

WATER MAIN/LINE NOTES

WML 1 ALL WATERLINE SERVICE SADDLES SHALL BE DOUBLE BOLT STAINLESS STEEL STYLE 306 AS MANUFACTURED BY ROMAC, OR EQUAL.

WML 2 LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL WATER LINES, SERVICES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT HIS DETAILS AND METHODS OF SUPPORTING THE WATER LINES ACROSS THE SEWER TRENCH TO THE ENGINEER FOR APPROVAL BY THE WATER DEPARTMENT. SUPPORT METHOD AND DETAIL APPROVAL SHALL BE SECURED PRIOR TO THE COMMENCEMENT OF EXCAVATION OPERATIONS.

WML 3 WATER MAINS SHALL, WHERE POSSIBLE, BE DEFLECTED AROUND STRUCTURES WITHOUT THE USE OF SPECIAL FITTINGS AND WITHOUT EXCEEDING THE MANUFACTURER'S ALLOWABLE DEFLECTION.

WML 4 THE CONTRACTOR SHALL HAND SWAB ALL PIPE AND FITTINGS THAT ARE NOT OTHERWISE DISINFECTED. THE AMOUNT OF CHLORINE TO BE USED DURING HAND SWABBING OPERATIONS SHALL BE DETERMINED BY THE VILLAGE OF ASHVILLE, WATER DEPARTMENT.

WML 5 ANY TESTING PERFORMED AGAINST EXISTING VALVES SHALL BE DONE AT THE CONTRACTOR'S RISK AND IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE ENGINEER. IF SATISFACTORY TEST RESULTS CANNOT BE OBTAINED AGAINST AN EXISTING VALVE, THE NEW LINE SHALL BE DISCONNECTED FROM THE EXISTING LINE, PLUGGED AND RE-TESTED. DAMAGE CAUSED TO EXISTING LINES AND VALVES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

WML 6 ALL COST TO PLUG AND BLOCK THE ENDS OF WATER MAINS AT LOCATION SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID FOR PIPE.

WML 7 WATER SERVICE BOXES SHALL BE LOCATED 6" TO 12" FROM THE ROADWAY RIGHT-OF-WAY LINE, UNLESS OTHERWISE AUTHORIZED BY THE VILLAGE ENGINEER.

WML 8 A DETECTABLE UNDERGROUND UTILITY MARKING TAPE SHALL BE INSTALLED APPROXIMATELY 18" BELOW GRADE. THIS TAPE SHALL CONSIST OF A MINIMUM 5 MIL. OVERALL THICKNESS, WITH A SOLID ALUMINUM FOIL CORE, WITH, A 2 MIL. CLEAR FILM REVERSE PRINT LAMINATED TO AN ALUMINUM FOIL TO 2 MIL. CLEAR FILM, MAKING THE FILM PERMANENTLY PRINTED. COLOR CODE SHALL BE BLUE INDICATING WATER AND ASSOCIATED LINES. THE TAPE SHALL BE MANUFACTURED TO WITHSTAND ALKALINE, ACIDIC AND NEUTRAL SOIL CONDITIONS. ANY DIRECTIONAL BORED PIPE SHALL HAVE A No. 6 BRAIDED WIRE, INSTALLED WITH THE PIPE. COST SHALL BE INCLUDED WITH THE PRICE OF PIPE. NO SEPARATE PAYMENT WILL BE MADE.

WML 9 THE CONTRACTOR SHALL SUBMIT TO THE VILLAGE ENGINEER FOR REVIEW, FIVE COPIES OF SHOP DRAWINGS FOR ALL MATERIALS, STRUCTURES, GRADATION CERTIFICATIONS AND EQUIPMENT BEFORE ANY OF THE SAID MATERIALS, STRUCTURES AND EQUIPMENT IS ORDERED. THE OWNER NOR THE VILLAGE OF ASHVILLE BEAR ANY RESPONSIBILITY TO ACCEPT ANY OF THE ABOVE-MENTIONED ITEMS WITHOUT A COMPLETE REVIEW OF SAID SHOP DRAWINGS. THE SHOP DRAWINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO SUBMISSION TO THE VILLAGE, THESE DOCUMENTS SHALL BE BOUND INTO A FOLDER WITH EITHER AN INDEX WITH # OF SHEETS FOR EACH ITEM OR PAGES IDENTIFIED THROUGHOUT.

WML 10 ALL WATER PIPE AND FITTINGS, AND METHODS OF CONSTRUCTION AND WORKMANSHIP FOR WATER LINES AND APPURTENANCES SHOWN AN THESE PLANS SHALL CONFORM TO THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, DIVISION 800 AND APPLICABLE REFERENCES THEREIN, CURRENT ON THE DATE OF CONTRACT, UNLESS THE REQUIREMENTS OF SUCH RULES AND REGULATIONS ARE UPGRADED OR MODIFIED BY THE FOLLOWING NOTES OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

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WATER MAIN/LINE NOTES (CONT.)

WML 11 WORK REQUIRING THE SHUTDOWN OF EXISTING WATER MAINS IS TO BE COORDINATED. WITH THE VILLAGE OF ASHVILLE WATER DEPARTMENT FORTY-EIGHT (48) HOURS PRIOR TO THE SCHEDULED. WORK BEING PERFORMED. ALL EFFECTED CUSTOMERS SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO THE SHUT DOWN.

WML 12 WATER MAINS SHALL BE DUCTILE IRON PIPE DESIGNED IN ACCORDANCE WITH THE LATEST REVISIONS OF A.N.S.I./A.W.W.A. C150/A21.50 FOR A MINIMUM 150 PSI (OR PROJECT REQUIREMENTS, WHICHEVER IS GREATER) RATED WORKING PRESSURE PLUS A 100 PSI MINIMUM SURGE ALLOWANCE; A 2 TO 1 FACTOR OR SAFETY ON THE SUM OF WORKING PRESSURE PLUS SURGE PRESSURE.

WML 13 WATER MAINS SHALL BE DUCTILE IRON PIPE, CLASS 52 (AWWA C151) WITH CEMENT MORTAR LINING AND SEAL COATING (AWWAC104) IN ACCORDANCE WITH VILLAGE SPECIFICATIONS. JOINTS SHALL BE RUBBER GASKET PUSH-ON MECHANICAL (AWWA C111). WATER MAIN FITTINGS SHALL BE OF DUCTILE IRON WITH CEMENT MORTAR LINING AND SEAL COATING WITH MECHANICAL JOINTS AND SHALL CONFORM TO AWWA C153.

WML 14 DUCTILE IRON PIPE SHALL BE MANUFACTURED IN THE U.S.A. IN ACCORDANCE WITH THE LATEST REVISION OF A.N.S.I. /A.W.W.A. C151/A21.51. EACH PIPE SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST OF AT LEAST 500 PSI AT THE POINT OF MANUFACTURED.

WML 15 PIPE SHALL HAVE STANDARD ASPHALTIC COATING ON THE EXTERIOR PIPE SHALL ALSO HAVE A CEMENT MORTAR ON THE INTERIOR IN ACCORDANCE WITH A.N.S.I. /A.W.W.A. C104/A21.4 OF THE LATEST REVISION.

WML 16 THE CLASS OR NOMINAL THICKNESS, NET WEIGHT WITHOUT LINING, AND CASTING PERIOD SHALL BE CLEARLY MARKED ON EACH LENGTH OF PIPE. ADDITIONALLY, THE MANUFACTURE'S MARK, COUNTRY WHERE CAST, YEAR IN WHICH THE PIPE WAS PRODUCED, AND LETTERS "DI" OR "DUCTILE" SHALL BE CAST OR STAMPED ON THE PIPE.


WML 17 PVC PLASTIC PIPE, A.W.W.A. C900 DR 18 FOR SIZES 4" TO 12" AND A.W.W.A. C905 DR 18 FOR SIZES 14" AND ABOVE MAY BE USED ONLY WHEN APPROVED BY THE VILLAGE OF ASHVILLE.

WML 18 ALL PIPING TWO (2") INCHES OR LESS IN DIAMETER BETWEEN THE WATER MAIN AND THE CONTROL VALVE OR THE METER PIT SHALL BE TYPE K, SOFT TEMPERED, COPPER TUBING CONFORMING IN ALL RESPECTS TO A.S.T.M. 888. FITTINGS SHALL BE HIGH QUALITY COPPER BRASS WITH AAWA APPROVED COMPRESSION TYPE JOINTS. IN GENERAL, THERE WILL BE NO FITTINGS PERMITTED BETWEEN THE WATER MAIN CONNECTION AND THE CONTROL VALVE.

WML 19 DEAD END WATER LINES SHALL TERMINATE WITH A FIRE HYDRANT AND A WATCH VALVE OR TWO ¾ INCH WATER SERVICE FOLLOWED BY SUFFICIENT LENGTH OF WATER LINE TO RESTRAIN THE VALVE AND SHALL BE FOLLOWED BY A MAIN LINE VALVE AND AN ADDITIONAL SECTION OF WATER LINED PLUGGED AND BLOCKED PER THE "STANDARD DRAWINGS".

WML 20 WATERLINES SHALL BE INSTALLED WITH A MINIMUM OF FOUR (4) FEET OF COVER MEASURED FOR THE FINISHED GRADE TO THE TOP OF THE WATER MAIN.

WML 21 ALL MAIN LINE VALVES, HYDRANT WATCH VALVES, CURB BOXES AND DEAD END LINES ARE TO BE MARKED WITH A 4"x4" 8'-0" OR 10'-0" PRESSURE TREATED WOOD POST WITH 4'-0" PROJECTING ABOVE THE FINISH GRADE AND THE TOP 1'-0" POINTED BLUE ON ALL FOUR (4) SIDES.

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WML 22 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HORIZONTAL AND VERTICAL DEFLECTIONS OR BENDS OF THE WATER LINES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECT WATER LINES TO PROVIDE 1'-6" VERTICAL AND 10'-0" HORIZONTAL CLEARANCE FROM SANITARY AND STORM SEWERS.

WML 23 IF THERE ARE ANY CONFLICTS IN GRADE BETWEEN WATER LINES AND GRAVITY SEWERS, THE WATER LINES SHALL BE LOWERED DURING CONSTRUCTION. CLEARANCES STATED MUST BE MAINTAINED.

WML 24 A PERMIT FOR EACH WATER SERVICE MUST BE OBTAINED FROM THE VILLAGE OF ASHVILLE, PRIOR TO MAKING A CONNECTION TO THE WATER SERVICE INSTALLED AS PART OF THIS PROJECT AND PRIOR TO MAKING ANY ADDITIONAL TAPS INTO THESE WATER LINES.

WML 25 THE WATER SERVICE TAPS SHALL CONSIST OF ALL PIPE, VALVES FITTINGS AND APPURTENANCES REQUIRED FROM AND INCLUDING THE WATER MAIN CONNECTION TO AND INCLUDING THE CONTROL VALVE AND BOX OR METER PIT.

WML 26 THE CAPS AND INSIDE OF ALL MAINLINE WATER VALVE BOXES SHALL BE PAINTED BLUE, AND THE CAPS AND INSIDE OF ALL FIRE HYDRANT GATE VALVE BOXES SHALL BE POINTED RED WITH TWO COATS OF RUST INHIBITIVE PAINT. PUBLIC FIRE HYDRANTS ARE TO BE PAINTED WITH TWO COATS OF FEDERAL SAFETY RED, SHERWIN WILLIAMS B54Y37 PER VILLAGE OF ASHVILLE 1507.08(A)(1). PRIVATE FIRE HYDRANTS ARE TO BE PAINTED FEDERAL SAFETY RED AND WHITE CAPS AND BONNETS PER VILLAGE OF ASHVILLE 1507.14(B)(4). HYDRANTS PLACES IN A FACTORY LOOPED SYSTEM SHALL BE PAINTED ALL FEDERAL SAFETY RED.

WML 21 ALL MECHANICAL FASTENERS, BOLTS. ALL THREAD ROD, ETC., ARE TO RECEIVE ONE COAT OF RUST INHIBITIVE POINT OR COATING.

WML 22 IF THE TOP OF THE OPERATING NUT IS MORE THAN THIRTY SIX (36) INCHES BELOW FINISHED GRADE, AN EXTENSION STEM SHALL BE FURNISHED TO BRING THE TOP OF THE OPERATING NUT TO WITHIN TWENTY-FOUR (24) INCHES OF FINISHED GRADE ELEVATION. ALL VALVE STEM EXTENSIONS ARE TO BE INSTALLED WITH THE EXTENSION SECURED DIRECTLY TO THE VALVE OPERATING NUT WITH GALVANIZED RESTRAINT CLIPS.

WML 23 THE COST OF ANY DEWATERING OPERATIONS REQUIRED FOR THE CONSTRUCTION OF THE WATER LINE SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

WML 24 ALL FITTINGS SHALL BE ADEQUATELY RESTRAINED WITH CONCRETE BLOCKING PER STANDARD AS LISTED IN THESE PLANS. ALL FITTINGS TO BE BLOCKED MUST BE THOROUGHLY WRAPPED IN PLASTIC SHEETING PRIOR TO PLACING CONCRETE.

WML 25 FIRE HYDRANTS ARE TO BE AMERICAN DARLING MARK 73-1 IN ACCORDANCE WITH VILLAGE OF ASHVILLE WITH THE FOLLOWING CLARIFICATIONS: GRANULAR BACKFILL SHALL BE ITEM 304, 4'-0" MINIMUM BURY, HARDWOOD BLOCKING SHALL BE REPLACED WITH CONCRETE REACTION BLOCKING AND HYDRANT INSTALLATION SETTING DETAILS SHALL CONFORM TO FIRE: HYDRANT INSTALLATIONS. HYDRANT LOCATION DETAILS (CITY OF COLUMBUS DETAILS): L-6637, TYPICAL HYDRANT SETTING TYPE "A"; L-7601, TYPICAL HYDRANT SETTING "A" MODIFIED (TO ELIMINATE EXCESSIVE BURY); L-6409, TYPICAL HYDRANT SETTING TYPE "B" AND "B" MODIFIED OR AS SPECIFIED BY THE VILLAGE.

WML 26 ALL NEW MAIN LINE AND HYDRANT WATCH VALVES ARE TO BE DIRECTLY ANCHORED TO THE AND BE ANCHOR TYPE FITTINGS.

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WATER MAIN/LINE NOTES (CONT.)

WML 27 TAPPING SLEEVES ARE TO BE FORD METER BOX STYLE FTSS ALL STAINLESS STEEL OR JCM 432 ALL STAINLESS STEEL.

WML 28 ALL GATE VALVES SHALL BE DUCTILE IRON RESILIENT WEDGE, TWO HUNDRED AND FIFTY (250) POUNDS PER SQUARE INCH (PSI), AS MANUFACTURED BY AMERICAN FLOW CONTROL OR APPROVED EQUIVALENT WHICH MEETS OR EXCEEDS THE REQUIREMENTS OF ANSI / AWWA C509.

WML 29 VALVE BOXES ARE TO BE TYLER 6500 SCREW TYPE FOR MAIN AND WATCH VALVES WITH FORD F-1000 CORPORATION STOPS, AND TYLER 94E CURB BOXES. VALVE BOXES ARE TO BE HEAVY DUTY IF LOCATED IN PAVED AREAS. CONTROL VALVES SHALL BE FORD Z44-333 VALVES.

WML 30 WATER MAIN CLEANING AND FLUSHING SHALL CONFORM TO ITEM 801.11 CMSC.

WML 31 HYDROSTATIC TESTS (AS REQUIRED IN SECTION 5 OF A.W.W.A C600) SHALL CONFORM TO ITEM 801.12 CMSC. 33. CHLORINATING OF COMPLETED PIPE LINE SHALL CONFORM TO ITEM 801.13 CMSC.

WML 32 FOR WATER SERVICE TAPS, WATER MAIN CONNECTION SHALL BE MADE USING FORD F-1000 CORPORATION STOPS. CONTROL VALVES SHALL BE FORD Z44-333 VALVES.

WML 33 WATER SERVICE BOXES ARE TO BE LOCATED IN PAIRS ALONG PROPERTY LINES. 8'-0" APART AND 2' - 0" OUTSIDE OF THE RIGHT-OF-WAY LINE, WHENEVER PRACTICAL.

WML 34 ALL WATER LINES SHALL BE TESTED (AWWA 600) AND STERILIZED (AWWA C651) BY THE CONTRACTOR IN ACCORDANCE WITH THE VILLAGE OF ASHVILLE AND AWWA SPECIFICATIONS. TESTING SHALL BE DONE UNDER THE SUPERVISION OF THE VILLAGE ENGINEER OR HIS AUTHORIZED REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.

WML 35 IT IS THE POLICY OF THE VILLAGE OF ASHVILLE THAT THE DESIGN OF THE WATER DISTRIBUTION SYSTEM IMPROVEMENTS BE SUCH THAT THE WORKING PRESSURE SHOULD NOT BE LESS THAN THIRTY-FIVE (35) POUNDS PER SQUARE INCH (PSI) DURING PEAK FLOW CONDITIONS, OR MINIMUM OF TWENTY (20) PSI DURING PEAK FLOW PLUS FIRE FLOW CONDITIONS. INDIVIDUAL BOOSTER PUMPS FOR THE PURPOSE OF RAISING SUPPLY LINE PRESSURE SHALL NOT BE PERMITTED FOR NON-SINGLE FAMILY RESIDENTIAL APPLICATION.

WML 36 THE METER PIT FOR SINGLE-FAMILY RESIDENTIAL APPLICATION, INCLUDING ALL PIPING, FITTINGS, EQUIPMENT, AND APPURTENANCES ARE SUBJECT TO APPROVAL BY THE VILLAGE OF ASHVILLE PRIOR TO INSTALLATION. METER PITS UNABLE TO BE PROVIDED WITH A GRAVITY FLOOR DRAIN MUST BE INSTALLED IN A DEDICATED METER ROOM. GRAVITY DRAWS SHALL HAVE A BACKFLOW PREVENTION INSTALLED.

WML 37 THE PRESSURE REQUIRED TO PERFORM HYDROSTATIC TESTING ON WATER LINES MUST BE 150 PSI FOR DOMESTIC LINES AND 200 PSI FOR FIRE SUPPRESSION LINES (PER NFPA 13). HYDROSTATIC TESTS (AS REQUIRED IN SECTION 5 OF AWWA C 600) SHALL CONFORM TO ITEM 801.12 CMSC.

WML 38 CHLORINATION OF COMPLETED PIPELINE SHALL CONFORM TO ITEM 801.13 CMSC.



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