

**PLEASE ADD THE FOLLOWING NOTES TO THE ATTACHED PLAN  
(DRAWER D & E, FRA, ODOT, CC, AND WATER MAIN ONLY PLANS)**

**GENERAL NOTES**

- [ ] The City of Columbus, Construction and Material Specifications, 2018 edition and all revisions, including all supplements thereto, shall govern all construction items that are a part of this plan, unless otherwise noted.
- [ ] All water main materials and installations shall be in accordance with the current rules and regulations of the City of Columbus, Division of Water. All City of Columbus, Division of Water Standard Drawings shall apply to the project, unless otherwise noted.
- [ ] For any emergencies involving the water distribution system, please contact the Division of Water Distribution Maintenance Office at 614-645-7788.
- [ ] All brass fittings associated with water work, including repairs to the existing system, shall conform to the revised allowable lead extraction limit per the updated NSF/ANSI 61 Standard. The Division of Water's Approved Materials List has been updated to reflect this requirement.
- [ ] It shall be unlawful for any person to perform any work on City of Columbus water main systems without first securing license to engage in such work, as indicated in Columbus City Code Section 1103.02 and 1103.06. This work includes any attachments, additions to or alterations in any city service pipe or appurtenances (including water service lines and taps). This requirement may be met by utilization of a subcontractor who holds a City of Columbus Water Contractor License or a Combined Water/Sewer Contractor License to perform this work. Utilization of a subcontractor must meet the licensing requirements of City of Columbus Building Code, in particular Section 4114.119 and 4114.529.
- [ ] No person shall begin construction or installation of a public water main until plans have been approved by the State of Ohio Environmental Protection Agency (OEPA).
- [ ] The Contractor shall obtain the proper hydrant permit(s), and pay any applicable fees, for any approved hydrant usage deemed necessary for work under this improvement. Permits may be obtained through the Division of Water Permit Office (645-7330). The contractor shall adhere to all rules & regulations governing said permit and must have the original permit on site anytime in which the hydrant is in use. Cost to be included in the various bid items.
- [ ] All water mains shall be cleaned and flushed, and any water main 12-inch and larger must be properly pigged, in accordance with section 801.13 of the City of Columbus, Construction and Material Specifications.
- [ ] All water mains shall be pressure tested in accordance with section 801.14 of the City of Columbus, Construction and Material Specifications. 150 psi of pressure shall be maintained for at least two hours in any tested section.
- [ ] All water mains shall be disinfected in accordance with section 801.15 of the City of Columbus Construction and Material Specifications. Special attention is directed to applicable sections of A.W.W.A. C-651. When the water mains are ready for disinfection, the Inspector shall submit a written request for chlorination of the mains that need disinfected, three (3) sets of "as-built" plans (full size sheets only), the

as-built survey coordinates, water service reports and a pressure test to the City of Columbus, Division of Water. The contractor shall be responsible for all costs associated with the disinfection of all water mains constructed under this plan.

- [ ] Any section of water main that is longer than 20 feet in length shall be chlorinated. Hand swabbing methods will only be permitted for sections less than or equal to 20 feet in length. Use unscented household bleach for hand swabbing of pipe and fittings.
- [ ] Only one connection to an existing water main is permitted before disinfection of a new water main has been completed. All other connections must be made after the main has been disinfected.
- [ ] All water meters associated with this project shall be installed inside the proposed structure unless a meter pit is approved by the Administrator of the Division of Water. All meter pits must be approved prior to the issuing of any service permits and must conform to Standard Drawing L-7103 for 5/8" through 1" meters, or L-6317 A, B, C, D, & E for 1-1/2" or larger meters.
- [ ] No water service connection permits shall be issued or connections made to any water taps until water mains have been disinfected by the City of Columbus, Division of Water. When a 3-inch or larger tap is to occur on a 20-inch or larger water main, the Contractor shall notify the Division of Water Operations Control Center at (614)-645-7168 twenty-four (24) hours in advance of performing the tap.
- [ ] Water service boxes shall be placed 1' from the edge of the proposed or existing sidewalk between the sidewalk and the curb, or 2 feet inside the right-of-way or easement line when no sidewalk is present or proposed. Refer to Standard Drawing L-9901 for additional information.
- [ ] When performing water service line transfers, the Contractor shall flush the water tap prior to connecting to the existing service line
- [ ] All fire hydrants to be installed in the City of Columbus shall be painted with the color "Safety Orange". The fire hydrants shall be provided with two coats in a gloss enamel of the "Safety Orange" color for the entire hydrant. The tops of the fire hydrants are no longer required to be painted black. After installation of fire hydrants, the Contractor is responsible to apply touch up paint to any damage to the factory applied hydrant paint. Hydrants will not be accepted until any paint damage from shipping or installation has been repaired. Use hydrant touch up paint in accordance with the approved materials list.
- [ ] Maintain eighteen (18) inches vertical and ten (10) feet horizontal separation between any sanitary or storm sewer piping and all proposed water mains.
- [ ] When crossing the existing water main, and Low Strength Mortar (Item 613) is to be used as backfill, the Contractor shall provide Size No. 57 Crushed Carbonate Stone (CCS) 1 foot below to 1 foot above the existing water main.
- [ ] If during excavation, the polyethylene encasement on the existing water main becomes damaged, the contractor shall repair the polyethylene encasement per manufacturer's specifications and DOW Standard Drawings L-1003 and L-1004, at their own expense. Ensure that the entire exposed area is covered with new polyethylene encasement and securely taped, prior to backfilling.

[ ] Contractor shall adhere to the requirements of the Ohio Administrative Code Chapter 3745-83-02 Water Disruption of Service Rule. Excavate pits sufficiently below the area to be connected to in order to maintain water levels below the water main. If water from the pit enters the existing main, contact Division of Water immediately. Ensure that sufficiently sized pumps are utilized to remove water from the trench and backup pumps are kept on site for redundancy.

[ ] “Survey Coordinates” shall include all material, equipment, and labor necessary to obtain horizontal and vertical (northing, easting, and centerline elevation) survey coordinates for the water main improvements. The survey coordinates shall be obtained for the completed water main construction and shall include all valves, tees, crosses, bends, horizontal deflections, plugs, reducers, tapping sleeves, fire hydrants, air releases, curb stops, and casing pipe termini. Additional survey coordinates are required on the water main **every 200 feet** where no fitting or other water main structure is being installed within that length of the improvement.

All survey coordinates shall be referenced to the applicable County Engineer’s Monuments, and shall be based on the North American Datum of 1983 (NAD 83) with the (NSRS2007) adjustment, with further reference made to the Ohio State Plane South Coordinate System, South Zone, with elevations based on NAVD 88 datum. All coordinates (Northing, Easting, Centerline Elevation) shall be referenced to the nearest hundredth (N xxxxxx.xx, E xxxxxx.xx, C/L Elev. xxx.xx). All survey coordinates shall be accurate to within 1.0 foot horizontal and a tenth of a foot (0.10) or less vertical.

The coordinates shall be documented to the Engineer in digital spreadsheet form and shall include the applicable item, station, northing, easting, and centerline elevation. Coordinates shall be submitted to the Engineer on a bi-weekly basis. Coordinates shall also be required to be submitted to the Division of Water as part of the request for chlorination.

Lump sum payment is full compensation for all work involved in obtaining and documenting the survey coordinates as described in this specification.

**NOTE TO CONSULTANT:** Provide the x, y, z coordinate table for proposed work and blank spaces for as-builts on the sheets as required by the C.O.C. Water Distribution Engineering Section.

### **SPECIAL NOTES**

[ ] All water main valve boxes, water tap boxes, test stations, pitometer tap structures, meter pit covers, and other surface utility structures within the disturbed area shall be adjusted to grade. Any of these structures located within pavement, driveways, or other traveled areas, whether existing or proposed, shall be equipped with a traffic rated, heavy duty valve box and/or cover in accordance with the Standard Drawings. Existing water tap boxes to remain that are encountered within the project limits shall be cleaned out, centered over the curb stop, and adjusted to the proposed grade.

[ ] Riser rings will not be permitted on any newly installed valve boxes to bring valves to final grade. The contractor shall ensure that the boxes are installed at the correct grade for final paving operations and that their paving contractor installs pavement correctly at lids during paving operations. Valve lids are not permitted to set above final grade and shall be a maximum of ¼” below final grade.

- [ ] Where new conduit is proposed to cross an existing or proposed water main or water tap/service line, a minimum of 12-inches of vertical clearance shall be maintained between the conduit and the water main or tap/service line. A minimum of 3-feet of horizontal clearance (out to out) is required at locations where the conduit is parallel to the water main and at locations of water main thrust blocks.
- [ ] A minimum of 3 feet of horizontal clearance (out to out) shall be maintained between all existing water mains and foundations for poles, pull boxes, push button pedestals, and any other miscellaneous electrical structure.
- [ ] A minimum of 4 feet of cover is required prior to pressure testing any water main. A sufficient amount of backfill shall be installed to provide the adequate restraint in areas where required.
- [ ] The proposed water main shall be located a minimum distance of twenty (20) feet away from any existing or proposed structure, overhang or footer.
- [ ] All valve boxes, water tap boxes, and fire hydrants shall be located within the easement area.
- [ ] Approval of the water mains shown on this plan is contingent upon the completion of the water mains in \_\_\_\_\_.
- [ ] During construction, the Contractor shall use extreme caution not to damage the existing \_\_\_\_ inch water main due to minimal cover.
- [ ] Where indicated on the plans, the existing water main shall be abandoned; and any existing water service lines off this main shall be transferred to the new water main. Prior to abandonment of the existing water main, the proposed water main shall be pigged (if required), tested, chlorinated and put in service and then the existing water service lines shall be transferred. The Contractor shall maintain water service to all properties during construction of the new water main and shall notify all customers affected by the transfer of water service lines. To ensure that all existing water service lines are transferred to the new main, no water main shall be abandoned until the new water main has been put in service; all affected water service lines have been transferred; and the existing water main to be abandoned has been shut down for 24 hours. All visible valve boxes, fire hydrants, and water tap boxes on the water main to be abandoned, which will no longer be in service, shall be removed. All water mains to be abandoned shall be made water tight. The required surface restoration shall be paid for under the appropriate bid item(s).
- [ ] Fire hydrant relocations shall conform to applicable sections of Item 809 of the City of Columbus Construction and Material Specifications. Work shall consist of removing the existing hydrant, installing new 6" pipe and fitting as required to locate the fire hydrant 2 feet from back of proposed curb or 8 feet off edge of pavement, resetting hydrant and blocking as required. All 6" pipe shall be installed at 4'-0" minimum cover. Hydrant extensions shall be provided per Item 810, as required. Relocated fire hydrants shall be adjusted to proper grade and faced in the proper direction. When a hydrant is relocated fifteen (15) feet or more from the "Typical Hydrant Setting" valve location (see L-6409 & L-6637), an additional valve shall be installed, and restrained, within two (2) feet of the relocated hydrant. Payment is to be included under Item 809, Fire hydrant relocated.
- [ ] Relocated fire hydrants shall be put back in service as soon as possible. The Contractor shall notify the Division of Fire Alarm Office, 221-3132, whenever fire hydrants are taken out of service and placed back in

service. No two (2) adjacent fire hydrants shall be taken out of service concurrently.

- [ ] The Contractor shall coordinate his work such that no water customer will have their service disrupted more than two (2) times throughout the duration of this project.
- [ ] If a lead water tap is encountered during construction, the Contractor shall replace the existing lead tap with a copper line from the existing corporation stop to the new curb stop. Refer to Division of Water Standard Drawings L-7102C and L-9901 for information on water tap relocations, placing new curb stops, and relocating curb boxes. All work for this item shall be paid for under Item 805 – Water Service Line Transfer. A contingency quantity of XX EA has been included in the General Summary.
- [ ] The contractor is required to submit a sequence of construction to the City at the Preconstruction Conference. This sequence of construction should also detail the contractor's plans for testing and chlorination of the new mains, including the source of the water and location of temporary chlorination and blow-off taps. The City shall have the right to approve, reject or modify the construction sequence to ensure that the interruptions are held to a minimum. Note: The City may take up to 10 working days to respond to this submittal.
- [ ] Any work on the private water service line (between curb stop and meter) will require additional inspection by the Utility Meter Services Section (for 2-inch and smaller service lines) or the Utility Permit Office (for 3-inch and larger service lines). For 2-inch and smaller water service lines, call 614-645-8276, and for 3-inch and larger water service lines, call 614-645-8119, prior to 1:00 p.m. for same day inspection.

**FOR WATER MAIN ONLY PLANS:**

- [ ] The developer shall enter into an agreement with the City of Columbus, Division of Water in accordance with section 1105.15 of the Columbus City Codes prior to constructing any water mains.
- [ ] The developer shall deposit with the City of Columbus the total estimated cost for construction inspection prior to any construction operation.
- [ ] No person shall excavate any ditch, tunnel, trench or lay and drive within a radius of ten (10) feet from any tree, shrub, or evergreen standing on any public street, park, or public place without first obtaining a permit from the recreation and parks department, as per Title 9, Chapter 912 of City of Columbus Code (912.20). All trees, whether shown or not shown on the plans, are to be preserved unless approval to remove is given in writing by the Recreation and Park Department or their removal has been designated on the plans. Trees removed shall be completed as specified in Item 201 and described herein.

For any trees designated for removal that may be potential Indiana Bat habitat areas, removal shall only occur from October 15 to March 31. If the contractor prefers to remove the trees outside of this timeframe, a survey must be conducted according to the United States Fish and Wildlife Service and by a biologist with all the required Federal and/or State collection permits to determine the presence of any Indiana Bats. The data collected during the survey must be provided to the City according to the conditions of the permit(s) and any regulatory authority requirements. If no bats are present, the tree shall be removed within 24 hours of the survey being conducted. If bats are found to be present, then the tree shall remain and a protection and enhancement plan will be required.

The Contractor shall use special precautions to avoid damage to all other trees. When, in the opinion of the Engineer, trunks or branches would be endangered by the use of mechanical devices, hand excavation will be required. Unless otherwise specifically provided, the cost of tree protection, removal, and any required replacement shall be included in the price bid for the various water main items.

All trees, branches and wood chips removed from the project site shall be delivered to the City of Columbus for beneficial use. Contractor shall deliver trees to Southwesterly Composting Facility, 7000 Jackson Pike, Lockbourne, Ohio 43137 between 7 AM and 3PM, Monday through Friday. This requirement may only be waived if approved in writing by the engineer. Contractor shall submit scale tickets from composting facility to engineer. Stumps, roots and debris shall be disposed of according to the other contract items.

- [ ] There will be no cost participation by the City of Columbus, Division of Water for the installation of the \_\_\_ inch water main in \_\_\_\_\_.
- [ ] The City of Columbus, Division of Water will participate in the cost of materials only for the difference between an eight (8) inch water main and the \_\_\_\_\_ inch water main in \_\_\_\_\_, subject to authorization by Columbus City Council for payment of same.
- [ ] The developer shall submit water main costs within the specified time limit as per section 1105.15 of the Columbus City Codes to be eligible for water main reimbursement on this project.
- [ ] Since not all taps are being provided on this project with the installation of the new water main, it will be the developer's responsibility to provide taps, when necessary, at no cost to the City of Columbus. No taps shall be installed until the necessary permits are obtained.