWALK INSTALLATION

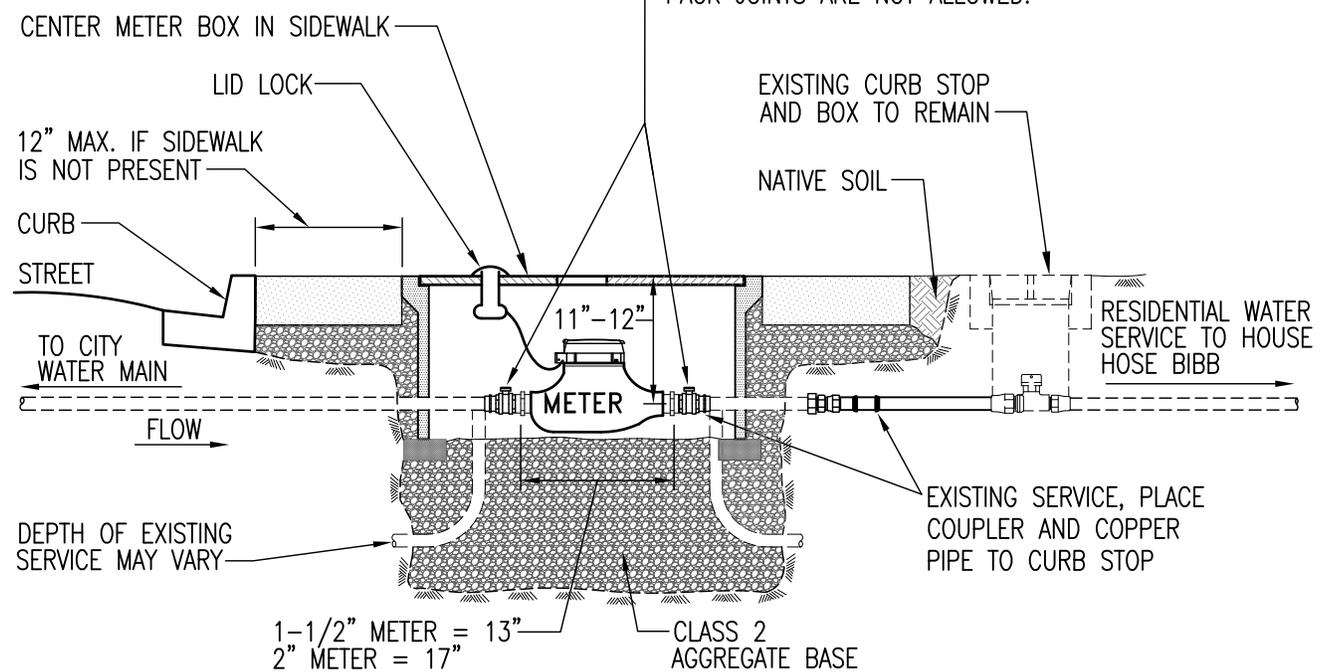


ALLEY INSTALLATION

PLAN VIEW

STRAIGHT METER VALVE 1-1/2" & 2" MUELLER METER VALVE B-24335 OR EQUAL	ANGLE METER VALVE 1-1/2" & 2" MUELLER ANGLE METER VALVE B-24276 OR EQUAL
--	---

*PACK JOINTS ARE NOT ALLOWED.

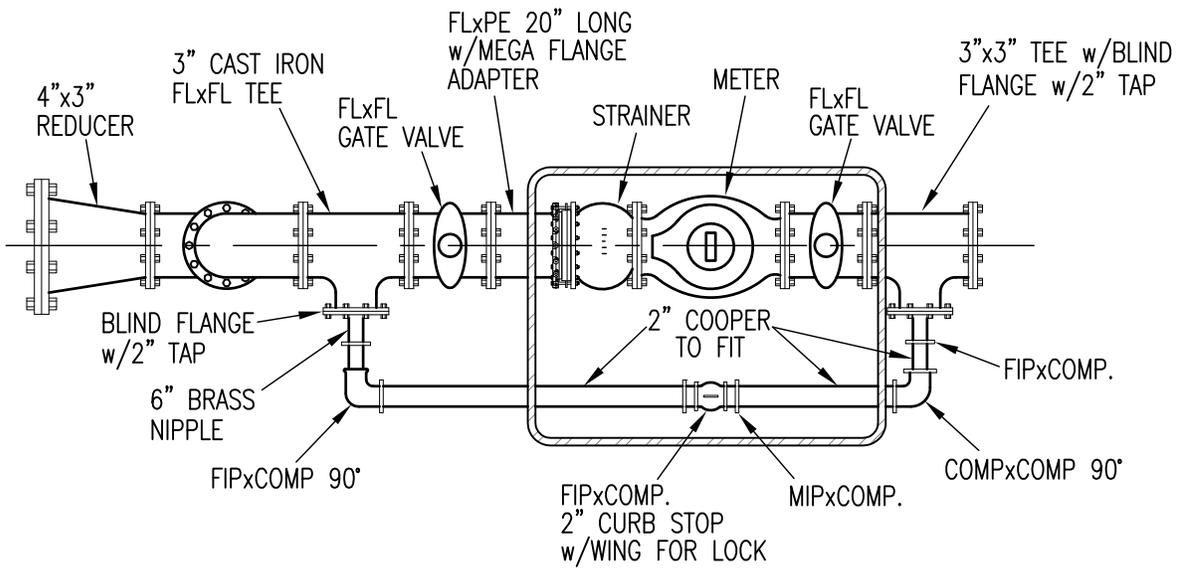


NOTES:

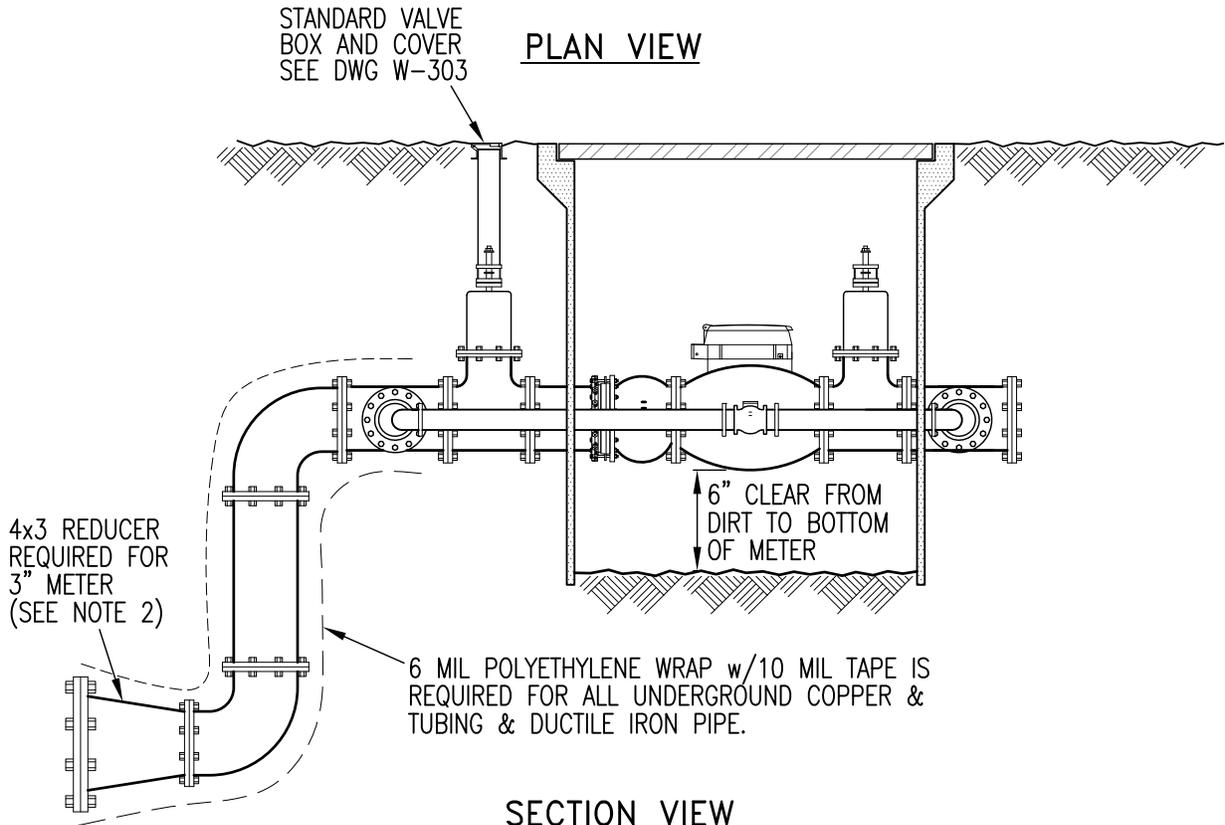
1. FOR REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY NOTES, SEE DRAWING W-505.
2. IF EXISTING SERVICE IS PLASTIC OR GALVANIZED, REPLACE SERVICE WITH TYPE K COPPER OR HDPE SERVICE MATERIAL TO EXISTING CURB STOP.

REV.	DATE	DESCRIPTION

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PLAN VIEW



SECTION VIEW

TYPE AND SIZE BOXES:

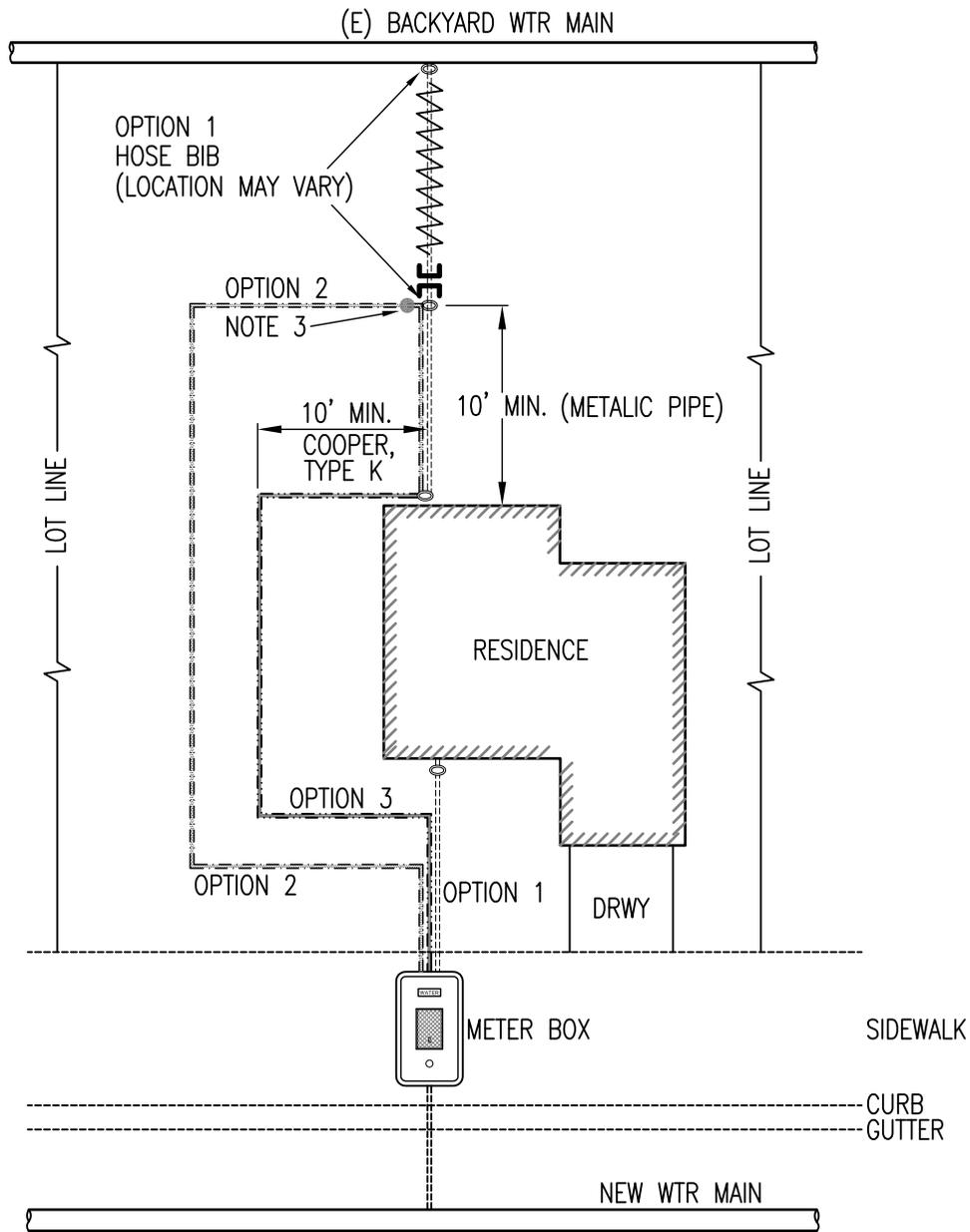
- 3" AND 4" IN TRAFFIC = 3048 BOX W/ H2O RATED COVER
- 3" AND 4" IN PLANTER AREA= B48 BOX WITH 2 PIECE CONCRETE COVERS.
- 6" IN PLANTER AREA = B52 BOX WITH 3 PIECE CONCRETE COVERS
- 6" IN TRAFFIC AREA = R10 PIT W/ H2O TRAFFIC RATED STEEL SPRING LOADED COVER
- 8" IN PLANTER AREA = R17 PIT W/ 4 PIECE STEEL COVER
- 8" IN TRAFFIC AREA + R17 PIT W/ H2O RATED STEEL SPRING LOADED COVER

NOTES:

1. ALL BOX LIDS MUST HAVE 2-2" RECESSED HOLES TO ACCOMMODATE LID LOCKS.
2. 3" ON-SITE WATER SERVICE REQUIRES A 4" TAP, 4"x3" REDUCER, 3" METER AND 3" BACKFLOW ASSEMBLY. 4" AND LARGER METERS REQUIRES TAP SIZE EQUIVALENT TO METER SIZE.

REV.	DATE	DESCRIPTION
1	11-16-11	NEW DETAIL

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OPTION 1:

1. CONNECT TO FRONT HOSE BIB.
2. CAP & ABANDON (E) SERVICE A MINIMUM OF 10' FROM HOUSE GROUND AT HOSE BIB.
3. PLACE NEW HOSE BIB A MIN. OF 10' FROM HOUSE AT OWNERS CHOICE OF LOCATION.

TITLE

NOTE:

REFER TO DWG. W-406 FOR CONNECTION AT HOSE BIB.

OPTION 2:

1. RUN NEW WTR SERVICE TO BACKYARD.
2. CONNECT TO EXISTING SERVICE A MIN. OF 10' FROM HOUSE GROUND AT HOSE BIB.
3. INSTALL 1 1/2" WHEEL VALVE w/6" SDR 35 STAND PIPE, & CARSON L910 BOX OR EQUAL AT THE CONNECTION POINT.

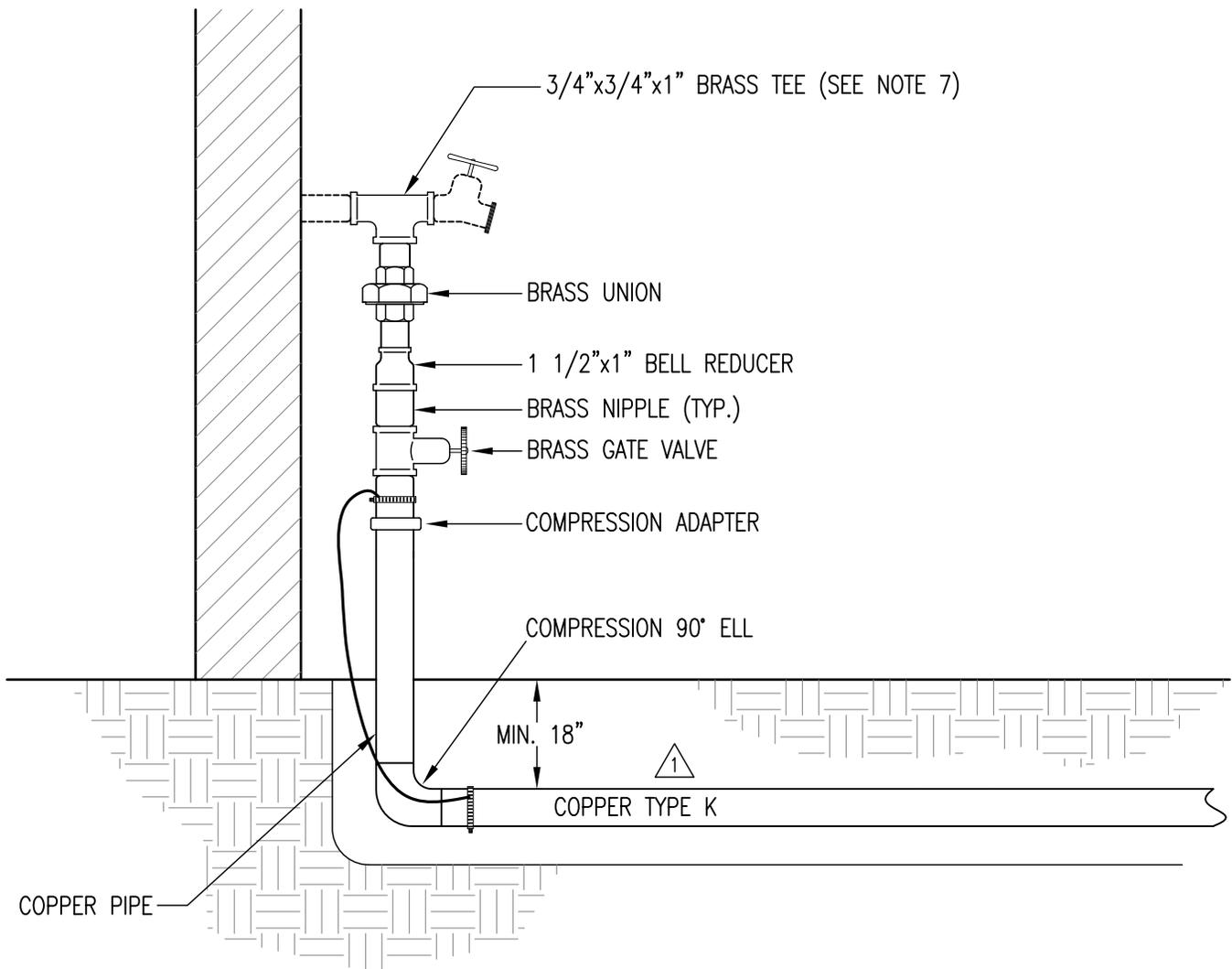
OPTION 3:

1. RUN NEW WTR SERVICE TO BACKYARD.
2. CONNECT TO HOUSE AT HOSE BIB.
3. PLACE A MIN. OF 10' OF 1 1/2" COPPER FROM HOSE BIB.

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OPTION 1



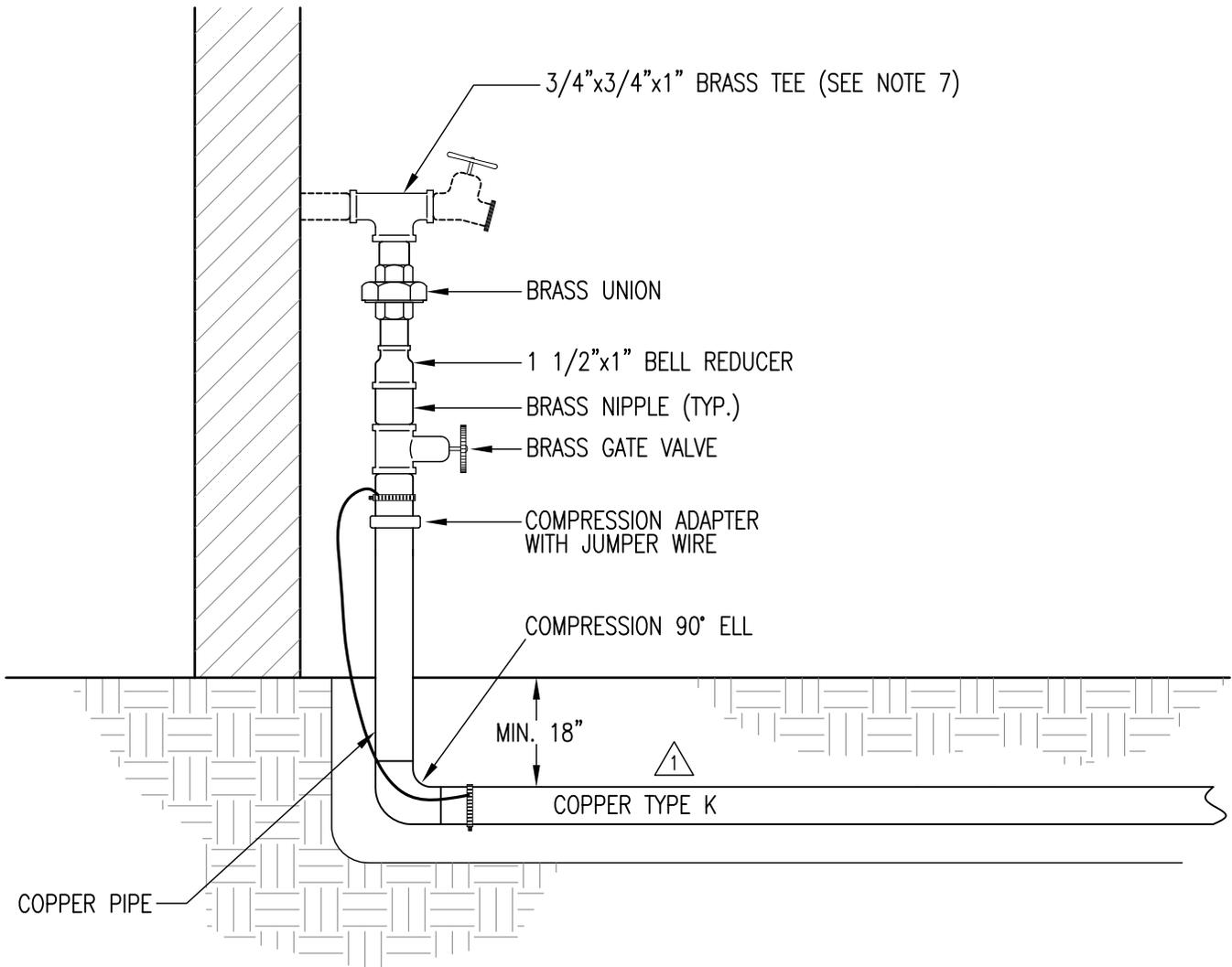
GENERAL NOTES

1. WATER SERVICE PIPE SHALL BE 1 1/2-INCH IN DIAMETER UP TO ABOVE GROUND TEE.
2. WHENEVER COPPER WATER SERVICE PIPE IS IN DIRECT CONTACT WITH CONCRETE, THE CONTRACTOR SHALL WRAP COPPER PIPE IN 35 MIL POLYKIN OR EQUAL, OR PLACE IN CASING.
3. WATER SERVICE PIPE MAY BE PLACED IN AN EXCAVATED TRENCH AND BACKFILLED, OR DIRECTIONALLY DRILLED.
4. PIPE ALIGNMENT SHALL NOT PASS UNDER ANY STRUCTURE.
5. WATER SERVICES AND THEIR INSTALLATION SHALL MEET APPLICABLE REQUIREMENTS OF SECTION 10 THRU 38 OF THESE SPECIFICATIONS.
6. TO TRANSITION FROM GALVANIZED PIPE TO COPPER PIPE, PLACE A BRASS UNION W/BRASS GATE VALVE BETWEEN GALVANIZED PIPE AND COPPER PIPE.
7. TEE TO MATCH SIZE OF EXISTING HOUSE PLUMBING IF LARGER THAN 3/4"

REV.	DATE	DESCRIPTION
1	03-22-12	Type K Only

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OPTION 3



GENERAL NOTES

1. WATER SERVICE PIPE SHALL BE 1½-INCH IN DIAMETER UP TO ABOVE GROUND TEE.
2. WHENEVER COPPER WATER SERVICE PIPE IS IN DIRECT CONTACT WITH CONCRETE, THE CONTRACTOR SHALL WRAP COPPER PIPE IN 35 MIL POLYKIN OR EQUAL, OR PLACE IN CASING.
3. WATER SERVICE PIPE MAY BE PLACED IN AN EXCAVATED TRENCH AND BACKFILLED, OR DIRECTIONALLY DRILLED.
4. PIPE ALIGNMENT SHALL NOT PASS UNDER ANY STRUCTURE.
5. WATER SERVICES AND THEIR INSTALLATION SHALL MEET APPLICABLE REQUIREMENTS OF SECTION 10 THRU 38 OF THESE SPECIFICATIONS.
6. TO TRANSITION FROM GALVANIZED PIPE TO COPPER PIPE, PLACE A BRASS UNION W/BRASS GATE VALVE BETWEEN GALVANIZED PIPE AND COPPER PIPE.
7. TEE TO MATCH SIZE OF EXISTING HOUSE PLUMBING IF LARGER THAN 3/4"

REV.	DATE	DESCRIPTION
1	03-22-12	Type K Only

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Measurement Examples

Fire Hydrant - include address where hydrant is located and distance and direction from water main.

FH Located in front of 1500 10th Ave.
Brand name (type) of FH
Model number
10' north of main

Fire Hydrant Gate Valve - include distance and direction from fire hydrant.

FH GV 9' south of Fire Hydrant

Meter Box - include address and location.

MB 1400 Wentworth Ave: 45" NSPL, 5' EEC

APPENDIX D

Notification Letters

Monthly Source Billing - Sample

Water Meter Installation [Distribute appropriate # of working days prior to beginning work]

(CONTRACTOR LETTER HEAD)

Dear Resident,

The City of Sacramento, Department of Utilities, awarded a construction contract to (Contractor) to install water meters at various commercial and residential properties in your neighborhood. A new meter and box will be placed (or retrofitted) at the point of service to each property.

General public and construction crew safety is of primary concern to us and we encourage you to observe the construction signs. We realize this construction project may be a temporary inconvenience and we will strive to minimize the impacts to the residents.

If you have any questions or problems, please contact any one of the project representatives listed below:

Contractor Superintendent: Name: Phone Number
City Inspector: Name: Phone Number
City Project Manager: Name: Phone Number

Work is scheduled to begin in your property on _____.

Thank you for your cooperation on this very important project.

Constructing Water Main [Distribute 7 working days prior to beginning work]

(CONTRACTOR LETTER HEAD)

Dear Resident,

The City of Sacramento, Department of Utilities, awarded a construction contract to (Contractor) to replace the water distribution main and water services in your neighborhood. A new water main will be constructed in the street and water services will be constructed from the new main to each home. Also, new fire hydrants will be constructed to improve fire protection in your neighborhood.

During the course of construction, on street parking may be temporarily removed to accommodate traffic and construction work. Access to your driveway may be temporarily restricted when construction takes place in front of your house. At the end of each work day, we will backfill the trench, place temporary paving or place steel plates over trench, and open all lanes of traffic to the public. Our work hours are typically between 7 AM to 6 PM.

General public and construction crew safety is of primary concern to us and we encourage you to observe the construction signs. We realize this construction project may be a temporary inconvenience and we will strive to minimize the impacts to the residents.

If you have any questions or problems, please contact any one of the project representatives listed below:

Contractor Superintendent: Name: Phone Number
City Inspector: Name: Phone Number
City Project Manager: Name: Phone Number

Pipeline work is scheduled to begin in your neighborhood on _____.

Once the pipeline is constructed, we will return to your street to install the water service to each home, disinfect and pressure test the pipelines and restore paving and landscaping. The anticipated project completion date is _____.

Thank you for your cooperation on this very important project.

