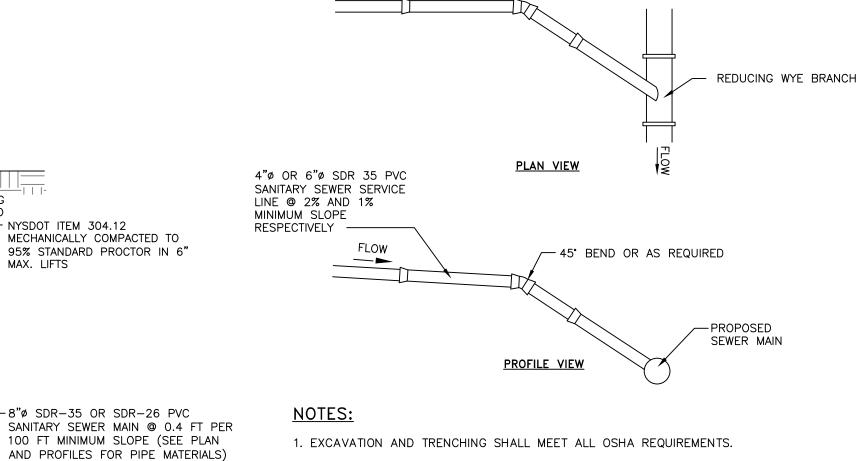


1. THE PROPOSED APARTMENTS ARE TO BE SERVED BY THE CITY OF BEACON MUNICIPAL SEWER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE, CHAPTER 179. 2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION. 3. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON CHIEF SEWER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE SEWER 4. SEWER MAIN MATERIAL SHALL BE 8" DIAMETER SDR-35 OR SDR-26 PVC BELL AND SPIGOT GRAVITY SEWER PIPE, WITH GASTIGHT AND WATERTIGHT JOINTS. 5. SEWER MAIN SHALL BE LAID IN STRAIGHT ALIGNMENT. MANHOLES SHALL BE CONSTRUCTED AT ALL CHANGES IN SLOPE, ALIGNMENT OR AT INTERVALS NOT EXCEEDING 400 LINEAR FEET. STRAIGHT ALIGNMENT SHALL BE VERIFIED BY DEFLECTION TESTING. 6. THE SEWER MAIN SHALL BE INSTALLED AND TESTED FOR EXFILTRATION PRIOR TO BEING PERMITTED TO OPERATE. ALL NEW SANITARY SEWER GRAVITY LINES SHALL PASS A LOW PRESSURE AIR TEST IN ACCORDANCE WITH ASTM C-828 AT A PRESSURE OF 3.5 PSI. 7. MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C-1244. IF PRESSURE DROP EXCEEDS THE SPECIFIED AMOUNT, THE NECESSARY REPAIRS OR REPLACEMENTS REQUIRED SHALL BE MADE TO REDUCE THE PRESSURE DROP TO WITHIN THE SPECIFIED LIMIT, AND THE TESTS SHALL BE REPEATED UNTIL THE REQUIREMENT IS MET. 8. SERVICE LATERALS SHALL BE 4" DIAMETER SDR-35 PVC WITH A MINIMUM SLOPE OF 2%, UNLESS OTHERWISE NOTED ON THE PLAN.

SANITARY SEWER NOTES:

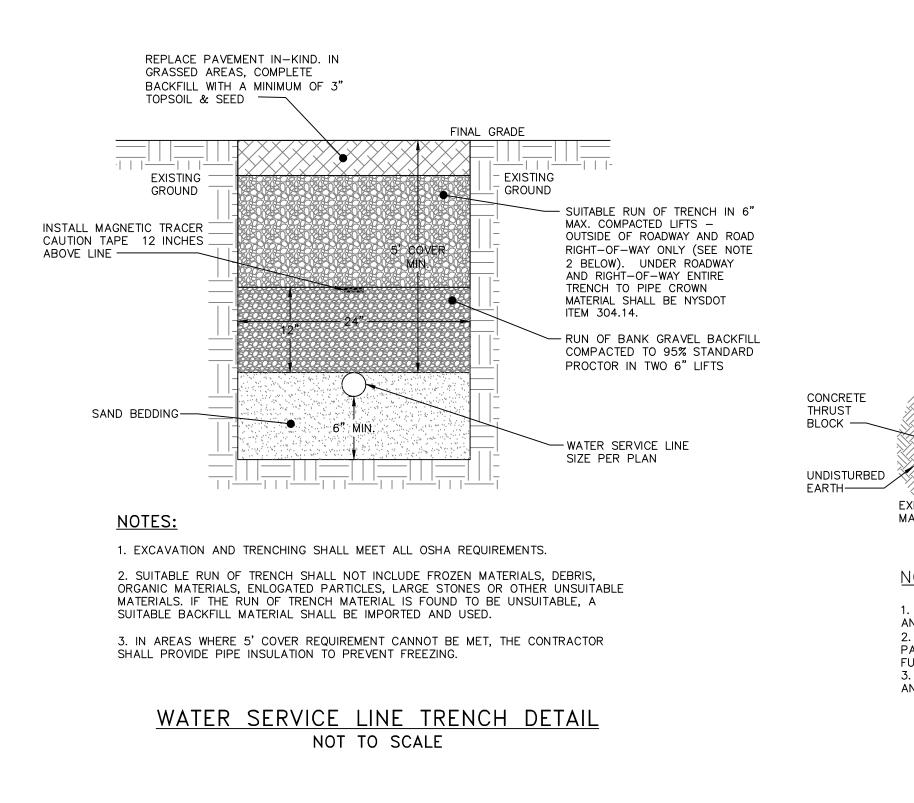


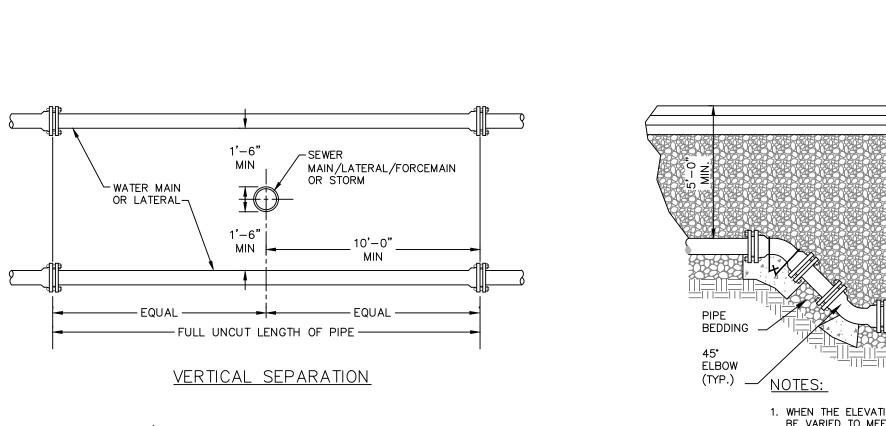
9. ALL SANITARY SEWER MAINS AND MANHOLES UP TO, BUT NOT INCLUDING, THE EXISTING MANHOLE

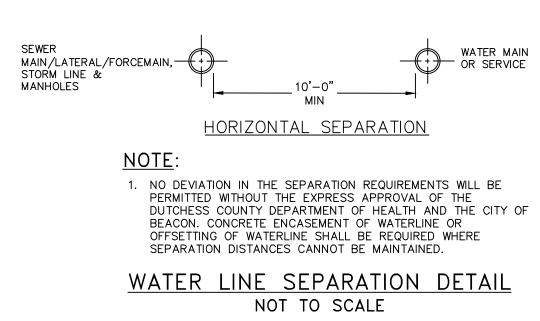
SHALL BE OWNED, OPERATED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

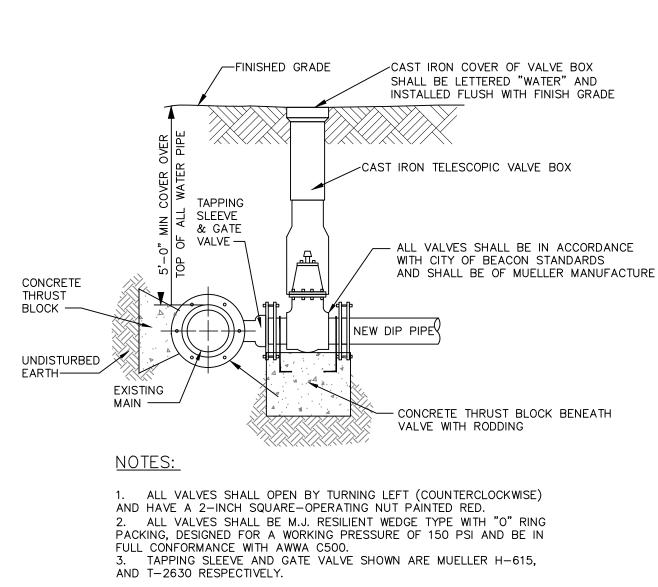
. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED. SANITARY SEWER SERVICE CONNECTION DETAIL

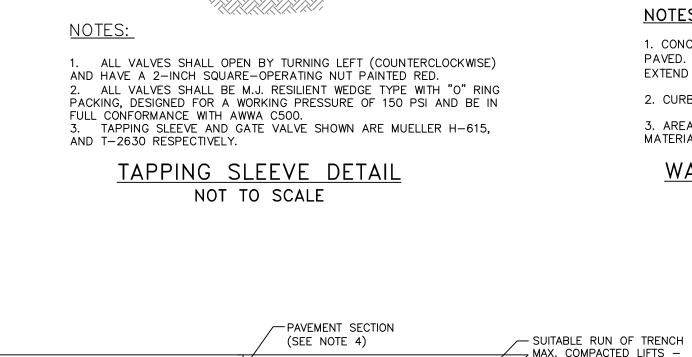


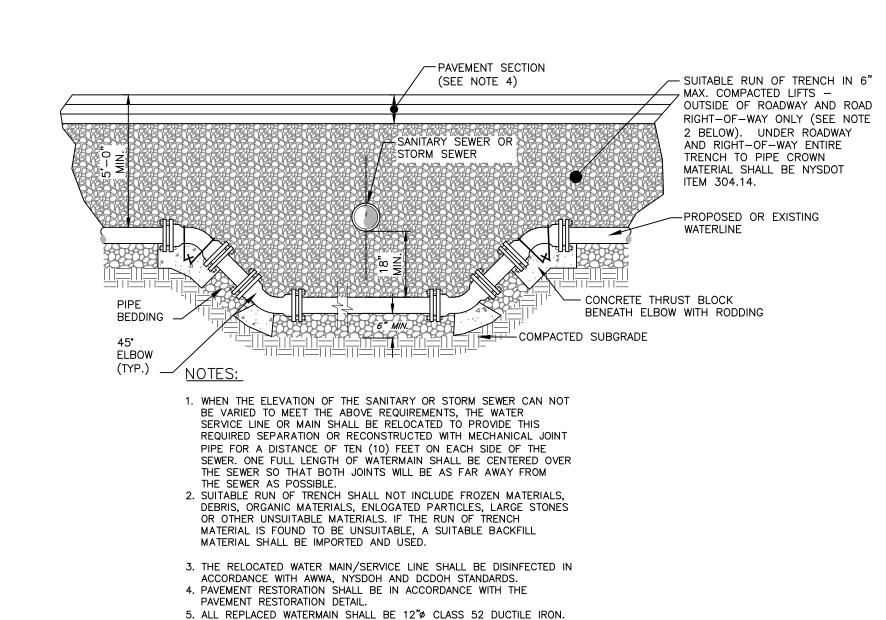


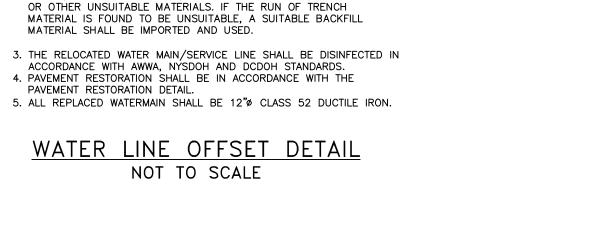


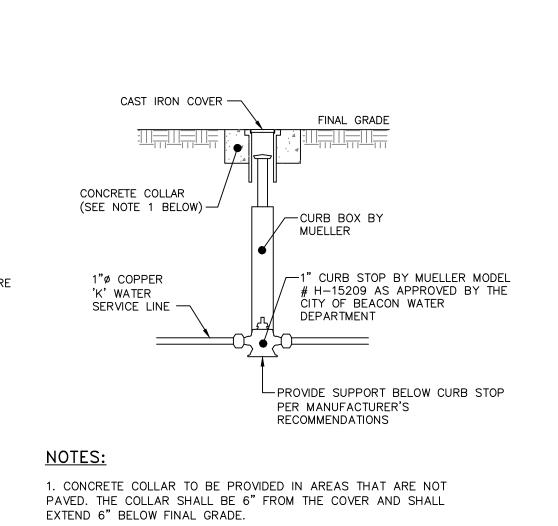




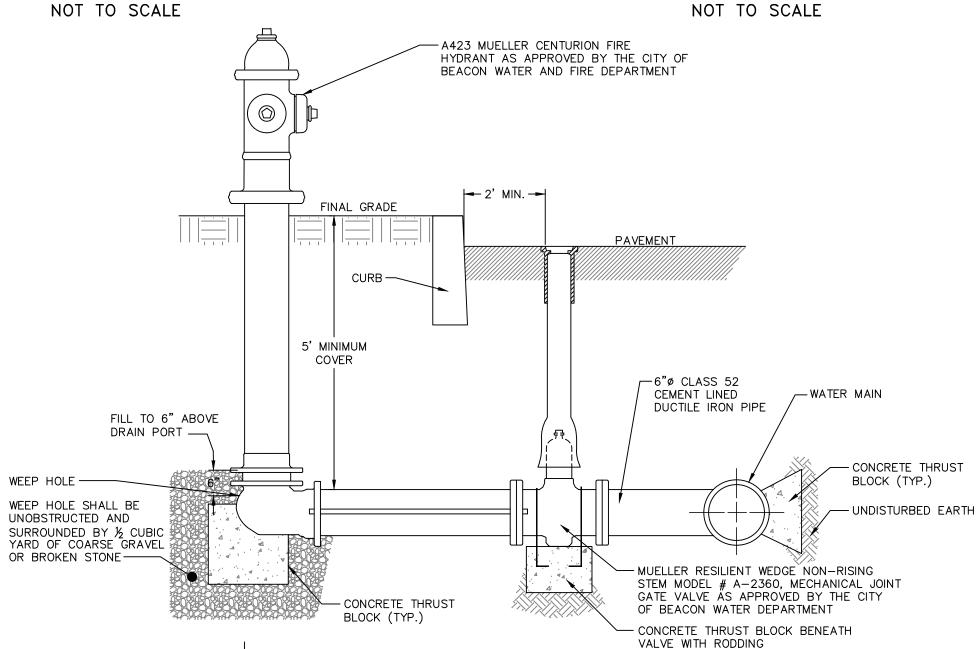








2. CURB STOP TO BE COMPRESSION TYPE BY MUELLER. 3. AREA AROUND CURB BOX TO BE BACKFILLED WITH GRAVELLY WATER SHUT-OFF VALVE DETAIL



CONCRETE COLLAR

5' MINIMUM

COVER

COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.

(SEE NOTE 1

BELOW) ———

1. THE GATE VÅLVE SHALL BE LOCATED THIRTY SIX (36) INCHES FROM THE HYDRANT CENTER LINE. 2. 1/2" STEEL TIE RODS TO BE PROVIDED BETWEEN THE GATE VALVE AND THE HYDRANT. HYDRANT DETAIL NOT TO SCALE

WATERMAIN DISINFECTION & TESTING 1. THE CONTRACTOR SHALL NOTIFY THE CITY OF BEACON WATER DEPARTMENT PRIOR TO TESTING AND SHALL ALSO COORDINATE HIS ACTIONS WITH THE CITY ENGINEER SO AS TO AVOID UNDUE DISTURBANCE OF THE WATER SUPPLY TO ANY EXISTING USERS. 2. THE CONTRACTOR SHALL INFORM THE DESIGN ENGINEER'S AND CITY ENGINEER'S OFFICE A MINIMUM OF 24 HOURS PRIOR TO TESTING SUCH THAT WITNESSING CAN TAKE PLACE AND PROPER CERTIFICATIONS CAN BE ISSUED. 3. ALL NEWLY INSTALLED WATER MAINS SHALL BE FLUSHED AT A MINIMUM VELOCITY OF 2.5 FT/SECOND BEFORE AND AFTER DISINFECTION. 4. ALL WATER LINES SHALL BE DISINFECTED USING THE PROCEDURES DESCRIBED IN THE LATEST EDITION OF AWWA C651 SPECIFICATIONS FOR DISINFECTION OF

EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

SANITARY SEWER MAIN TRENCH DETAIL

NOT TO SCALE

SPIGOT GRAVITY SEWER PIPE, WITH GASTIGHT AND WATERTIGHT JOINTS.

SEWER MAIN MATERIAL SHALL BE 8 DIAMETER SDR-26 PVC BELL AND

WATER LINES (WITH THE EXCEPTION OF THE TABLET METHOD). WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 25 MG/L FREE CHLORINE. CHLORINE APPLICATION SHALL NOT CEASE UNTIL THE ENTIRE MAIN IS FILLED WITH HEAVILY CHLORINATED WATER. 5. DISINFECTED WATER SHALL REMAIN IN THE NEWLY INSTALLED WATER LINE FOR A MINIMUM OF 24 HOURS. AFTER THIS RETENTION PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE MAIN UNTIL CHLORINE MEASUREMENTS SHOW A CONCENTRATION IN THE WATER LEAVING THE MAIN HAS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. AT SUCH TIME,

BACTERIOLOGICAL SAMPLING FOR SUBMITTAL TO STATE HEALTH LABORATORIES

SHALL BE PERFORMED BY THE CONTRACTOR. 6. WATER SAMPLES SHALL BE TESTED FOR TOTAL COLIFORM, TPC (HETEROTROPHIC PLATE COUNT), TURBIDITY & COLOR. 7. CONTRACTOR WILL CONTINUE FLUSHING AND DISINFECTION OPERATION UNTIL ACCEPTABLE BACTERIOLOGICAL RESULTS ARE OBTAINED. TWO (2) SUCCESSIVE SAMPLES ARE TO BE TAKEN AT TWENTY-FOUR (24) HOUR INTERVALS. 8. THE ENVIRONMENT INTO WHICH THE HEAVILY CHLORINATED WATER IS TO BE DISCHARGED SHALL BE INSPECTED, AND IF THERE IS ANY LIKELIHOOD THAT THE CHLORINATED DISCHARGE WILL CAUSE DAMAGE, THEN A REDUCING AGENT SHALL BE APPLIED TO THE WATER TO BE WASTED TO THOROUGHLY NEUTRALIZE THE CHLORINE RESIDUAL IN THE WATER. PERMITS MAY BE REQUIRED. THE CITY ENGINEER SHALL BE NOTIFIED PRIOR TO DISPOSAL OF HIGHLY CHLORINATED

WATER.

- NYSDOT ITEM 304.12

MAX. LIFTS

MECHANICALLY COMPACTED TO

1. THE PROPOSED BUILDING IS TO BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE, 2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION. 3. THE WATER MAIN SHALL BE INSTALLED, PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C600 (SEE NOTES BELOW). 4. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON WATER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE WATER MAIN INSTALLATION. 5. THE WATER MAIN SHALL BE DISINFECTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C651 (SEE 6. WATER MAIN MATERIAL SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND SHALL MEET THE REQUIREMENTS OF AWWA C150 AND ANSI A21.51.

7. MEGALUG RESTRAINING SYSTEMS SHALL BE USED AT ALL FITTINGS, VALVES AND HYDRANTS (SEE SCHEDULE ON SHEET 14). 8. GATE VALVES SHALL BE MUELLER RESILIENT WEDGE, NON-RISING STEM, MECHANICAL JOINT. 9. HYDRANTS SHALL BE A-423 MUELLER CENTURION, WITH A MUELLER GATE VALVE BEFORE THE HYDRANT. 10. SERVICE LINES SHALL BE 3/4" COPPER K, UNLESS OTHERWISE NOTED ON THE PLAN. 11. THE CONTRACTOR SHALL VERIFY THE EXISTING WATER MAIN MATERIAL AND BE PREPARED TO PROVIDE A SPECIAL COUPLING FOR CONNECTION OF THE PROPOSED DUCTILE IRON WATER MAIN. 12. A PRESSURE REDUCING VALVE SHALL BE INSTALLED FOR EACH NEW TOWNHOME, WATTS MODEL 25AUB-Z3 OR EQUAL AS APPROVED BY THE CITY OF BEACON WATER DEPARTMENT. 13. THE CITY OF BEACON SHALL OWN, OPERATE AND MAINTAIN THE WATER MAIN THROUGHOUT THE SITE, INCLUDING ALL APPURTENANCES. 14. THE HOA OR OWNER SHALL ANNUALLY EXERCISE ALL WATER VALVES.

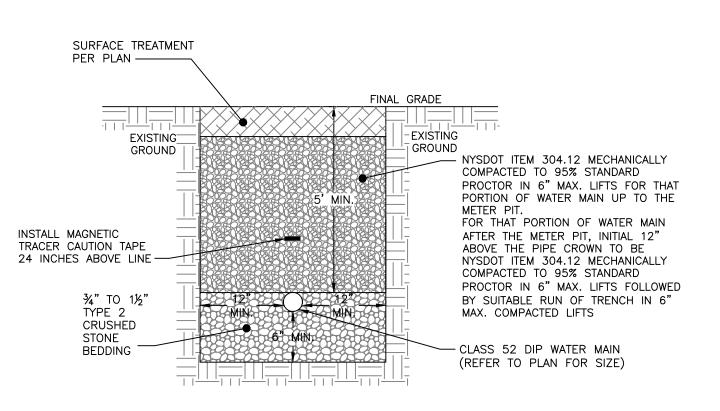
WATER MAIN PRESSURE & LEAKAGE TESTING GENERAL: ALL PIPING SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF AWWA C600, EXCEPT AS ADDED OR AMENDED BELOW: 1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR ANY AND ALL REQUIRED PIPE TAPS FOR TESTING, AND AS NECESSARY FOR TESTING AS SPECIFIED. EQUIPMENT WILL BE SUCH THAT THE ENGINEER MAY INSTALL HIS OWN PRESSURE GAUGE. 2. A PRESSURE TEST AND LEAKAGE TEST ARE REQUIRED FOR ALL PIPE.

3. TESTING TO BE PERFORMED ONLY AFTER PARTIAL OR COMPLETE BACKFILL AND RESTRAINT BLOCKING (USING

HIGH EARLY CEMENT) HAS HAD 36 HOURS TO CURE OR BLOCKING USING STANDARD CEMENT HAS HAD 7 DAYS 4. THE MAIN SHALL BE PARTIALLY BACKFILLED OR BRACED AGAINST MOVEMENT DURING THE TEST. ALL AIR MUST BE BLED OUT OF THE SECTION TO BE TESTED. IF NECESSARY, CONTRACTOR SHALL INSTALL CORPORATION STOPS AT THE HIGH POINTS, FOR BLOW-OFFS. AFTER ALL AIR HAS BEEN EXPELLED, THE CORPORATION COCKS SHALL BE CLOSED AND THE PRESSURE TEST APPLIED. AFTER EXAMINATION OF EXPOSED PARTS OF THE SYSTEM, THE TEST PRESSURE SHALL BE INCREASED TO 1 1/2 TIMES THE NORMAL PRESSURE, BASED UPON THE ELEVATION OF THE LOWEST POINT IN THE LINE OR SECTION UNDER THE TEST, BUT SUCH PRESSURE SHALL NOT BE LESS THAN 150 PSI NOR MORE THAN 200 PSI, AND EXPOSED PARTS AGAIN EXAMINED. THE MINIMUM DURATION OF THE LEAKAGE TEST SHALL BE TWO (2) HOURS. 5. ALLOWABLE SYSTEM LEAKAGE AS SPECIFIED IN THE REFERENCED STANDARDS. IF LEAKAGE IN SYSTEM IS GREATER THAN ALLOWABLE, CONTRACTOR WILL LOCATE AND REPAIR SYSTEM AT HIS EXPENSE AND RETEST, CONTINUE TO TEST AND REPAIR THE SYSTEM UNTIL LEAKAGE IS WITHIN ACCEPTABLE LIMITS. 6. NO DUCTILE IRON PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:

 $L = SD\sqrt{P}$ 148,000 L = LEAKAGE IN GALLONS PER HOUR S = LENGTH OF PIPE TESTED, IN FEET

D = NOMINAL DIAMETER OF PIPE IN INCHES P = AVERAGE TEST PRESSURE DURING LEAKAGE TEST, IN PSI (GAUGE)



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS. . WATER MAIN MATERIAL SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND SHALL MEET THE REQUIREMENTS OF AWWA C150 AND ANSI A21.51, UNLESS NOTED OTHERWISE ON THE PLANS. WATER MAIN TRENCH DETAIL NOT TO SCALE

CHECKED BY: DGK DRAWN BY: MAB **REVISIONS: REVISIONS:** NO. DATE DESCRIPTION BY NO. DATE DESCRIPTION 12/25/18 | REVISED FOR PLANNING BOARD SUBMISSION 02/26/19 REVISED FOR PLANNING BOARD SUBMISSION 03/26/19 NO CHANGE THIS SHEET 04/30/19 REVISED PER PLANNING BOARD COMMENTS MAB 05/28/19 | REVISED PER PLANNING BOARD COMMENTS | MAB

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☐ Dig With Care



SEE PAVEMENT SECTION, OR IN

BACKFILL WITH A MINIMUM OF 3"

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS

ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE

RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL

GROUND SUITABLE RUN OF TRENCH IN 6"

OF ROADWAY AND ROAD

NYSDOT ITEM 304.14.

TRACER CAUTION TAPE

12 INCHES ABOVE LINE

GRAVEL BACKFILL

IN TWO 6" LIFTS

MINIMUM SLOPE

COMPACTED TO 95%

STANDARD PROCTOR

- 4"ø OR 6"ø SDR 35 PVC

SANITARY SEWER SERVICE

LINE @ 2% AND 1%

MAX. COMPACTED LIFTS - OUTSIDE

RIGHT-OF-WAY ONLY (SEE NOTE 2

RIGHT-OF-WAY ENTIRE TRENCH TO

PIPE CROWN MATERIAL SHALL BE

SURFACE TREATMENT ———

INSTALL MAGNETIC

TRACER CAUTION TAPE

24 INCHES ABOVE LINE -

BELOW). UNDER ROADWAY AND

GRASSED AREAS, COMPLETE

TOPSOIL & SEED

MATERIAL SHALL BE IMPORTED AND USED.

CAST IRON COVER

CAST IN THE TOP

FINAL GRADE

TELESCOPING VALVE

___ 8"ø CLASS 52

CEMENT LINED

DUCTILE IRON

WATER MAIN

- MUELLER RESILIENT WEDGE NON-RISING

OF BEACON WATER DEPARTMENT

VALVE WITH RODDING

1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE

GATE VALVE DETAIL

CONCRETE THRUST BLOCK BENEATH

STEM MODEL # A-2360, MECHANICAL JOINT GATE VALVE AS APPROVED BY THE CITY

BOX BY MUELLER

WITH THE WORD "WATER"

EXISTING_



PLAN VIEW

1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE

3. WATER SERVICE LINE TO HAVE A 'GOOSENECK' NEAR CORPORATION

4. CORPORATION STOP TO BE INSTALLED IN THE UPPER HALF OF THE

WATER SERVICE CONNECTION DETAIL

NOT TO SCALE

2. CORPORATION STOP TO BE COMPRESSION TYPE BY MUELLER.

WATER MAIN AT AN ANGLE OF APPROXIMATELY 45° FROM

LINE (CONDITIONED ON ACTUAL WATER MAIN DEPTH).

IRON WATER

MAIN —

NOTES:

SERVICE LINE

-1" CORPORATION STOP

BY MUELLER MODEL #

SECTION VIEW THE CITY OF BEACON WATER

DEPARTMENT

H-15008 AS APPROVED BY

HUDSON LAND DESIGN PROFESSIONAL ENGINEERING P.C 174 MAIN ST., BEACON, NEW YORK 12508 13 CHAMBERS ST., NEWBURGH, NEW YORK 12550 PH: 845-440-6926 F: 845-440-6637

WATER AND SEWER DETAILS

23-28 CREEK ROAD CITY OF BEACON DUTCHESS COUNTY, NEW YORK

JOB #:	2018:029			
DATE:	10/	10/23/2018 AS SHOWN D-3		
SCALE:	AS			
TITLE:				
SHEET:	12	OF	12	