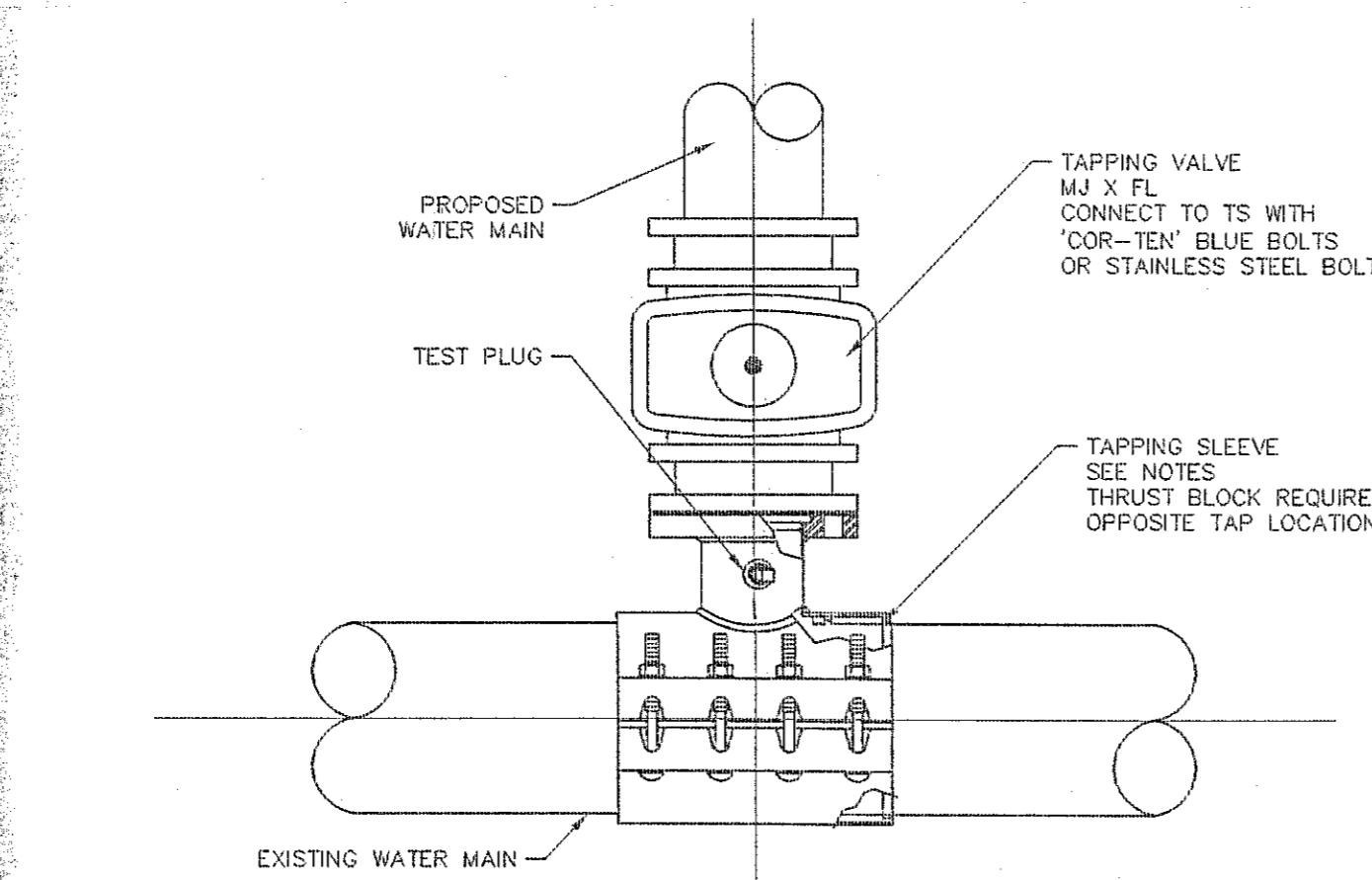


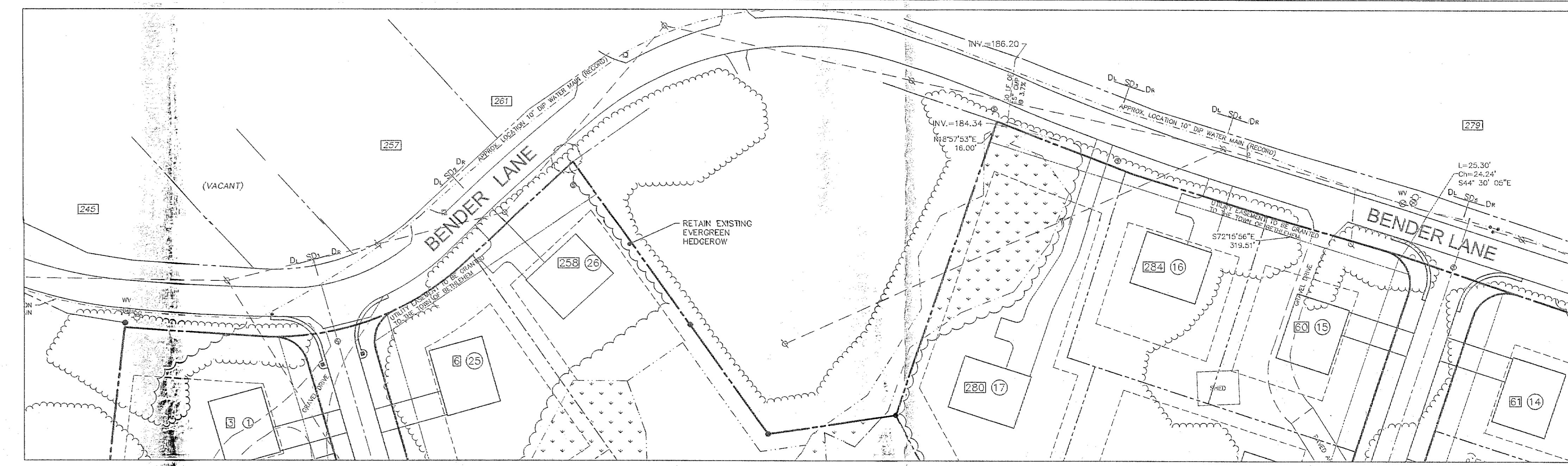
NOTES:
1. WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER, NON-POLEABLE IRRIGATION MAINS, AND FORCE MAINS BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18 INCHES MEASURED BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE TOP OF THE LOWER PIPE. ALSO, WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER, AND FORCE MAINS BY 10 FEET AND FROM IRRIGATION MAINS BY 5 FEET MEASURED HORIZONTALLY.
2. ALL CROSSINGS WITH VERTICAL CLEARANCE LESS THAN 18 INCHES SHALL BE MADE USING THICKNESS CLASS 200 AWWA C-900 DR14, PVC (CLASS 160 AWWA C-905, DR 25, PVC FOR PIPE GREATER THAN 12" IN DIAMETER) ON THE FULL LENGTH OF THE TRENCH. A HORIZONTAL CLEARANCE OF 10 FEET SHALL BE PROVIDED ON EACH SIDE OF THE CROSSING. WATER MAIN CONCRETE ENCASING 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 CROSSINGS UNDER SEWER LINE.
4. WATER MAIN CROSSING ANY TYPE OF SANITARY SEWER, INCLUDING FORCE MAIN, OR STORM SEWER SHALL HAVE THE FULL LENGTH OF WATER MAIN CENTERED ABOVE OR BELOW THE OTHER PIPE 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 10 PIPE SEPARATION DETAIL
NOT TO SCALE



MATERIAL AND INSTALLATION NOTES:
1. TAPPING SLEEVE SHALL BE POWERSEAL MODEL 3490 TYPE 304 STAINLESS STEEL WITH CARBON STEEL FLANGE, FORD MODEL FITS WITH CARBON STEEL FLANGE OR APPROVED EQUIVALENT. SLEEVE SHALL BE 100% TAPED.
2. TAPPING VALVE SHALL BE 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.

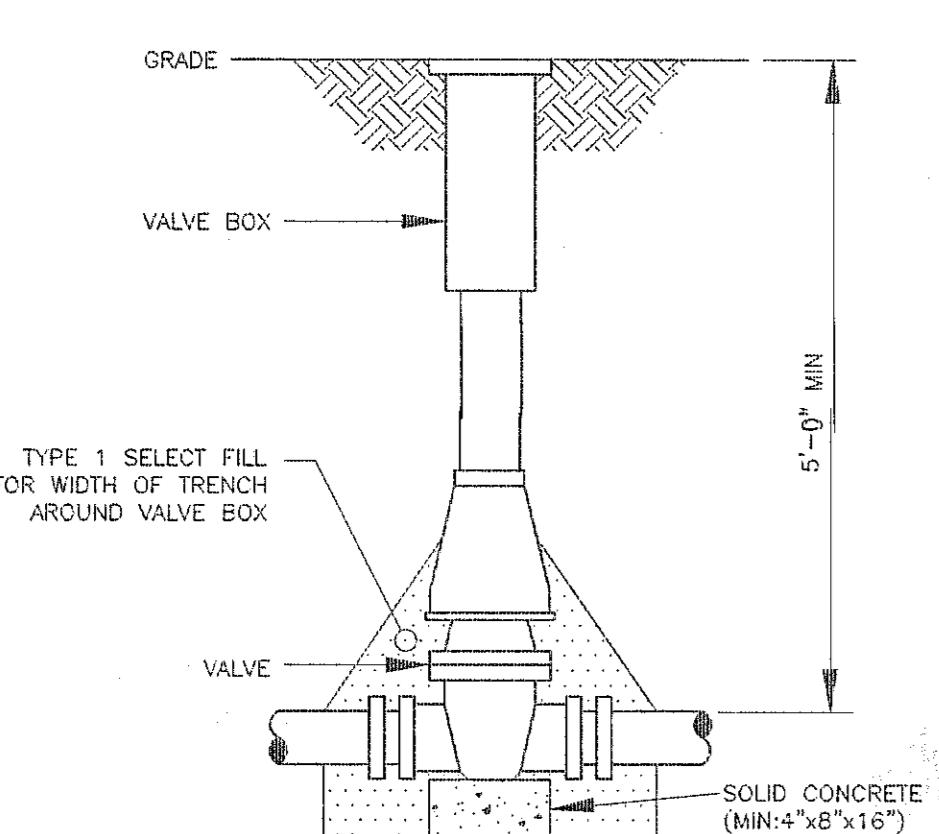
1 10 TYPICAL MECHANICAL JOINT TAPPING VALVE AND SLEEVE
NOT TO SCALE



NOTES:
1. SIGHT DISTANCES MEASURED FROM A MAY 4, 2015 FIELD SURVEY.
2. SIGHTABLE VALUES FOR TURNS FROM THE SITE ARE BASED ON AN EYE HEIGHT OF 3.5' AND AN OBJECT HEIGHT OF 3.5'.
3. THE POSTED SPEED OF BENDER LANE IS 30 MPH WITH A REDUCED SPEED LIMIT FOR THE TURN.
4. REQUIRED SIGHT TRIANGLE LEG VALUES CALCULATED FROM FORMULA 9-1 OF THE AASHTO STANDARD.
5. SIGHT DISTANCE IS NOT LIMITED FROM THIS TABLE AS ALL D_s VALUES EXCEED THE SSD VALUE OF THE SUBJECT TRIANGLE.
6. PROPOSED MITIGATION FOR THE DEFICIENT SIGHT DISTANCE AT SD 2 INCLUDES SIGNS INDICATING HIDDEN DRIVEWAY AND PROVISION FOR A DRIVEWAY TURNAROUND.

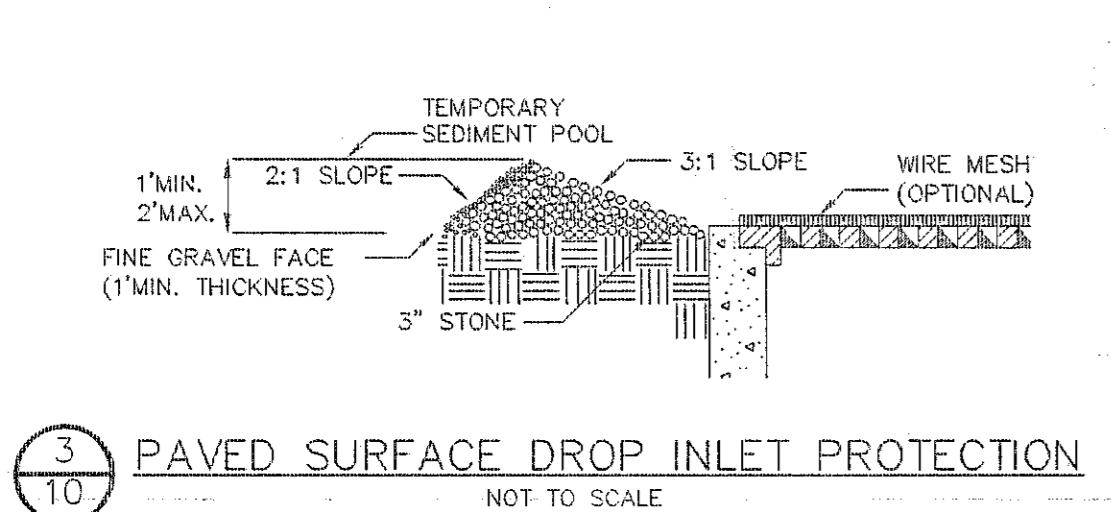
SUMMARY OF SIGHT DISTANCES				
LOCATION	AASHTO STANDARD D_s (LEFT TURN)	AVAILABLE D_s	AASHTO STANDARD D_s (RIGHT TURN)	AVAILABLE D_s
SD 1	335'	335'	290'	335'
SD 2	335'	240'	290'	335'
SD 3	335'	290'	290'	335'
SD 4	335'	332'	290'	332'
SD 5	335'	517'	290'	335'

13 10 SUMMARY OF SIGHT DISTANCES
SCALE: 1=50'

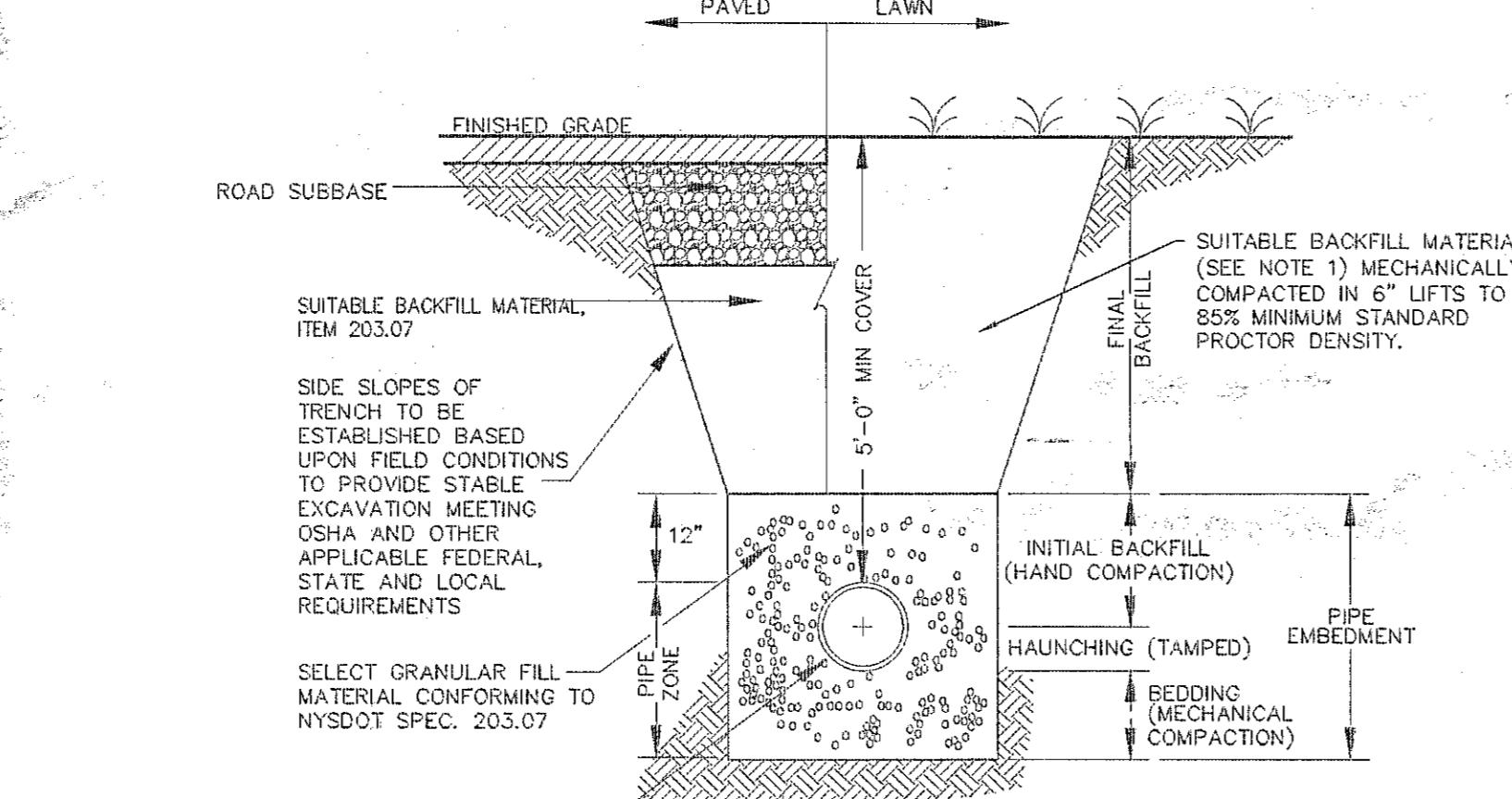


NOTES:
1. VALVE BOX SHALL BE CAST IRON TELESCOPE PATTERN WITH MIN 5" DIAMETER.
2. VALVE COVER SHALL BE CAST IRON, DROP STYLE WITH "WATER" AND THE OPEN DIRECTION (OPEN LEFT) ON THE COVER IN RAISED CHARACTERS.
3. BOX SHALL BE GLOW-F2452 MODEL 664-A WITH A F-2490 COVER, OR APPROVED EQUIV.

2 10 TYPICAL WATER VALVE
NOT TO SCALE



3 10 PAVED SURFACE DROP INLET PROTECTION
NOT TO SCALE

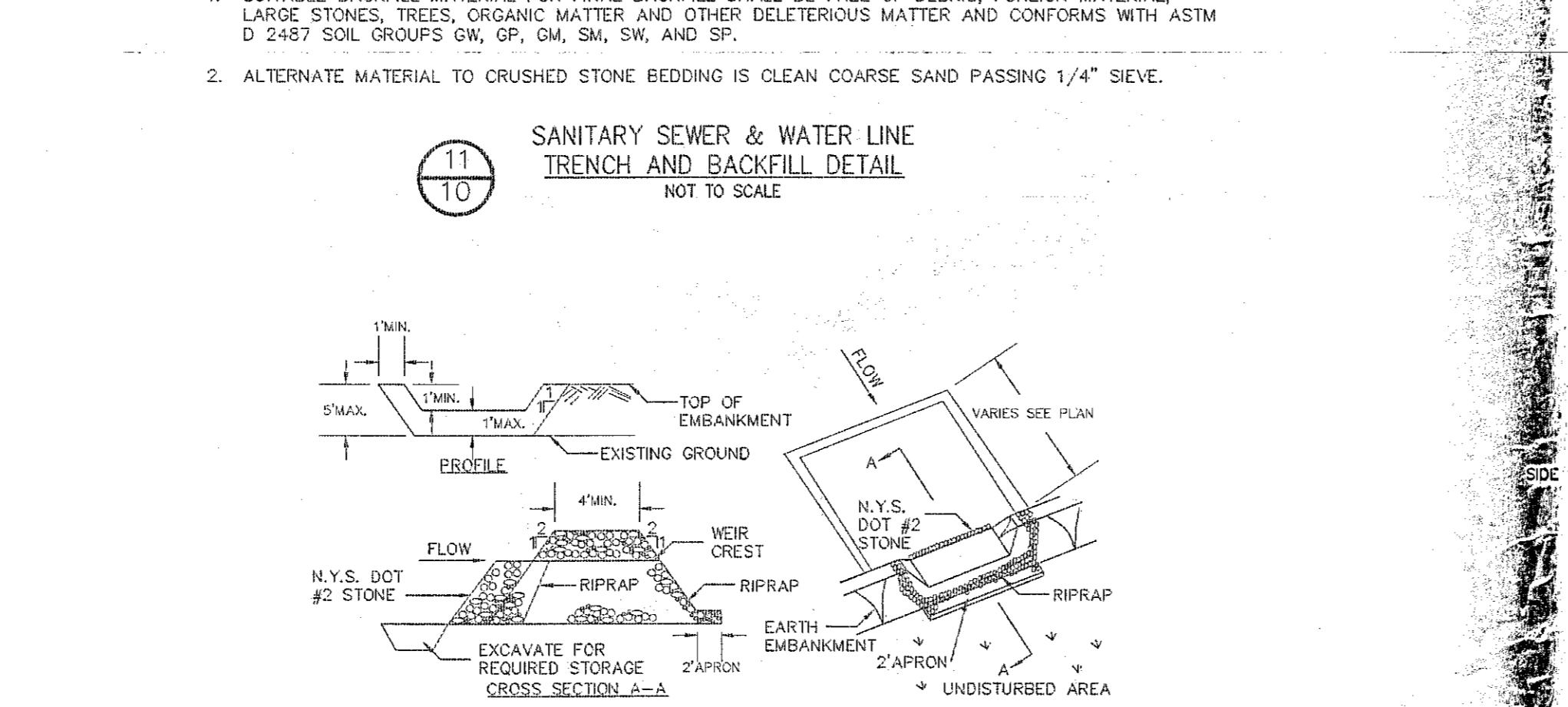


NOTES:
1. SUITABLE BACKFILL MATERIAL FOR FINAL BACKFILL SHALL BE FREE OF DEBRIS, FOREIGN MATERIAL, LARGE STONES, TREES, ORGANIC MATTER AND OTHER DELETERIOUS MATTER AND CONFORMS WITH ASTM D-2487 SOIL GROUPS GW, GP, GM, SW, SP, OR APPROVED EQUIV.
2. ALTERNATE MATERIAL TO CRUSHED STONE BEDDING IS CLEAN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

11 10 SANITARY SEWER & WATER LINE
TRENCH AND BACKFILL DETAIL
NOT TO SCALE

NOTES:
1. WHEN CUT/FILL SLOPE HAS BEEN COMPLETED, THE SLOPE SHOULD BE TRIMMED AND THE PERMANENT EROSION CONTROL MEASURES OF SEEDING AND MULCHING SHOULD BE CARRIED OUT, IF THE CUT/FILL IS TRIMMED OUT OF SEASON* (FROM NOV. 1 THROUGH APRIL 1). MULCH THE SLOPE AND SEED ON TOP OF THE MULCH IN THE NEXT SEASON.
2. IF THE SLOPE CANNOT BE COMPLETED BECAUSE PAVING IS REQUIRED OR FOR OTHER REASONS, THE SEEDING AND MULCHING SHOULD BE COMPLETED TO THE MAXIMUM EXTENT POSSIBLE.
3. WHEN THE CUT/FILL CANNOT BE BROUGHT TO FINAL GRADE IN A REASONABLE LENGTH OF TIME IT SHOULD BE MULCHED PER GP-15-002.
4. PROVIDE A CONTINUOUS LINE OF SILT FENCE AT THE PERIMETER OF SLOPES UNTIL THE FINAL STABILIZATION HAS BEEN APPROVED BY THE DESIGN ENGINEER OR THE INSPECTING PROFESSIONAL.
5. ALL FILL SLOPES AND CONSTRUCTED EMBANKMENTS SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS SECTION 203 (EXCAVATION AND EMBANKMENT).

4 10 SEEDING AND MULCHING GUIDES - CUT/FILL SLOPES
NOT TO SCALE

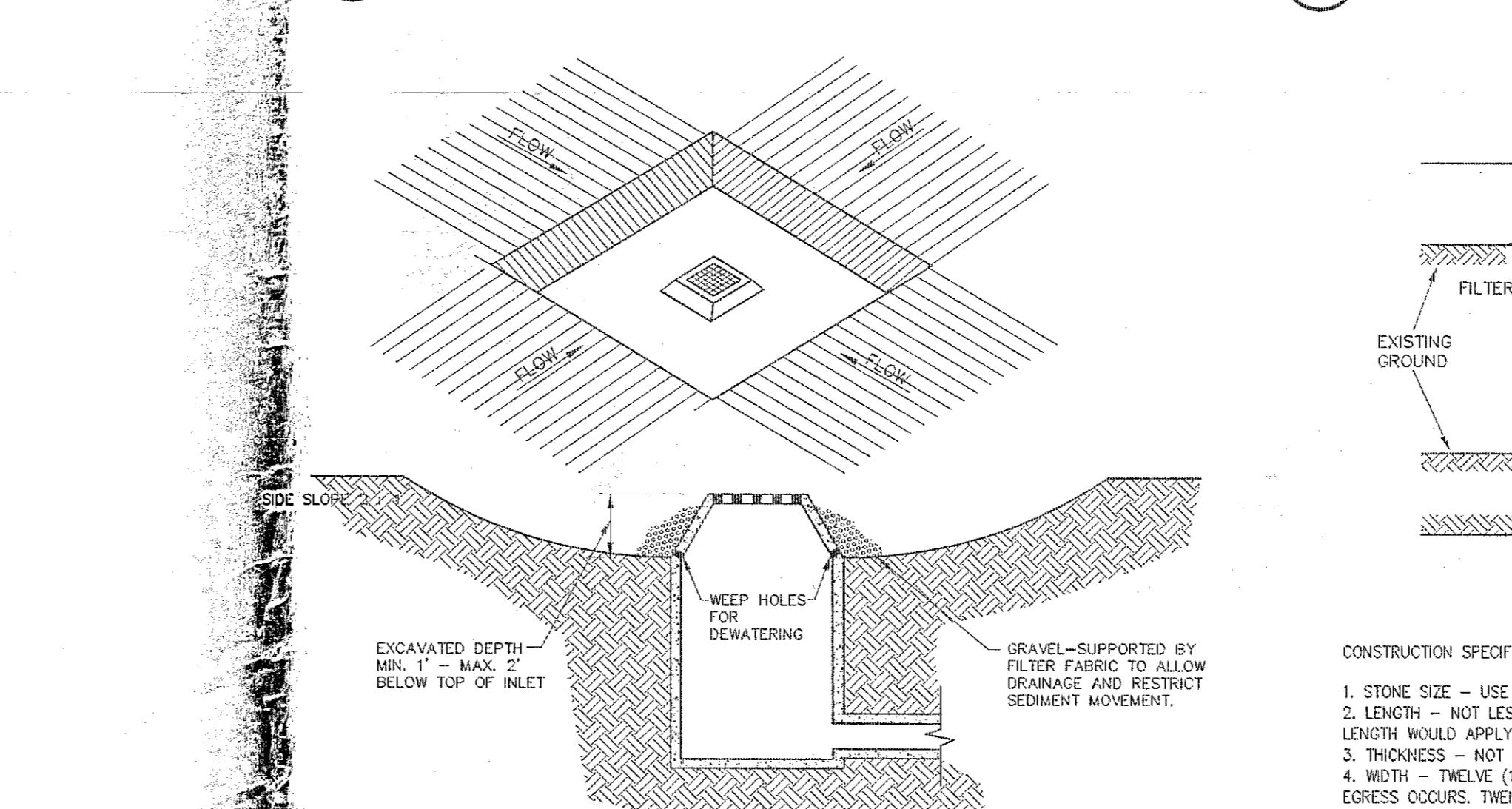


CONSTRUCTION SPECIFICATIONS:
1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOTS.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION, AND OF CRUSHED STONES, ROCKS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL. THE EMBANKMENT SHALL BE COMPACTION BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1" THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE OF THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DEPTH OF THE TRAP.
6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

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

10 10 EXCAVATED DROP INLET PROTECTION DETAIL
NOT TO SCALE

FOR MUNICIPAL APPROVAL ONLY
NOT FOR CONSTRUCTION



13 10 STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS:
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FEET MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY - (20) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SLOPES - 12:1 (H:V) ON THE EMBANKMENT DOWN TO THE 12' MIN. ON CONSTRUCTION ENTRANCES SHALL BE PERMITTED.
7. MAX. EMBANKMENT - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO PUBLIC RIGHTS - OR - WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACED ONTO PUBLIC RIGHTS WILL BE REMOVED IMMEDIATELY.
8. WHEN CONCRETE IS REQUIRED, IT SHALL BE PLACED IN A REINFORCED AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.
9. AFTER EACH RAIN.

TOWN OF BETHLEHEM PLANNING BOARD
SCANNED -
0 1 INCHES 2

TOWN OF BETHLEHEM PLANNING BOARD

PLANNING BOARD
TOWN OF BETHLEHEM
ALBANY COUNTY, NEW YORK
By direction of the Chairman.
These sheets are hereby approved.
Date: 3/04/16
Mr. and signature

ingalls
ingalls & associates, LLP
engineering, environmental, surveying
ALBANY COUNTY, STATE OF NEW YORK
DATE: MARCH 13, 2015
CHECKED BY: D.F.J.
SCALE: N.T.S.
DRAWN BY: C.D.L.
CADD FILE: 14-066 details.dwg
SHEET 10 OF 11