MCNULTY WATER PEOPLE'S UTILITY DISTRICT

WATER LINE CONSTRUCTION STANDARDS

November 5, 2013

ENGINEERING SPECIFICATIONS:

- All work and materials used are to be in compliance with the rules of the Oregon State Health Division's Drinking Water Program.
- 2. Easements and Right-of-Way approvals for the water line construction must be submitted to the District prior to start of any work. On Highway 30, construction work approval is required from the Oregon Department of Transportation (ODOT)-Sylvan Office. In the streets, roads and lanes, the right-of-way approval is required from Columbia County Road Department (St. Helens).
- 3. Before any digging occurs, the location of all utilities in the construction work area will be established. The State of Oregon requires that the Oregon Utility Notification Center be contacted at 1-800-332-2344 prior to any excavation work.
- 4. The minimum pipe size will be a six (6) inch water line, unless otherwise approved by the District. PVC pipe shall be Class 200 (IPS) (AWWA Approved).
- 5. Tracer wire: A blue covered size No. 14 (AWG) wire will be the minimum used for pipe location and the access points to the wire shall not be over 1000 feet.
- 6. Water lines will be installed using a straight line pattern and maintain at least a depth of cover of 30 inches from finished grade to top of the pipe. Common trenches with other utilities (power, gas or telephone) will not be approved.
- 7. Gate valves will be resilient seal type and are required to be located at tees and at related connections to provide for isolation of all the sections of the system.
- 8. Thrust blocks will be used as required. (See attachment #1). Tee, elbows, blow offs or hydrant will be poured against undisturbed soil or have required restraints.

- 9. Class "D" backfill is required for all water mains and services in the improved section of driveways, roadways and/or parking areas. Gravel used for backfill will be 3/4" minus material.
- 10. Water lines will not be covered until the District grants approval. Partial backfill can occur but if the pressure test fails, the contractor will be required to re-check all joints.
- 11. Any Asbestos Containing (AC) water line which is exposed will be removed in a non-friable condition (whole sections), the contractor will file a notification and fee with the Department of Environmental Quality (DEQ) in Portland. All AC pipe must be disposed of at a landfill that has a permit to take demolition waste (Hillsboro Landfill which requires a 24 hour notice).

PROJECT COMPLETION:

- 12. The contractor will conduct a pressure test on the water line and it will maintain at least 150 psi pressure for a time period of one hour. Also, a minimum amount of leakage will be allowed as long as it is below established standards for the pipe size, number of joints and testing pressure used. The District's engineer or manager/operator will be present for the conducting of the test.
- 13. The contractor will disinfect the installed water line using acceptable standards (dosage and time) and then properly flush the line. Waste water will not be discharged in a manner to reach public waters of the State. The District will collect and submit a water sample for lab testing. Additional water samples will be at the expense of the developer/contractor.
- 14. The pressure test of at least 150 psi will be achieved and a satisfactory water sample obtained prior to allowing any water service from the line.
- 15. Paving around gate valves, hydrants and blow-offs will be provided (See attachment #3).
- 16. The District will provide the service line connection to the water line (saddle-stop corp-piping-etc.) and will install the individual meters.

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17. The developer's engineer will submit two sets and, if available, a disk of as-built plans to the District.

FEES:

18. A minimum fee of \$750.00 for the manager's reviews, assistance and inspections for the entire project including water testing by the Lab will be paid with the plan submittal. Other fees for materials used and other costs will be billed after final acceptance of the project by the District. The District will invoice the developer for other related costs. The invoice will be paid within 30 days or the water supply may be turned off.