RESOLUTION NO. 717

SERVICE POLICIES AND CONSTRUCTION STANDARDS

WHEREAS, RCW 57.08 grants Water District the power to create policies, standards, documents and guidelines to better manage the workflow for providing water service through system expansion, and

WHEREAS, pursuant to RCW 9A, the District can recover restitution for improper connections resulting in the defrauding of a public utility, and

WHEREAS, the District can recover damages, costs and fees pursuant to RCW 80.28.240, and

WHEREAS, it is in the best interest of the District, ratepayers and developers that the District have clear and transparent Service Policies and Construction Standards, and

BE IT HEREBY RESOLVED BY THE BOARD OF COMMISSIONERS of the East Wenatchee Water District that said Service Policies and Construction Standards as attached hereto shall be:

ADOPTED, by the BOARD OF COMMISSIONERS of the EAST WENATCHEE WATER DISTRICT, Douglas County, Washington at a regular meeting thereof, this 17th day of October 2018.

G. Brian Egan, President

ATTEST:

Terry Barnes, Secretary

East Wenatchee Water District

Service Policies and Construction Standards

October 2018



East Wenatchee Water District 692 Eastmont Avenue East Wenatchee, WA 98802 (509) 884-3569 www.ewwd.org Prepared by RH2 Engineering, Inc. 300 Simon St. SE, Suite 5 East Wenatchee, WA 98802 (509) 886-2900 www.rh2.com

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DEFINITIONS

Capitalizations of words in this section is for clarity only. It does not imply that the word must be capitalized within this document for the definition to apply.

Accessory Dwelling Unit

A small, self-contained residential unit located on the same lot as an existing single-family home.

Application or This Application

The request and forms for permission to construct an extension to the water system executed by the Developer and the District of which the provisions of this document are an integral part.

City

City of East Wenatchee, unless stated otherwise.

Commercial and Industrial Property

Includes, but not necessarily limited to, retail and wholesale stores, offices and office buildings, medical or dental clinics, mixed use structures, warehouses, service stations, manufacturing facilities, garages, theater, hotels, motels, restaurants, bars and taverns, banks, showrooms, barber and beauty shops and other structures or facilities not exclusively used for residential purposes.

Contract Drawings or Drawings

All drawings or plans prepared by the Engineer or prepared by the Developer and approved by the Engineer.

Contractor

A licensed and bonded construction company with experience in the proposed work. Refer to Section 1-02.1(1) of the Special Provisions in this document.

County

Douglas County, unless stated otherwise.

Designer

The individual or company responsible for producing the design of the infrastructure improvements. Typically a subconsultant of the Developer. The Designer must be a Washington State licensed professional engineer.

Details or Additional Drawings

All details or drawings prepared and issued by the Engineer subsequent to approval of the construction plans for further explanation or amplification of the contract documents or for revision of same, all as herein provided.

Developer

The party (person, partnership, firm, or corporation) having filed an application for extension and/or whom will be providing the new infrastructure. Employees, agents, contractors, subcontractors and volunteers of said party shall be included under the name "Developer" and shall be bound to the same conditions outlined herein.

Multiple-Unit Commercial Property

A single structure constructed under one continuous roof and equipped for occupancy by more than one Commercial or Industrial Property.

Multiple-Unit Residential Property

An area for trailers, mobile or manufactured home sites or a single structure constructed under one continuous roof and equipped for occupancy by more than one dwelling unit. Synonymous with multi-family dwelling, high density dwelling, duplex, triplex, apartments, etc.

Or Equal

Any manufactured article, material, method, or work which, in the opinion of the Engineer, is equally desirable or suitable for the purposes intended as compared with similar articles specifically mentioned herein.

Owner

The person, partnership or corporation owning the premises to which water is being or is to be furnished.

Parcel

An existing or proposed lot, tract, or property of record. Existing parcels are those contained in the Assessor's plat of Douglas County, which have been assigned descriptions and numbers for tax purposes by the County Assessor. Proposed parcels are those shown delineated or described in any proposed Plat, Short Plat, Site Plan, Planned Residential Development, or other form of subdivision, in process of being created.

Premises

The land and one building under one continuous roof together with such other service buildings as are used only by the occupants of the principal building, including rent-free guest houses occupied less than three months of the year.

"Premises" may be otherwise defined in writing in a special contract between the Owner and the District for the furnishing of water to such premises through a water meter.

Private service-lines

All water lines extending from the District's meter vault which are not owned by the District. Where such lines pass through properties other than the property the line serves, these "private" lines will be required to be within a dedicated water or utility easement and recorded on the final Plats Recorded Documents.

Public Property

Includes street right of ways, civic buildings, public schools, playgrounds, public parks and appurtenances.

Residential Property

Those properties or premises intended for human habitation.

Plans

Official drawings or reproductions of drawings made or to be made pertaining to the work provided for in the application or to any improvements connected therewith.

PROCESS OVERVIEW

The general process for application to develop within, and connect to the EWWD system is outlined below and described in detail throughout this document.

- 1. Attend a pre-application (Pre-App) meeting, hosted by the County or City.
- 2. If water is available per the District's service policies and Duty to Serve, the District will prepare a certificate of water availability.
- 3. District provides Developer Extension Agreement (DEA).
- 4. Developer pays the deposit described in the DEA.
- 5. For relevant projects (e.g. Pump stations, reservoirs. Not water mains.), prepare and submit a Project Report formatted to WA Dept. of Health standards.
- 6. Optional: Developer/Designer attends a pre-design meeting with the District. Encouraged for Designers that have not previously worked with the District.
- 7. If required, District Engineer performs hydraulic analysis to determine if additional system improvements are needed.
- 8. Designer submits design plans (hard copy) for review.
- 9. District reviews plans and returns comments.
- 10. Designer revises plans and resubmits.
- 11. Once all District comments are resolved, District will respond that final plans may be submitted for signature.
- 12. Developer obtains signatures from required utility agencies and County or City.
- 13. A preconstruction meeting is held with the Developer, Contractor, and interested agency attendees (utilities and municipalities). See section 1-08.0(1).
- 14. Developer/Contractor provides a performance bond for the value of work performed within existing right-of-way or District easements. See the appendices for a sample bond form.
- 15. Construction of improvements. Perform pressure testing in the presence of the District inspector.
- 16. District inspector takes purity samples. If passing, new work is connected to District system.
- 17. District inspector provides punch list. Contractor resolves punch list items.
- 18. Provide as-built plans in hard copy and Adobe PDF format to District.
- 19. Fill out and return Bill of Sale to District.
- 20. Record any easements with the County and provide copies to the District.
- 21. Developer/Contractor provides a warranty (maintenance) bond. See the appendices for a sample bond form.
- 22. For relevant projects (e.g. pump stations, reservoirs. Not water mains.) submit a Construction Completion report to WA Dept. of Health.
- 23. District can then provide service upon service request.
- 24. Optional: Prepare a latecomers (reimbursement) agreement for projects that can directly benefit future development.
- 25. District Commissioners accept project by resolution. This acceptance begins the warranty period.

- (22) For applicable projects (e.g. Pump stations and reservoirs. Not watermains.) a Department of Health Construction Completion Report is filled out and filed with DOH and the District.
- (24) If a Latecomer's Agreement (aka Reimbursement Agreement) is desired, the proponent has 12 months after formal acceptance to prepare and submit an acceptable version of said agreement to the District. Additional requirements for preparation of said agreement can be found in the DEA document.
- (25) Formal acceptance of the completed project is accomplished by resolution at a District Commissioner's meeting. Acceptance also begins the warranty period. The warranty period is per Section 1-05.10 of the Special Provisions, unless stated otherwise in the DEA.

Backflow and Cross-Contamination Prevention

It is the responsibility of every customer and the District to protect the water system from potential connections to non-potable sources of water. Accordingly, and as required by WAC 246-290-490, the District has adopted by resolution a Cross Connection Control program. The District may, at their discretion, require installation of a State approved backflow prevention device at any customer's service. All private fire line connections will also be isolated with an approved backflow prevention device. All backflow prevention devices will be installed and owned by the customer. The customer is required to have the device tested annually by a certified Backflow Assembly Tester. The District's Cross Connection Control program is available for viewing at the District office, or online at the following link.

http://www.ewwd.org/Backflow.htm

Extensions and Improvements to the Water System

Developer shall construct the required water mains, facilities, and related appurtenance to serve each existing parcel or new parcels that are proposed adjacent to existing or future ROW.

- 1. Where no water main currently exists within adjacent existing or future ROW, the Developer shall install a new main in the ROW to the farthest property boundary.
 - a. The District may waive or modify this requirement for extension of mains if, in the opinion of the District, the extension provides no benefit to the District and there is no likelihood of future development beyond the property.
- 2. Existing mains that are adjacent to properties under development shall be replaced to current standards by the Developer to the farthest property boundary in all directions if <u>any</u> of the following conditions exist:
 - a. The existing main is not large enough to provide service.
 - b. The existing main is steel and would be under new, or reconstructed, permanent surface improvements (roads, sidewalks, etc.).
 - c. The existing main is steel and, in the opinion of the District, could be detrimentally impacted by the Developer's construction activities.
 - d. The Developer's improvements will hinder operation and maintenance access to the existing main.
- 3. When existing mains are replaced, the following improvements to existing water services along the main are required;
 - a. Existing water services along existing main(s) that are being replaced shall be reconnected to the new main(s) by the Developer.
 - b. If the existing water services are not compliant with the District's current standard, the District will provide the materials for a complete service replacement and the Developer shall perform the installation.
 - c. For existing services compliant with current District standards (large vaults, HDPE service lines), the service lines need only be reconnected at the new main.
 - d. For any existing services with a copper or steel service pipe, the pipe shall be replaced with HDPE.
 - e. Service reconstructions shall be reconnected to the customer side line.
 - f. See the section titled Water Services under Design Standards for additional requirements.

DESIGN STANDARDS

The following standards are to be followed in the design of extensions to the water system of the District and in the preparation of plans and specifications for the construction of these extensions. These standards are to be followed except where specific deviations are approved by the District.

The design of water extensions shall be consistent with the District's approved Water Comprehensive Plan, District's Standard Details, the regulations and standards of the Department of Ecology, Department of Health, Department of Social and Health Services, Douglas County Fire Marshall and all other applicable State, County, and Local agency standard regulations.

District Standard Details

- 1. District Standard Details (Details) for water system construction are posted on the District's website.
- 2. The Details are updated periodically. The current version of the Details shall be included in the construction plans submitted to the District for review and approval. If the Details are updated any time prior to construction, the designer shall incorporate the updated Details.
- 3. The Details are provided as-is and shall not be modified by the designer.
- 4. The Details are provided in Adobe PDF format, or Autodesk DWF format if requested.
- 5. AutoCAD .DWG format files will not be provided.
- 6. All Details must be included in the construction plans whether relevant to the project or not.
- 7. Detail sheets must maintain the layout provided by the District. Do not cut, crop, or reorganize. The designer may overlay their own project border if they wish.

Water Mains

- 1. Water Main Sizing
 - a. Minimum diameter for all water mains shall be 8-inches except, at the discretion of the District, where the water main is permanently dead ended with no future potential for extension, is less than 300 feet in length, and does not include a fire hydrant.
 - b. Water mains in Commercial and Industrial land use areas shall be a minimum 12-inch diameter, unless waived by the District.
 - c. 10-inch and 14-inch diameter mains are not commonly stocked sizes and, as such, are not allowed for new construction.
 - d. The velocity of water in mains shall be less than 5.0 feet per second (fps) during normal peak hour demand periods.
 - e. Under emergency conditions, such as a fire, the velocity in the water mains shall be less than 8.0 fps.
- 2. Where practical, as determined by the District, mains shall be looped to increase reliability and water quality. In general, looping means connecting to the District's system in at least two locations.

Fire Hydrants

- 1. Hydrant spacing shall be approved by the Fire District. Typical spacing is 500 feet for residential areas and within 250 feet of the building envelope for light commercial and multi-family. The Fire District may require more stringent criteria.
- 2. Hydrant spacing for other facilities shall be determined by the Fire District.
- 3. Hydrants shall be located at street intersections whenever possible.
- 4. Length of hydrant runs from the mainline to the hydrant shall not exceed 80 feet.
- 5. Hydrant runs shall be straight, no intermediate bends.
- 6. A fire hydrant shall be installed at all dead-end cul-de-sacs to improve water quality and facilitate testing.
- 7. Public fire hydrants shall not be placed in inaccessible locations such as behind fences or on excessive embankments.

Water Services

- 1. Service lines shall only be connected to public distribution mains. Connection to hydrant runs, fire lines, private mains, or dedicated transmission mains is not allowed. The District may reconsider this standard at their discretion if there is public health benefit.
- 2. Dual (double) services shall be used whenever possible.
- 3. Locate water service lines and meter boxes along the street fronting the lot unless determined otherwise by the District.
- 4. Meter boxes shall be located within right-of-way and within sidewalks whenever possible. Where sidewalks do not exist and are not planned, the boxes shall be adjacent to the right-of-way line whenever possible.
- 5. Install service lines perpendicular to the water main and street centerline.
- 6. Meter boxes shall be installed with sufficient clearance from side sewers, transformers, pedestals, and other utility service equipment to provide for safe maintenance access and maintain water quality. Horizontal clearance required is 10 feet from side sewers, 10 feet from transformers, and 3 feet clear from other dry utilities.
- 7. The following design standard appears on page 7-4 of the District's 2014 Comprehensive Water System Plan. This standard is heretofore rescinded and no longer applicable.
 - a. (Rescinded) If water service line lengths greater than 200 feet are required, the customer shall sign a special water service agreement with the District (See Appendix).

Pressure Reducing Stations

- 1. District Standard Detail for pressure reducing valve (PRV) stations shall be used for design. Prepackaged stations may be allowed at the discretion of the District.
- 2. Vaults are to be sized to provide adequate working space including standing head room and sufficient clearance to service and remove all equipment.
- 3. Vaults shall include drywell drains, daylight drains, or sump pumps.

- a. The standard generator connection shall be a Posi-Lok system as manufactured by Crouse-Hinds. Plugs with cords shall be stored at each facility.
- 9. Closed zone booster pump stations will only be allowed on a temporary basis. The period shall be three years or until 40 lots are connected, whichever comes first.
- 10. Fire pumps are allowed only if, in the opinion of the District, construction of storage is impractical, delayed, or is detrimental to water quality.
- 11. Stations shall be constructed with the ability to increase capacity in the future. This shall be accomplished by providing space for additional pumps and/or by over-sizing the facility to install larger pumps in place of the original pumps.
- 12. Stations shall include a control valve to pass water from the upper zone to the lower. Control valve shall include pressure relief functionality to permit operation of the station if the receiving reservoir is out of service.

Telemetry System

- 1. Pump stations and reservoirs shall each have a Remote Telemetry Unit (RTU) that monitors and displays local sensor and device status data and communicates with the District's master telemetry unit (MTU).
- 2. RTUs shall include backup power, surge and lightening protection, and be easily capable of expansion for additional input and output signals.
- 3. RTUs shall be programmed by an integrator of the District's choice. Preprogrammed "package" control units are not allowed.

Backup Power Requirements

- 1. Reliability standards per WAC 246-293-660 shall be followed.
- 2. Closed zone pump stations shall have permanent backup power installed on site with an automatic transfer switch.
- 3. All new pump stations shall include provisions for connecting a portable engine generator to run the facility in the event of a power failure. Equipment shall meet the District's standards.
- 4. All RTUs shall include an automatic battery backup.

Construction Drawing Format

- 1. Complete plan sets shall be provided to the District. Incomplete plan sets will not be reviewed. The following plans are the minimum required.
 - a. Plat Map Project Overview
 - b. Street Plan and Profile
 - c. Water System Plan and Profile
 - d. Sanitary Sewer, Storm Sewer, Irrigation, and Dry Utility Plan and Profile
 - e. Water System Standard Details (obtain current set from District website)

CONSTRUCTION STANDARDS

Where field inspection, direction and decisions are described hereafter, the terms Engineer and District Inspector shall be considered interchangeable. The District Inspector provides periodic inspection. The level of inspection depends on the complexity of the work and the experience of the contractor.

Pressure testing and disinfection are performed by the contractor to WSDOT/AWWA standards. The District Inspector verifies the results and performs the purity testing.

SPECIAL PROVISIONS TO THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION

The WSDOT Standard Specifications and Amendments, most current versions, will be followed except as revised herein.

References in the WSDOT Standard Specifications to bidding procedures are deleted whether noted as such in this document or not.

References in the WSDOT Standard Specifications to contract procedures are deleted whether noted as such in this document or not, and are herein replaced by the Developer Extension Agreement, District Work Order, or other contract executed between the District and the Developer.

References in the WSDOT Standard Specifications to payment procedures are deleted whether noted as such in this document or not. District will provide no payment for any work unless such payment has been established in a contract between the District and the Developer.

Division 1 General Requirements

1-01 Definitions and Terms

1-01.3 Definitions

This section is supplemented with the following

Deleted Section: This section of the Standard Specifications does not apply to this project.

Equal to: That the 'equal' product be the same or better than the product named in function, performance, reliability, quality, and general configuration. Determination of equality will be made by the Owner.

New Section: This section does not appear in the Standard Specifications.

Owner: The East Wenatchee Water District.

All references in the Standard Specifications, Amendments, or WSDOT General Special Provisions, to the terms "Department of Transportation", "Washington State Transportation Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters", and "State Treasurer" shall be revised to read "Owner".

- a. Is registered with the Washington State Insurance Commissioner, and
- b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
- 3. Guarantee that the Developer will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the District against all losses and claims related directly or indirectly from any failure:
 - a. Of the Developer (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
 - b. Of the Developer (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
- 4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
- 5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
- 6. Be signed by an officer of the Developer empowered to sign official statements (sole proprietor or partner). If the Developer is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

1-04 Scope of the Work

1-04.1 Intent of the Contract

Supplement this section with the following:

Set forth herein are general conditions to all applications for extension of the District's water system by developers. Reference to, or requirements for, non-applicable conditions will be construed to have no meaning relative to the performance of such work. All other conditions shall be strictly followed.

The Developer shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work, except as otherwise stipulated in the extension documents.

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

Delete the first paragraph. Replace the numbered list after the second paragraph with the following:

The documents listed below complement each other in describing a complete work. Any requirement in one part binds as if stated in all parts. Provide all work clearly implied even if such work is not specifically mentioned.

The order of precedence for extensions shall be as follows (lower numbers preceding higher numbers):

- I. Developer Extension Agreement
- 2. District Inspector's / Engineer's written instructions
- 3. East Wenatchee Water District Standard Details
- 4. East Wenatchee Water District Special Provisions to the Standard Specifications

applicable. The Engineer shall pass upon them with reasonable promptness making required corrections, including those related to design and artistic effect. The Developer shall make any corrections required by the Engineer and, within one week after receipt of the required corrections, shall file with the Engineer two (2) corrected copies and furnish such other copies as may be needed by the Engineer. The Engineer's acceptance of such drawings or schedules shall not relieve Developer from responsibility for deviation from drawings or specifications, unless the Developer has, in writing, called the Engineer's attention to such deviation at the time of submission and secured the Engineer's written approval, nor shall it relieve the Developer from responsibility for errors in shop drawings or schedules.

1-05.3(1) Drawings Prepared by the District

This section is new.

If the District prepares construction plans for the Developer, the following shall apply. This section does not apply to the District's standard construction details, nor plans prepared by the Developer's designer.

- 1. The Developer shall carefully study and compare all drawings and specifications and other instructions and shall, prior to ordering material or performing work, report in writing to the Engineer any error, inconsistency, or omission in respect to design, mode, or construction or cost which he may discover. If the Developer, in the course of this study or in the accomplishment of the work, finds any discrepancy between the drawings, or any such errors or emissions in respect to design, mode of construction, or cost in drawings or in the layout as given by points and instructions, it shall be his duty to inform the Engineer immediately in writing, and the Engineer shall promptly check the same. Any work done after such discovery will be done at the developer's risk.
- 2. The Developer shall be furnished three (3) copies of plans and specifications and shall keep at least one (1) copy of the same constantly accessible at the construction site.
- 3. All drawings, specifications and copies thereof prepared or furnished by the Engineer are his property. They are not to be used on other work.

1-05.4 Conformity with and Deviations from Plans and Stakes

Supplement this section with the following:

The Developer shall furnish all property boundary surveys. The Developer shall perform all property surveys necessary for placement of the construction stakes including surveys of easements. The Developer shall provide to the District drawings showing the bearing and dimensions of all property lines, ties to adjacent subdivisions and section control and the calculated closure of all control traverses. Surveying and construction staking shall be performed by a professional land surveyor licensed in the State of Washington.

The Developer shall furnish all construction points, stakes, and instructions necessary to control the horizontal and vertical placement of all facilities to be constructed by the Developer pursuant to the application. The Developer shall not proceed to place any construction points or stakes until written notification from the District or the engineer that the developer may proceed with construction under the application. Construction points, stakes and instructions to be provided by Developer shall meet the following minimum requirements:

- Offset stakes or survey pins every 50-feet along the project alignment.
- Horizontal location of all water mains at 50-foot stations offset 10 feet from the water main location.

Neither inspection nor acceptance by the District shall relieve the Developer of any responsibility or liability, whether to the District or others, provided in the extension documents.

1-05.6(1) Reimbursement for Inspection

This section is New.

All costs incurred by the District for inspection, including the fees and charges of its Engineer, shall be paid by the Developer, and a deposit, therefore, for this may be required in advance by the District.

Where work is performed other than during the normal 40-hours week, the Developer shall pay additional costs of District for inspection and supervision.

1-05.10 Guarantees

Supplement this section with the following:

Upon completion of the extension work and approval thereof by the District and simultaneously with the acceptance of the title by the District, the Developer warrants to the District as follows:

- 1. That the Developer is the owner of the property and the same is free and clear of all encumbrances and that the Developer has good right and authority to transfer title thereto to the District and will defend the title of the District against the claims of all third parties claiming to own the same or claiming an encumbrance against the same; and
- 2. That the water extension is in proper working condition, order, and repair and that it is adequate and fit for the intended purpose of use as a water system and as an integral part of the water system of the District; and
- 3. That for a period of two years from the date of acceptance of the extension by the District Commissioners, all parts of the extension shall remain in proper working condition, order and repair except where abused or neglected by the District; and the Developer shall repair or replace, at its own expense, any work or material which may prove to be defective during the period of this warranty. The Developer shall obtain warranties and guaranties from its subcontractors and/or suppliers where such warranties or guaranties are specifically required herein and shall deliver copies to the District upon completion of the work. When corrections of defects occurring within the warranty period are made, the Developer shall further warrant correct work for one year after acceptance by the District.

Warranty shall be in the form of a Warranty Bond. The bond shall:

- Be either \$2,000 or 10% of the value of the work to be transferred to the District, whichever is greater.
- Be on a form approved by the District;
- Be signed by an approved surety (or sureties) that:
 - o Is registered with the Washington State Insurance Commissioner, and
 - Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
- Guarantee that the Developer will perform and comply with all obligations, duties, and conditions of the District:
- Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
- Be signed by an officer of the Developer empowered to sign official statements.

The District reserves the right to perform work with its own forces or to let contracts for work under similar general conditions in connection with this project or other projects. The Developer shall afford the District and other contractors reasonable opportunity for the execution of their respective work and shall properly connect and coordinate his work with theirs.

1-05.18 Record (As-Built) Drawings

The following section is new.

Prior to acceptance by the District, the Contractor shall deliver a complete set of acceptable "As-Built" records to the District. Drawings shall be provided in Adobe PDF format.

Provide "as-built" information on all items and work shown on the plans showing details of the finished product including dimensions, locations, outlines, changes, etc. The information must be in sufficient detail to allow the District's personnel to locate, maintain, and operate the finished product and its various components.

Also show size, horizontal and vertical locations of all existing utilities encountered during construction Water service will not be provided until an as-built record has been received.

1-06 Control of Material

1-06.1 Approval of Materials Prior To Use

This section is replaced with the following

Prior to construction the Developer shall provide to the District a list of all materials that will be installed on the project and transferred to the District upon completion. Materials that are not compliant with District standards shall be replaced by the Developer.

The Developer shall provide two (2) copies of materials and equipment list to the Engineer prior to proceeding with construction. Electronic (email) submittals are also acceptable. This list shall include the quantity, manufacturer and model number, if applicable, of materials and equipment to be installed under the application. This list will be checked by the Engineer as to conformity with the plans and specifications. The Engineer will pass upon the list with reasonable promptness, making required corrections.

The Developer shall make any required corrections and file two (2) corrected copies with the Engineer within one week after receipt of required corrections. The Engineer's review and acceptance of the lists shall not relieve the Developer from responsibility for deviations from the drawings and specifications or warranty for suitability for the intended purpose unless the developer has, in writing, called the Engineer's attention to such deviations at the time of submittal and secured the Engineer's written approval for such deviation.

The engineer shall be the sole judge of the questions of "or equal" of any supplies or materials proposed by the Developer. The developer shall pay to the District the cost of tests and evaluation by the Engineer to determine acceptability of alternatives proposed by the Developer, in accordance with the established rates of the Engineer for time and expense work.

Material and equipment shall be new and shall be specified in the plans or, if not specified, shall be of a quality approved by the Engineer. Materials and equipment furnished are warranted by the Developer as new and as in compliance with the plans and specifications, if specified therein, and as suitable for the intended purpose. The developer shall furnish the District with copies of the supplier's warranty and adopt the same as the warranty of the Developers and shall also be liable thereon to the District.

1-07.6 Permits and Licenses

Supplement this section with the following:

Permits, permission under franchises, licenses, and bonds of a temporary nature necessary for the prosecution of the work, and inspection fees in connection therewith shall be secured and paid for by the Developer. Where the District is required to secure such permits, permission under franchises, and licenses and bonds and to pay the fees, the costs incurred by the District shall be reimbursed to the District by the Developer.

The District shall not be required to appeal the denial of any such permit application, and the risk of obtaining all permits and approvals rests solely with the Developer.

1-07.18 Public Liability and Property Damage Insurance

Supplement this section with the following:

The Developer shall carry liability and property damage insurance covering all work under this application, including that done by Subcontractors. This insurance shall name the District and the Engineer as co-insureds and shall be primary coverage with any insurance carried by the District classified as additional coverage. The Developer shall provide proof of insurance on an ACORD form or other form acceptable to the District. Unless otherwise specified, this insurance shall be carried as follows:

- Bodily injury, each person \$1,000,000
- Each accident \$1,000,000
- Property damage, each accident \$1,000,000

1-07.16 Protection and Restoration of Property

Supplement this section with the following:

Developer shall not enter upon or place materials on other private premises except by written consent of the individual owners, and he shall save district harmless from all suits and actions of every kind and description that may result from his use of private property.

Whenever it is necessary during construction to remove or disturb culverts, driveways, roadways, pipelines, monuments, property stakes, or other existing improvements, without limiting the generality thereof and whether on private or public property, they shall be replaced to a condition equal to that existing before they were so removed and disturbed.

Developer shall continuously maintain adequate protection of the work from damage and shall protect District's property from injury or loss arising in connection with or during the existence of this application. Developer shall make good any such damage, injury, or loss, except as may be directly due to errors in the extension documents or caused by agents or employees of the District. Adequately protect adjacent property from damage or loss occasioned by performance of the work. Provide and maintain all passageways, guard fences, lights, and other facilities for protection required by public authority or local conditions.

Developer shall bear the risk of loss or damage for all finished or partially finished work until the entire extension is accepted by the District.

1-07.17 Utilities and Similar Facilities

Supplement this section with the following:

- To establish a working understanding among the various parties associated or affected by the work;
- To establish and review procedures for inspections, notifications, approvals, submittals, etc.;
- To establish normal working hours for the work;
- To review safety standards and traffic control; and
- To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

- A preliminary schedule of working drawing submittals; and
- A list of material sources for approval if applicable.

Typical attendees include District Engineer, District Inspector, District Operator, project designer, contractor superintendent, contractor foreman, Developer, County or City representative, and affected utility representatives.

Precons may only be held on Tuesdays, Wednesday afternoons, or Thursdays. Typically, the District will coordinate and conduct this meeting, but will allow other qualified individuals to do so.

1-08.1 Subcontracting

This section is replaced with the following:

The Developer agrees that he is fully responsible to the District for the acts and omissions of subcontractors and persons either directly or indirectly employed by subcontractors, as well as the acts and omissions of persons directly employed by the Developer. Consent to subcontracting part of the work shall in no way release the Developer from responsibility under the application, and he will he held, in all respects, accountable for the same as if no consent had been given. Nothing contained in the extension documents shall create any contractual relation between any subcontractor and the District.

1-08.4 Prosecution of the Work

The section is supplemented as follows:

The Contractor must give no less than 2 working days notice to District prior to beginning water system work.

The Contractor must give no less than 2 working days notice to District for any requested water system shutdowns. Shutdowns will not be performed on Mondays or Fridays.

The Contractor shall not operate existing District valves, or valves directly connected to the existing water system.

The existing water mains and appurtenances are to remain live through construction except for temporary outages to make connections. All existing mains and appurtenances being replaced shall be abandoned or removed by the Contractor by the end of the project.

No existing water system customer may be out of water service for longer than 8-hours at a time. The outage may only occur between 8:00 am and 5:00 pm. If, in the opinion of the District, the Contractor has not adequately coordinated the work to be completed within this timeframe, the District has the right to cancel the outage at any time. No compensation will be made for such cancellations.

1-08.4(1) Service Prior to Project Acceptance

This section is New.

Functional existing water system equipment (Valves, hydrants, meter boxes, etc. Not pipe.) removed or terminated during the work shall be removed intact and stored for inspection by the District. District will determine if they wish to salvage said materials.

Materials and items deemed of no value by the District shall be removed and become property of the Contractor.

2-06 Subgrade Preparation

2-06.3 Construction Requirements

This section is supplemented with the following:

The Developer shall grade all roads to the design subgrade elevation prior to the start of construction and shall advise the District in writing of any changes which may be contemplated during construction.

If the Developer changes the subgrade elevation or the road after completion of the extension of any part thereof, the Developer shall be responsible for all costs incurred to raise or lower the water lines due to said change in subgrade elevation.

2-07 Watering

2-07.2 Watering for Compaction

The section is new:

Contractor shall provide watering as necessary to achieve optimal moisture content for compaction. If requested by the Contractor, the Water District may provide a hydrant meter setup for construction water. The Contractor is responsible for rental and water charges. The maximum flow rate allowed from this meter may be restricted at the District's discretion. The Contractor is responsible for protection of the hydrant meter assembly from theft, vandalism, damage, and freezing.

Division 7 Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Conduits

7-08 General Pipe Installation Requirements

7-08.1 Description

The section is supplemented as follows:

This section shall apply to domestic water construction except where superseded by Section 7-09.

7-08.3 Construction Requirements

The section is supplemented as follows:

Perform all cutting and fitting that may be required to make parts come together properly and fit to receive or be received by work of other developers or contractors shown or reasonably implied by the drawings and specifications for the completed work. Restore all surfaces damaged by cutting and fitting as the Engineer may direct.

Provide pipe, fittings and appurtenances necessary to make all piping systems complete, tested, and ready for operation as specified herein and as shown on the Plan and details. Some fittings that are necessary for proper piping system installation and operation may not have been shown. Provide fittings and

Equipment mounted compactors (hoe-pack, sheepsfoot, vibratory rollers, etc) shall not be used within 12-inches above the pipe.

Backfilling shall be performed only after inspection and approval of the installed pipe. Backfill material shall be carefully placed in strict accordance with this section of the Standard Specifications. The use of native material for backfill shall obtain approval from the Engineer prior to backfilling. Import select borrow to replace excavated material that is not suitable for backfill shall be incidental to the project.

Where a pipe crosses an existing utility with less than 6-inches of clearance, a sand or foam cushion acceptable to the Engineer shall be placed between the utilities.

7-08.3(4) Plugging Existing Pipe

This section is supplemented with the following:

All existing non-functional pipes 3-inch and larger, regardless of original purpose, cut or broken during construction shall be plugged.

7-08.3(5) Surface Restoration in Right of Way or District Easement

This section is new.

Existing surface improvements shall be restored to a condition equal or better than that prior to construction. Trenches shall be backfilled to a safe depth at the end of each day.

Coordinate with the local traffic agency to verify the restoration requirements. Where the surface requires reestablishment of traffic prior to final restoration, confirm with the traffic agency what method of temporary patching is acceptable.

Unless directed otherwise by the transportation agency, the following shall apply:

- On trenches parallel to the roadway, provide and maintain crushed surfacing base course to a smooth and level grade with the existing pavement until final patching is complete. Temporary crushed surfacing depth under traffic to be no less than 4 inches.
- On trenches crossing the roadway or intersections, install cold or hot mix asphalt no later than the second calendar day after asphalt removal. Maintain until final patching is complete.
- Patch all trenches installed within the existing pavement with Commercial Hot Mix no later than the second Friday following excavation for trenches parallel to the road.

Crushed surfacing used for temporary patching shall be continuously maintained including inspection, repairs, and dust control, including over weekends and other non-working periods.

If approved by the local traffic agency, contractor may plate trenches in lieu of temporary surfacing. Plates must free of dents and bumps and be able to withstand legal weight loads. Plates shall be keyed into the trench or asphalt tapers installed to prevent movement. Provide appropriate signage when using plates.

7-09 Water Mains

7-09.3(5) Grade and Alignment

Replace the first sentence of the third paragraph with the following:

The depth of trenching for the water main shall be as shown on the District standard trench detail, unless superseded by dimension callouts on the plan or profile drawings.

pushed home. The pipe can then be deflected. If the manufacturer's instructions provide differing, or additional instructions, those instructions shall be followed.

7-09.3(19)A Connections to Existing Mains

This section is supplemented with the following:

Provide 48-hour notice to Owner prior to making connections. Connections to existing mains may only be performed on Tuesdays, Wednesdays or Thursdays unless permission is otherwise obtained from the Owner. Connections shall not be performed on Owner recognized holidays.

Pothole to verify the configuration, alignment, and size of the existing facilities. Potholing shall be done far enough in advance to procure required fittings without delaying the work.

When knowledge of the exact alignment of existing facilities is required, such as when laying new work to line up with existing pipe or fittings, expose enough of the existing facilities so that an accurate alignment can be determined. Do not construct new work until the existing configuration and alignment is confirmed.

If the alignment or configuration of the existing facilities varies significantly from the design plans, contact the Inspector for review prior to installing new work. Install the new work to align with the existing facilities.

Connections will not be made until the new main has been tested and approved by the District. An approved double check valve must be used between existing potable water sources and the new work. The Contractor shall size the double check valve as appropriate for the filling and flushing rates needed.

Flanged Epoxy Adapters shown on the plans are a FLxPE steel spool, epoxy or powder coated inside and out. Steel pipe is to be nominal O.D. size (e.g. 6" = 6.0" O.D.). Coating shall be NSF61 approved.

7-09.3(21) Concrete Thrust Blocking

This section is supplemented with the following:

Precast concrete blocking is allowed. The surface area of the block must be no less than shown in the District's Standard Detail for horizontal thrust blocking. Blocks shall be ecology-block style or as fabricated by H2 Precast using their EWWD specifications.

7-09.3(23) Hydrostatic Pressure Test

Replace the first sentence with the following:

All water mains and appurtenances (hydrants, service lines, etc) shall be tested in sections of convenient length, under a hydrostatic pressure equal to 250 psi, unless otherwise directed by the District Inspector.

Supplement this section as follows:

The following test method will be used unless otherwise directed by the District Inspector. Length of time for test will be 60-minutes or at the discretion of the District Inspector. Pressure drop shall not exceed 5-psi over 60-minutes, regardless of water loss quantity. District Inspector shall have the authority to require more stringent criteria if he determines that field conditions warrant such measures.

Pressure gauges shall be in good working order and scaled appropriately for the test. Scale range shall not exceed 160% of the test pressure. For example, for a 250-psi test, the gauge scale shall not exceed 1.6 x 250 = 400 psi. The District has the right to reject any gauges that are suspect in their accuracy.

Sections of pipe that cannot be pressure tested, such as connections to the existing system, shall be left exposed for a visual inspection under system pressure.

assuming at least 40 psi is available on the supply side and less than 20 feet of hose is used unless stated otherwise.

Main size	Flow at 2.5 fps	Blowoff size	Hydrant ports (20 ft or less of hose)	Hydrant ports (up to 100 ft of hose)
8"	400 gpm	2"	(1) 2.5"	(2) 2.5"
12"	900 gpm	(2) 2", or (1) 3"	(2) 2.5"	(1) 4"
16"	1600 gpm	(4) 2", or (2) 3",	(2) 2.5" or (1) 4"	(1) 2.5" and (1) 4"
		or (1) 4"		

7-09.3(25) Abandonment of Terminated Water Facilities

The following section is new.

Water mains, hydrants, valves, valve boxes, meter boxes and services terminated during the project shall be removed and/or abandoned in accordance with East Wenatchee Water District Standard Detail W-15.

7-12 Valves for Water Mains

7-12.3(1) Installation of Valve Marker Post

Replace this section in its entirety.

Where required by the inspector, to be expected when valves are outside of paved areas, a valve marker post shall be furnished and installed with each valve. Refer to the District Standard Detail.

7-12.3(2) Adjust Valve Box

The following section is new.

The Contractor shall maintain existing valve boxes at all times to allow the District access for operation. The Contractor shall notify the District of any existing valve boxes in a condition of disrepair.

Any existing valve box components that are broken during construction shall be replaced. If a valve box is blocked with debris, the Contractor shall remove such debris leaving the valve installation in a fully operable condition.

Adjust all valve boxes as described below unless directed otherwise by the City or County. In travelled areas, including sidewalks and shoulders, the valve box shall be adjusted to between 0 and 1/8 – inch below finished grade. In untraveled areas the valve box shall be adjusted to between 0 and 1/2 – inch above finished grade.

Valve box adjustment within new paving shall be done per the following procedure:

- 1. Lower the box so the lid is below the finished surface by at least 1/4 inch.
- 2. Mark lid location with flexible indicator, 3-point measurement, or other method acceptable to the District.
- 3. Install paying.
- 4. Cut paving at least 6-inches clear around valve box and remove. Cuts must be made using a circular cutter, or other method that does not result in cut lines extending beyond the patch area.
- 5. Raise the valve box.
- 6. Install paving.

Replace the first sentence of the second paragraph with the following:

The depth of trenching for service connection piping shall provide a minimum of 3.5 feet of cover over the top of the pipe.

Replace the first sentence of the fourth paragraph with the following:

All existing service connections along the project route shall be reconnected to the new main, unless specifically identified otherwise on the plans or directed otherwise by the District Inspector.

This section is supplemented with the following:

Restore all disturbed surfaces to original conditions or better, including that on private property. Landscaping shall be restored to original condition.

Water service shall be maintained at all times except when temporary outages are approved by the District.

Service tap hole size in mainline to be no smaller than I/8" less than the nominal service pipe size.

• E.g. 1" service pipe, 7/8" hole minimum.

Division 9 Materials

9-06 Structural Steel and Related Materials

9-06.20 Utility Vault Hatch

This section is new:

Hatches, locks and operators shall operate freely with no binding. Hatches for vaults (other than taper-top meter chambers) shall meet the following requirements.

- Aluminum or galvanized steel frame and door(s) with diamond plate surface.
- Any aluminum in contact with concrete shall be coated with an appropriate corrosion protective coating prior to installation.
- Hold open locking arm or 180 degree opening arc.
- Full open clear space with no intermediate bracing.
- H20 rated.
- Spring assist opening.
- Stainless steel hinges and hardware.
- Recessed padlock hasp with cover.
- Channel frame for water collection with frame drain connection. Plumb hatch frame drain to vault drain using Sch 40 PVC, secured to walls and ceiling.
- Slam lock with un-keyed interior operator to prevent accidental entrapment.

9-30 Water Distribution Materials

9-30.1 Pipe

This section is supplemented with the following:

9-30.3(6) Valve Stem Extensions

This section is supplemented with the following:

Refer to District Standard Detail for additional requirements.

9-30.3(7) Combination Air Release/Vacuum Valves

This section is supplemented with the following:

Refer to District Standard Detail for additional requirements.

9-30.3(8) Tapping Sleeve and Valve Assembly

Replace the last three sentences with the following.

Valves shall meet the requirements of AWWA C509 or C515. Tapping valves shall be of the same type as other valves on the project. Sleeves shall be stainless steel or fusion bonded epoxy lined and coated steel. Tapping tee working pressure rating shall be no less than 150 psi. Higher pressure ratings may be required at the discretion of the District.

9-30.6(1) Saddles

Replace this section in its entirety.

Refer to District Standard Details. Select a saddle where the pipe outside diameter falls within the saddle fitting range. The pipe outside diameter must be larger than, not equal to, the smallest value of the saddle fitting range.

9-30.6(3)B Polyethylene Tubing

Replace this third paragraph with the following.

Tubing used for 2-inch and smaller shall be SDR9 CTS (copper tube size).

9-30.6(4) Service Fittings

This section is supplemented with the following:

Fittings for polyethylene tubing shall utilize Ford Quick Joint, Mueller 110, or approved equal. Pack-joints are not allowed.

9-30.6(5) Meter Setters

Replace this section in its entirety.

Refer to District Standard Details.

9-30.6(7) Meter Boxes

Replace this section in its entirety.

Refer to District Standard Details.

Name of Extension:	

PERFORMANCE AND GUARANTEE BOND

(For DEVELO	OPER Projects)
Washington, a municipal corporation, hereinafter designated as	
hereinafter designated as the "DEVE DISTRICT for permission and authority to install water improved described, which agreement is on file in the DISTRICT office a	
WHEREAS, said DEVELOPER and his contractor is r DISTRICT a bond for the faithful performance of said agreeme THEREFORE,	required, under the terms of said agreement to furnish the nt in accordance with the conditions hereafter set forth, NOW,
We, the undersigned DEVELOPER and contractor, as	
, a corporation organized and e	xisting by virtue of the laws of the State of
firmly bound unto the State of Washington, and said DISTRICT	usiness in the State of Washington, as surety, are held and
of which we do jointly and severally bind ourselves, our heirs, e and assigns by these presents.	executors, administrators, personal representatives, successors,
THE CONDITIONS OF THIS OBLIGATION are such successors, and assigns shall well and truly keep and observe all contract and shall faithfully perform all the provisions of the commaterial men and all persons who shall supply such person or su work and all legal, engineering and other professional fees and shall indemnify and save harmless the DISTRICT, its officers a any of said terms, covenants, and conditions to be performed by	ntract and pay all laborers, mechanics, subcontractor, and abcontractors with provisions and supplies for carrying on such other costs and charges incurred or made by the DISTRICT and and agents, from any pecuniary loss resulting from the breach of
AND FURTHER, that the principal will correct or repl DISTRICT within a period of two years from the date of accept void; otherwise, it shall be and remain in full force and effect. It to be performed under the agreement shall, in any way, affect put hereby waive notice of any change, extension of time, alteration	No change, extension of time, alteration or addition to the work rincipal's or surety's obligation on this bond and surety does
and, pursuant to the requirements of the aforesaid application ar Revised Code of Washington, is made, executed, and delivered	s, subcontractors, material men, and all persons who supply such rrying on of the work covered by the agreement, irrespective of
IN WITNESS WHEREOF, the said principal and the s their duly authorized officers this day of	aid surety have caused this bond to be signed and sealed by , 20
Ву	By
Principal (DEVELOPER)	Contractor
PHICIPAL (DEVELOFER)	CONTROL
Ву	
Surety	

UTILITY EASEMENT (INDIVIDUAL)

THE GRANTOR(S),
For valuable consideration, in hand paid, receipt of which is hereby acknowledged, convey(s) and grant(s) to the Grantee, the EAST WENATCHEE WATER DISTRICT, its successors and assigns, a permanent, non-exclusive easement, over, under, in, along, across and upon, the following described property:
See Exhibit "A" attached hereto and made a part hereof by reference as though fully set forth.

For constructing, reconstructing, installing, repairing, replacing, operating, and maintaining water utilities and utility pipelines, together with the right of ingress and egress thereto without prior institution of any suit or proceedings of law and without incurring any legal obligation or liability therefore. This easement is granted subject to the following terms and conditions.

- 1. The Grantee shall, upon completion of any work within the property covered by the easement, restore the surface of the easement, and any private improvements disturbed or destroyed during execution of the work, as nearly as practicable to the condition they were in immediately before commencement of the work or entry by the Grantee.
- 2. Grantor shall retain the right to use the surface of the easement if such use does not interfere with the easement rights granted to the Grantee. Grantor shall not, however, have the right to:
 - a. Erect or maintain any buildings or structures within the easement (including foundation footings and roof overhangs); or
 - b. Plant trees; or shrubs; or vegetation having deep root patterns which may cause damage to or interfere with the utilities to be placed within the easement by the Grantee; or
 - c. Develop, landscape, or beautify the easement area in any way which would unreasonably increase the costs to the Grantee of restoring the easement area and any private improvements therein.
 - d. Install asphalt or concrete surfaces greater than 4-inches thick (inclusive of future overlays); or reinforced concrete surfaces of any thickness.

This easement shall be recorded with the Douglas County Auditor, shall run with the land described herein, and shall be biding upon the parties, their heirs, successors in interest, and assigns.

APPLICATION FOR SERVICE ACCOUNT

EAST WENATCHEE WATER DISTRICT 692 EASTMONT AVE; E. WENATCHEE, WA 98802 PHONE 509-884-3569; FAX 509-886-0550



INSTRUCTIONS:

- 1. PRINT AND PRINT OUT FORM AND SIGN AT BOTTOM
- 2. YOU MAY FAX OR MAIL FORM ONCE COMPLETED OR DROP IT OFF AT THE OFFICE AT 692 EASTMONT AVE.

SERVICE ADDRESS:		
APPLICANT'S NAME		PHONE
MAILING ADDRESS (if different than above)		
Are you Buying? If so, please fill out the next line		
SELLER	BUYER	
Are you Renting? If so, please fill out the next line		
OWNER	RENTER	<u> </u>
EFFECTIVE DATE		

The undersigned applicant hereby applies for a water connection to the above described property. The applicant is the owner or customer of the described property or the authorized agent of the owner. By signing this application, the applicant agrees, as a condition of the East Wenatchee Water District providing and continuing service to the above described property, to comply with all provisions of the District's cross connection control program, and other such rules and regulations now existing or which may be established from time to time governing the public water system. The applicant specifically agrees to install and maintain at all times their plumbing system in compliance with the most current edition of the plumbing code having jurisdiction as it pertains to the prevention of water system contamination, prevention of pressure surges and thermal expansion in their water piping. For thermal expansion, it shall be assumed that a check valve is installed by the East Wenatchee Water District on the water service. Further, the applicant agrees not to make a claim against the East Wenatchee Water District or its agents or employees for damages and/or loss of production, sales or service, in case of water pressure variations, or the disruption of the water supply for water system repair, routine maintenance, power outages, and other conditions normally expected in the operation of a water system.

The District does not guarantee the quality of water on the customer's side of the meter, in the customer's service line, or household plumbing, related to taste, odor, or to growth of bacteria.

The District is not responsible for installation, operation, maintenance or replacement of any plumbing or equipment on the customer's side of the meter vault.