

HYDRANT INSTALLATION NOTES:

1. ALL MATERIALS SHALL BE MANUFACTURED IN THE USA OR CANADA ONLY. SEE BELOW FOR APPROVED MATERIALS.
2. ANY VARIATIONS FROM THIS DESIGN SHALL BE APPROVED BY THE CITY ENGINEER.
3. FOR VALVES THAT WILL BE PLACED IN THE PAVEMENT, THE TOP OF THE VALVE BOX SHALL BE LEFT 1 IN. BELOW FINISHED PAVEMENT GRADE AND A 1 IN. RISER INSTALLED TO BRING THE VALVE BOX TO FINAL GRADE.
4. TYPICAL COVER OVER WATER LINE IS 4 FT. ANY ADJUSTMENTS TO THIS PER THE PLAN OR DUE TO FIELD CONDITIONS WILL NEED TO BE ACCOUNTED FOR DURING INSTALLATION OF THE HYDRANT.
5. THE BURY LINE OF THE HYDRANT SHALL BE +/- 3 IN. FROM FINAL GRADE. ANY ADJUSTMENT TO THE SIZE OF THE HYDRANT MUST BE ACCOUNTED FOR BY THE CONTRACTOR PRIOR TO INSTALLATION. EXTENSIONS WILL NOT BE ALLOWED UNLESS APPROVED BY THE CITY ENGINEER.
6. ALL BLOCKING MUST BE HARD WOOD, NO CONCRETE OR BRICK WILL BE ALLOWED IN CONTACT WITH THE PIPE OR ANY OTHER FITTING.

STANDARD WADSWORTH HYDRANTS

- MUELLER SUPER CENTURION
 4'-0" BURY - 423-547155
 4'-6" BURY - 423-547156
 5'-0" BURY - 423-547157
 5'-6" BURY - 423-547158
 6'-0" BURY - 423-547159

CLOW MEDALLION (HYDRANT APPROVED)

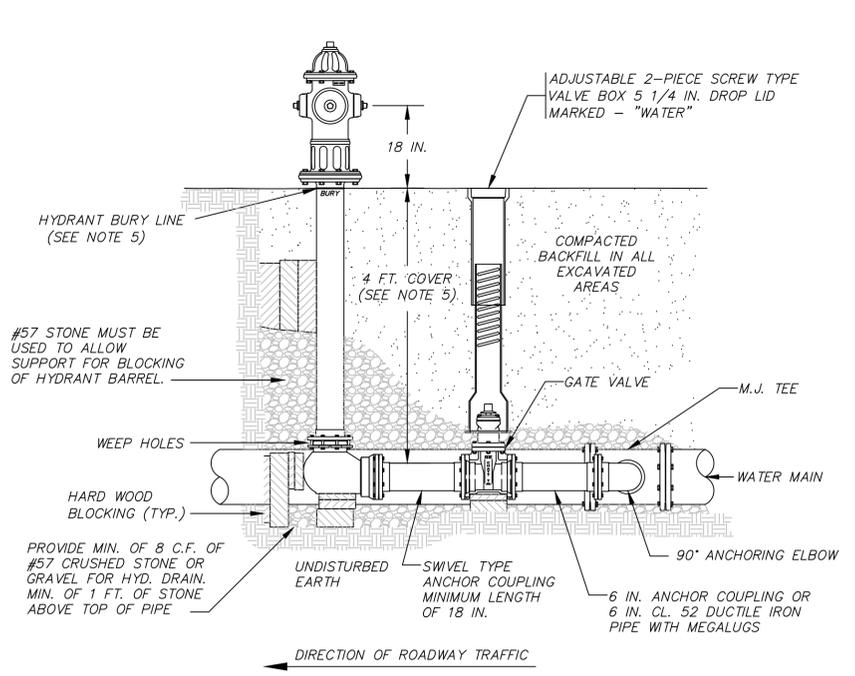
- 5'-0" BURY - 4150520L8PRO229
 5'-6" BURY - 415520L8PRO229

EAST JORDAN

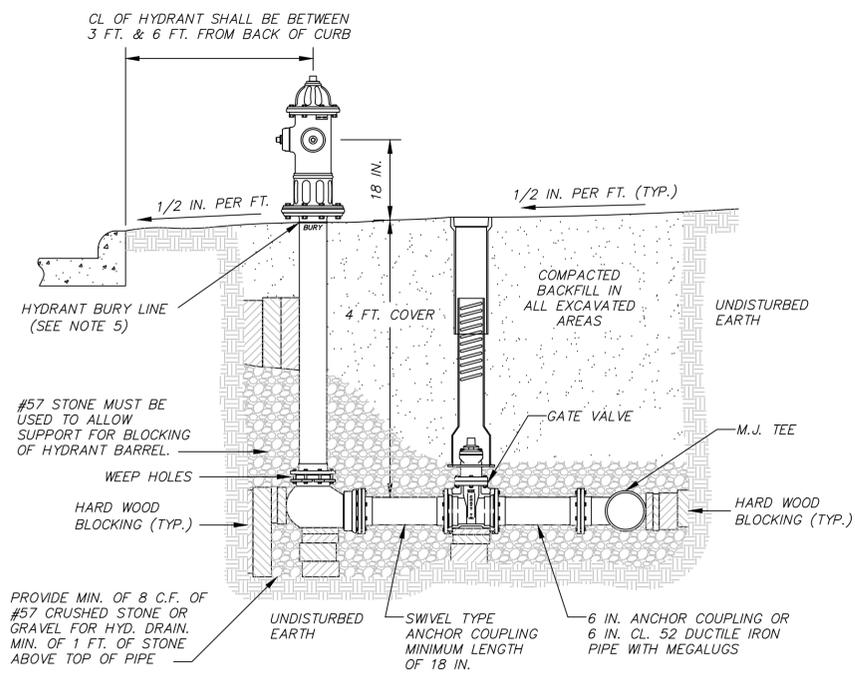
- 4'-6" BURY - 72939D
 5'-0" BURY - 73939D
 5'-6" BURY - 74939D

APPROVED WATERLINE MATERIALS

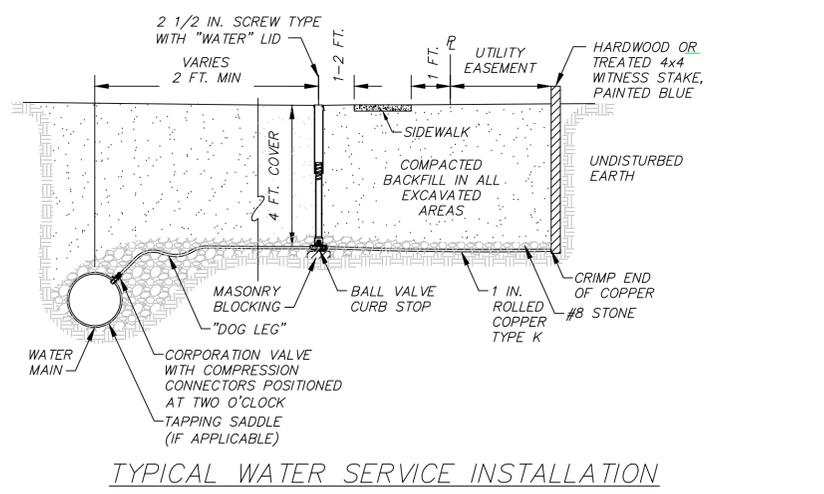
- GATE VALVE - MUELLER A-2362 (16" OR SMALLER)
 2-PIECE VALVE BOX (5 1/4") - TYLER UNION 6850, BINGHAM & TAYLOR 4905, BIBBY STE. CROIX PER APPROVAL
 TEE / SWIVEL ANCHOR - TYLER UNION MECHANICAL JOINT C153 DUCTILE IRON FITTINGS
 TAPPING SLEEVE - TRIPLE TAP SERIES TS, SMITH-BLAIR 665, MUELLER H-615



TYPICAL HYDRANT INSTALLATION (PARALLEL)



TYPICAL HYDRANT INSTALLATION (PERPENDICULAR)

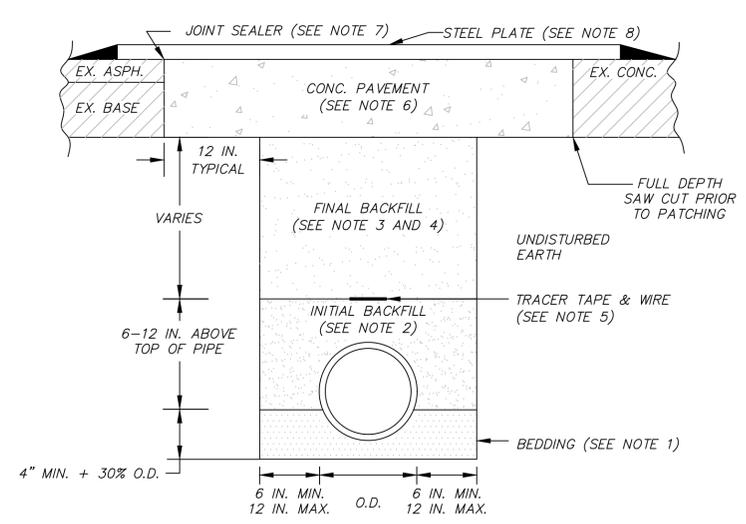


TYPICAL WATER SERVICE INSTALLATION

- NOTES:**
1. UNIONS REQUIRED TO CONNECT NEW COPPER TO AN EXISTING COPPER SERVICE SHALL BE A 3-PART UNION, COMPRESSION TYPE.
 2. MAINLINE TAPPING
 - 2.1. DUCTILE MAIN - ALL 1 IN. SERVICES SHALL BE DIRECTLY TAPPED INTO THE MAIN. NO SADDLES WILL BE PERMITTED ON DUCTILE WATERLINES.
 - 2.2. PVC MAIN - SHALL USE AN APPROVED DUCTILE IRON SERVICE SADDLE.
 3. NO SERVICE LINE TAPS ARE PERMITTED WITHIN A 6 FT. RADIUS OF ANY HYDRANT, VALVE OR OTHER APPURTENANCE.
 4. NO VALVE BOX EXTENSIONS WILL BE PERMITTED.
 5. SERVICES GREATER THAN 1 IN. AND LESS THAN OR EQUAL TO 2 IN. SHALL USE AN APPROVED DUCTILE IRON SERVICE SADDLE. THE CORPORATION STOP AND CURB STOP SHALL BE THE SAME MAKE AND MODEL AS REQUIRED FOR 1 IN. SERVICES. THE STREET BOXES SHALL BE BINGHAM & TAYLOR TWO-PIECE SCREW TYPE SIZE 144-RR 4-1/4 IN. SHAFT WITH ARCH BASE.
 6. SERVICES GREATER THAN 2 IN. SHALL HAVE SHUT-OFF VALVES IN A LOCATION APPROVED BY THE ENGINEERING DEPT. GATE VALVES AND BOXES SHALL BE THE SAME AS REQUIRED FOR MAIN LINES, SEE CITY OF WADSWORTH STANDARD DETAILS.

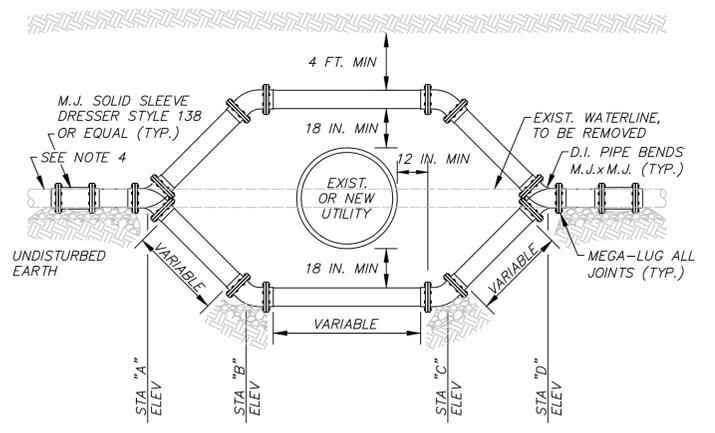
APPROVED WATER SERVICE MATERIALS

- BALL VALVE CORPORATION STOP - FORD FB1000-xx-Q-NL, MUELLER 300 BALL TYPE WITH 110 COMPRESSION CONNECTION
 BALL VALVE CURB STOP - FORD B44-xxx-Q-NL, MUELLER 300 B25209
 QUICK JOINT COUPLING - FORD C44-xx-Q-NL, MUELLER 3 PART UNION H-15403
 SERVICE BOX (2 1/2") - BINGHAM & TAYLOR 93-E (33"-52"), BINGHAM & TAYLOR 94-E (40"-60"), TYLER 6500 SERIES, 95E
 DUCTILE IRON SERVICE SADDLE - DOUBLE STRAP-STAINLESS STEEL SMITH-BLAIR 317 SERIES WITH CC THREADS, MUELLER DR2S SERIES WITH CC THREADS, FORD FC202 WITH CC THREADS OR APPROVED EQUAL



TYPICAL WATER MAIN TRENCH SECTION

- NOTES:**
1. BEDDING SHALL BE #8 OR #9 CRUSHED GRAVEL PER DETAIL.
 2. INITIAL BACKFILL SHALL BE #8 OR #9 CRUSHED GRAVEL 6" TO 12" ABOVE TOP OF PIPE. STONE IS TO BE RAKED TO AN EVEN LAYER.
 3. WITHIN 5' OF PAVEMENT EDGE OR WITHIN THE 1:1 INFLUENCE LINE OF SIDEWALK OR OTHER HARD SURFACE, FINAL BACKFILL SHALL BE 304 CRUSHED LIMESTONE OR GRAVEL. RECYCLED 304 IS NOT ALLOWED. DOCUMENTATION SHALL BE PROVIDED TO THE CITY THAT FINAL BACKFILL MEETS THE REQUIRED SPECIFICATIONS.
 4. BEYOND 5' OF PAVEMENT EDGE OR OUTSIDE THE 1:1 INFLUENCE LINE OF SIDEWALK OR OTHER HARD SURFACE, FINAL BACKFILL SHALL BE COMPACTED SUITABLE BACKFILL AS APPROVED BY THE CITY ENGINEER. CLEAN EXCAVATED MATERIAL CAN TYPICALLY BE USED. NO ORGANIC MATERIALS, MUD, LARGE ROCKS, DEBRIS, ETC. IS PERMITTED. IF EXCAVATED MATERIAL IS NOT ACCEPTABLE, THE CONTRACTOR SHALL PROVIDE APPROPRIATE BACKFILL AT NO ADDITIONAL COST TO THE CITY.
 5. TRACER TAPE MARKED "WATER" AND TRACER WIRE SHALL BE INSTALLED ON TOP OF THE INITIAL BACKFILL AND SHALL BE PARALLEL WITH THE WATERLINE.
 6. CONCRETE SHALL BE ODOT QC-MS UNLESS OTHERWISE APPROVED AND ITS THICKNESS SHALL MATCH EX. BASE WITH A MIN. OF 7 INCHES FOR RESIDENTIAL ROADS AND 9 INCHES FOR COLLECTOR, COMMERCIAL, AND ARTERIAL ROADS AND DOWELED INTO EXISTING CONCRETE PER ODOT BP-2.5.
 7. ALL JOINTS SHALL BE FILLED WITH HOT APPLIED JOINT SEALER IN ACCORDANCE WITH ODOT ITEM 409.02.
 8. STEEL PLATES MUST BE ON-SITE AT ALL TIMES AND SHALL BE ADEQUATE SIZE AND THICKNESS TO SPAN AN OPEN TRENCH BY AT LEAST 2' ON ALL SIDES. IF PLATES ARE TO BE LEFT OVER NIGHT, ALL EDGES SHALL BE TEMPORARILY RAMPED WITH BITUMINOUS ASPHALT MATERIAL. IN WINTER MONTHS, THE USE OF STEEL PLATES MUST BE APPROVED BY THE CITY ENGINEER.
 9. NO OPEN CUTS OF PAVEMENT SHALL BE ALLOWED WITHOUT THE APPROVAL OF THE CITY ENGINEER AND SAFETY DIRECTOR. ONE LANE OF TRAFFIC SHALL REMAIN OPEN AT ALL TIMES.



TYPICAL WATER LINE LOWERING DETAIL

- NOTES:**
1. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF WADSWORTH TO SHUT DOWN THE WATER MAIN. ALL RESIDENTIAL CUSTOMERS AFFECTED BY THE PROPOSED WORK SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO SHUT DOWN AND ALL COMMERCIAL PROPERTIES SHALL BE GIVEN 7 DAYS NOTICE.
 2. ALL RELOCATED WATERLINES SHALL BE INSTALLED TO THE NEW LINE GRADE, TESTED AND DISINFECTED PRIOR TO SHUT DOWN OF THE EX. MAIN AND CONNECTION OF THE RELOCATED LINES TO THE EX. MAIN.
 3. IF DEPTH OR LENGTH OF PIPE BETWEEN BENDS REQUIRES A JOINT, FIELD-LOK GASKETS SHALL BE INSTALLED AT ALL JOINTS.
 4. FOR WATERLINE LOWERING IN NEW CONSTRUCTION, FULL LENGTHS OF PIPE SHALL BE INSTALL OUT OF STA. "A" AND "D".
 5. IF ALL-THREAD IS USED FOR RESTRAINED JOINTS, IT SHALL BE STAINLESS STEEL AND IN ACCORDANCE WITH NFPA 10.8.3.1.2.