

WATER AND SEWER NOTES

5/1/14; 1/28/16; 6/24/16

1. ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF MIDDLETOWN'S DESIGN MANUAL ADOPTED JUNE 14, 1999, ANY SPECIAL PROVISIONS AND AMENDMENTS THERETO.
2. THE CONTRACTOR SHALL NOT TAP OR OTHERWISE PENETRATE EXISTING WATER AND SEWER MAINLINES WITHOUT PRIOR APPROVAL FROM THE TOWN OF MIDDLETOWN.
3. THE CONTRACTOR SHALL NOT OPERATE VALVES ON EXISTING WATER AND/OR SEWER MAINS WITHOUT PRIOR APPROVAL FROM THE TOWN OF MIDDLETOWN.
4. THE CONTRACTOR IS RESPONSIBLE TO AVOID SPILLAGE OF RAW SEWAGE. THE CONTRACTOR SHALL FURNISH NECESSARY EQUIPMENT (SEWER PLUGGING, PUMPING, CONTAINMENT, ETC.) TO PREVENT SPILLAGE.
5. EXCAVATION WITHIN A COUNTY ROAD RIGHT-OF-WAY WILL NOT BE ALLOWED WITHOUT OBTAINING A PERMIT FROM THE FREDERICK COUNTY DIVISION OF HIGHWAY OPERATIONS FOR THE INSTALLATION OF UTILITIES, STORM DRAINS, ETC. TELEPHONE IS 301-600-1564.
6. EXISTING UTILITIES ARE SHOWN FROM THE BEST AVAILABLE RECORDS. THE CONTRACTOR SHALL TEST PIT IN THE AREA OF KNOWN UTILITIES TO VERIFY SIZE, ELEVATION, LOCATION AND TYPE PRIOR TO PERFORMING ANY WORK. ANY UTILITY, WHETHER SHOWN OR NOT, THAT IS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE OWNER IS TO BE NOTIFIED IMMEDIATELY. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT THE AUTHORIZATION OF THE OWNER, THEN THE CONTRACTOR ASSUMES THE RESPONSIBILITY FOR SAID CORRECTIONS OR ADJUSTMENTS.
7. ANY NECESSARY ADJUSTMENTS TO EXISTING MANHOLES, VALVE BOXES, ETC., ARE TO BE DONE SO BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ANY EXISTING FENCES, DRIVEWAYS, SIGNS, DRAINAGE PIPES, MAILBOXES, SHRUBS, TREES, ETC. DAMAGED OR REMOVED DURING CONSTRUCTION. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER.
8. THE CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-257-7777) 72 HOURS PRIOR TO START OF CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING SILT AND DEBRIS OUT OF THE SANITARY SEWER SYSTEM FOR THE DURATION OF THE CONTRACT.
10. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTY OWNERS AT ALL TIMES. THE CONTRACTOR, WITH THE OWNER APPROVAL, WILL COORDINATE WITH PROPERTY OWNERS IF ACCESS MUST BE INTERRUPTED FOR SHORT TIME PERIODS.
11. ALL WATER MAINS ARE TO BE DUCTILE IRON PIPE CLASS 52 FOR 8" DIAMETER AND LARGER OR AS REQUIRED BY THE DIRECTOR OF PUBLIC WORKS. 6" AND SMALLER DIAMETER SHALL BE CLASS 54 OR AS REQUIRED BY THE DIRECTOR. NO FOREIGN FITTINGS ARE PERMITTED IN THE TOWN SYSTEM. ALL FITTINGS AND VALVES SHALL BE ANCHORED WITH DUCTILE IRON RESTRAINING DEVICES AND ADJACENT PIPE SHALL BE ANCHORED FOR THE REQUIRED RESTRAINED LENGTH. SEE THE RESTRAINED LENGTH TABLE FOR ACTUAL REQUIREMENTS. ALL SANITARY SEWER IS TO BE PVC PIPE SDR 35

FOR DEPTHS OF 4 FEET TO 15 FEET. PVC C-900 SHALL BE USED FOR SEWER DEPTHS LESS THAN 4 FEET OR GREATER THAN 15 FEET. NO SEWER SHALL BE DEEPER THAN 18 FEET.

12. 1" WATER HOUSE CONNECTIONS AND WATER SYSTEM APPURTENANCES SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- A. CORPORATION STOPS: BY FORD METER BOX COMPANY CORPORATION STOP FORD FB 1000-4Q, OR MUELLER B-25008N.
- B. SEE TOWN STANDARD DETAILS FOR THE METER VAULT SETTING.
- C. ALL BRASS MATERIALS SHALL BE STAMPED WITH NL SIGNIFYING NO LEAD CONTENT.

13. ALL SEWER HOUSE CONNECTION CLEANOUTS AND WATER HOUSE CONNECTION CURB STOPS ARE TO BE LOCATED WITHIN 2' OF THE PROPERTY OR RIGHT OF WAY LINE AND IN LAWN AREAS.

14. NO OUTSIDE DROPS SHALL BE PERMITTED ON SEWER MANHOLES IN THE TOWN SYSTEM. SEE THE TOWN DETAILS FOR THE STANDARD INSIDE DROP REQUIREMENTS. MANHOLE INTERIOR JOINTS DO NOT NEED TO BE PATCHED OR DAMP PROOFED. EXTERIOR JOINTS TO BE DAMP PROOFED WITH MASTIC.

15. ALL SANITARY SEWER MANHOLES COVERS TO BE LABELED "TOWN OF MIDDLETOWN". ANY SANITARY SEWER MANHOLE THAT IS LOCATED IN GREEN SPACE AREAS SHALL BE CONSTRUCTED 1' HIGHER THAN FINISHED GRADE. MANHOLES SHALL BE CONSTRUCTED WITH "A-LOK OR STAR SEAL STYLE PIPE TO MANHOLE SEALS. BOOT STYLE SHALL BE BY SPECIAL EXCEPTION GRANTED BY THE DIRECTOR OF OPERATIONS.

16. CURBS TO BE PAINTED SAFTEY YELLOW 7.5' EACH SIDE OF A FIRE HYDRANT.

17. ANY STRUCTURES BUILT OVER OR IN ANY UTILITY EASEMENT WITHOUT PRIOR APPROVAL OF THE TOWN SHALL BE REMOVED AT THE OWNERS EXPENSE.

18. ALL SANITARY SEWERS AND SANITARY MANHOLES SHALL BE PRETESTED BY THE CONTRACTOR PRIOR TO SCHEDULING THE TOWN REPRESENTATIVE FOR FORMAL TESTING.

19. ALL WATERLINE MATERIALS AND CASTINGS MUST BE DOMESTICALLY PRODUCED.

APPROVED MATERIALS

WATER:

GATE VALVES: AFC 2500, MUELLER A2360, KENNEDY KENSEAL II RW

FIRE HYDRANTS: AFC B62B, MUELLER SUPER CENTURION, KENNEDY K81 (SAFETY RED ONLY)

VALVE BOXES AND CURB BOXES: DOMESTICALLY PRODUCED, CURB BOXES WITH KEY EXTENSION 18" MINIMUM.

1" WATER HOUSE CONNECTIONS AND WATER SYSTEM APPURTENANCES SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- A. CORPORATION STOPS: BY FORD METER BOX COMPANY CORPORATION STOP FORD FB 1000-4Q, OR MUELLER B-25008N (1").

B. SEE TOWN STANDARD DETAILS FOR THE METER VAULT SETTING.

FOR EXISTING SERVICES THAT ARE ¾", PROVIDE FOR FB 1000-3Q OR MUELLER B-25008N (¾"), FB 1000-6Q (1-1/2"). CURB STOPS SHALL BE B44-333Q OR B-25209. TAPPING SADDLE FOR 1" AND ABOVE, ALL BRONZE FORD S90 STYLE, 2-PIECE.

COPPER TYPE K IN THE APPROPRIATE SIZE SHALL BE CONTINUOUS WITHOUT JOINTS FROM THE CORPORATION TO THE CURBSTOP UNLESS MANUFACTURERS STANDARD ROLL SIZE IS PROHIBITIVE.

TEMPORARY WATERLINE: MINIMUM 3" MAIN AND ¾" SERVICE, SHUT OFF VALVE AT EACH SERVICE, DISINFECTED AT THE PROJECT SITE PRIOR TO CONNECTION. PROTECTED AS NEEDED FOR FREEZING AND TRAFFIC.

GRADES SHALL BE MAINTAINED BY SETTING UP ADDITIONAL STAKES FROM THE STAKEOUT AND USING STRINGLINE BETWEEN. LEVEL OFF THE STRINGLINE OR STAKES TO SET THE SUBGRADE AND TOP OF PIPE.

SERVICE LINES SHALL BE BEDDED IN NATURAL SAND AND BACKFILLED TO 12 INCHES ABOVE THE PIPE IN ACCORDANCE WITH THE APPROVED PLANS. FOR MAINS IN EXISTING ROADWAYS THE TRENCH SHALL BE BACKFILLED TO ROAD SUBGRADE WITH DCR6 (FULL DEPTH). PROVIDE DETECTABLE TAPE 12" ABOVE THE PIPE. PROVIDE 10 GA COPPER INSULATED TRACER WIRE FROM VB TO VB.

INTERIOR OF PIPE SHALL BE FREE OF ROCKS, STONES AND OTHER DEBRIS THAT CANNOT BE FLUSHED OUT OF THE SYSTEM. UTILITY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE DIRECTOR OF OPERATIONS. ALL FITTINGS AND VALVES SHALL EMPLOY DUCTILE IRON RESTRAINING GLANDS AND PIPE IN THE RESTRAINED ZONE (RESTRAINED LENGTH TABLE IS ON PLANS AND TYPICALLY SHOWN ON THE PROFILE) SHALL BE RESTRAINED BY USE OF "FIELD LOCK" GASKETS OR EQUAL. RED TAPE SHALL BE APPLIED TO THE JOINT UTILIZING A "FIELD LOCK" GASKET. FINISHED GRADE AT THE HYDRANTS SHALL BE A MINIMUM OF 18 INCHES BELOW THE STEAMER NUT AND PREFERABLY AT 4 TO 6 INCHES BELOW THE BRAKE AWAY FLANGE.

AFTER CONSTRUCTION OF THE LINE, FLUSH AND PERFORM A HYDROSTATIC TEST (NORMALLY 150 PSI AT THE HIGH POINT FOR 2 HOURS WITH CALCULATED PERMISSIBLE LEAKAGE). PRESSURE ON THE LINE MUST BE MAINTAINED WITHIN 5 PSI OF 150 PSI. A METER OR GRADUATED CONTAINER MUST BE PROVIDED FOR THE LEAKAGE MEASUREMENT. RESIDUAL CHLORINE WILL BE MEASURED BY THE TOWN AND MUST BE 10PPM AFTER 24 HOURS. A BACTERIA TEST AND POSITIVE RESULTS WILL BE REQUIRED PRIOR TO WHC'S BEING INSTALLED. (A MINIMUM OF 2 SAMPLES SHALL BE TESTED.)

WHC COPPER SHALL BE BEDDED IN NATURAL SAND (NO LIMESTONE SAND). CURB BOXES SHALL BE SET AT A MAXIMUM OF 2-FEET INSIDE THE PROPERTY LINE. 18 TO 24 INCH PIGTAILS SHALL BE PROVIDED ON THE HOUSE SIDE OF THE CURB STOP. THE END OF THE PIGTAIL MAY BE PLUGGED WITH AN ADAPTER AND PLUG OR THE COPPER MAY BE BENT OVER AND MADE WATERTIGHT. WHERE SERVICES ARE EXISTING THE CONTRACTOR SHALL CONNECT TO SERVICE PIPE WITH THE APPROPRIATE CONNECTOR.

FINAL TIE-IN OF THE NEW WATERLINE SHALL BE VISUALLY INSPECTED BY THE TOWN. PROVIDE DUCTILE IRON RESTRAINING GLANDS ON THE SOLID SLEEVES.

VALVE BOX ADJUSTMENTS: INITIAL: SET TO ½" BELOW BINDER ELEVATION. FINAL: USE 1-1/2" ADJUSTMENT RISE ("RIDE HEIGHT").

FIRE HYDRANTS MUST BE SAFETY RED FROM THE FACTORY. FIELD PAINTING IS NOT ACCEPTABLE.

ALL SERVICES MUST BE VISUALLY INSPECTED BY THE TOWN. THE CONTRACTOR SHALL MEASURE ALL SERVICE LINES FROM THE CORPORATION STOP TO THE CURB STOP AND THE CURB STOP TO 2 CORNERS OF THE RESIDENCE.

ALL 1-1/2" AND 2" WHC PIPING SHALL BE SDR-11, 160 PSI, HDPE PIPING WITH APPROPRIATE FITTINGS, NSF-61 APPROVED.