PAVED DRIVEWAY SECTION DETAIL
NOT TO SCALE

12' PRIVATE DRIVEWAY WIDTH
2% SLOPE AWAY FROM HOUSE

4" MINIMUM NYSDOT ITEM NO. 304.12 SUBBASE COURSE CMPPACTED TO 95% MODIFIED PROCTOR

1" NYSDOT ASPHALT CONCRETE TOP COURSE, TYPE 6F
2" NYSDOT ASPHALT CONCRETE BINDER COURSE, TYPE 3

SANITARY SEWER SERVICE TRENCH DETAIL
NOT TO SCALE

SURFACE TREATMENT PER PLAN
FINAL GRADE
INSTALL MAGNETIC TRACER CAUTION TAPE 12 INCHES ABOVE LINE
SUITABLE RUN OF TRENCH IN 6" MAX. COMPACTED LIFTS – OUTSIDE OF ROADWAY AND ROAD RIGHT–OF–WAY ONLY (SEE NOTE 2 BELOW). UNDER ROADWAY AND RIGHT–OF–WAY MATERIAL SHALL BE NYSDOT ITEM 304.12.
UNDISTURBED EARTH
SAND BEDDING
NYSDOT ITEM 304.12 COMPACTED TO 95% STANDARD PROCTOR IN 6" LIFTS MAXIMUM
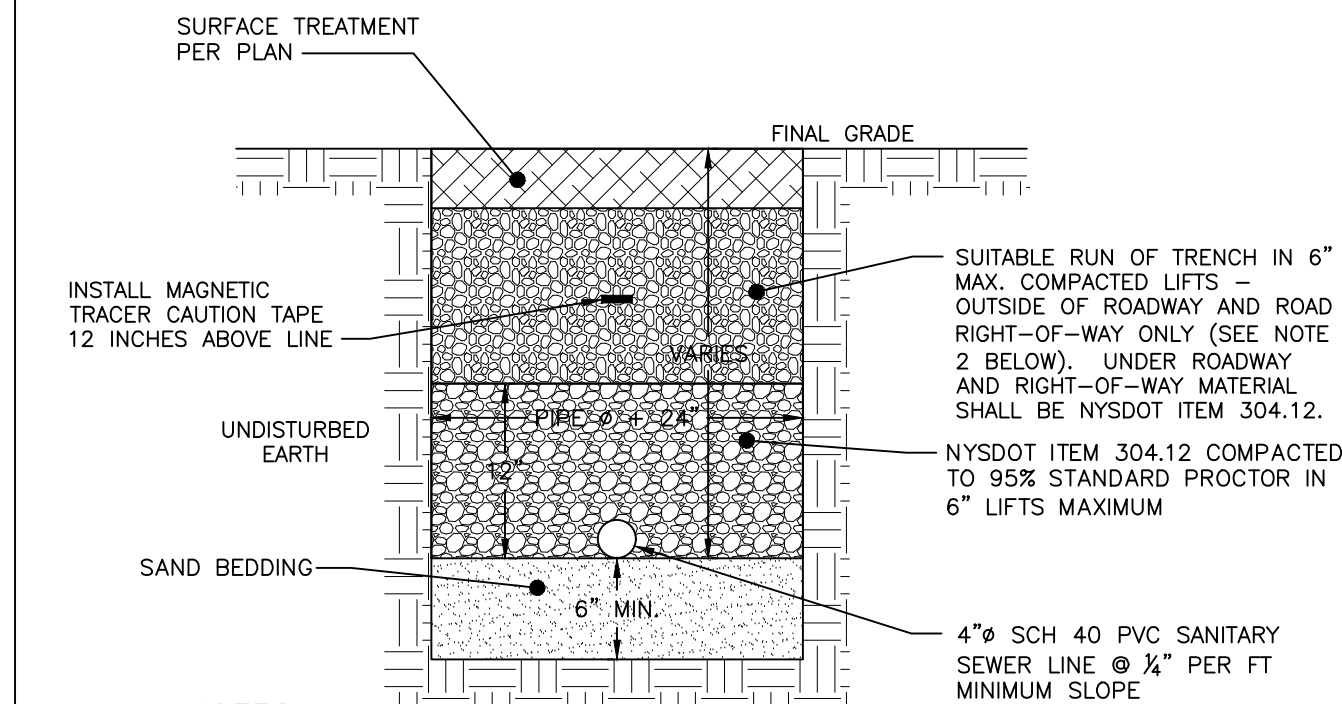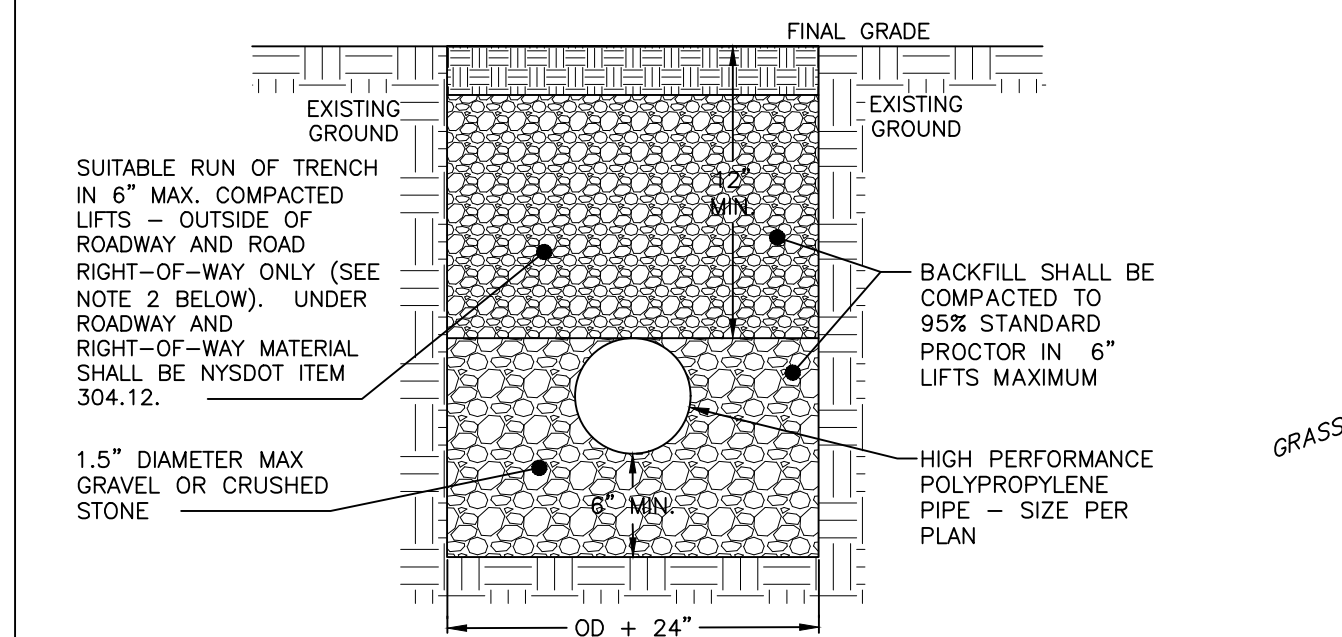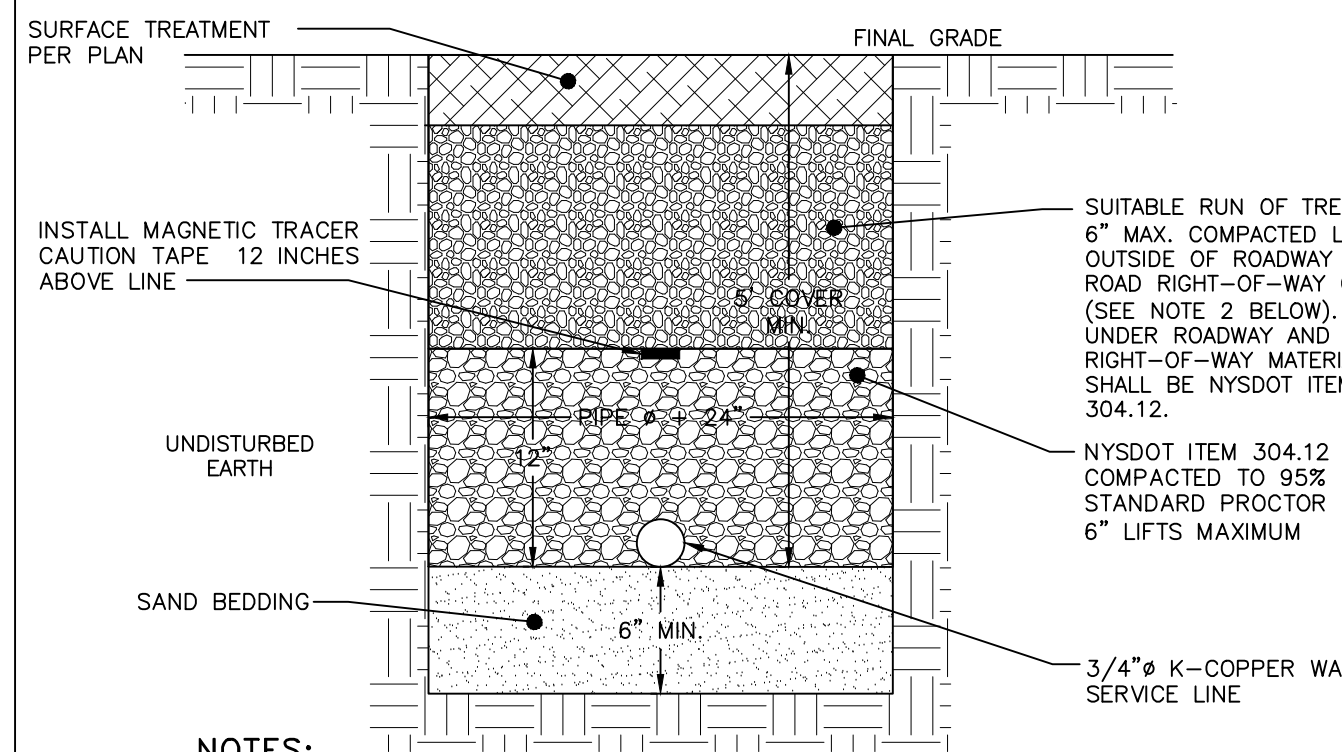6" MIN.
4"ø SCH 40 PVC SANITARY SEWER LINE @ ⅛" PER FT MINIMUM SLOPE

NOTES:
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 MATERIAL SHALL BE IMPORTED AND USED.
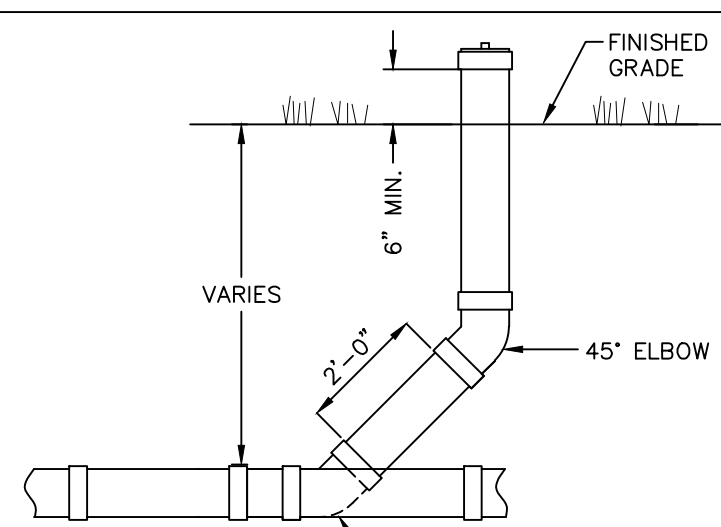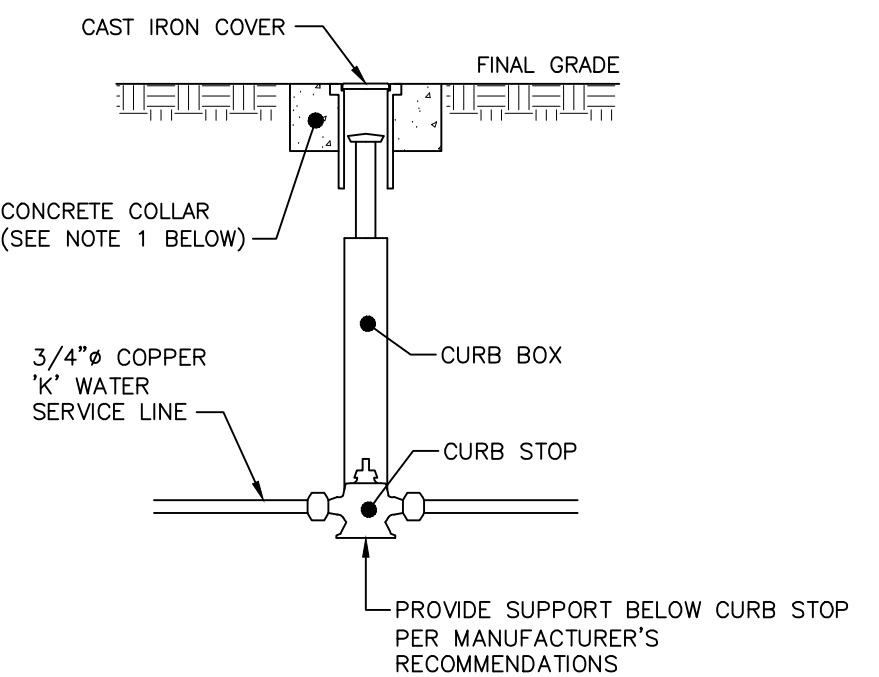
STORM LINE TRENCH DETAIL
NOT TO SCALE

FINAL GRADE
EXISTING GROUND
SUITABLE RUN OF TRENCH IN 6" MAX. COMPACTED LIFTS – OUTSIDE OF ROADWAY AND ROAD RIGHT–OF–WAY ONLY (SEE NOTE 2 BELOW). UNDER ROADWAY AND RIGHT–OF–WAY MATERIAL SHALL BE NYSDOT ITEM 304.12.
BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR IN 6" LIFTS MAXIMUM
1.5" DIAMETER MAX GRAVEL OR CRUSHED STONE
HIGH PERFORMANCE POLYPROPYLENE PIPE – SIZE PER PLAN
OD + 24"

NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE

SURFACE TREATMENT PER PLAN
FINAL GRADE
INSTALL MAGNETIC TRACER CAUTION TAPE 12 INCHES ABOVE LINE
SUITABLE RUN OF TRENCH IN 6" MAX. COMPACTED LIFTS – OUTSIDE OF ROADWAY AND ROAD RIGHT–OF–WAY ONLY (SEE NOTE 2 BELOW). UNDER ROADWAY AND RIGHT–OF–WAY MATERIAL SHALL BE NYSDOT ITEM 304.12.
UNDISTURBED EARTH
SAND BEDDING
NYSDOT ITEM 304.12 COMPACTED TO 95% STANDARD PROCTOR IN 6" LIFTS MAXIMUM
6" MIN.
3/4"ø K–COPPER WATER SERVICE LINE

NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, 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.
3. IN AREAS WHERE 5' COVER REQUIREMENT CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE PIPE INSULATION TO PREVENT FREEZING.

CLEANOUT DETAIL
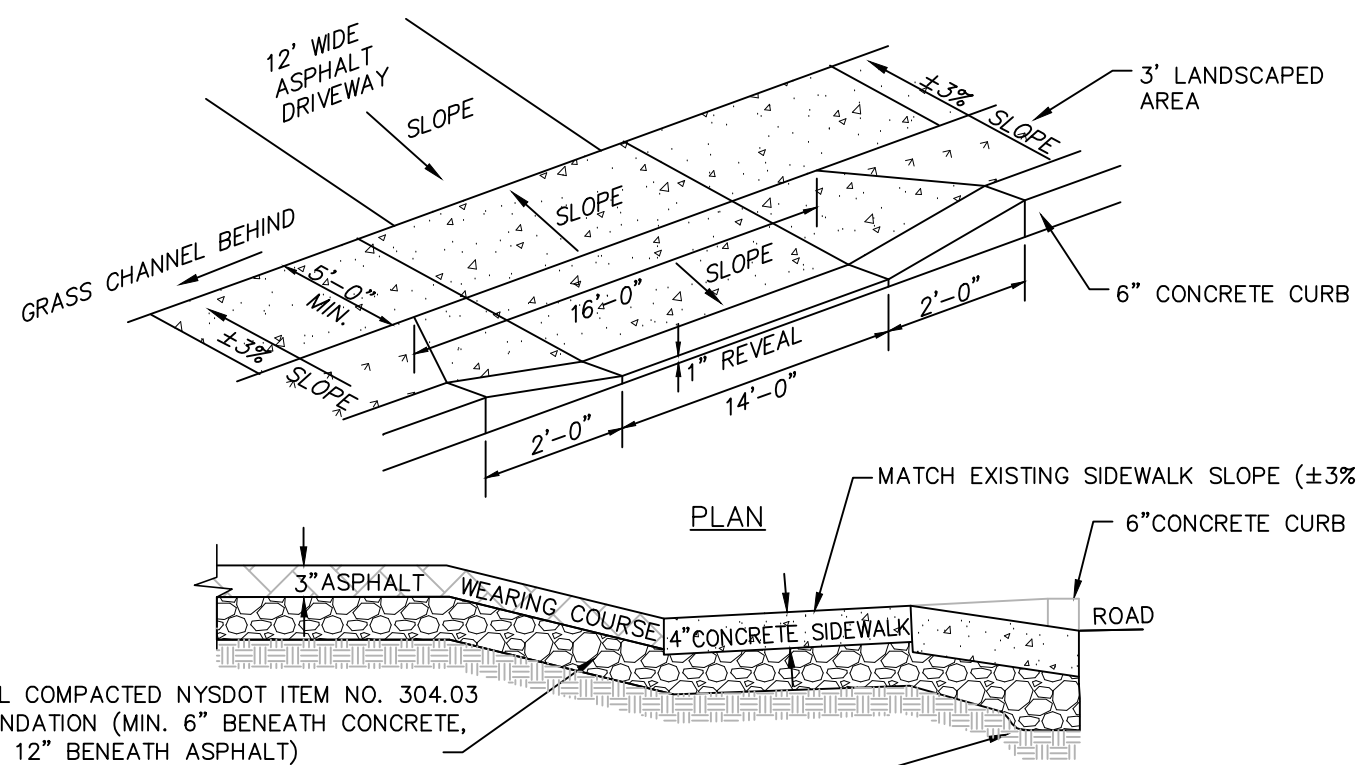NOT TO SCALE

FINISHED GRADE
VARIES
6" MIN.
45° ELBOW
WYE

NOTES:
1. SEWER PIPE AND FITTINGS SHALL BE ASTM D–3033 OR D–3034 SDR–35.
2. CLEANOUT SHALL BE INSTALLED UPSTREAM OF THE PROPOSED 45° ANGLE.

WATER SHUT–OFF VALVE DETAIL
NOT TO SCALE

CAST IRON COVER
FINAL GRADE
CONCRETE COLLAR (SEE NOTE 1 BELOW)
3/4"ø COPPER 'K' WATER SERVICE LINE
CURB BOX
CURB STOP
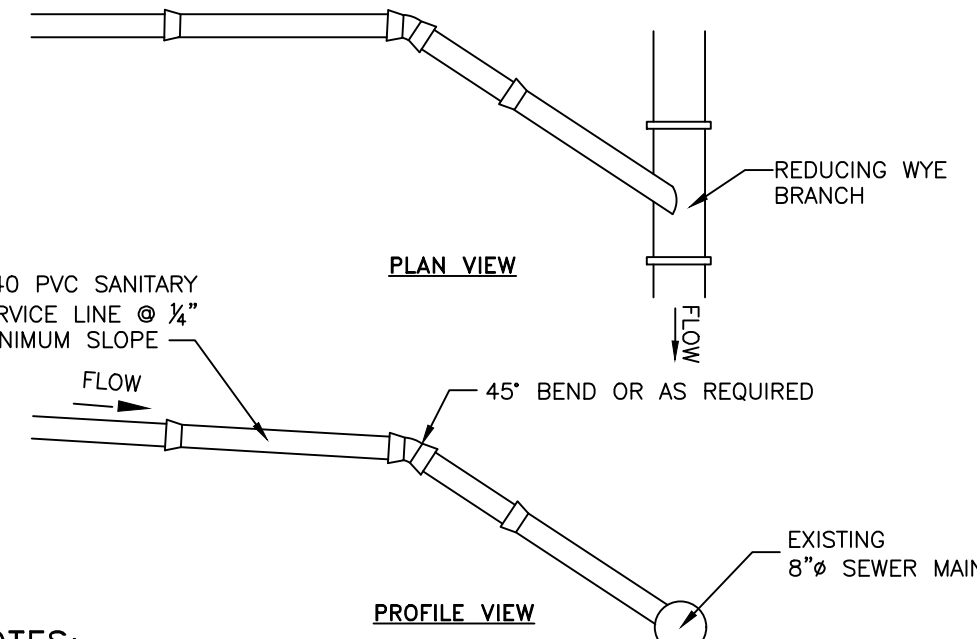PROVIDE SUPPORT BELOW CURB STOP PER MANUFACTURER'S RECOMMENDATIONS

NOTES:
1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.
2. CURB STOP TO BE COMPRESSION TYPE BY MUELLER.
3. AREA AROUND CURB BOX TO BE BACKFILLED WITH GRAVELLY MATERIAL.

DRIVEWAY ENTRANCE DETAIL
NOT TO SCALE

12' WIDE ASPHALT DRIVEWAY
SLOPE
3' LANDSCAPED AREA
GRASS CHANNEL BEHIND
6" REVEAL
16'–0"
14'–0"
2'–0"
6" CONCRETE CURB
MATCH EXISTING SIDEWALK SLOPE (±3%)
PLAN

3" ASPHALT WEARING COURSE
4" CONCRETE SIDEWALK
6" CONCRETE CURB
ROAD
WELL COMPACTED NYSDOT ITEM NO. 304.03 FOUNDATION (MIN. 6" BENEATH CONCRETE, MIN. 12" BENEATH ASPHALT)
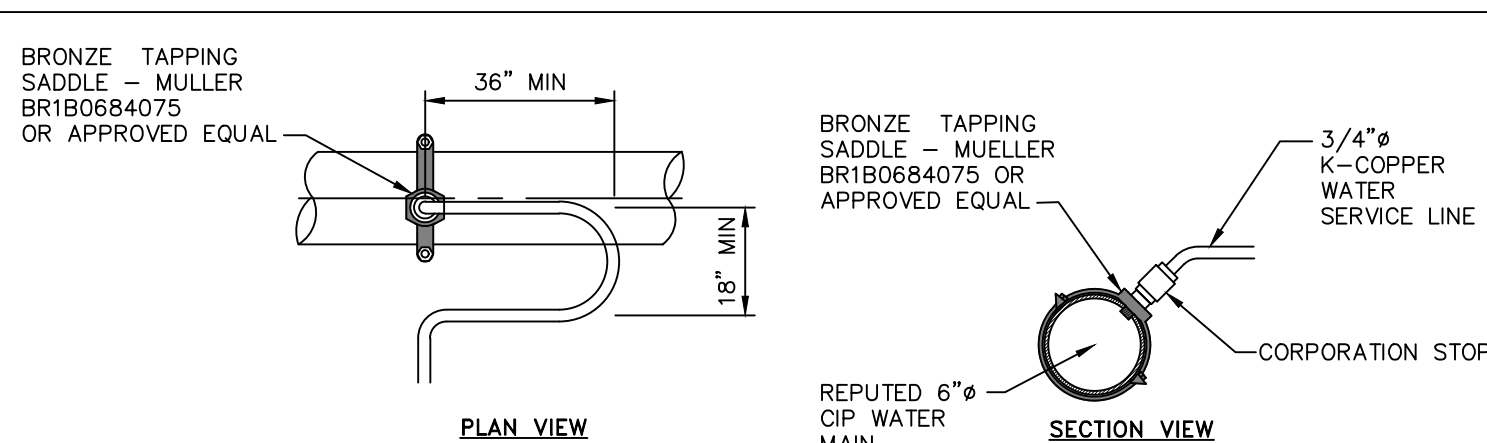COMPACTED SUBGRADE OR COMPACTED SELECT GRANULAR FILL
SECTION

NOTE:
1. PRE–MOLDED EXPANSION JOINTS TO BE USED AT ALL JOINTS.
2. DRIVEWAY SHALL BE PAVED AFTER THE SIDEWALK.
3. EXISTING SIDEWALK TO REMAIN UNTOUCHED.

SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE

4"ø SCH 40 PVC SANITARY SEWER SERVICE LINE @ ⅛" PER FT MINIMUM SLOPE
REDUCING WYE BRANCH
PLAN VIEW
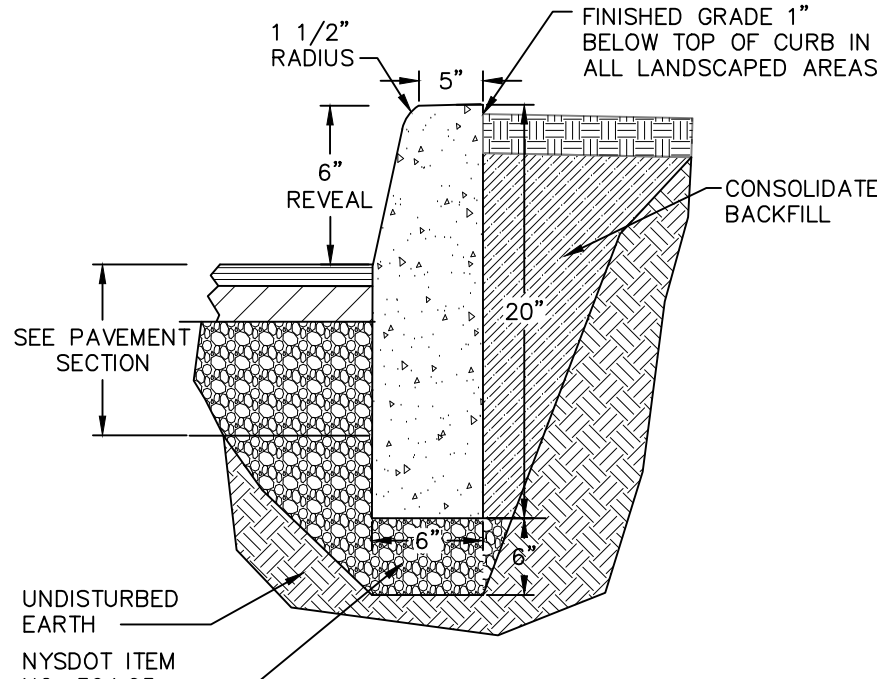45° BEND OR AS REQUIRED
FLOW
EXISTING 8"ø SEWER MAIN
PROFILE VIEW

NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, 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.
3. TAPPING SADDLE FOR CONNECTION OF THE PROPOSED SERVICE LINE TO THE EXISTING SEWER MAIN TO BE A 4" PREDCO HUB TAP SADDLE – MODEL #HTS4/E.

WATER SERVICE CONNECTION DETAIL
NOT TO SCALE

BRONZE TAPPING SADDLE – MULLER BR1B0684075 OR APPROVED EQUAL
36" MIN
PLAN VIEW

BRONZE TAPPING SADDLE – MULLER BR1B0684075 OR APPROVED EQUAL
3/4"ø K–COPPER WATER SERVICE LINE
18" MIN
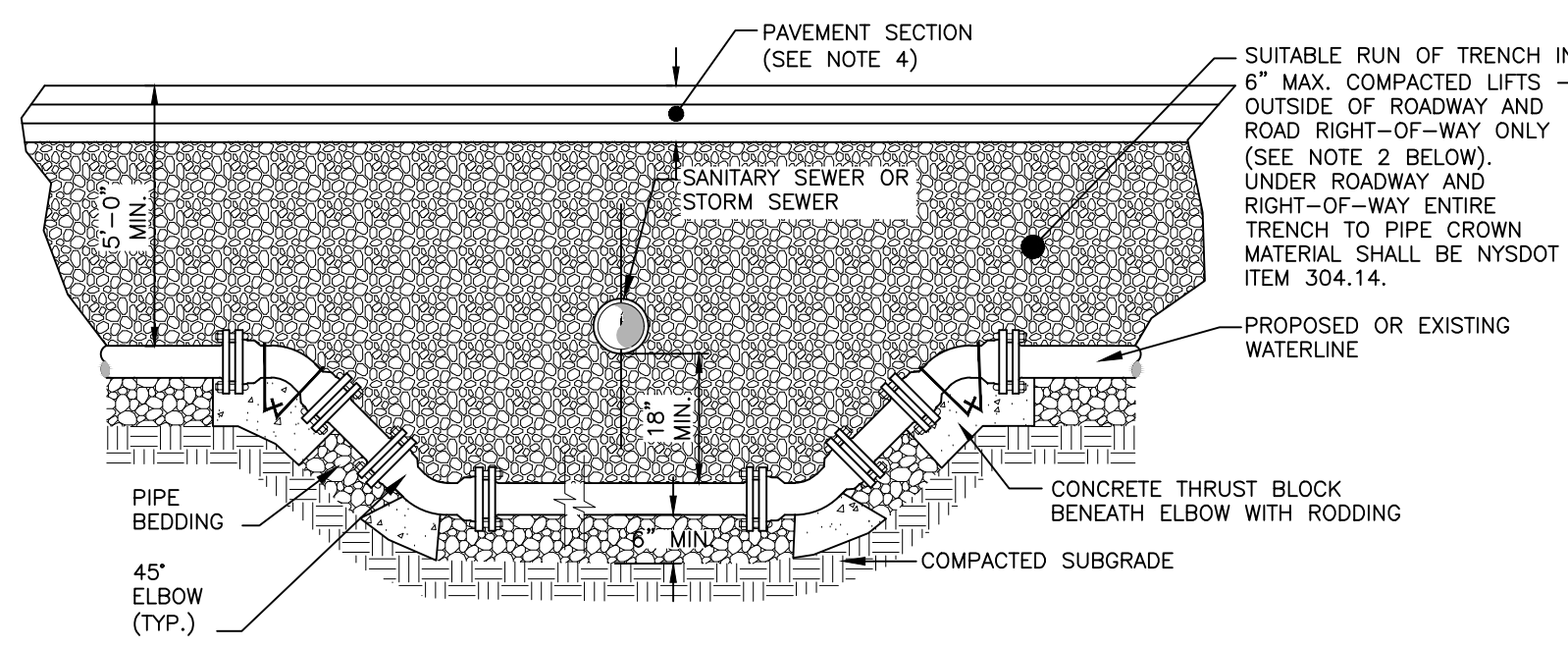REPUTED 6"ø CIP WATER MAIN
CORPORATION STOP
SECTION VIEW

NOTES:
1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL WATER MAIN DEPTH).
2. CORPORATION STOP TO BE COMPRESSION TYPE BY MUELLER.
3. WATER SERVICE LINE TO HAVE A 'GOOSENECK' NEAR CORPORATION STOP.
4. CORPORATION STOP TO BE INSTALLED IN THE UPPER HALF OF THE WATER MAIN AT AN ANGLE OF APPROXIMATELY 45° FROM HORIZONTAL.
5. THE CONTRACTOR SHALL INSTALL A FULL BODIED STAINLESS STEEL TAPPING SLEEVE AT THE PROPOSED WATER SERVICE LOCATION.

CAST–IN–PLACE CONCRETE CURB DETAIL
NOT TO SCALE

1 1/2" RADIUS
FINISHED GRADE 1" BELOW TOP OF CURB IN ALL LANDSCAPED AREAS.
6" REVEAL
20"
CONSOLIDATED BACKFILL
SEE PAVEMENT SECTION
UNDISTURBED EARTH
NYSDOT ITEM NO. 304.05
ABUTTING GRASS OR LANDSCAPE

1 1/2" RADIUS
1/2"
1/4"R (TYP.)
EXPANSION JOINT MATERIAL
CONCRETE SIDEWALK
6" REVEAL
SEE PAVEMENT SECTION
UNDISTURBED EARTH
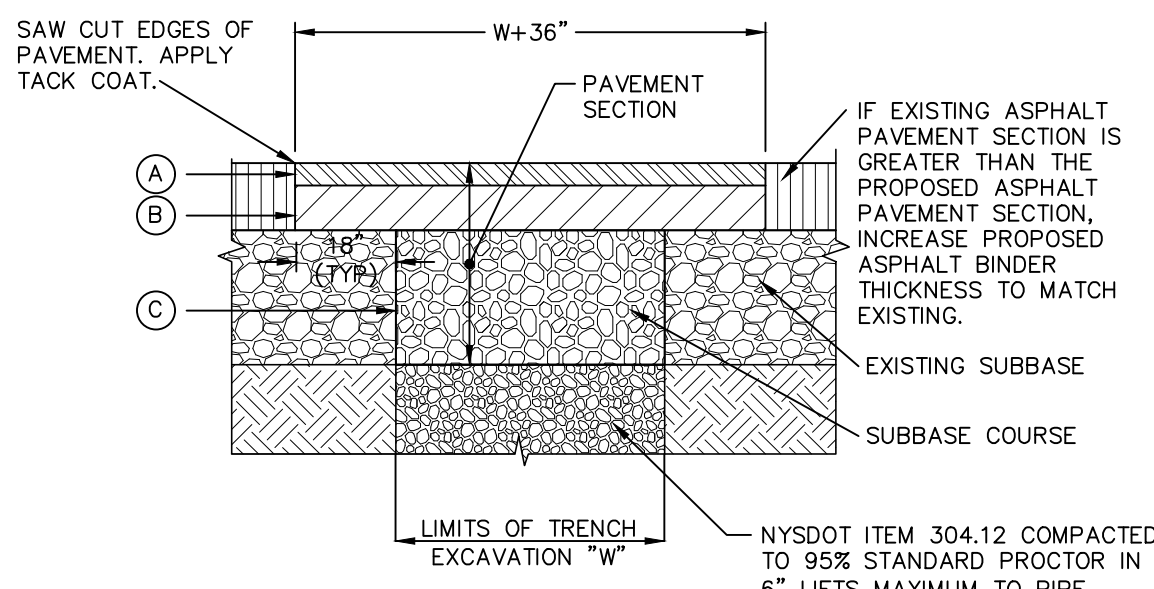NYSDOT ITEM NO. 304.05
PER SIDEWALK SECTION
ABUTTING SIDEWALK

NOTES:
1. CONCRETE CURB SHALL BE 4,000 PSI CAST–IN–PLACE, AND IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 609.
2. EXPANSION JOINTS OF 1/2" CELLULOSE OR SIMILAR MATERIAL SHALL BE PLACED AT 10 FOOT INTERVALS.
3. FOR MOUNTABLE CURBS ABUTTING SIDEWALK OR OTHER HARDSCAPE, REFER TO "ABUTTING SIDEWALK" DETAIL.

WATER LINE OFFSET DETAIL
NOT TO SCALE

PAVEMENT SECTION (SEE NOTE 4)
SANITARY SEWER OR STORM SEWER
SUITABLE RUN OF TRENCH IN 6" MAX. COMPACTED LIFTS – OUTSIDE OF ROADWAY AND ROAD RIGHT–OF–WAY ONLY (SEE NOTE 2 BELOW). UNDER ROADWAY AND RIGHT–OF–WAY ENTIRE TRENCH TO PIPE CROWN MATERIAL SHALL BE NYSDOT ITEM 304.14.
PROPOSED OR EXISTING WATERLINE
18"
PIPE BEDDING
45° ELBOW (TYP.)
CONCRETE THRUST BLOCK BENEATH ELBOW WITH RODDING
COMPACTED SUBGRADE

NOTES:
1. WHEN THE ELEVATION OF THE SANITARY OR STORM SEWER CAN NOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER SERVICE LINE OR MAIN SHALL BE RELOCATED TO PROVIDE THIS REQUIRED SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATERMAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, 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.
3. THE RELOCATED WATER MAIN/SERVICE LINE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA, NYSDOH AND DCDOH STANDARDS.
4. PAVEMENT RESTORATION SHALL BE IN ACCORDANCE WITH THE PAVEMENT RESTORATION DETAIL.
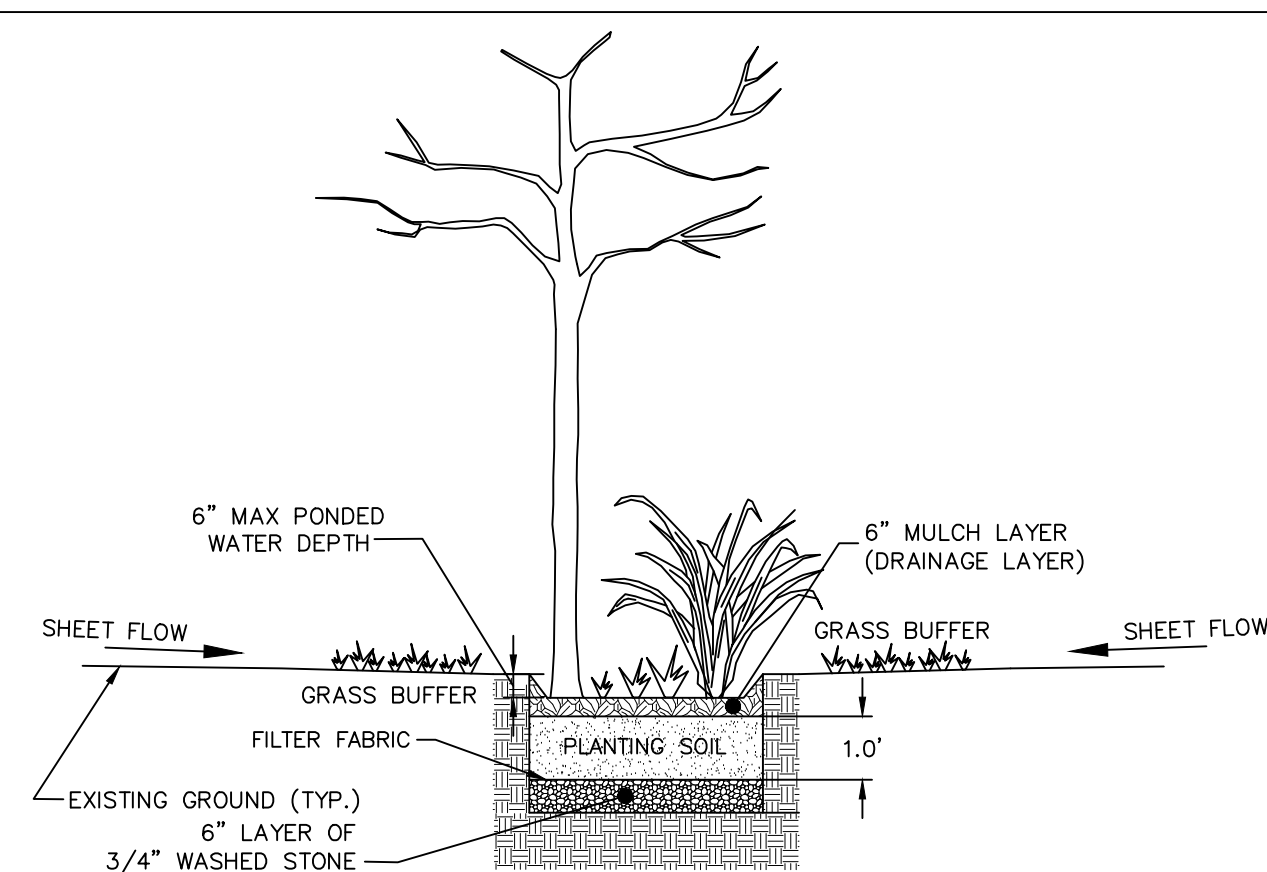5. ALL REPLACED WATERMAIN SHALL BE 12"ø CLASS 52 DUCTILE IRON.

PAVEMENT RESTORATION DETAIL
NOT TO SCALE

SAW CUT EDGES OF PAVEMENT. APPLY TACK COAT.
W+36"
PAVEMENT SECTION
IF EXISTING ASPHALT PAVEMENT SECTION IS GREATER THAN THE PROPOSED ASPHALT PAVEMENT SECTION, INCREASE PROPOSED ASPHALT BINDER THICKNESS TO MATCH EXISTING.
EXISTING SUBBASE
SUBBASE COURSE
LIMITS OF TRENCH EXCAVATION "W"
NYSDOT ITEM 304.12 COMPACTED TO 95% STANDARD PROCTOR IN 6" LIFTS MAXIMUM TO PIPE

LEGEND
A 1–1/2" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE 6F
B 3.5" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE 3
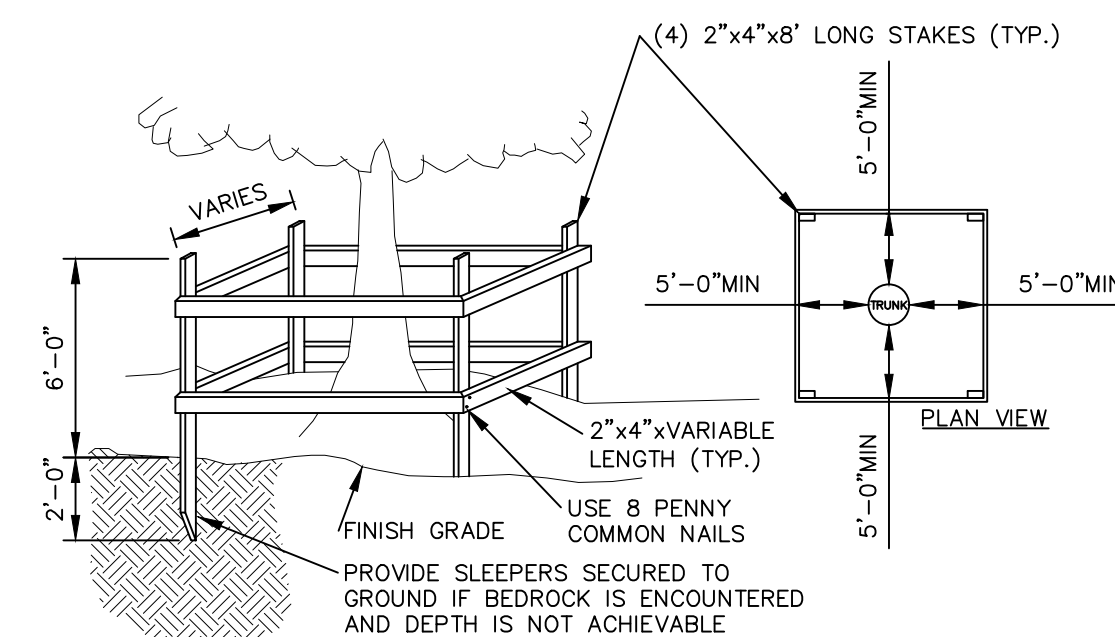C 10" GRANULAR SUBBASE COURSE– NYSDOT ITEM 304.12

NOTES:
1. SAW CUT MIN. 18" BEYOND EXCAVATION WITH SMOOTH EDGES. 18" JOINT BETWEEN EXISTING AND NEW TOP COURSE TO BE MILLED. JOINT TO BE SEALED WITH POLYMER MODIFIED SEALER.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

TYPICAL RAIN GARDEN DETAIL
NOT TO SCALE

6" MAX PONDED WATER DEPTH
6" MULCH LAYER (DRAINAGE LAYER)
SHEET FLOW
GRASS BUFFER
GRASS BUFFER
FILTER FABRIC
PLANTING SOIL
1.0'
EXISTING GROUND (TYP.)
6" LAYER OF 3/4" WASHED STONE

NOTES
1. RAIN GARDEN TO HAVE A MINIMUM FOOTPRINT OF 60 SQUARE FEET WITH 10:1 SIDE SLOPES AT 0.5' DEEP; 1.0' SOIL MEDIA DEPTH; 0.5' DRAINAGE LAYER DEPTH; AND 0.5' PONDING DEPTH.
2. DIRECT ROOF LEADER DISCHARGE TO RAIN GARDEN.
3. PLANTS SHALL BE PLACED IN AREA SHOWN ON THE PLAN.

TEMPORARY TREE PROTECTION DETAIL
NOT TO SCALE

(4) 2"x4"x8' LONG STAKES (TYP.)
5'–0" MIN
VARIES
2"x4" x VARIABLE LENGTH (TYP.)
USE 8 PENNY COMMON NAILS
FINISH GRADE
PROVIDE SLEEPERS SECURED TO GROUND IF BEDROCK IS ENCOUNTERED AND DEPTH IS NOT ACHIEVABLE
PLAN VIEW

NOTES:
1. REFER TO THE PLANS FOR TREES TO REMAIN. NOT ALL TREES WILL REQUIRE REQUIRE PROTECTION. TREE PROTECTION TO BE UTILIZED ON TREES WHERE CONSTRUCTION TRAFFIC WOULD COMPACT THE ROOT ZONE OF THE TREE.

CONSTRUCTION DETAILS
119 HOWLAND AVENUE

119 HOWLAND AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054–14–278498
SCALE: NTS
FEBRUARY 28, 2017
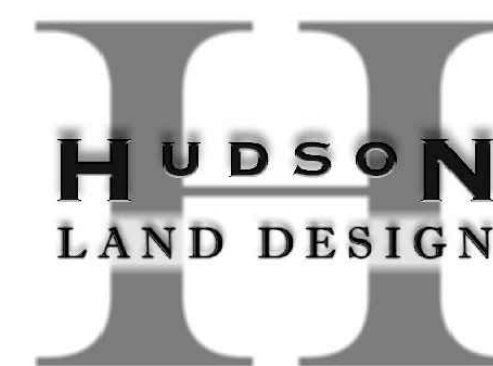
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN STREET
BEACON, NEW YORK 12508
PH: 845-440-6926 F: 845-440-6637

SEAL
JON D. BODENDORF, P.E.
NYS LICENSE NO. 076245
DANIEL G. KOEHLER, P.E.
NYS LICENSE NO. 082716

DRAWN BY: AG	CHECKED BY: MAB	JOB NO.: 2016:029

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	03/28/2017	PER CONSULTANTS COMMENTS	AG

SHEET: 4 OF 4