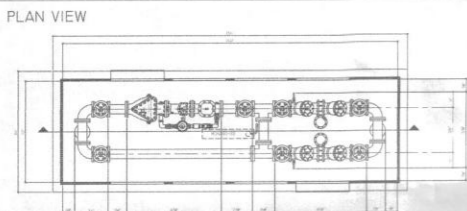
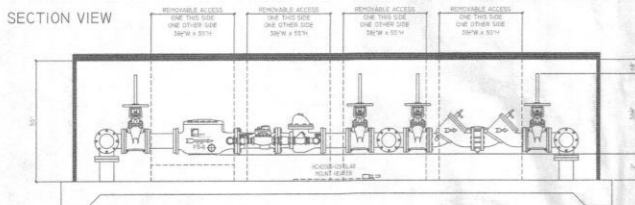


MATERIAL AND INSTALLATION NOTES:

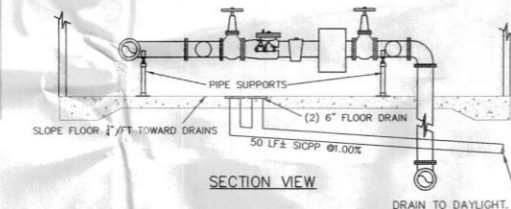
1. TAPPING SLEEVE SHALL BE POWERSEAL MODEL 3490 TYPE 304 STAINLESS STEEL WITH CARBON STEEL FLANGE, FORD MODEL FTSS WITH CARBON STEEL FLANGE OR APPROVED EQUIVALENT. SLEEVE SHALL BE RATED AT 250 PSI AND MUST HAVE A TEST PLUG.
2. TAPPING VALVE SHALL BE CLOW-KENNEDY RSW TAPPING VALVE WITH MJFL VALVE SHALL BE RATED AT 250 PSI.
3. TAPPING SLEEVE AND VALVE SHALL BE FULL PORT TO ACCEPT FULL SIZE SHELL CUTTER.
4. STEEL FLANGE SHALL MEET THE REQUIREMENTS OF AWWA C207.

1
9 TYPICAL MECHANICAL JOINT TAPPING VALVE AND SLEEVE
NOT TO SCALE



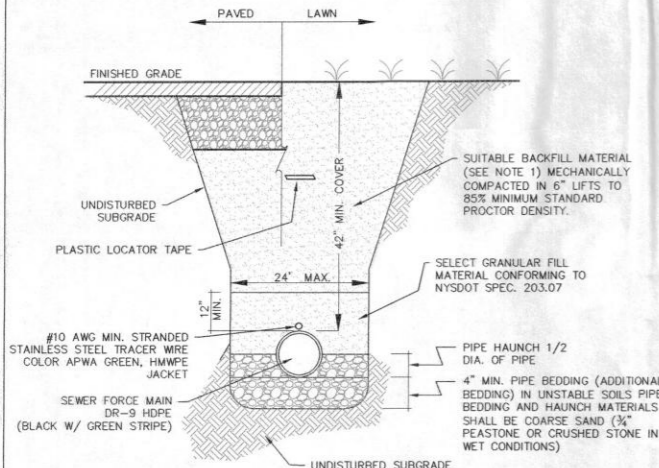
GENERAL NOTES

- 1) Older valves typical
- 2) Pipe shall be ductile iron, class 42 double bell end
- 3) Blow grade shall be Poly-wrapped
- 4) Fittings shall be non-shrink grout
- 5) The size of piping, valves, fittings, meter, backflow preventer, anchors and hanger shall vary depending upon specific requirements.



2
9 BACKFLOW PREVENTION DETAIL
(NOT TO SCALE)

- NOTES:
1. BACKFLOW PREVENTION DEVICE TO BE INSTALLED WITHIN THE PROPOSED BUILDING.
 2. METER AND VALVE ASSEMBLY SHALL BE A DUAL 6" WATTS 909 OS&Y WITH 6" SENSUS FIRELINE METER AND STRAINER



NOTES:

1. SUITABLE BACKFILL MATERIAL FOR FINAL BACKFILL SHALL BE FREE OF DEBRIS, FOREIGN MATERIAL, LARGE STONES, TREES, ORGANIC MATTER AND OTHER DELETERIOUS MATTER AND CONFORMS WITH ASTM D 2487 SOIL GROUPS GW, GP, GM, SM, SW, AND SP.
2. ALTERNATE MATERIAL TO CRUSHED STONE BEDDING IS CLEAN COARSE SAND PASSING 1/4" SIEVE.
3. PLASTIC UNDERGROUND SEWER PIPING SHALL HAVE A CONTINUOUS 18 GAUGE [OR LARGER] COPPER TRACER WIRE INSTALLED WITH AND ATTACHED TO THE PLASTIC SEWER PIPING MATERIAL AT 8'-0" O.C. THIS WIRE SHALL EXTEND FROM THE SEWER PIPE CONNECTION AT THE PROPERTY OR RIGHT-OF-WAY LINE TO THE CONNECTION AT THE BUILDING DRAIN. THIS TRACER WIRE SHALL TERMINATE (IN A VISIBLE LOCATION) 12" ABOVE GROUND AT THE SEWER/BUILDING DRAIN CONNECTION.

3
9 FORCE MAIN TRENCH
NOT TO SCALE

- NOTES:
1. REFER TO "TYPICAL PRECAST CONCRETE MANHOLE DETAIL" FOR MANHOLE SPECIFICATIONS
 2. FORCE MAIN TIE-IN SHALL BE TO MANHOLES WITH A MINIMUM DEPTH OF 4'-6".
 3. FOR PROPOSED MAN HOLES SEE TOWN OF BETHLEHEM STANDARD DETAILS.

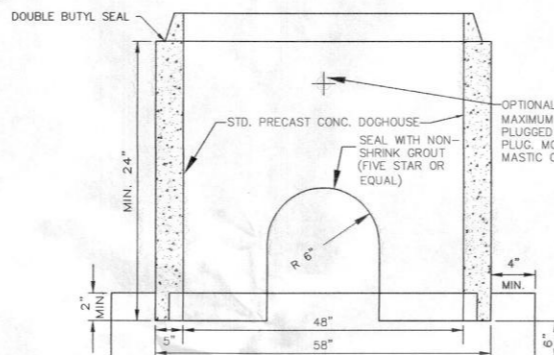
4
9 FORCE MAIN TIE-IN AT PRECAST MANHOLE
NOT TO SCALE

NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT DIG SAFELY NEW YORK TO LOCATE ALL UNDERGROUND UTILITIES. 1-800-962-7962

NOTES:

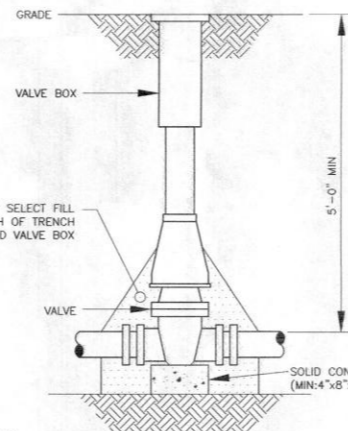
1. WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER, NON-POTABLE IRRIGATION MAINS, AND FORCE MAINS BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18 INCHES MEASURED FROM THE BOTTOM OF THE UPPER PIPE AND THE TOP OF THE LOWER PIPE. ALSO, WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER, AND FORCE MAINS BY 10 FEET AND FROM IRRIGATION MAINS BY 5 FEET MEASURED HORIZONTALLY BETWEEN OUTSIDE OF PIPES.
2. ALL CROSSINGS WITH VERTICAL CLEARANCE LESS THAN 18 INCHES SHALL BE MADE USING THICKNESS CLASS 200 AWWA C-900 DR14, PVC (CLASS 165 AWWA C-905, DR 25, PVC FOR PIPES GREATER THAN 12" IN DIAMETER) OR DUCTILE IRON, PRESSURE CLASS 250 PIPE FOR A HORIZONTAL DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING. WATER MAIN CONCRETE ENCASEMENT SHALL ONLY BE MADE AFTER WRITTEN APPROVAL OF THE WATER DIRECTOR OR HIS DESIGNEE. (SEPARATION REQUIREMENTS ALSO APPLY TO WATER AND SEWER LATERALS)
3. 18 INCHES CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER CROSSES UNDER SEWER LINE.
4. WATER MAINS, SANITARY SEWER, STORM SEWER, AND NON-POTABLE IRRIGATION MAINS SHALL BE IN SEPARATE TRENCHES.
5. WATER MAINS CROSSING ANY TYPE OF SANITARY SEWER, INCLUDING FORCE MAIN, OR STORM SEWER SHALL HAVE THE ONE FULL LENGTH OF WATER MAIN CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THAT THE WATER JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS.

5
9 PIPE SEPARATION DETAIL
NOT TO SCALE



- NOTES:
1. PRECAST REINFORCED CONCRETE MANHOLE SECTIONS, ASTM C-478, CURRENT EDITION.
 2. ALL REINFORCING TO MEET REQUIREMENTS ASTM C-478, CURRENT EDITION.
 3. BASE SECTION TO PROVIDE 6" MIN. CLEARANCE BETWEEN TOP OF PIPE OPENING AND BOTTOM OF BELL AND SPIGOT JOINT.
 4. MANHOLE IS TO BE COATED WITH BITUMINOUS SEALER INSIDE AND OUT.

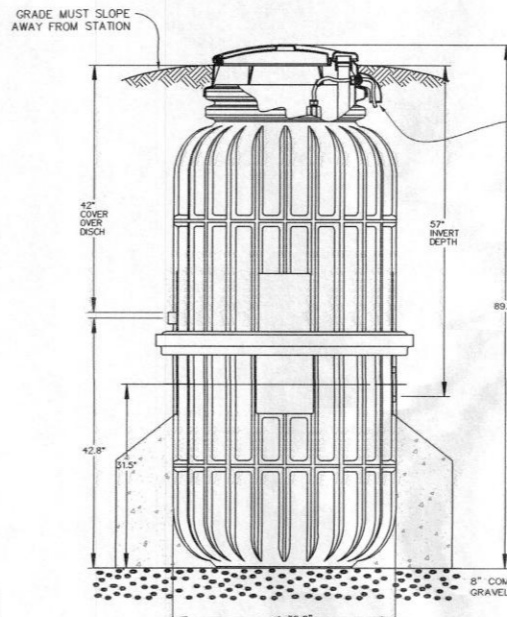
6
9 TYPICAL 'DOGHOUSE' MANHOLE BASE
NOT TO SCALE



NOTES:

1. VALVE BOX SHALL BE CAST IRON TELESCOPIC PATTERN WITH MIN 5 1/2" DIAMETER
2. VALVE BOX COVER SHALL BE CAST IRON, DROP STYLE WITH "WATER" AND THE OPEN DIRECTION (OPEN LEFT) ON THE COVER IN RAISED CHARACTERS.
3. BOX SHALL BE CLOW-F2452 MODEL 664-A WITH A F-2490 COVER, OR APPROVED EQUAL.

7
9 TYPICAL WATER VALVE
NOT TO SCALE



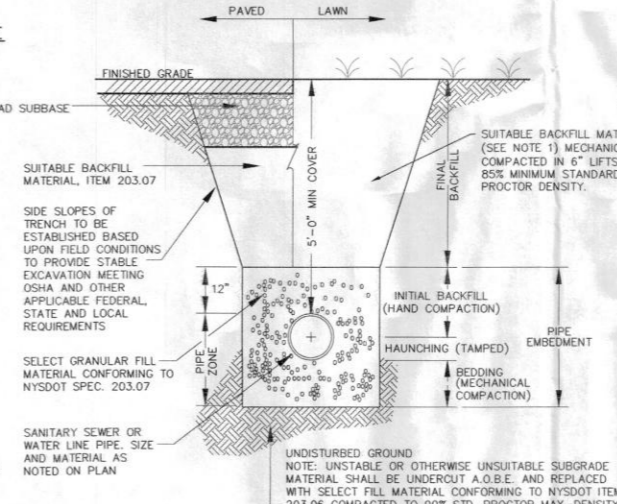
eone
SEWER SYSTEMS

ENVIRONMENT / ONE
PACKAGE DUPLEX GRINDER PUMP
SYSTEM MODEL DH152-93
(WIRED LEVEL CONTROLS)

NOTES:

1. TOP OF COVER TO BE 4" MIN. ABOVE GROUND. GROUND TO SLOPE AWAY FROM STATION TO DIRECT RUN-OFF AWAY FROM THE STATION.
2. CONCRETE BALLAST PROVIDED AS ANTI-BUOYANCY PROVISION IN ACCORDANCE WITH MANUFACTURERS GUIDANCE - SEE INSTALLATION INSTRUCTIONS FOR DETAILS.
3. STATE OF NEW YORK RULES REQUIRE THAT THE PUMP STATION BE CONNECTED TO A STANDBY BACKUP GENERATOR OR TRANSFER SWITCH FOR A PORTABLE GENERATOR OR OTHER ALTERNATE SOURCE OF POWER. PROVIDE MANUAL TRANSFER SWITCH AT CONTROL PANEL PER SPECIFICATIONS.
4. ALL CONSTRUCTION AND UTILITIES TO BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE TOWN OF BETHLEHEM STANDARD DETAILS AND SPECIFICATIONS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THESE TWO DOCUMENTS FOR USE ON THE JOB.
5. ALL PROPOSED FORCE MAIN MAN HOLES SHALL MEET TOWN OF BETHLEHEM STANDARDS.

8
9 GRINDER PUMP DETAIL
NOT TO SCALE



NOTES:

1. SUITABLE BACKFILL MATERIAL FOR FINAL BACKFILL SHALL BE FREE OF DEBRIS, FOREIGN MATERIAL, LARGE STONES, TREES, ORGANIC MATTER AND OTHER DELETERIOUS MATTER AND CONFORMS WITH ASTM D 2487 SOIL GROUPS GW, GP, GM, SM, SW, AND SP.
2. ALTERNATE MATERIAL TO CRUSHED STONE BEDDING IS CLEAN COARSE SAND PASSING 1/4" SIEVE.

9
9 SANITARY SEWER & WATER LINE
TRENCH AND BACKFILL DETAIL
NOT TO SCALE

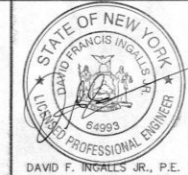
ALBANY COUNTY DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH SERVICE
By direction of the Commissioner of Health, these plans are hereby approved. See first sheet for date and signature.

ALBANY COUNTY DEPARTMENT OF HEALTH

TOWN OF BETHLEHEM, NEW YORK
PLANNING DEPT ORIGINAL
- SCANNED -

PLANNING BOARD
TOWN OF BETHLEHEM
ALBANY COUNTY, NEW YORK
By direction of the Chairman, these drawings are hereby approved. See sheet(s) 3 for date and signature.

TOWN OF BETHLEHEM PLANNING BOARD



ingalls
ingalls & associates, LLP
engineering, environmental, surveying

WATER & SEWER DETAILS
WINDSOR DEVELOPMENT GROUP, INC.
1319 NEW SCOTLAND ROAD

TOWN OF BETHLEHEM
COUNTY OF ALBANY
STATE OF NEW YORK

DATE: JANUARY 23, 2015
CHECKED BY: D.F.I.
JOB NO. 13-076

DRAWN BY: M.S.H.
CADD FILE: 13076 DETAILS

SCALE: AS SHOWN

SHEET 9 OF 14