STONE RIDGE ESTATES OF BEEKMAN

PREPARED FOR

BEEKMAN HOME & LAND DEVELOPMENT, LLC

SITUATE IN THE

TOWN OF BEEKMAN
DUTCHESS COUNTY, NEW YORK

OWNER/APPLICANT CERTIFICATION NOTE:

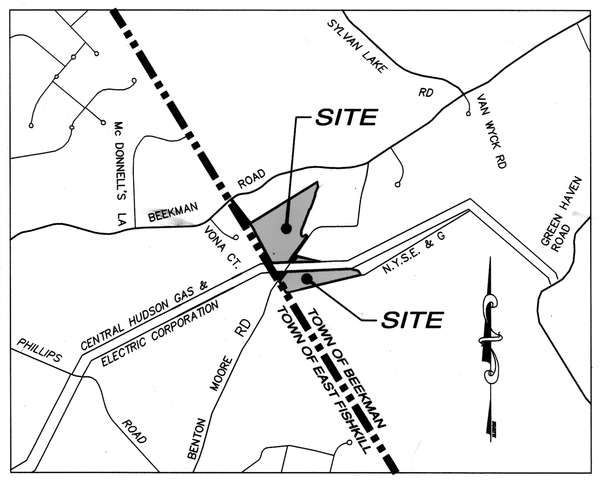
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT THEY ARE FAMILIAR WITH THIS MAP SET (SHEETS 1 TO 22), ITS CONTENTS AND TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON AND TO THE FILING OF SHEETS 1 OF 16 TO 16 OF 16 OF THIS MAP SET WITH THE DUTCHESS COUNTY CLERK'S OFFICE

BARRY COHEN/OWNER — BEEKMAN HOME & LAND DEVELOPMENT, LLC

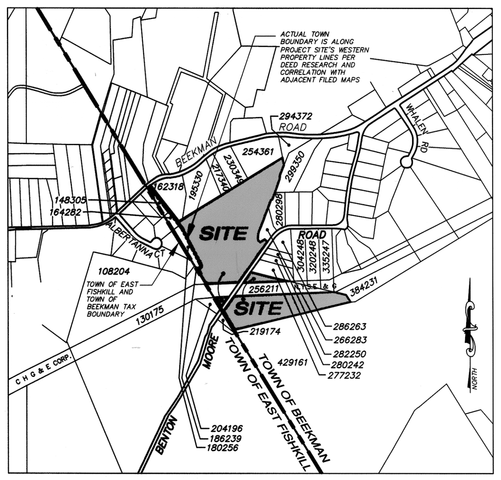
DRAWING SHEET INDEX

COUNTY FILED MAP INDEX *	SHEET #	SHEET TITLE	SCALE	DATE ISSUED	DATE RE-ISSUED
1 OF 16 *	1 OF 22	COVER SHEET	N.T.S.	2-1-2010	10-18-2013
2 OF 16 *	2 OF 22	SUBDIVISION NOTES	N.T.S.	2-1-2010	10-18-2013
3 OF 16 *	3 OF 22	SUBDIVISION PLAT	1" = 50'	2-1-2010	08-16-2013
4 OF 16 *	4 OF 22	LAYOUT PLAN	1" = 50'	2-1-2010	02-27-2012
5 OF 16 *	5 OF 22	GRADING PLAN	1" = 50'	2-1-2010	02-27-2012
6 OF 16 *	6 OF 22	EROSION & SEDIMENT CONTROL PLAN	1" = 50'	2-1-2010	02-27-2012
7 OF 16 *	7 OF 22	CONSTRUCTION PHASING PLAN	AS SHOWN	3-2-2010	10-18-2013
-	8 OF 22	LANDSCAPING PLAN	1" = 50'	2-1-2010	02-27-2012
8 OF 16 *	9 OF 22	UTILITY PLAN - OVERALL	1" = 50'	2-1-2010	10-18-2013
9 OF 16 *	10 OF 22	UTILITY PLAN & PROFILE - DRAINAGE	AS SHOWN	2-1-2010	10-18-2013
10 OF 16 *	11 OF 22	UTILITY PLAN & PROFILE - SEWER	AS SHOWN	2-1-2010	10-18-2013
11 OF 16 *	12 OF 22	UTILITY PLAN & PROFILE - WATER	AS SHOWN	2-1-2010	10-18-2013
-	13 OF 22	ROAD LAYOUT & PROFILES	AS SHOWN	2-1-2010	02-27-2012
-	14 OF 22	ROAD CROSS SECTIONS	AS SHOWN	2-1-2010	02-27-2012
-	15 OF 22	DRIVEWAY PROFILES	AS SHOWN	2-1-2010	02-27-2012
-	16 OF 22	ENTRANCE PLAN & DETAILS	AS SHOWN	2-1-2010	02-27-2012
-	17 OF 22	BENTON MOORE ROAD IMPROVEMENT	AS SHOWN	9-03-2010	10-18-2013
12 OF 16 *	18 OF 22	DETAILS	N.T.S.	2-1-2010	10-18-2013
13 OF 16 *	19 OF 22	DETAILS	N.T.S.	2-1-2010	02-27-2012
14 OF 16 *	20 OF 22	DETAILS	N.T.S.	2-1-2010	02-27-2012
15 OF 16 *	21 OF 22	DETAILS	N.T.S.	3-2-2010	02-27-2012
16 OF 16 *	22 OF 22	DETAILS	AS SHOWN	10-18-2013	--

* DENOTES SHEETS WHICH ARE TO BE FILED WITH THE DUTCHES COUNTY CLERK'S OFFICE



LOCATION MAP
SCALE: 1"=1000'


ACTUAL TOWN BOUNDARY IS ALONG PROJECT SITE'S WESTERN BOUNDARY AS PER DEED RESEARCH AND CORRELATION WITH ADJACENT FILED MAPS
294372
ROAD
254361
BEEKMAN
623161
623161
623161

SANITARY SEWER SPECIFICATIONS

WORK UNDER THIS SECTION INCLUDES FURNISHING AND INSTALLING ALL THE COMPONENTS OF THE SANITARY SEWERAGE SYSTEM AS SHOWN ON DESIGN DRAWINGS AND FURTHER DESCRIBED HEREIN.

1. SUBMITTALS

A. SUBMITTALS SHALL BE MADE TO THE TOWN OF BEEKMAN ENGINEER, TOWN OF EAST FISHKILL ENGINEER, AND DUTCHESS COUNTY DEPARTMENT OF HEALTH. PRODUCT DATA FOR SANITARY SEWER PIPING, FITTINGS, AND ACCESSORIES SHALL BE IN ACCORDANCE WITH THE ENGINEERS REPORT (SANITARY SEWER AND WATER DISTRIBUTION REPORT, PREPARED BY ZARECKI AND ASSOCIATES, LLC) AND DESIGN DRAWINGS.

B. MANUFACTURER'S SHOP DRAWINGS FOR PRE-CAST CONCRETE MANHOLES, INCLUDING FRAMES, COVERS AND ACCESSORIES.

C. MANUFACTURER'S CUT SHEETS AND SPECIFICATIONS FOR INDIVIDUAL PUMP STATIONS INCLUDING BUT NOT LIMITED TO PUMP, ELECTRICAL CONTROLS, FLOATS, GENERATOR, ODOR CONTROLS, ETC.

2. QUALITY ASSURANCE

THE CONTRACTOR IS REQUIRED TO COMPLY WITH ALL NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND DUTCHESS COUNTY HEALTH DEPARTMENT REQUIREMENTS AND PERMIT CONDITIONS.

3. PROJECT CONDITIONS

A. VERIFY THAT SANITARY SEWERAGE SYSTEM COMPONENTS DO NOT INTERFERE WITH OTHER EXISTING OR PROPOSED UTILITIES AS DESCRIBED WITHIN ENGINEERS REPORT AND DESIGN DRAWINGS. ANY CONDITIONS DIFFERING FROM THOSE PRESENTED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR REVIEW AND CLARIFICATION.

B. COORDINATE WORK WITH UTILITY OWNERS AND PROPERTY OWNERS FOR EXISTING UTILITY LOCATIONS.

C. COORDINATE WORK, SHIPPING, INSTALLATION, ETC. WITH PUMP MANUFACTURER FOR CONNECTION OF GENERATOR AND PUMP STATION(S).

4. PRODUCTS

A. GRAVITY SEWER PIPE AND FITTINGS

I. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER PIPES SHALL BE SDR-35 POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS MANUFACTURED IN ACCORDANCE WITH ASTM D-3034.
II. SANITARY SEWER PIPES INSTALLED TO 17 DEEP OR GREATER SHALL BE SDR-26.
III. MANUFACTURER: FREEDOM PLASTICS, INC. OR APPROVED EQUAL
IV. JOINTS SHALL BE BELL AND SPIGOT TYPE WITH ELASTOMERIC GASKETS CONFORMING TO ASTM F-477.
V. FITTINGS MANUFACTURED BY FREEDOM PLASTICS INC. OR APPROVED EQUAL
VI. PIPE SHALL BE SET AT A MINIMUM SLOPE OF 0.4%
VII. SEWER TRENCH SHALL HAVE A 6" WIDE x 4-MIL POLYETHYLENE GREEN UNDERGROUND DETECTABLE WARNING TAPE LABELED IN BLACK INK "CAUTION BURIED SEWER LINE BELOW." REFER TO TRENCH DETAILS.

B. FORCE MAIN AND FITTINGS (LOT 14)

I. SANITARY FORCE MAIN SHALL BE SDR-21 POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS MANUFACTURED IN ACCORDANCE WITH ASTM D-2241.
II. MANUFACTURER: FREEDOM PLASTICS, INC. OR APPROVED EQUAL
III. JOINTS SHALL BE BELL TYPE WITH GASKETS CONFORMING TO ASTM D-3139 & ASTM F-477, RESPECTIVELY.
IV. FITTINGS MANUFACTURER: FREEDOM PLASTICS, INC. OR APPROVED EQUAL
V. PIPE SHALL BE SET AT A MINIMUM SLOPE OF 0.4%
VI. SEWER TRENCH SHALL HAVE A 6" WIDE x 4-MIL POLYETHYLENE GREEN UNDERGROUND DETECTABLE WARNING TAPE LABELED IN BLACK INK "CAUTION BURIED SEWER LINE BELOW." REFER TO TRENCH DETAILS.

C. MANHOLES

I. SHALL BE INSTALLED WITH A MAXIMUM SPACING OF 300 FT ON STRAIGHT RUNS AND INSTALLED AT EVERY CHANGE IN ALIGNMENT OR DIFFERENCE IN DIAMETER OF INCOMING AND OUTGOING SEWER MAINS.
II. PRE-CAST REINFORCED CONCRETE MANHOLES MANUFACTURED IN ACCORDANCE WITH ASTM C-478, DESIGNED FOR AASHTO H20-44 TRUCK LOADING PLUS 30% IMPACT FOR VEHICULAR TRAFFIC AREAS.
III. BASE SECTION: 48 & 60-INCH MINIMUM INSIDE DIAMETER, 5 & 6-INCH MINIMUM WALL THICKNESS WITH INTEGRAL FLOOR SLAB 8-INCH MINIMUM THICKNESS.
IV. RISER SECTIONS: 48 & 60-INCH MINIMUM INSIDE DIAMETER, 5 & 6-INCH MINIMUM WALL THICKNESS.
V. CONE SECTION: ECCENTRIC CONE, 30-INCH MINIMUM OPENING.
VI. TOP SLAB: WHERE CONE SECTION WILL NOT FIT SHALLOW MANHOLES, TOP SLAB SHALL BE 8-INCH MINIMUM THICKNESS WITH 30-INCH DIAMETER ECCENTRIC OPENING.
VII. GRADE ADJUSTMENT: PRE-CAST CONCRETE GRADE RINGS OR CONCRETE BRICK, 3-INCH MINIMUM AND 12-INCH MAXIMUM. TOTAL HEIGHT OF ADJUSTMENT SHALL BE 12 INCHES.
VIII. JOINT SEALANT: PRE-FORMED BUTYL RUBBER JOINT SEALANT CONFORMING TO ASTM C-990.
IX. STEPS: COPOLYMER PROPYLENE PLASTIC STEPS CAST INTO MANHOLE SECTIONS BY MANUFACTURER.
X. PIPE TO MANHOLE CONNECTION: FLEXIBLE RUBBER CONNECTOR CONFORMING TO ASTM C-923, EITHER CAST-IN-PLACE OR INSTALLED WITHIN CORED OPENING BY MANHOLE MANUFACTURER.
XI. BENCH WALLS: CAST-IN-PLACE CONCRETE CONFORMING TO NYSDOT STANDARD SPECIFICATIONS, SECTION 501.
XII. MANUFACTURER: MODERNOCK CONCRETE PRODUCTS INC., OR APPROVED EQUAL

D. MANHOLE FRAMES AND COVERS: HEAVY DUTY, GRAY IRON CONFORMING TO ASTM A48-83, CLASS 30B.

I. FRAMES AND COVERS SHALL BE DESIGNED FOR AASHTO H30 LOADING, PLUS 30% IMPACT. SIZE AND PATTERN AS INDICATED ON DRAWINGS.
II. FRAME: 2.5-INCH MINIMUM FLANGE WIDTH 1-INCH MINIMUM BEARING SEAT.
III. COVER: 1-1/8 INCH MINIMUM THICKNESS. NON-PENETRATING PICK HOLES WITH "SEWER" CAST INTO COVER IN RAISED CHARACTERS.
IV. MANUFACTURER: NEENAH FOUNDRY, CAMPBELL FOUNDRY CO., OR APPROVED EQUAL

E. WATERTIGHT MANHOLE FRAMES AND COVERS: HEAVY DUTY, GRAY IRON CONFORMING TO ASTM A48-83, CLASS 30B.

I. SHALL BE SAME AS ABOVE (SECTION 4D) WITH A 3/4-INCH SQUARE NEOPRENE GASKET CEMENTED INTO A MACHINED GROOVE ON THE UNDERSIDE OF THE COVER.
II. MANUFACTURER: "PLUM STEAL" BY SYRACUSE CASTINGS, "SELF SEALING" BY NEENAH FOUNDRY, OR APPROVED EQUAL

F. TYPICAL INDIVIDUAL PUMP STATION INSTALLATION

I. REFER TO ENGINEERS REPORT & DESIGN DETAILS INCLUDED HEREIN FOR FURTHER INFORMATION.

F. FIELD QUALITY CONTROL

I. CLEANING: CLEAN INTERIOR OF PIPING AND STRUCTURES OF SOIL AND DEBRIS AS THE WORK PROGRESSES.
II. FLUSH PIPING BETWEEN MANHOLES IF NECESSARY TO REMOVE ACCUMULATED DEBRIS.
III. INTERIOR INSPECTION: ENGINEER SHALL MAKE INSPECTION AFTER PIPE BETWEEN STRUCTURES HAS BEEN INSTALLED AND APPROXIMATELY 2 FEET OF BACKFILL IS IN PLACE, AND AGAIN AT THE COMPLETION OF THE WORK. THE PIPE SHALL BE CHECKED FOR:
   * TRUENESS OF LINES AND GRADE, A FULL CIRCLE OF LIGHT SHOULD BE SEEN WHEN LOOKING FROM ONE MANHOLE TO THE NEXT.
   * VISIBLE LEAKAGE.
   * JOINT ALIGNMENT.
   * DEPOSITS OF DEBRIS
   * DEFLECTION OF FLEXIBLE PIPES IN EXCESS OF 5% OF THE NOMINAL DIAMETER.
IV. ANY PIPE WHICH FAILS THE VISUAL INSPECTION OR WHICH IS DAMAGED OR DISPLACED THROUGH ANY CAUSE SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.

SANITARY SEWER FACILITIES TESTING PROCEDURES

1. SANITARY SEWER PIPES

ALL SANITARY TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER AND CERTIFICATES OF COMPLIANCE WITH TEST STANDARDS SHALL BE PROVIDED TO THE TOWN OF EAST FISHKILL SEWER DISTRICT & DCHD AS A CONDITION OF APPROVAL FOR OPERATION.

A. APPROPRIATE TEST METHOD:
USE OF THE LOW-PRESSURE AIR TEST METHOD IS LIMITED TO CONDITIONS WHERE THE GROUNDWATER ELEVATION IS BELOW THE INVERT OF THE SEWER LINE UNDER TEST. THEREFORE, ONLY EXFILTRATION TESTING METHODS ARE BOUNDARY CONDITIONS THAT MUST BE DETERMINED. IF THE GROUNDWATER LEVEL IS ABOVE THE INVERT OF THE SEWER LINE, AN INFILTRATION TEST OR EXFILTRATION TEST MAY BE PERFORMED. HOWEVER, THE INFILTRATION TEST MAY ONLY BE USED IF THE GROUNDWATER LEVEL IS AT LEAST TWO (2) FEET ABOVE THE CROWN OF THE PIPE AT THE UPSTREAM END OF THE LENGTH OF LINE TESTED. IF THE GROUNDWATER LEVEL IS LESS THAN TWO (2) FEET ABOVE THE CROWN OF THE PIPE MEASURED FROM THE HIGHEST ELEVATION OF THE SEWER BEING TESTED, THE EXFILTRATION TEST SHALL BE USED. FOR THE EXFILTRATION TEST, THE TEST HEAD AT THE UPSTREAM MANHOLE MUST BE ESTABLISHED AT A MINIMUM OF TWO (2) FEET ABOVE THE CROWN OF THE PIPE, OR AT LEAST TWO (2) FEET ABOVE EXISTING GROUNDWATER, WHICHEVER IS GREATER. THE ALLOWABLE EXFILTRATION OR INFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH-DIAMETER-MILE-DAY FOR ANY SECTION OF THE SYSTEM. AIR TESTING, IF USED, SHALL MEET THE REQUIREMENTS THAT THE PRESSURE SHALL NOT DROP MORE THAN 1.0 PSI IN 5 MINUTES FOR 8" AND LARGER REINFORCED CONCRETE PIPE. THE METHOD OF TESTING OF SANITARY SEWERS IS DESCRIBED IN ASTM DESIGNATION F1417-92 ENTITLED "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWERS USING LOW-PRESSURE AIR." THIS DOCUMENT SUPERSEDES THE PREVIOUS ASTM DESIGNATION C828 AND C924 TESTING METHODS. THE DOCUMENT TITLE IS SPECIFIC TO VITRIFIED CLAY PIPE, THE LINE AND GRADE PROVISIONS MAY BE USED FOR ANY OTHER SANITARY SEWER PIPE HAVING NOMINAL PIPE DIAMETERS BETWEEN 3" AND 42".

B. PROCEDURE FOR SANITARY SEWER PIPES

I. PLUG ALL OPENINGS IN THE TEST SECTION.
II. ADD AIR UNTIL THE PRESSURE INSIDE OF THE LINE IS RAISED TO APPROXIMATELY 4.0 PSI. AFTER THIS PRESSURE IS REACHED, ALLOW THE PRESSURE TO STABILIZE. DISCONNECT THE AIR SUPPLY. PRESSURE WILL NATURALLY DROP A FEW PSI. ADJUST THE PRESSURE TO 3.5 PSI. TIME THE PRESSURE DROP FROM 3.5 PSI TO 2.5 PSI. THIS VOLUME MUST BE BETWEEN TWO (2) TO FIVE (5) MINUTES DEPENDING ON THE PIPE SIZE. USE THE TABLE BELOW TO DETERMINE THE TIME FOR EACH SIZE AND TEST SECTION.
III. WHEN THE PRESSURE DROP HAS REACHED 3.5 PSI, START TIMING THE STARTING TEST PRESSURE OF 3.5 PSI. START THE TEST. IF THE PRESSURE DROPS MORE THAN 1.0 PSI DURING THE TEST PERIOD, THE LINE SHALL BE REPAIRED AND RETESTED. IF A 1.0-PSI DROP DOES NOT OCCUR WITHIN THE TEST TIME, THE LINE HAS PASSED THE TEST.

C. TEST TIME

I. THE TABLE BELOW SHOWS THE REQUIRED TEST TIME, T, IN MINUTES/100 FEET OF PIPE FOR EACH DIAMETER OF PIPE. TEST TIMES ARE FOR A 1.0-PSI PRESSURE DROP.
II. IF THE SECTION OF LINE TO BE TESTED INCLUDES MORE THAN ONE PIPE SIZE, CALCULATE A TEST TIME FOR EACH SIZE AND ADD THE TEST TIMES TO ARRIVE AT THE TOTAL TEST TIME FOR THE SECTION.
III. IT MAY NOT BE NECESSARY TO HOLD THE TEST FOR THE WHOLE PERIOD WHEN IT IS CLEARLY EVIDENT THAT THE RATE OF AIR LOSS IS LESS THAN THE ALLOWABLE, AS DETERMINED BY THE SUPERVISING ENGINEER.

MINIMUM TEST TIME FOR VARIOUS PIPE SIZES

NOMINAL PIPE SIZE (in)	TIME (T) (min / 100 ft)
3	0.2
4	0.3
6	0.7
8	1.2
10	1.6
12	1.8
15	2.1
18	2.4
21	3
24	3.6
27	4.2
30	4.8
33	5.4
36	6
39	6.6
42	6.6

D. DEFLECTION TEST

THE MAXIMUM ALLOWABLE DEFLECTION SHALL NOT EXCEED 5% OF THE PIPE'S INTERNAL DIAMETER.

A MANDREL TEST IS REQUIRED FOR ALL GRAVITY SEWER MAINS INSTALLED FOR THIS PROJECT AND SHALL BE CONDUCTED A MINIMUM OF 30 DAYS AFTER PIPE IS BACKFILLED. USE THE MANDREL TEST TO VERIFY THE INSTALLED INTERNAL PIPE DIAMETER. IF THE MANDREL TEST FAILS ON ANY SECTION OF PIPE, THAT SECTION OF PIPE SHALL BE EXCAVATED, REPAIRED AND RETESTED. THE MANDREL SHALL BE PULLED BY HAND TO VERIFY ANY UNCERTAINTY OF THE RESULTS. IT IS NOT IMPORTANT TO MAINTAIN ADEQUATE PRESSURE RELIEF VALVES. DO NOT OVER PRESSURIZE THE LINES OR MANHOLES.

2. SANITARY SEWER MANHOLES

A. APPROPRIATE TEST METHOD

MANHOLES ARE CAPABLE OF PASSING AIR TESTED. THEY SHOULD BE VISUALLY INSPECTED AND LEAKAGE TESTED USING INTERNAL OR EXTERNAL HYDROSTATIC PRESSURE OR VACUUM. ALTHOUGH THE VACUUM TESTING METHOD IS PREFERRED, TODAY'S RUBBER CONNECTOR HYDROSTATIC PRESSURE TESTING METHOD IS ALSO USED WHEN ONLY A FEW MANHOLES ARE INVOLVED, THEREFORE, NOT ECONOMICALLY JUSTIFIED FOR THE USE OF EXPENSIVE EQUIPMENT. THE INTERNAL HYDROSTATIC PRESSURE METHOD FOR TESTING IS USED MAINLY DUE TO THE BRICK OR BLOCK CONSTRUCTION OF THE MANHOLE. TODAY'S PRE-CAST CONCRETE EXCLUSIVE USE OF PRE-CAST CONCRETE MANHOLES, VACUUM TESTING IS PREFERRED SINCE IT IS MORE ECONOMICAL, IT TAKES LESS TIME, MOST INSTALLATION LEAKS ARE CONSIDERABLY LESS TIME, HOWEVER PROCEDURES FOR BOTH TESTS ARE LISTED BELOW.

B. PROCEDURE OF HYDROSTATIC TEST:

I. ALL HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND GROUTED WITH AN APPROVED NON-SHRINKING MORTAR. ALLOW NON-SHRINK GROUT TO SET UP 1-2 DAYS PRIOR TO TESTING.
II. MANHOLES ARE TO BE TESTED AFTER ASSEMBLY AND SET UP TIME AND BEFORE BACKFILLING. NO STANDING WATER SHALL BE ALLOWED IN THE MANHOLE EXCAVATION THAT MAY AFFECT THE ACCURACY OF THE TEST.
III. ALL PIPES AND OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED IN SUCH A MANNER AS TO PREVENT DISPLACEMENT OF THE PLUGS WHILE THE VACUUM IS DRAWN.
IV. THE TEST HEAD SHALL BE PLACED ON THE INSIDE OF THE TOP OF THE CONE SECTION OF THE MANHOLE AND SHALL BE LUBRICATED AND INFLATED. THE RING/CONE JOINT IS NOT USUALLY TESTED.
V. INSTALLATION AND OPERATION OF VACUUM EQUIPMENT AND INDICATING DEVICES SHALL BE IN ACCORDANCE WITH MANUFACTURE SPECIFICATIONS AND INSTALLATION MANUALS FOR SPECIFIED EQUIPMENT.
VI. A VACUUM OF 10" OF MERCURY SHALL BE DRAWN. THE TIME FOR THE VACUUM TO DROP TO 9" OF MERCURY SHALL BE RECORDED.
VII. ACCEPTANCE FOR THE 4-FOOT DIAMETER MANHOLES SHALL BE DEFINED AS WHEN THE TIME TO DROP TO 9" OF MERCURY MEETS OR EXCEEDS THE FOLLOWING:

MANHOLE VACUM TEST PARAMETER TABLE

MANHOLE DEPTH (FT)	MANHOLE MINIMUM DIAMETER (FT)	TIME TO DROP 1" Hg (sec.)*
10 OR LESS	4	60
10 TO 15	4	75
15 TO 25	4	90

*FOR MANHOLES FIVE (5) FEET IN DIAMETER, ADD AN ADDITIONAL 15 SECONDS AND FOR MANHOLES SIX (6) FEET IN DIAMETER, ADD AN ADDITIONAL 30 SECONDS TO THE TIME REQUIREMENTS FOR FOUR (4) FOOT DIAMETER MANHOLES.

4. TEST FAILURES

A. IF ANY PIPE SECTION FAILS THE TEST, NECESSARY REPAIRS SHALL BE MADE AND ALL THE LOW-PRESSURE AIR TEST REPEATED UNTIL THE PIPE SECTION PASSES THE TEST.
B. IF ANY MANHOLE FAILS THE TEST, NECESSARY REPAIRS SHALL BE MADE AND THE VACUUM OR VACUUM TEST REPEATED UNTIL THE MANHOLE PASSES THE TEST.
C. ALL REPAIRS AND RETESTING SHALL BE DONE TO THE SATISFACTION OF THE SUPERVISING ENGINEER.

5. SAFETY PRECAUTIONS

A. NO ONE SHALL BE ALLOWED IN THE MANHOLES DURING THE TESTING BECAUSE OF THE POSSIBILITY OF SUDDEN FAILURE.
B. IT IS EXTREMELY IMPORTANT THAT THE VARIOUS TEST PLUGS ARE PROPERLY BRACED TO PREVENT BLOW OUTS.
C. IT IS ALSO IMPORTANT TO MAINTAIN ADEQUATE PRESSURE RELIEF VALVES. DO NOT OVER PRESSURIZE THE LINES OR MANHOLES.

6. GENERAL INFORMATION

A. THE PERSON OR PERSONS PERFORMING THE TESTING PROCEDURES SHALL PROVIDE ALL NECESSARY EQUIPMENT AND PERFORM ALL THE WORK REQUIRED IN CONNECTION WITH SUCH TESTS.
B. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER RESPONSIBLE FOR CERTIFICATION OF THE SYSTEM(S), ALONG WITH DCDH, AND TOWN OF EAST FISHKILL. THE HAZARDS INVOLVED WITH SUCH TESTING.
C. UNLESS OTHERWISE NOTED OR INSTRUCTED BY THE ENGINEER, ALL TEST RESULTS WILL BE CONVEYED TO THE ENGINEER WHO WILL SUBMIT SUCH DATA TO THE DCDH FOR A CERTIFICATION OF CONSTRUCTION COMPLIANCE.
D. NO SYSTEM OR PART THEREOF SHALL BE PLACED INTO USE UNTIL ALL TEST RESULTS AND CERTIFICATION OF CONSTRUCTION COMPLIANCE ARE SUBMITTED TO AND APPROVED BY THE DCHD (I.E. LETTER OF AUTHORIZATION TO OPERATE).

WATER SUPPLY SPECIFICATIONS

WORK UNDER THIS SECTION INCLUDES FURNISHING AND INSTALLING ALL THE COMPONENTS OF THE WATER SUPPLY SYSTEM AS SHOWN ON DESIGN DRAWINGS AND FURTHER DESCRIBED HEREIN.

1. SUBMITTALS

A. SUBMITTALS SHALL BE MADE TO THE TOWN OF BEEKMAN ENGINEER, TOWN OF EAST FISHKILL ENGINEER, AND DUTCHESS COUNTY DEPARTMENT OF HEALTH. PRODUCT DATA FOR WATER MAIN PIPING, FITTINGS, AND ACCESSORIES IN ACCORDANCE WITH REPORT AND DESIGN DRAWINGS.
B. CONTRACTOR SHOP DRAWINGS FOR PIPE RESTRAINTS IN ACCORDANCE WITH REPORT AND DESIGN DRAWINGS.
C. PIPING RESTRAINT CONCRETE TESTING RESULTS TO SHOW CONFORMANCE WITH DESIGN PLANS AND SPECIFICATIONS.

2. QUALITY ASSURANCE

THE CONTRACTOR IS REQUIRED TO COMPLY WITH ALL NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND DUTCHESS COUNTY HEALTH DEPARTMENT REQUIREMENTS AND PERMIT CONDITIONS.

3. PROJECT CONDITIONS

A. VERIFY THAT WATER SUPPLY SYSTEM COMPONENTS DO NOT INTERFERE WITH OTHER EXISTING OR PROPOSED UTILITIES AS DESCRIBED WITHIN REPORT AND DESIGN DRAWINGS. ANY CONDITIONS DIFFERING FROM THOSE PRESENTED SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER FOR REVIEW AND CLARIFICATION.
B. COORDINATE WORK WITH UTILITY OWNERS AND PROPERTY OWNERS FOR EXISTING UTILITY LOCATIONS.
C. VERIFY LOCATIONS OF PIPING RESTRAINTS AND TYPE WITHIN DESIGN PLANS AND ADJACENT SITE EXISTING AND PROPOSED CONDITIONS.

4. PRODUCTS

A. WATER MAIN

I. 8" DUCTILE IRON PIPE CLASS 52

B. ISOLATION VALVES

I. 8" GATE VALVES
II. MANUFACTURER: CLOW OR APPROVED EQUAL

C. FIRE HYDRANTS

I. MULLER SUPER CENTURION MODEL 250 WITH 5¼" MAIN VALVE OPENING SIZE OR APPROVED EQUAL.

D. SERVICE SADDLE & TAP

I. SERVICE SADDLE CONNECTED TO EXISTING WATER MAIN TO BE MUELLER DR-15 OR APPROVED EQUAL. SERVICE TAPS SHALL CONFORM TO AWWA C600 SECTION 7 WITHIN THE CURRENT RELEASE.

E. CORPORATION STOP

I. MUELLER H-15000 OR APPROVED EQUAL.

F. CURB BOX

I. ADJUSTABLE MUELLER H-10350 BUFFALO TYPE OR APPROVED EQUAL.

G. CURB STOP

I. MUELLER H-15210 OR APPROVED EQUAL.

H. WATER SERVICE LINE

I. 3/4" OR 1" TYPE K COPPER LINE RATED FOR 200 P.S.I. WATER SERVICE LINE SHALL CONFORM TO AWWA C888-99 OR ITS CURRENT RELEASE. THE WATER SERVICE LINE BETWEEN THE MAIN AND CURB STOP SHALL HAVE NO JOINTS. ACTUAL DIAMETER OF THE WATER SERVICE LINE MAY VARY AS REQUIRED TO PROVIDE A MINIMUM OF 20 P.S.I AT THE SECOND FLOOR ELEVATION AT A FLOW RATE OF 5 GPM FLOW.

I. WATER METER

I. SENSUS SR1 METER FOR 3/4" & 1" SERVICE LINES WITH REMOTE READOUT.

J. PIPING RESTRAINTS

I. INSTALL CONCRETE THRUST BLOCKS PER DESIGN DRAWINGS AND DETAILS.
II. CONCRETE FOR THRUST BLOCKS SHALL BE CLASS 'A', 3000-PSI MINIMUM OR APPROVED EQUAL.
III. ALL APPURTENANCES, SUCH AS MECHANICAL CONNECTIONS MAY BE SUBSTITUTED FOR THRUST BLOCKS AND SPECIFICATIONS ARE SUBMITTED AND APPROVED BY DESIGN ENGINEER AND ALL APPROVAL AGENCIES.

K. LOCATOR "WARNING TAPE"

I. INSTALLED WITHIN TRENCH AS SHOWN WITHIN DESIGN DRAWINGS AND PER MANUFACTURER'S SPECIFICATIONS.
II. TAPE TO BE 6" WIDE X 4-MIL POLYETHYLENE BLUE UNDERGROUND DETECTABLE WARNING TAPE READING IN BLACK INK "CAUTION BURIED WATER LINE BELOW".

5. EXECUTION

A. PREPARATION

I. EXAMINE WORK AREAS AND VERIFY ADEQUACY OF STAKEOUT AND CLEARANCE BETWEEN EXISTING AND PROPOSED FACILITIES.
II. EXAMINE PIPE AND FITTINGS BEFORE INSTALLATION AND ASSURE NO DEFECTIVE MATERIALS ARE INCORPORATED INTO THE WORK.

B. SADDLE/ WET TAP INSTALLATION

I. EXCAVATION, TRENCHING, BACKFILLING AND COMPACTING SHALL BE PERFORMED AS SPECIFIED IN EARTHWORK SECTION ABOVE. TRENCHES SHALL BE EXCAVATED TO THE REQUIRED DEPTHS WITH DUE ALLOWANCE FOR THE THICKNESS OF THE PIPE AND BEDDING IN ACCORDANCE WITH THE DESIGN DRAWINGS.
II. PROPER BRACING SHALL BE PROVIDED DURING THE DURATION OF THE WATER MAIN WORK FOR THE TIMED ROAD OR ELEVATIONS, AND TOWN FOR BEEKMAN ROADBED SO AS NOT TO CAUSE SETTLING.
III. THE EXISTING WATER MAIN SHALL BE EXPOSED AND ADEQUATE SPACE PROVIDED AROUND FOR THE INSTALLATION OF THE REQUIRED SADDLE. EXISTING PIPE SHALL BE CLEAN AND FREE OF DIRT TO ASSURE A WATER TIGHT SEAL.
IV. INSTALL SADDLE TO WATER MAIN PIPE BY TIGHTENING ALTERNATELY EACH SIDE; DO NOT DISTORT THE DIAMETER OF WATER MAIN BY OVER TURNING.
V. INSERT THE MAIN STOP IN ITS FULLY OPEN POSITION. CONNECT DRILLING MACHINE.
VI. ROTATE DRILLING MACHINE CUTTING MOTION UNTIL THE WATER MAIN IS COMPLETELY DRILLED, RETRACT DRILLING MACHINE.
VII. CLOSE CURB STOP AND CONNECT WATER SERVICE LINE.
VIII. PROVIDE GOOSENECK LOOP AS PER DESIGN DRAWINGS AND EXTEND PIPING TO CURB STOP, INSTALL CURB STOP AND BOX, BRACE AS NEEDED.
IX. BACK FILL AROUND CONNECTION PER THE APPLICABLE TOWN ROADBED AND TRENCH GUIDELINES.
X. MOVE FROM CURB STOP AND CURB BOX (TO BUILDING STRUCTURE). CONNECTION TO BUILDING STRUCTURES SHALL BE DONE ON A PER LOT BASIS AS BUILDING PROGRESSES

C. RELATION TO SEWER & DRAINAGE LINES

I. HORIZONTAL & VERTICAL SEPARATION: REFER TO DESIGN DRAWINGS AND SANITARY SEWER SPECIFICATIONS FOR MORE INFORMATION ON SEPARATION DISTANCES AND BURIAL DEPTHS.

D. FIELD QUALITY CONTROL

I. CLEANING: AS REQUIRED PER CONSTRUCTION PRACTICES AND AWWA SPECIFICATIONS
II. INSPECTIONS: AFTER EACH AND EVERY CONNECTION.

WATER FACILITIES TESTING PROCEDURES

ALL WATER MAIN TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER AND CERTIFICATES OF COMPLIANCE WITH TEST STANDARDS SHALL BE PROVIDED TO THE TOWN OF EAST FISHKILL WATER DISTRICT & DCHD AS A CONDITION OF APPROVAL FOR OPERATION.

PRESSURE AND LEAKAGE TESTS IN THE SYSTEM SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AWWA STANDARD C600-05 ENTITLED, "INSTALLATION OF DUCTILE IRON WATER MAINS AND THEIR APPURTENANCES", SECTION 4, "HYDROSTATIC TESTING" OR LATEST REVISION, AS FOLLOWS:

1. PRESSURE TEST

ALL PIPING AND APPURTENANCES SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE OF AT LEAST 1.5 TIMES THE WORKING PRESSURE AT THE POINT OF TESTING. BEFORE APPLYING THE SPECIFIED TEST PRESSURE, AIR SHALL BE EXPELLED COMPLETELY FROM THE PIPES, VALVES, HYDRANTS, ETC. CORPORATION STOPS MAY BE PROVIDED AT HIGH POINTS SO THAT THE AIR CAN BE EXPELLED AS THE LINE FILLS WITH WATER. THE REQUIRED PRESSURE, AS MEASURED AT THE POINT OF TESTING, SHALL BE MAINTAINED FOR NOT LESS THAN 2 HOURS, AND MAY NOT VARY BY MORE THAN APPROXIMATELY 5 PSI FOR THE DURATION OF THE TEST. TEST PRESSURE AT THE HIGHEST POINT ALONG THE TEST SECTION SHALL NOT BE LESS THAN 1.25 TIME THE WORKING PRESSURE. TEST PRESSURE SHALL NOT EXCEED PIPE OR THRUST-RESTRAINT DESIGN PRESSURES.

2. LEAKAGE TEST

THE LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH THE PRESSURE TEST. LEAKAGE IS DEFINED AS THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO THE NEWLY LAID PIPE TO MAINTAIN THE SPECIFIED TEST PRESSURE. A DROP IN PRESSURE IN THE TEST SECTION SHALL NOT MEASURE LEAKAGE OVER A PERIOD OF TIME. NO PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:

$$L = \frac{SD\,(P)^{.5}}{148{,}000}$$

L = THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR.
S = THE LENGTH OF PIPE TESTED, IN FEET.
D = THE NOMINAL DIAMETER OF THE PIPE, IN INCHES.
P = THE AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST, IN PSI (GAUGE).

ALL PRESSURE AND LEAKAGE TESTS SHALL BE WITNESSED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, TOWN OF EAST FISHKILL REPRESENTATIVE AND CERTIFYING ENGINEER OF THE WATER SUPPLY SYSTEM, A 48 HOUR NOTICE SHALL BE GIVEN TO EACH ENTITY PRIOR TO THE TESTING DATE. THE NEW FACILITIES SHALL NOT BE PLACED INTO USE UNTIL ALL DISINFECTIONS AND TEST RESULTS ARE SUBMITTED TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND THE DUTCHESS COUNTY DEPARTMENT OF HEALTH ISSUES A CERTIFICATION OF COMPLETED WORKS/AUTHORIZATION TO OPERATE.

3. DISINFECTION

A. DISINFECTIONS OF ALL NEW PIPING AND APPURTENANCES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C651-05. THE NEW FACILITIES SHALL BE FILLED WITH WATER FROM THE NEW DISINFECTED WELL OR OTHER SOURCE OF POTABLE WATER SUPPLY SO CONTROLLED AS TO FLOW SLOWLY INTO THE NEW MAINS DURING THE APPLICATION OF CHLORINE. THE RATE OF CHLORINE MIXTURE FLOW SHALL BE SUCH PROPORTIONAL TO RATE OF WATER ENTERING THE PIPE THAT THE CHLORINE DOSE APPLIED SHALL PRODUCE AT LEAST 25 MG/L CHLORINE INITIALLY AND AT LEAST 10 MG/L CHLORINE RESIDUAL AFTER A PERIOD OF NOT LESS THAN 24 HOURS.
B. AFTER THE MINIMUM 24-HOUR DISINFECTIONS PERIOD, THE NEW PIPING AND APPURTENANCES SHALL BE COMPLETELY DRAINED, FLUSHED AND REFILLED WITH WATER FROM THE FOUR CORNERS WATER DISTRIBUTION SYSTEM. SAMPLES OF WATER SHALL THEN BE COLLECTED AND TESTED FOR COLIFORM BACTERIA BY THE MPN METHOD, TURBIDITY, AND HETEROTROPHICH PLATE COUNT AND ANOTHER COLIFORM BACTERIA SAMPLE SHALL BE TAKEN 24 HOURS AFTER FIRST ONE.
C. ALL TEST LOCATIONS SHALL BE PROPERLY IDENTIFIED, WITH DATE, TIME OF DAY, AND NAME OR NAMES OF PERSONS AND THEIR COMPANY COLLECTING SUCH SAMPLES.
D. IF THE DISCHARGE OF CHLORINATED WATER WOULD BE HARMFUL TO VEGETATION OR WILDLIFE, MEASURES MUST BE TAKEN EITHER TO COMPOUND THE HIGHLY CHLORINATED WATER OR TO NEUTRALIZE THE CHLORINE.
E. THE PIERSON OR PERSONS PERFORMING THE DISINFECTIONS AND/OR TESTING PROCEDURES SHALL PROVIDE ALL THE NECESSARY EQUIPMENT AND PERFORM ALL THE WORK REQUIRED IN CONNECTION WITH SUCH DISINFECTIONS AND/OR TESTS.
F. APPROPRIATE CHLORINE TEST KITS SHALL BE UTILIZED FOR THE VARIOUS CHLORINE LEVELS SPECIFIED. DILUTION OF TEST SAMPLES TO REDUCE CHLORINE CONCENTRATION SO A TEST KIT

PLANNING BOARD - TOWN OF BEEKMAN

THE SUBDIVISION "STONE RIDGE ESTATES OF BEEKMAN" IS IN COMPLIANCE WITH THE PROVISIONS OF THE LAND SUBDIVISION REGULATIONS. THE PLANNING BOARD, AFTER DUE NOTICE AND A PUBLIC HEARING ON 3/18/2013, AS PRESCRIBED BY SECTION 276 OF THE TOWN LAW OF THE STATE OF NEW YORK, APPROVES THE FINAL PLAT AS SUBMITTED.

PLANNING BOARD CHAIRPERSON — DATE 12/30/2013

OWNER/APPLICANT CERTIFICATION NOTE:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT THEY ARE FAMILIAR WITH THIS MAP, ITS CONTENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON AND TO THE FILING OF THIS MAP WITH THE DUTCHESS COUNTY CLERK'S OFFICE.

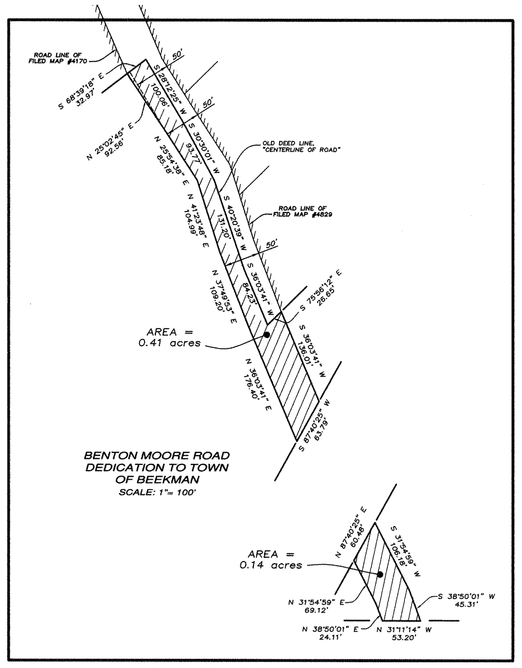
BARRY COHEN, OWNER BEEKMAN HOME & LAND DEVELOPMENT, LLC

LEGEND

- EXISTING PARCEL PROPERTY LINE/CORNER
- EXISTING EDGE OF PAVEMENT
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- PROPOSED PROPERTY LINE/CORNER
- PROPOSED PROPERTY MONUMENT
- PROPOSED EASEMENT
- 18 — LOT NUMBER
- AREA = 158,459 sf. — LOT AREA
- WETLAND BOUNDARY WITH FLAG
- PROPOSED TRAIL MONUMENT

MONUMENT DETAIL
N.T.S.

TRAIL MONUMENT DETAIL
N.T.S.



AREA SCHEDULE:

TAX LOT #: 6658-00-224252
19.11 Ac. + 0.09 Ac. = 19.2 Ac.
(NORTHWEST SIDE OF BENTON MOORE ROAD)

TAX LOT #: 6658-00-266185
0.55 Ac. + 6.50 Ac. = 7.05 Ac.
(SOUTHEAST SIDE OF BENTON MOORE ROAD)

NOTES:

1. TAX LOT NUMBER: 6658-00-224252 & 6658-00-266185
2. TOTAL AREA: 19.2 Ac. & 7.05 Ac. = 26.25 Ac.
3. PROPOSED LOTS: 18 RESIDENTIAL LOTS AND 6 OPEN SPACE AREAS (A,B,C,D,E,F)
4. ZONING DISTRICT: R-45
5. SMALLEST LOT SIZE = 21,877 SF.
6. OWNER/APPLICANT:

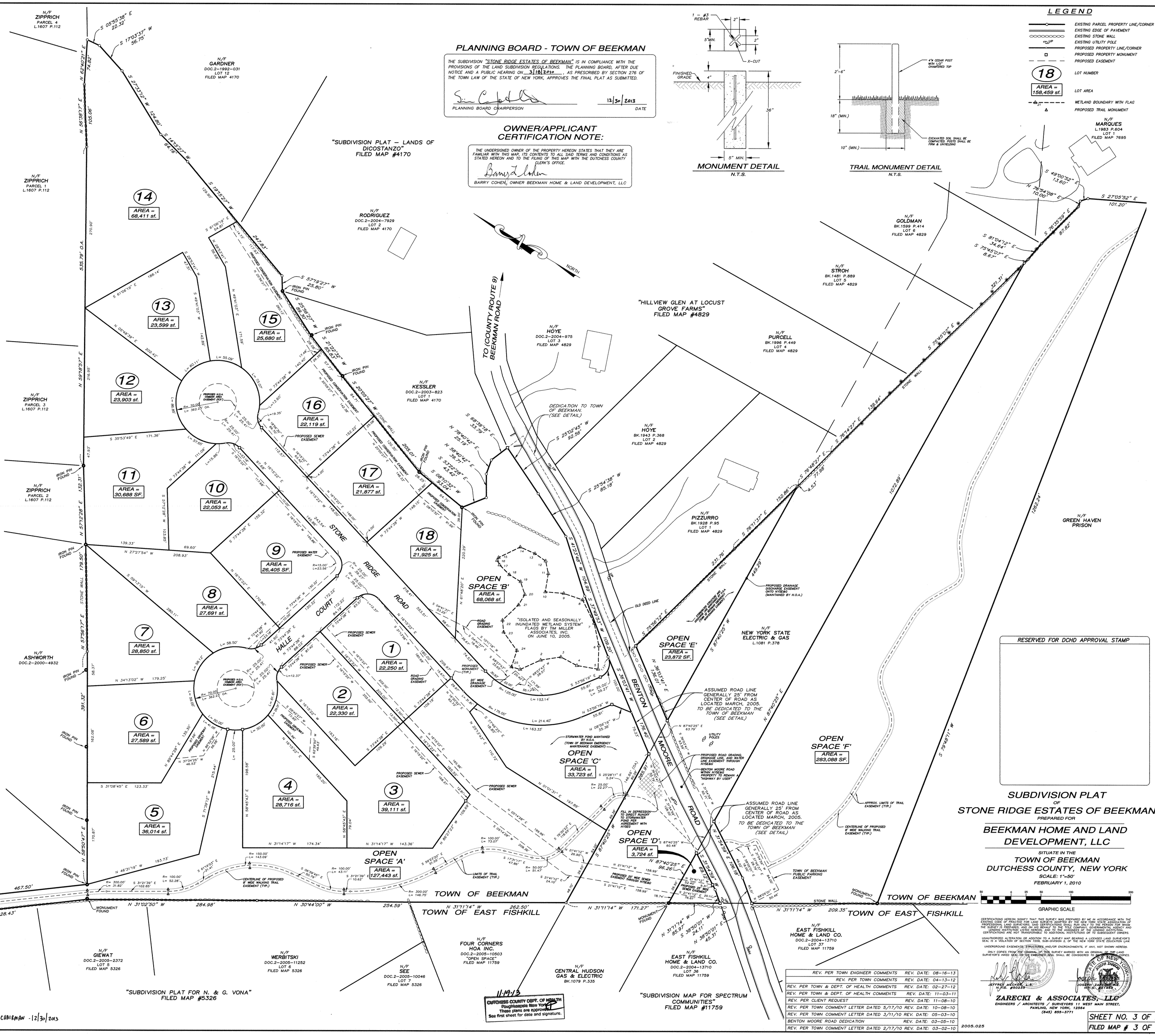
   BEEKMAN HOME & LAND DEVELOPMENT, LLC
   33 HIGH CLIFF TERRACE
   POUND RIDGE, NEW YORK 10576

7. REFERENCE IS MADE TO THE TOWN OF BEEKMAN SUBDIVISION REGULATIONS (CHAPTER 130 OF THE TOWN CODE) AND THE TOWN OF BEEKMAN ZONING REGULATIONS (CHAPTER 155 OF THE TOWN CODE).
8. WHENEVER DRAINAGE WAYS EXIST ACROSS LOTS SHOWN HEREON WHICH CONVEY SURFACE WATER, THE INDIVIDUAL LOT OWNER SHALL BE RESPONSIBLE TO MAINTAIN THESE DRAINAGE WAYS SO THAT THEY REMAIN FREE-FLOWING, ARE NOT OBSTRUCTED OR IN ANY WAY MODIFIED SO AS TO IMPEDE THE ABILITY OF THE DRAINAGE SYSTEM TO FUNCTION PROPERLY.
9. EACH AND EVERY LOT SHALL HAVE THE PERPETUAL RIGHT FOR SURFACE DRAINAGE, AS INDICATED WITHIN THIS SET OF DESIGN PLANS.
10. ALL LOTS SUBJECT TO TEMPORARY CONSTRUCTION EASEMENT(S) FOR IMPROVEMENTS AS SHOWN WITHIN THIS SET OF DESIGN PLANS.
11. TOPOGRAPHY SHOWN WITHIN PLAN SET HAS BEEN INTERPOLATED FROM AERIAL PHOTOGRAPHY, AND REFERENCED TO N.G.V.D.–29 DATUM AS SCALED FROM THE POUGHQUAG, N.Y., U.S.G.S. QUADRANGLE.
12. PROPOSED SEWER, WATER, AND DRAINAGE UTILITY SYSTEMS WITHIN NYSEG PROPERTY AND THE DRAINAGE DISCHARGE POINT ON TO NYSEG PROPERTY WILL REQUIRE LICENSE AGREEMENTS OR EASEMENTS PRIOR TO CONSTRUCTION.
13. AFTER COMPLETION OF ROAD GRADING AND DRAINAGE WORK WITHIN NYSEG'S PROPERTY, THE TOWN OF BEEKMAN WILL ASSUME MAINTENANCE RESPONSIBILITY OF THE ROAD AND DRAINAGE SYSTEMS WITHIN THE HIGHWAY BY USER LIMITS.
14. THE PUBLIC WALKING TRAIL THROUGH NYSEG PROPERTY IS APPROXIMATE, PLEASE REFER TO THE TOWN OF BEEKMAN AGREEMENT WITH NYSEG FOR ADDITIONAL INFORMATION.
15. ALL DELIVERIES AND CONSTRUCTION VEHICLE'S ENTERING AND LEAVING THIS SITE SHALL GAIN ACCESS FROM THE SOUTH AND ENTER VIA MOORE ROAD

SPECIAL NOTES:

A BUILDING PERMIT WILL NOT BE ISSUED FOR A LOT UNTIL THE FOLLOWING ITEMS ARE SUBMITTED AND/ OR IMPLEMENTED AND APPROVED SATISFACTORY BY THE TOWN:

1. A PLOT PLAN SHOWING PROPOSED BUILDING FOOT PRINT AND ASSOCIATED BULK REGULATION DIMENSIONS.
2. A PLOT PLAN SHOWING THE LOT'S AREA OF DISTURBANCE.
3. PROVISIONS FOR THE LOT TO MINIMIZE OR PREVENT SOIL EROSION AND SILTATION. SUCH PROVISIONS SHALL CONFORM TO ALL APPLICABLE CODES AND BE IN GENERAL CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN CREATED FOR THE SUBDIVISION.



RESERVED FOR DCHD APPROVAL STAMP

SUBDIVISION PLAT OF STONE RIDGE ESTATES OF BEEKMAN

PREPARED FOR

BEEKMAN HOME AND LAND DEVELOPMENT, LLC

SITUATE IN THE TOWN OF BEEKMAN DUTCHESS COUNTY, NEW YORK

SCALE: 1"=50'

FEBRUARY 1, 2010

GRAPHIC SCALE 0 25 50 100 200

CERTIFICATIONS HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED BY ME IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, INC. AND THAT IT MEETS OR EXCEEDS THE MINIMUM STANDARDS OF THE SURVEY IS PREPARED, AND OR SAID SURVEY IS FOR THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR TO SUBSEQUENT OWNERS.

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

UNDERGROUND EASEMENTS, STRUCTURES, AND/OR ENCROACHMENTS, IF ANY, NOT SHOWN HEREON.

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR THE EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID COPIES.

JEFFREY MECKER, L.S. N.Y.S. #050239

JOSHUA ZARECKI, P.E. N.Y.S. #071626

ZARECKI & ASSOCIATES, LLC
ENGINEERS / ARCHITECTS / SURVEYORS 11 WEST MAIN STREET, PAWLING, NEW YORK, 12564 (845) 855-3771

REV. PER TOWN ENGINEER COMMENTS	REV. DATE: 08–16–13
REV. PER TOWN COMMENTS	REV. DATE: 04–13–12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS	REV. DATE: 02–27–12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS	REV. DATE: 11–03–11
REV. PER CLIENT REQUEST	REV. DATE: 11–08–10
REV. PER TOWN COMMENT LETTER DATED 5/17/10	REV. DATE: 10–08–10
REV. PER TOWN COMMENT LETTER DATED 3/11/10	REV. DATE: 05–03–10
BENTON MOORE ROAD DEDICATION	REV. DATE: 03–05–10
REV. PER TOWN COMMENT LETTER DATED 2/17/10	REV. DATE: 03–02–10

2005.025

SHEET NO. 3 OF 22
FILED MAP # 3 OF 16

11-19-13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved
See first sheet for date and signature.

ARCHITECTURE / ENGINEERING / SURVEYING ZARECKI & ASSOCIATES, INC.

– PLANNING BOARD CHAIRMAN – 12/30/2013

BULK TABLE REQUIREMENTS - ZONE R-45 - CLUSTER SUBDIVISION

REQUIRED[1]		PROVIDED[3]																	
		LOT 1	LOT 2	LOT 3	LOT 4	LOT 5	LOT 6	LOT 7	LOT 8	LOT 9	LOT 10	LOT 11	LOT 12	LOT 13	LOT 14	LOT 15	LOT 16	LOT 17	LOT 18
MIN. LOT AREA	20,000 SF	22,250 SF	22,330 SF	39,111 SF	28,716 SF	36,014 SF	27,589 SF	28,850 SF	27,691 SF	26,405 SF	22,053 SF	30,688 SF	23,903 SF	23,599 SF	68,411 SF	25,680 SF	22,119 SF	21,877 SF	21,925 SF
MIN. INTERIOR LIVING SPACE	1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF	>1,000 SF
MAXIMUM BUILDING COVERAGE	10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%
MAXIMUM IMPERVIOUS SURFACE	17%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%	<15%
MINIMUM ROAD FRONTAGE[2]	50/100 FT	283'±	113'±	62'±	50'±	50'±	59'±	58'±	126'±	315'±	143'±	54'±	87'±	60'±	55'±	73'±	152'±	148'±	218'±
MINIMUM FRONT YARD	30 FT	32'±	32'±	31'	95'±	138'±	55'±	69'±	45'±	40'±	47'±	100'±	37'±	66'±	80'±	42'±	34'±	34'±	34'±
MINIMUM SIDE YARD	15 FT	20'±	17'	56'±	26'±	16'	28'±	27'±	21'±	48'±	35'±	16'	25'±	20'±	40'±	19'±	20'±	32'±	32'±
MINIMUM REAR YARD	30 FT	131'±	135'±	81'±	75'±	51'±	69'±	73'±	68'±	68'±	79'±	64'±	76'±	66'±	257'±	41'±	75'±	68'±	77'±
MAXIMUM BUILDING HEIGHT	35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT	<35 FT

1 THE SUBDIVISION BULK REQUIREMENTS PER SECTION 155-54.E OF THE TOWN CODE. THESE DIMENSIONAL BULK REQUIREMENTS APPLY TO THESE 18 LOTS. REFER TO ZONING DISTRICT R-45 FOR ADDITIONAL REQUIREMENTS.
2 50 FT MINIMUM ROAD FRONTAGE REQUIRED WHEN OFF CIRCULAR END OF CUL-DE-SAC.
3 THE BUILDING FOOTPRINTS AND DIMENSIONAL OFFSETS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. A PLOT PLAN FOR EACH LOT SHALL BE SUBMITTED PRIOR TO A BUILDING PERMIT BEING ISSUED INDICATING THE PROPOSED FOOTPRINT AND CONFORMING SETBACKS.

OPEN SPACE CALCULATIONS:

TOTAL SITE AREA: 26.25 ACRES

REQUIRED OPEN SPACE AREA: 9.188 ACRES
(PER SECTION 155-54.D (1) 35% OF SITE AREA)

PROVIDED OPEN SPACE AREA:

OPEN SPACE 'A'	–	127,443 SF
OPEN SPACE 'B'	–	68,068 SF
OPEN SPACE 'C'	–	33,723 SF
OPEN SPACE 'D'	–	3,724 SF
OPEN SPACE 'E'	–	23,872 SF
OPEN SPACE 'F'	–	283,088 SF
TOTAL	–	12.39 ACRES (47% OF TOTAL SITE AREA)

NORTH

LOT 1 · LOT 2 · LOT 3 · LOT 4 · LOT 5 · LOT 6 · LOT 7 · LOT 8 · LOT 9 · LOT 10 · LOT 11 · LOT 12 · LOT 13 · LOT 14 · LOT 15 · LOT 16 · LOT 17 · LOT 18

PROPOSED RESIDENCE · GAR.

F.Y.S.B. = 30'
S.Y.S.B. = 15'
F.Y.S.B. = 30'

HALLE COURT · STONE RIDGE ROAD

TO (COUNTY ROUTE 9) BEEKMAN ROAD

BENTON MOORE ROAD

STONE WALL

"ISOLATED AND SEASONALLY INUNDATED WETLAND SYSTEM" FLAGS BY TIM MILLER ASSOCIATES, INC. ON JUNE 10, 2005.

OPEN SPACE 'A' · OPEN SPACE 'B' · OPEN SPACE 'C' · OPEN SPACE 'D' · OPEN SPACE 'E' · OPEN SPACE 'F'

PROPOSED STORMWATER BASIN

PROPOSED PUBLIC TRAIL (TYP.)

PROPOSED PUBLIC PARKING

BEEKMAN ROAD (COUNTY ROUTE 9)

LEGEND

- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- PROPOSED PROPERTY LINE
- PROPOSED RESIDENCE
- PROPOSED EASEMENT
- LOT 18 — LOT NUMBER
- S.Y.S.B. = 20' — SETBACK LINE
- PROPOSED ROAD CENTER LINE
- PROPOSED ROAD EDGE W/ CURB
- PROPOSED RETAINING WALL
- PROPOSED STORMWATER BASIN
- F.Y.S.B. — FRONT YARD SETBACK
- R.Y.S.B. — REAR YARD SETBACK
- S.Y.S.B. — SIDE YARD SETBACK
- WETLAND BOUNDARY
- PROPOSED NYSDOT GUIDE RAIL
- PROPOSED CHAIN LINK FENCE

NOTES:

1. THIS PLAN HAS BEEN GENERATED FOR THE PURPOSE OF DEMONSTRATING LOT COMPLIANCE WITH THE DIMENSIONAL REGULATIONS (R-45 ZONE) FOR THE TOWN OF BEEKMAN.
2. EACH RESIDENTIAL BUILDING LOT IS A 5 BEDROOM MAXIMUM.
3. TOPOGRAPHY SHOWN WITHIN PLAN SET HAS BEEN INTERPOLATED FROM AERIAL PHOTOGRAPHY, AND REFERENCED TO N.G.V.D.-29 DATUM AS SCALED FROM THE POUGHQUAG, N.Y., U.S.G.S. QUADRANGLE.
4. CORNER LOT DRIVEWAYS (LOTS 1 AND 9) SHALL BE LOCATED AS FAR FROM INTERSECTION AS POSSIBLE, AT THE TOWN HIGHWAY SUPERINTENDENT DIRECTION. THE DRIVEWAY SERVICING LOT 18 SHALL BE SUCH THAT IT'S CENTERLINE IS ALIGNED WITH THE CENTERLINE OF THE LEFT LANE OF HALLE COURT.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

S. C. Jaffee - PLANNING BOARD CHAIRMAN - 12/30/2013

11-19-13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLIENT REQUEST. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 5/17/10 REV. DATE: 10-08-10
REV. PER TOWN COMMENT LETTER DATED 3/11/10 REV. DATE: 05-03-10
REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

STATE OF NEW YORK · JOSEPH ZARECKI · 061468 · LICENSED PROFESSIONAL ENGINEER
JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

ZARECKI & ASSOCIATES LLC · ENGINEERING · SURVEYING

LAYOUT PLAN

PREPARED FOR

BEEKMAN HOME & LAND DEVELOPMENT, LLC

TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: 1"=50'	CHECKED BY: JZ	DRAWN BY: SW/JC
DATE: 2-1-2010	PROJECT NO. 2005.025	DESIGN BY: JW

SHEET NO. 4 OF 22

FILED MAP # 4 OF 16

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564
845.855.3771
845.855.3772 (Fax)
Ridgefield, CT 06877
203.438.7094

LOT 14
LOT 15
LOT 13
LOT 12
LOT 16
LOT 17
LOT 18
LOT 11
LOT 10
LOT 9
LOT 8
LOT 7
LOT 6
LOT 5
LOT 4
LOT 3
LOT 2
LOT 1
OPEN SPACE 'A'
OPEN SPACE 'B'
OPEN SPACE 'C'
OPEN SPACE 'D'
OPEN SPACE 'E'
TO (COUNTY ROUTE 9) BEEKMAN ROAD
BENTON MOORE ROAD
STONE RIDGE COURT
STONE RIDGE ROAD
STONE WALL
APPROXIMATE LOCATION OF HIGH POINT ALONG BENTON MOORE ROAD
APPROXIMATE LOCATION OF LOW POINT ALONG BENTON MOORE ROAD
APPROXIMATE FLOW PATH OF DISCHARGE ONTO PROPERTY NYSEG PROPERTY
LOW POINT STA.3+89.3 ELEV.385.1
ROAD GRADING EASEMENT
4' PERIMETER FENCE
317± LF NYSDOT GUIDE RAIL W/ 50' RADIUS
12' WIDE LOCKABLE GATE
UTILITY POLES
FILL IN DEPRESSION TO DIRECT RUNOFF TOWARD STORMWATER POND PER AGREEMENT WITH NYSEG
REALIGNMENT OF BENTON MOORE ROAD
PROPOSED RESIDENCE FF=401.0 BASE=393.0
PROPOSED RESIDENCE FF=404.0 BASE=393.0
PROPOSED RESIDENCE FF=403.5 BASE=394.0
PROPOSED RESIDENCE FF=402.5 BASE=394.0
PROPOSED RESIDENCE FF=401.5 BASE=394.0
PROPOSED RESIDENCE FF=400.5 BASE=394.0
PROPOSED RESIDENCE FF=399.5 BASE=394.0
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PROPOSED RESIDENCE FF=384.5 BASE=394.0
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EROSION & SEDIMENTATION CONTROL NOTES:

1. PRIOR TO ANY SITE DISTURBANCE, AN ON-SITE PRE-CONSTRUCTION CONFERENCE SHALL BE HELD WITH THE CONTRACTOR AND TOWN ENGINEER.
2. LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM, RESTABILIZATION SHALL BE SCHEDULED AS SOON AS PRACTICABLE.
3. SILT FENCE AS SHOWN ON THE PLANS SHALL BE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES. TEMPORARY STABILIZED CONSTRUCTION ENTRANCES ARE TO BE INSTALLED AT EACH DRIVEWAY PRIOR TO LOT DEVELOPMENT.
4. ALL EROSION AND SEDIMENTATION CONTROL METHODS SHALL BE IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
6. ALL EROSION CONTROL STRUCTURES ARE TO BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
7. ADDITIONAL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF NECESSARY OR REQUIRED BY THE TOWN ENGINEER.
8. AREAS UNDERGOING EARTHWORK WHERE SOIL IS TO BE LEFT EXPOSED FOR MORE THAN 7 DAYS SHOULD BE STABILIZED WITH EITHER TEMPORARY OR PERMANENT VEGETATIVE COVER. TEMPORARY COVER SHOULD BE USED WHEN THE PROJECT SCHEDULE DOES NOT COINCIDE WITH THE OPTIMUM PLANTING SEASON. IN GENERAL, OPTIMUM PLANTING TIMES FOR GRASSES ARE MARCH 15TH TO MAY 31ST AND SEPTEMBER 1ST TO NOVEMBER 15TH. DURING OPTIMUM PLANTING TIMES, PERMANENT VEGETATIVE COVER WILL BE INSTALLED. SEE SPECIFICATIONS FOR FURTHER DETAILS.
9. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED.
10. WHEN ALL DISTURBED AREAS ARE STABLE, THE SEDIMENT CONTROLS ARE TO BE REMOVED.
11. THE DEVELOPER IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENTATION CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE EROSION CONTROL MEASURES.

PERMANENT VEGETATIVE COVER:

1. SITE PREPARATION

a. INSTALL EROSION CONTROL MEASURES.
b. SCARIFY COMPACTED SOIL AREAS.
c. LIME AS REQUIRED TO PH 6.5
d. FERTILIZE WITH 10-6-4 40LB/1,000 S.F.
e. INCORPORATE AMENDMENTS INTO SOIL WITHIN DISC HARROW.

2. SEED MIXTURES FOR USE ON SWALES & CUT/FILL AREAS.

	MIXTURE	LB./ACRE
	KENTUCKY BLUE GRASS	20
ALT. A	CREEPING RED FESCUE	28
	RYE GRASS OR REDTOP	5
	CREEPING RED FESCUE	20
ALT. B	REDTOP	2
	TALL FESCUE OR SMOOTH BROMGRASS	20

3. SEEDING

a. PREPARE SEED BED BY RAKING TO REMOVE STONES, TWIGS, ROOTS AND OTHER FOREIGN MATERIAL.
b. APPLY SOIL AMENDMENTS AND INTEGRATE INTO SOIL.
c. APPLY SEED UNIFORMLY BY CYCLONE SEEDER CULTIPACKER OR HYDRO-SEEDER AT RATE INDICATED.
d. MULCH SEEDED AREAS IN DRAINAGE SWALES.
e. IRRIGATE TO FULLY SATURATE SOIL LAYER, BUT NOT TO DISLODGE PLANTING SOIL.
f. SEED BETWEEN MARCH 13TH TO MAY 31ST AND SEPTEMBER 1ST TO NOVEMBER 15TH. SEEDING MAY OCCUR MAY 15TH THROUGH AUGUST 15TH IF ADEQUATE IRRIGATION IS PROVIDED.

TEMPORARY VEGETATIVE COVER:

1. SITE PREPARATION

a. INSTALL EROSION CONTROL MEASURES.
b. SCARIFY AREAS OF COMPACTED SOIL.
c. FERTILIZE WITH 10-10-10 AT 400/ACRE.
d. LIME AS REQUIRED TO PH 6.5.

2. SEED SPECIES

MIXTURE	LB./ACRE
RAPIDLY GERMINATING ANNUAL RYEGRASS	20
PERENNIAL RYEGRASS	20
CEREAL OATS	36

3. SEEDING

SAME AS PERMANENT VEGETATIVE COVER

TOPSOIL:

EXISTING TOPSOIL WILL BE REMOVED AND STORED IN PILES. SUFFICIENTLY REMOVED FROM OTHER EXCAVATION TO AVOID MIXING. STOCKPILES SHALL BE SURROUNDED BY EROSION CONTROL AS OUTLINED ON THESE PLANS.

THE FURNISHING OF NEW TOPSOIL SHALL BE OF A BETTER OR EQUAL TO QUALITY OF THE EXISTING ADJACENT TOPSOIL. IT SHALL MEET THE FOLLOWING CRITERIA (SS713.01 NYSDOT):

1. THE PH OF THE MATERIAL SHALL BE 5.5 TO 7.6.
2. THE ORGANIC CONTENT SHALL NOT BE LESS THAN 2% OR MORE THAN 70%
3. GRADATION:

SIEVE SIZE	%PASSING BY WT.
2 INCH	100
1 INCH	85 TO 100
1/4 INCH	65 TO 100
No. 200 MESH	20 TO 80

MULCHING:

1. SITE PREPARATION

A. PRIOR TO MULCHING, INSTALL THE NECESSARY TEMPORARY OR PERMANENT EROSION CONTROL (STRUCTURAL) PRACTICES WITHIN OR ADJACENT TO AREA TO BE MULCHED.
B. SLOPE, GRADE AND SMOOTH THE SITE IF CONVENTIONAL EQUIPMENT IS TO BE USED IN APPLYING AND ANCHORING THE MULCH.
C. REMOVE ALL UNDESIRABLE STONES AND OTHER DEBRIS DEPENDING ON ANTICIPATED LAND USE.
D. COMPACTED OR CRUSTED SOIL SURFACE SHOULD BE LOOSENED TO AT LEAST TWO INCHES BY DISKING OR OTHER SUITABLE METHODS.

2. MULCHING MATERIALS

THE BEST COMBINATION FOR GRASS/LEGUME ESTABLISHMENT IS STRAW (SMALL GRAIN) MULCH APPLIED AT 2 TON/ACRE (90 LBS./1,000 SQ. FT.) AND ANCHORED WITH WOOD FIBER MULCH (HYDROMULCH) AT 500-700 LBS./ACRE (11-17 LBS./1,000 SQ. FT.). THE WOOD FIBER MULCH MUST BE APPLIED THROUGH A HYDROSEEDER IMMEDIATELY AFTER MULCHING.

EROSION & SEDIMENT CONTROL PLAN
SCALE: 1"=50'

LEGEND

- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- EXISTING 10 FT CONTOUR
- EXISTING 2 FT CONTOUR
- PROPOSED PROPERTY LINE
- PROPOSED RESIDENCE
- LOT 18 — LOT NUMBER
- WETLAND BOUNDARY
- PROPOSED CONTOURS
- PROPOSED RETAINING WALL
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SWALE W/ FLOW DIRECTION
- PROPOSED SOIL STOCKPILE
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- PROPOSED WATER BAR
- PROPOSED SEDIMENT TRAP
- PROPOSED EROSION CONTROL MATTING
- DIVERSION SWALE #1 — PROPOSED TEMPORARY DIVERSION SWALE
- PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED DRAIN INLET PROTECTION
- PROPOSED FLARED END/ STABILIZED OUTLET
- PROPOSED NYSDOT GUIDE RAIL
- PROPOSED POND PERIMETER FENCE
- WORK AREA BOUNDARY

SPECIAL NOTES:

A BUILDING PERMIT WILL NOT BE ISSUED FOR A LOT UNTIL THE FOLLOWING ITEMS ARE SUBMITTED AND/ OR IMPLEMENTED AND APPROVED SATISFACTORY BY THE TOWN:

1. A PLOT PLAN SHOWING PROPOSED BUILDING FOOTPRINT AND ASSOCIATED BULK REGULATION DIMENSIONS.
2. A PLOT PLAN SHOWING THE LOT'S AREA OF DISTURBANCE.
3. PROVISIONS FOR THE LOT TO MINIMIZE OR PREVENT SOIL EROSION AND SILTATION. SUCH PROVISIONS SHALL CONFORM TO ALL APPLICABLE CODES AND BE IN GENERAL CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN CREATED FOR THE SUBDIVISION.
4. ALL IMPLEMENTATION OF EROSION AND SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE PREPARED PROJECT SWPPP AT ALL TIMES DURING CONSTRUCTION.
5. QUALIFIED PERSONNEL (INSPECTOR AND CONTRACTOR) SHALL INSPECT THE SITE IN ACCORDANCE WITH GP0-10-01 PERMIT.
6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INCOMPLIANCE WITH THE LATEST NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL GUIDELINES AS PER PREPARED BY THE NEW YORK STATE DEPARTMENT OF CONSERVATION.

FLOOD PLAIN NOTE:

100 YEAR FLOOD PLAIN BOUNDARY DOES NOT EXIST WITHIN THE EXTENT OF THE OVERALL PARCEL BOUNDARY.

11.19.13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

NORTH

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

- PLANNING BOARD CHAIRMAN - 12/30/2013

REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 5/17/10 REV. DATE: 10-08-10
REV. PER TOWN COMMENT LETTER DATED 3/11/10 REV. DATE: 05-03-10
REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

STATE OF NEW YORK — JOSEPH ZARECKI — 61468
JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

ZARECKI & ASSOCIATES LLC — ENGINEERING SURVEYING

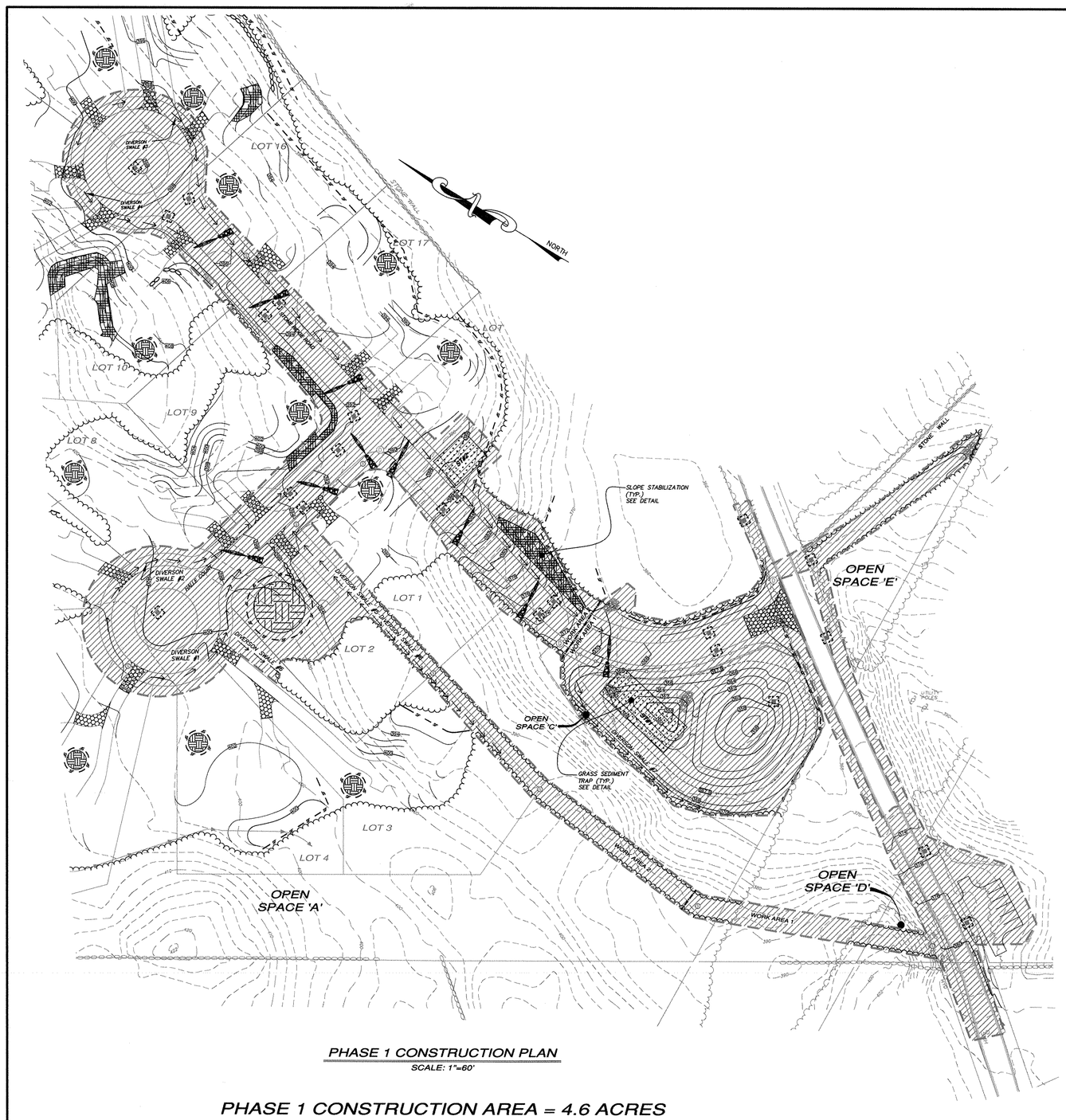
EROSION & SEDIMENT CONTROL PLAN

PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: 1"=50'	CHECKED BY: J.Z.	DRAWN BY: SW
DATE: 2-1-2010	PROJECT NO. 2005.025	DESIGN BY: JW

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564 — 845.855.3771 — 845.855.3772 (Fax)
Ridgefield, CT 06877 — 203.438.7094

SHEET NO. 6 OF 22
FILED MAP # 6 OF 16



PHASE 1 CONSTRUCTION PLAN
SCALE: 1"=60'

PHASE 1 CONSTRUCTION AREA = 4.6 ACRES

PHASE 1 SEQUENCE OF CONSTRUCTION & MAINTENANCE NOTES

A. PHASE 1–WORK AREA 1: EXCAVATE SEDIMENT TRAP NEAR POND FOR FILL MATERIAL. EXCAVATED FILL MATERIAL SHALL BE APPROVED BY THE TOWN ENGINEER PRIOR TO BEING UTILIZED FOR BENTON MOORE ROAD IMPROVEMENT. ONCE APPROVED FILL IS STOCKPILED FOR RAISING BENTON MOORE ROAD. REMOVE EXISTING ROAD COURSES OVER LENGTH OF BENTON MOORE ROAD THAT WILL BE RAISED AND ADD FILL TO FINAL GRADE MINUS ROAD BASE COURSES. FILL SHALL BE COMPACTED TO APPROVED DENSITY. INSTALL SEWER LINE FROM EXISTING SMH #76 TO SMH#1, SMH#1 TO SMH#2. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS OUTSIDE OF ROAD SURFACE. INSTALL ROAD SUB-BASE COURSE, BINDER COURSE, AND WEARING COURSE. FINAL GRADE AND PLACE TOPSOIL, SEED, AND MULCH ON SHOULDERS AND DISTURBED AREAS. INSTALL SEWER LINE FROM SMH #2 THROUGH NYSEG PROPERTY TO SMH#3. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS.

B. PHASE 1–WORK AREA 2: CLEAR AND GRUB PROPOSED ROAD LOCATION AS WELL AS ROW, LOT 2 FOR STAGING AREA, AND STORMWATER POND AREA. ROUGH ROADWAY BASE INSTALLATION, STORMWATER POND, DRAINAGE, SANITARY AND WATER SYSTEM STRUCTURES (E.G. METER PIT) AND COMPONENTS WITHIN THE PORTIONS SHOWN FOR SAID PHASE. WORK WILL BE WITHIN THE ROAD'S ROW & MAIN UTILITY PATHWAYS ALONG BENTON MOORE ROAD AND THE PROJECT'S SEWER LINE RUNNING BETWEEN LOTS 1 & 2 AND ADJACENT TO LOT 3.

I. STAKEOUT PROPERTY LINES AND CENTERLINE OF ROADS. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD.
II. ESTABLISH THE LOCATION OF THE PROPOSED EROSION CONTROL MEASURES, AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
III. ROUGH IN PROPOSED ENTRANCE(S) ONTO BENTON MOORE ROAD.
IV. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE(S). VEHICLES SHALL BE INSPECTED AND CLEANED, IF REQUIRED, PRIOR TO ENTERING ONTO BENTON MOORE ROAD. ANY TRACKING OF SEDIMENT OR DEBRIS ONTO EXISTING ROADWAYS SHALL BE CLEANED AT THE END OF THE WORKDAY.
V. INSTALL SILT FENCE AT STORMWATER POND LOCATION AS SHOWN ON THE EROSION CONTROL PLAN.
VI. PRIOR TO CLEARING THE ENTIRE ROAD, INSTALL OUTLET STRUCTURES PER DETAILS. IF ANY SEEPAGE IS DETECTED, STABILIZE WITH RIPRAP AND FILTER FABRIC. SURROUND THE STORMWATER BASIN FOOTPRINT WITH CONSTRUCTION FENCE. INSTALL PIPE FROM STORMWATER POND RISER AND NATURAL LOW-LYING DEPRESSION RISER TO FEET.INSTALL DRAINAGE FROM PROPOSED POND RISER TO DISCHARGE POINT (FE#1), WHICH WILL INCLUDE THE EXISTING LOW-LYING DEPRESSION RISER. EXCAVATE POND (MINUS FOREBAY) AND INSTALL DIVERSION SWALE #2. INSTALL SEDIMENT TRAP#1, WHICH WILL OVERFLOW TO THE EXCAVATED POND AND TEMPORARILY BE UTILIZED INSTEAD OF THE FOREBAY DURING CONSTRUCTION.
VII. CUT AND CHIP TREES AS SHOWN ON PLANS AND AS NEEDED. WHEREVER POSSIBLE, EXISTING VEGETATION TO REMAIN (WHERE PROPERTY LINE AND PROPOSED UTILITIES ALLOW).
VIII. INSTALL SEDIMENT TRAP#2.
IX. REMOVE ALL SITE DEBRIS WITHIN WORK LIMITS . STOCKPILE ANY SURFACE ROCKS ENCOUNTERED AND REMOVE OFF SITE.
X. STRIP AND STOCKPILE TOPSOIL FROM THE CLEARED AREA, STOCKPILE AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. TOPSOIL STOCKPILE SHALL CONFORM TO SPECIFICATIONS STATED IN DETAIL. STABILIZE STOCKPILE IMMEDIATELY WITH MANHATTAN RYE GRASS OR COVER WITH TARP.
XI. CONSTRUCT TEMPORARY DIVERSION SWALES. CHECK DAMS AND THE TEMPORARY SEDIMENT TRAPS AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN TO DIVERT RUNOFF FROM DISTURBED AREAS DURING CONSTRUCTION TO THE SEDIMENT TRAPS. CONSTRUCTION OF SWALES SHALL START FROM THE TRAP TOWARD UPGRADIENT AREAS PAST THE LIMITS OF DISTURBANCE. DIVERSION SWALES SHALL BE LOCATED PRIOR TO INSTALLATION OF SAID SWALE TO MINIMIZE LENGTH REQUIRED.
XII. STABILIZE BANKS WITH SLOPE STABILIZATION MATTING IMMEDIATELY, AS SHOWN ON PLANS.
XIII. PROCEED WITH EARTHWORK OPERATIONS TO THE EXTENT OF PROPOSED LOT LINES UNLESS OTHERWISE REQUIRED FOR UTILITIES OR GRADING.
XIV. INSPECT SILT FENCING WEEKLY AND AFTER EACH STORM EVENT. CLEAN AND REPAIR OR REPLACE FABRIC AS REQUIRED TO MAINTAIN THE FILTERING CHARACTERISTIC OF THE FABRIC. SILT FENCE SHALL ONLY BE REMOVED WHEN THE PROJECT IS COMPLETE AND SEDIMENT RUNOFF TO ADJACENT PROPERTIES OR WATERCOURSES DOWN GRADIENT HAS BEEN ELIMINATED.
XV. ALL EXPOSED AREAS SHALL BE SEEDED AND MULCHED IF EXPECTED TO BE OPEN FOR SEVEN (7) DAYS OR LONGER. ALL EMBANKMENTS ARE TO BE STABILIZED IMMEDIATELY AS FOLLOWS: FOR GRADED SLOPES OVER 3 ON 1 GREATER THAN 6' HIGH, REFER TO STEEP SLOPE STABILIZATION SPECIFICATIONS.
XVI. GRADE TO FINISHED SLOPES.
XVII. TOPSOIL FINISHED SURFACES WITH MIX NO LESS THAN 4"INCHES OF SUITABLE SOIL MATERIAL.
XVIII. PERMANENTLY SEED AREAS WITH THE MIXTURE LISTED WITHIN DESIGN DRAWINGS.
XIX. MULCH WITH NO LESS THAN 1" AND NO MORE THEN 3" INCHES OF STRAW OR HAY (APPROXIMATELY TWO (2) TONS PER ACRE) AND ANCHORED IN A SUITABLE MANNER WITH APPROVED GEOTEXTILE FABRIC.
XX. ALL SOIL EROSION CONTROL MEASURES SHALL BE INSPECTED ON A DAILY BASIS AND REPLACED, REPAIRED AND CLEANED AS REQUIRED. SEDIMENT BASIN SHALL BE CLEANED OUT WHEN SEDIMENT ACCUMULATION REACHES THE CLEAN OUT DEPTH OF THE BASIN. REMOVED SEDIMENT SHALL BE TRANSPORTED AND DISPOSED OF OFFSITE.
XXI. ALL EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL UPGRADIENT AREAS HAVE BEEN PROPERLY STABILIZED WITH PERMANENT PROTECTION.
XXII. CONSTRUCT UTILITY TRENCHES. INSTALL ELECTRIC, GAS, TELEPHONE AND CABLE LINES. PROVIDE SILT FENCE, AS REQUIRED.
XXIII. REMOVE ALL TEMPORARY DIVERSION SWALES OR REPLACE THEM WITH PERMANENT SWALES.
XXIV. REMOVE SEDIMENT TRAP #1 AND #2. INSTALL AND GRADE FORE BAY AS INDICATED ON THE DESIGN PLANS. REMOVE SEDIMENT OUT OF POND AND INSTALL AQUATIC BENCH PER DESIGN PLANS.
XXV. ADD FINAL LAYER OF SUB-BASE COURSE. SET CATCH BASIN GRATES AT BINDER COURSE LEVEL AND INSTALL BINDER COURSE.

S. C. [illegible] – PLANNING BOARD CHAIRMAN – 12/30/2013

PHASE 2 CONSTRUCTION PLAN
SCALE: 1"=60'

PHASE 2 CONSTRUCTION AREA = 4.4 ACRES

PHASE 2 SEQUENCE OF CONSTRUCTION & MAINTENANCE NOTES

PHASE 2: CONSTRUCTION OF IMPROVEMENTS ON LOTS 1, 3 – 9 (LOT 2 NOT TO BE DEVELOPED DURING PHASE 2, BUT CONTINUED TO BE USED AS STAGING AREA)

I. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN AND INDIVIDUAL LOT PLOT PLANS.
II. CLEAR THE AREA AROUND PROPOSED BUILDING LOCATION.
III. UTILITIES AS SHOWN ON THE PLANS AND DETAILS.
IV. PAVE THE DRIVEWAY. PERMANENTLY STABILIZE THE EXPOSED AREAS WITH THE PERMANENT SEED MIXTURE.
V. USE THE EXCESS SOIL AS NEEDED. REMOVE FROM SITE ANY EXCESS MATERIAL.
VI. CONTINUE TO CONSTRUCT BUILDING PER SITE AND ARCHITECTURAL PLANS. EXCAVATE SOIL AND TRANSPORT OFF SITE AS NEEDED UNTIL THE FINAL GRADE IS ACHIEVED.

11.19.13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved
See first sheet for date and signature.

REV. PER DEPT. OF HEALTH COMMENTS: 10-18-13
REV. PER NYSDEC COMMENTS: 11-13-12
REV. PER TOWN COMMENTS: 04-13-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLIENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 5/17/10 REV. DATE: 10-08-10
REV. PER TOWN COMMENT LETTER DATED 3/31/10 REV. DATE: 05-03-10

PHASE 3 CONSTRUCTION PLAN
SCALE: 1"=60'

PHASE 3 CONSTRUCTION AREA = 4.5 ACRES

PHASE 3 SEQUENCE OF CONSTRUCTION & MAINTENANCE NOTES

C. PHASE 3: FOR DEVELOPING LOTS 2, 10–18, REPEAT SEQUENCE OF CONSTRUCTION FROM PHASE 2 (I. TO VI.)

LOT 2 SHALL BE USED AS STAGING AREA UNTIL ALL OTHER LOTS HAVE BEEN DEVELOPED.

UPON COMPLETION OF CONSTRUCTION ON ALL LOTS COMMENCE IMPROVEMENTS ON BENTON MOORE ROAD AS SHOWN ON DESIGN DRAWINGS. THE FINAL ASPHALT SURFACE SHALL BE CONSTRUCTED AFTER THE COMPLETION OF ALL CONSTRUCTION AS INDICATED ON THESE DESIGN DRAWINGS.

UPON COMPLETION OF PHASE 3, THE FOLLOWING SHALL BE PERFORMED.

I. ALL EXPOSED AREAS SHALL BE SEEDED AND MULCHED IF EXPECTED TO REMAIN DISTURBED FOR SEVEN (7) DAYS OR LONGER. ALL EMBANKMENTS ARE TO BE STABILIZED IMMEDIATELY AS FOLLOWS:
1. GRADE TO FINISHED SLOPES.
2. SCARIFY FINISH SURFACES
3. TOPSOIL WITH NO LESS THAN FOUR (4) INCHES OF SUITABLE SOIL MATERIAL.
4. PERMANENTLY SEED AREAS WITH THE PERMANENT SEED MIXTURE (REFER TO SPECIFICATION ON THE PLAN).
5. MULCH WITH NO LESS THAN ONE (1) INCH AND NO MORE THAN THREE (3) INCHES OF STRAW OR HAY (APPROXIMATELY TWO (2) TONS PER ACRE) AND ANCHORED IN A SUITABLE MANNER WITH APPROVED GEOTEXTILE FABRIC.
6. RAISE/ADJUST GRADES OF CATCH BASINS IF NECESSARY.
7. COMPLETE CURBING OF ROADS, AND FINAL BITUMINOUS LAYER ON ALL ROADS. COMPLETE LANDSCAPING AS PER THE DESIGN DRAWINGS.

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

GENERAL NOTES:

1. TOTAL SITE DISTURBANCE AT ANY ONE TIME DURING CONSTRUCTION IS LIMITED TO FIVE (5) ACRES. MAXIMUM DISTURBANCE FOR THIS PROJECT IS APPROXIMATELY ELEVEN (11) ACRES, WHICH REQUIRES A MINIMUM OF THREE (3) PHASES. THE PROJECT PROPOSES THREE PHASES. THE FIRST PHASE WILL INCLUDE INSTALLING INFRASTRUCTURE (SEWER, WATER, AND DRAINAGE), IMPROVEMENTS TO BENTON MOORE ROAD, AND INSTALLATION OF SOIL & EROSION CONTROL ITEMS. THE SECOND PHASE WILL INVOLVE CONSTRUCTING IMPROVEMENTS ON HALF OF THE PROPOSED LOTS. THE FINAL PHASE WILL CONSIST OF DEVELOPING THE REMAINING LOTS AND PERMANENTLY STABILIZING THE SITE. THE LAST ITEM WILL BE INSTALLING THE TOP COURSE ON BENTON MOORE ROAD AS DEFINED ON THE BENTON MOORE ROAD IMPROVEMENT PLAN.
2. PHASES 1 THROUGH 3 SHALL HAVE THE LIMITS OF PROPOSED DISTURBANCE DELINEATED BY A NYS LICENSED SURVEYOR. THE LIMITS SHALL BE VISUALLY FLAGGED OR ROPED OFF TO PREVENT ANY MINOR DISTURBANCE BEYOND THE ROUGH ROADWAY GRADING.
3. DURING CONSTRUCTION THE SWPPP INSPECTOR SHALL PROVIDE A SKETCH MAP OF THE SITE DISTURBANCE AS IT CHANGES DURING THE CONSTRUCTION PROCESS. THIS SKETCH MAP SHALL BE INCLUDED WITH THE SWPPP INSPECTION REPORT.

SPECIAL TREE CLEARING NOTE:
TREE CLEARING MAY ONLY BE COMMENCED FROM OCTOBER 1ST TO MARCH 31ST EACH YEAR DUE TO THE POTENTIAL ROOSTING OF INDIANA BATS. THE UNITED STATES FISH AND WILDLIFE SERVICE AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SHALL HAVE RIGHTS TO ACCESS ALL OPEN SPACE PARCELS SHOWN ON STONE RIDGE ESTATES SUBDIVISION MAPS TO MONITOR INDIANA BATS WHEN NOTIFICATION IS MADE TO THE TOWN AND THE HOME OWNERS ASSOCIATION (HOA).

LEGEND

- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- 410 EXISTING 10 FT CONTOUR
- 416 EXISTING 2 FT CONTOUR
- PROPOSED PROPERTY LINE
- PROPOSED RESIDENCE
- LOT 18 LOT NUMBER
- WETLAND BOUNDARY
- 370 PROPOSED CONTOURS
- PROPOSED RETAINING WALL
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SWALE W/ FLOW DIRECTION
- PROPOSED PHASE AREA AND BOUNDARY
- PROPOSED SOIL STOCKPILE
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- PROPOSED WATER BAR
- PROPOSED SEDIMENT TRAP
- PROPOSED EROSION CONTROL MATTING
- DIVERSION SWALE #1 PROPOSED TEMPORARY DIVERSION SWALE
- PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED DRAIN INLET PROTECTION
- PROPOSED FLARED END/ STABILIZED OUTLET
- PROPOSED NYSDOT GUIDE RAIL
- PROPOSED POND PERIMETER FENCE
- WORK AREA BOUNDARY

LICENSED IN N.Y. & CT.

JOSEPH ZARECKI, PE.
N.Y. LIC. No. 61468

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Consulting Engineers - Land Surveyors - Architects
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845.855.3772 (fax)
Ridgefield, CT 06877
203.438.7094

CONSTRUCTION PHASING PLAN
PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: 1" = 60'	CHECKED BY: J.Z.	DRAWN BY: SW
DATE: 3-02-2010	PROJECT NO. 2005.025	DESIGN BY: JW

SHEET NO.
7 OF 22
FILED MAP # 7 OF 16

BIORETENTION GARDEN PLANTING SCHEDULE

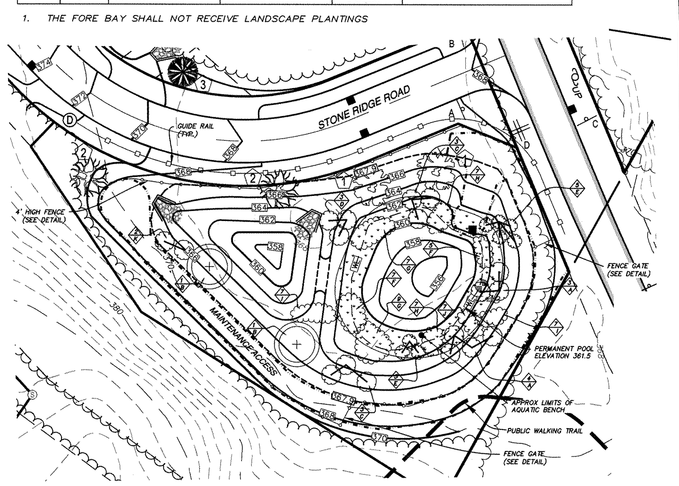
LOT 14 BIORETENTION	COMMON NAME	LATIN NAME	SIZE	SPACING
6	BLACK-EYED SUSAN	RUDBECKIA BIRTA	2" PLUG (MIN.)	18"
6	IRIS	IRIS VERSICOLOR	2" PLUG (MIN.)	18"
3	WHITE TURTLE HEAD	CHELONE GLABRA	2" PLUG (MIN.)	18"
3	SUMMERSWEET CLETHRA	CLETHRA ALNIFOLIA	1 GALLON	36"
6	SPIKED GAYFEATHER	LIATRIS SPICATA	2" PLUG (MIN.)	18"
4	TICKSEED SUNFLOWER	BIDENS ARISTOSA	2" PLUG (MIN.)	18"
4	NEW YORK ASTER	ASTER NOVI-BELGII	2" PLUG (MIN.)	18"

NOTE: *MINIMUM FOOTPRINT OF BIORETENTION IS 240 SF.*

PLANTING SCHEDULE FOR STORMWATER BASIN

SYMBOL	QUANTITY	COMMON NAME	LATIN NAME	SIZE	NOTES
A	7	RED OSIER DOGWOOD	CORNUS SERICEA	5 GALLON	RED TWIGS
B	2	BETULA NIGRA	RIVER BIRCH	2" CALIPER	DECIDUOUS, ATTRACTIVE EXFOLIATING BARK
C	6	ILEX VERTICILLATA	WINTERBERRY HOLLY	5 GALLON	DECIDUOUS, RED BERRIES
D	3	AMELANCHIER LAEVIS	SHADBUSH	5 GALLON	-
E	8	MEADOW SWEET	SPIREA ALBA	2 GALLON	WHITE FLOWERS
F	12	ACORUS CALAMUS	SWEET FLAG	1 GALLON	YELLOW FLOWERS
G	16	MONARDA DIDYMA	OSWEGO TEA	1 GALLON	-
H	14	IRIS VERSICOLOR	BLUE FLAG IRIS	1 GALLON	BLUE - LAVENDER FLOWERS
I	14	CHELONE GLABRA	WHITE TURTLE HEAD	1 GALLON	WHITE FLOWERS
J	7	PANICUM VIRGATUM	SWITCH GRASS	2 GALLON	GOOD EROSION CONTROL
K	2	AMERICAN ELDERBERRY	SAMBUCUS CANADENSIS	2 GALLON	-

1. *THE FORE BAY SHALL NOT RECEIVE LANDSCAPE PLANTINGS*



STORMWATER POND LANDSCAPING DETAIL
SCALE: 1"= 40'

#	SIZE	TYPE
105	12	MAPLE
106	12	ASH
107	12	MAPLE
108	50	OAK
109	14	MAPLE
110	24	LOCUST
111	14	MAPLE
112	14	MAPLE
113	24	MAPLE
114	36	OAK
115	30	MAPLE
116	30	MAPLE
117	50	OAK
118	14	MAPLE
119	24	MAPLE
120	14	MAPLE
121	18	LOCUST
122	10	MAPLE
123	24	LOCUST
124	24	OAK
125	28	MAPLE
126	28	MAPLE
127	12	MAPLE
128	14	MAPLE
129	14	CHERRY
130	26	TWN CHERRY
131	24	CHERRY
132	28	MAPLE
133	30	OAK
134	30	OAK
135	30	MAPLE
136	14	MAPLE
137	14	MAPLE
138	18	MAPLE
139	10	MAPLE
140	10	MAPLE
141	10	MAPLE
142	26	MAPLE
143	18	ASH
144	10	TWN MAPLE
145	8	MAPLE
146	30	MAPLE
147	30	MAPLE
148	18	ASH
149	14	LOCUST
150	14	TWN MAPLE
151	18	MAPLE
152	18	MAPLE
153	24	MAPLE
154	24	MAPLE
155	12	MAPLE
156	40	TWN MAPLE
157	18	MAPLE
158	26	MAPLE
159	26	MAPLE
160	22	MAPLE
161	20	MAPLE
162	30	MAPLE
163	36	OAK
164	30	OAK
165	30	ASH
166	22	OAK
167	24	LOCUST
168	20	MAPLE
169	10	MAPLE
170	12	OAK
171	20	GUM BASS
172	14	MAPLE
173	14	MAPLE
174	10	MAPLE
175	14	MAPLE
176	14	CHERRY
177	20	ASH
178	14	TWN MAPLE
179	14	TWN MAPLE
180	16	TWN MAPLE
181	16	MAPLE
182	12	MAPLE
183	14	MAPLE
184	16	MAPLE
185	10	MAPLE
186	16	MAPLE
187	30	MAPLE
188	14	MAPLE
189	14	MAPLE
190	24	MAPLE
191	14	MAPLE
192	14	TWN MAPLE
193	30	ASH
194	30	TWN MAPLE
195	28	ASH
196	30	OAK
197	30	OAK
198	40	POPLAR
199	14	ASH
200	10	ASH
201	14	ASH
202	30	POPLAR
203	20	POPLAR
204	20	LOCUST
205	10	MAPLE
206	20	MAPLE
207	20	MAPLE
208	20	TWN MAPLE
209	10	MAPLE
210	20	ASH
211	18	ASH
212	28	MAPLE
213	20	BASS
214	10	MAPLE
215	24	MAPLE
216	24	MAPLE
217	14	ASH
218	22	MAPLE
219	22	MAPLE
220	24	POPLAR
221	10	MAPLE
222	20	ASH
223	8	CHERRY
224	18	HICKORY
225	20	ASH
226	24	ASH
227	8	OAK
228	8	MAPLE
229	20	BASS
230	30	MAPLE
231	10	ASH
232	8	MAPLE
233	20	TWN MAPLE
234	14	MAPLE
235	12	MAPLE
236	12	ASH
237	12	ASH
238	14	HICKORY
239	18	MAPLE
240	22	ASH
241	12	CHERRY
242	12	MAPLE
243	10	MAPLE
244	10	MAPLE
245	10	OAK
246	20	TWN MAPLE
247	14	MAPLE
248	16	MAPLE
249	12	MAPLE
250	12	MAPLE
251	14	MAPLE
252	8	HICKORY
253	8	HICKORY
254	40	BASS
255	12	MAPLE
256	14	BASS
257	14	BASS
258	14	BASS
259	20	OAK
260	14	MAPLE
261	14	MAPLE
262	12	MAPLE
263	20	MAPLE
264	18	MAPLE
265	10	MAPLE
266	14	HICKORY
267	30	MAPLE
268	12	MAPLE
269	14	MAPLE
270	10	MAPLE
271	30	MAPLE
272	16	MAPLE
273	20	ASH
274	18	MAPLE
275	10	MAPLE
276	10	MAPLE
277	12	MAPLE
278	10	MAPLE
279	24	MAPLE
280	10	MAPLE
281	14	MAPLE
282	12	MAPLE
283	12	MAPLE
284	14	MAPLE
285	10	MAPLE
286	14	MAPLE
287	24	MAPLE
288	16	MAPLE
289	12	MAPLE
290	16	MAPLE
291	14	MAPLE
292	24	BASS
293	36	BASS
294	14	MAPLE
295	14	MAPLE
296	14	MAPLE
297	10	BASS
298	22	MAPLE
299	16	MAPLE
300	14	ASH
301	20	MAPLE
302	20	MAPLE
303	32	MAPLE
304	18	MAPLE
305	10	MAPLE
306	30	MAPLE
307	30	MAPLE
308	16	HICKORY
309	10	MAPLE
310	20	BASS
311	8	MAPLE
312	8	HICKORY
313	20	BASS
314	10	MAPLE
315	24	HICKORY
316	24	HICKORY
317	16	OAK
318	12	LOCUST
319	22	OAK
320	24	POPLAR
321	10	MAPLE
322	10	MAPLE
323	8	HICKORY
324	18	HICKORY
325	12	MAPLE
326	8	MAPLE
327	8	MAPLE
328	12	HICKORY
329	12	HICKORY
330	16	BASS
331	10	HICKORY
332	10	ASH
333	8	MAPLE
334	10	MAPLE
335	12	MAPLE
336	16	MAPLE
337	12	ASH
338	24	TWN OAK
339	8	MAPLE
340	14	MAPLE
341	20	MAPLE
342	14	MAPLE
343	10	MAPLE
344	10	MAPLE
345	20	TWN OAK
346	14	MAPLE
347	14	MAPLE
348	22	MAPLE
349	24	MAPLE
350	22	MAPLE
351	22	MAPLE
352	18	MAPLE
353	12	MAPLE
354	15	MAPLE
355	14	MAPLE
356	8	MAPLE
357	14	MAPLE
358	14	BASS
359	8	MAPLE
360	14	MAPLE
361	12	MAPLE
362	20	ASH
363	20	MAPLE
364	12	MAPLE
365	10	MAPLE
366	14	HICKORY
367	16	MAPLE
368	14	MAPLE
369	10	MAPLE
370	14	MAPLE
371	30	MAPLE
372	16	OAK
373	20	QUAD OAK
374	24	MAPLE
375	28	MAPLE
376	24	MAPLE
377	20	LOCUST
378	20	QUAD OAK
379	24	MAPLE
380	26	ASH
381	14	MAPLE
382	28	MAPLE
383	18	MAPLE
384	14	MAPLE
385	8	MAPLE
386	8	MAPLE
387	24	MAPLE
388	6	MAPLE
389	20	QUAD OAK
390	14	MAPLE
391	14	MAPLE
392	14	MAPLE
393	16	MAPLE
394	14	MAPLE
395	12	MAPLE
396	14	MAPLE
397	48	POPLAR
398	12	MAPLE
399	12	MAPLE
400	22	MAPLE
401	20	ASH
402	24	TWN MAPLE
403	8	MAPLE
404	14	MAPLE
405	8	MAPLE
406	8	MAPLE
407	10	MAPLE
408	10	MAPLE
409	20	HICKORY
410	10	MAPLE
411	10	MAPLE
412	14	HICKORY
413	10	HICKORY
414	10	BASS
415	10	MAPLE
416	24	HICKORY
417	10	MAPLE
418	22	LOCUST
419	24	OAK
420	10	MAPLE
421	10	MAPLE
422	14	MAPLE
423	14	MAPLE
424	14	MAPLE
425	14	MAPLE
426	14	MAPLE
427	18	MAPLE
428	12	HICKORY
429	12	HICKORY
430	16	MAPLE
431	24	MAPLE
432	14	MAPLE
433	14	MAPLE
434	24	MAPLE
435	14	MAPLE
436	14	MAPLE
437	20	OAK
438	20	MAPLE
439	20	MAPLE
440	20	MAPLE
441	24	MAPLE
442	12	MAPLE
443	10	MAPLE
444	10	TWN OAK
445	24	MAPLE
446	14	MAPLE
447	24	ASH
448	22	MAPLE
449	24	MAPLE
450	14	MAPLE
451	16	MAPLE
452	14	MAPLE
453	10	MAPLE
454	14	MAPLE
455	14	MAPLE
456	22	OAK
457	24	MAPLE
458	22	ASH
459	22	MAPLE
460	20	MAPLE
461	20	ASH
462	14	MAPLE
463	14	MAPLE
464	14	OAK
465	14	MAPLE
466	14	MAPLE
467	10	MAPLE
468	8	MAPLE
469	18	MAPLE
470	14	MAPLE
471	20	MAPLE
472	24	TWN CHERRY
473	24	MAPLE
474	12	MAPLE
475	24	MAPLE
476	24	OAK
477	18	MAPLE
478	14	MAPLE
479	24	MAPLE
480	24	MAPLE
481	10	MAPLE
482	10	MAPLE
483	14	MAPLE
484	14	ASH
485	10	TWN MAPLE
486	14	MAPLE
487	10	MAPLE
488	12	MAPLE
489	10	MAPLE
490	18	MAPLE
491	12	MAPLE
492	12	MAPLE
493	14	MAPLE
494	14	MAPLE
495	18	MAPLE
496	16	MAPLE
497	16	MAPLE
498	12	MAPLE
499	10	MAPLE
500	12	ASH
501	10	MAPLE
502	14	MAPLE
503	14	MAPLE
504	14	TWN MAPLE
505	14	MAPLE
506	12	MAPLE
507	12	MAPLE
508	20	ASH
509	20	OAK
510	22	ASH
511	14	MAPLE
512	14	TWN MAPLE
513	14	MAPLE
514	14	MAPLE
515	14	MAPLE
516	10	MAPLE
517	18	MAPLE
518	12	MAPLE
519	14	MAPLE
520	14	TWN MAPLE
521	10	MAPLE
522	10	MAPLE
523	14	MAPLE
524	14	MAPLE
525	18	MAPLE
526	8	MAPLE
527	14	MAPLE
528	12	MAPLE
529	14	MAPLE
530	12	MAPLE
531	12	MAPLE
532	12	MAPLE
533	8	MAPLE
534	14	MAPLE
535	18	MAPLE
536	28	MAPLE
537	28	MAPLE
538	28	MAPLE
539	8	HICKORY
540	14	MAPLE
541	12	MAPLE
542	8	MAPLE
543	14	MAPLE
544	10	MAPLE
545	10	MAPLE
546	14	MAPLE
547	14	MAPLE
548	30	LOCUST
549	12	OAK
550	12	MAPLE
551	12	MAPLE
552	12	ASH
553	10	MAPLE
554	14	MAPLE
555	18	MAPLE
556	28	TWN OAK
557	14	ASH
558	30	MAPLE
559	18	OAK
560	10	OAK
561	12	MAPLE
562	14	MAPLE
563	16	MAPLE
564	12	MAPLE
565	14	MAPLE
566	14	MAPLE
567	14	MAPLE
568	16	MAPLE
569	14	MAPLE
570	24	MAPLE
571	24	MAPLE
572	24	MAPLE
573	14	MAPLE
574	24	OAK
575	24	MAPLE
576	24	MAPLE
577	10	MAPLE
578	14	MAPLE
579	22	MAPLE
580	24	MAPLE
581	18	MAPLE
582	18	MAPLE
583	16	MAPLE
584	18	MAPLE
585	10	MAPLE
586	20	LOCUST
587	8	MAPLE
588	20	MAPLE
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590	8	MAPLE
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592	10	MAPLE
593	14	ASH
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603	24	MAPLE
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605	12	MAPLE
606	16	MAPLE
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608	12	LOCUST
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610	30	MAPLE
611	14	MAPLE
612	16	MAPLE
613	14	MAPLE
614	18	MAPLE
615	14	MAPLE
616	30	OAK
617	12	MAPLE
618	12	MAPLE
619	30	MAPLE
620	14	MAPLE
621	30	CHERRY
622	16	MAPLE
623	16	MAPLE
624	12	MAPLE
625	8	MAPLE
626	8	MAPLE
627	12	MAPLE
628	22	MAPLE
629	22	MAPLE
630	12	MAPLE
631	20	MAPLE
632	28	MAPLE
633	28	MAPLE
634	28	MAPLE
635	28	MAPLE
636	28	MAPLE
637	28	MAPLE
638	16	MAPLE
639	8	MAPLE
640	18	MAPLE
641	14	MAPLE
642	14	MAPLE
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647	14	MAPLE
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649	12	MAPLE
650	12	MAPLE
651	12	MAPLE
652	12	ASH
653	14	MAPLE
654	14	MAPLE
655	18	MAPLE
656	18	MAPLE
657	18	MAPLE
658	18	MAPLE
659	18	MAPLE
660	10	OAK
661	24	CHERRY
662	14	MAPLE
663	18	MAPLE
664	18	MAPLE
665	18	MAPLE
666	18	MAPLE
667	10	MAPLE
668	16	MAPLE
669	14	MAPLE
670	18	MAPLE
671	18	MAPLE
672	24	OAK
673	34	MAPLE
674	24	MAPLE
675	26	OAK
676	30	OAK
677	10	MAPLE
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680	24	MAPLE
681	12	MAPLE
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684	18	MAPLE
685	24	MAPLE
686	20	MAPLE
687	24	MAPLE
688	20	MAPLE
689	28	MAPLE
690	28	MAPLE
691	28	MAPLE
692	28	MAPLE
693	16	MAPLE
694	12	MAPLE
695	20	MAPLE
696	18	MAPLE
697	12	MAPLE
698	12	MAPLE
699	14	ASH
700	14	MAPLE
701	10	MAPLE
702	18	MAPLE
703	18	MAPLE
704	30	OAK
705	1	MAPLE
706	18	ASH
707	18	MAPLE
708	14	CHERRY
709	10	MAPLE
710	20	MAPLE
711	28	MAPLE
712	28	MAPLE
713	14	MAPLE
714	36	MAPLE
715	24	CHERRY
716	18	ASH
717	18	MAPLE
718	18	MAPLE
719	16	MAPLE
720	16	MAPLE
721	28	MAPLE
722	8	MAPLE
723	8	MAPLE
724	14	CHERRY
725	18	MAPLE
726	14	MAPLE
727	14	MAPLE
728	30	MAPLE
729	14	MAPLE
730	30	MAPLE
731	24	MAPLE
732	26	TWN CHERRY
733	22	OAK
734	24	OAK
735	1	MAPLE
736	14	MAPLE
737	14	MAPLE
738	36	MAPLE
739	30	ASH
740	14	MAPLE
741	14	CHERRY
742	12	MAPLE
743	10	MAPLE
744	12	MAPLE
745	20	TWN MAPLE
746	20	TWN MAPLE
747	18	MAPLE
748	22	MAPLE
749	8	MAPLE
750	12	MAPLE
751	26	HICKORY
752	18	MAPLE
753	16	CHERRY
754	30	CHERRY
755	30	HICKORY
756	14	MAPLE
757	14	MAPLE
758	14	MAPLE
759	14	MAPLE
760	10	OAK
761	12	MAPLE
762	14	MAPLE
763	16	MAPLE
764	14	MAPLE
765	18	MAPLE
766	18	MAPLE
767	18	MAPLE
768	18	MAPLE
769	18	MAPLE
770	18	MAPLE
771	18	MAPLE
772	10	MAPLE
773	12	MAPLE
774	18	OAK
775	18	MAPLE
776	18	MAPLE
777	10	MAPLE
778	14	MAPLE
779	18	MAPLE
780	18	MAPLE
781	14	ASH
782	18	TWN OAK
783	18	MAPLE
784	24	OAK
785	18	MAPLE
786	18	MAPLE
787	16	OAK
788	12	ASH
789	16	MAPLE
790	16	OAK
791	40	OAK
792	16	OAK
793	12	OAK
794	14	OAK
795	10	MAPLE
796	10	MAPLE
797	12	HICKORY
798	18	OAK
799	16	OAK
800	16	OAK
801	24	OAK
802	18	OAK
803	12	OAK
804	12	MAPLE
805	40	TWN OAK
806	18	OAK
807	14	OAK
808	14	CHERRY
809	32	OAK
810	24	TWN MAPLE
811	18	OAK
812	24	HICKORY
813	30	OAK
814	12	HICKORY
815	24	CHERRY
816	30	TWN MAPLE
817	20	LOCUST
818	12	OAK
819	30	OAK
820	10	MAPLE
821	14	MAPLE
822	24	OAK
823	12	MAPLE
824	14	MAPLE
825	18	MAPLE
826	14	MAPLE
827	14	MAPLE
828	10	MAPLE
829	30	OAK
830	14	MAPLE
831	30	OAK
832	14	MAPLE
833	30	OAK
834	14	MAPLE
835	1	MAPLE
836	30	OAK
837	30	OAK
838	12	MAPLE
839	20	HICKORY
840	18	MAPLE
841	14	MAPLE
842	12	MAPLE
843	12	MAPLE
844	14	MAPLE
845	14	MAPLE
846	14	MAPLE
847	8	MAPLE
848	12	MAPLE
849	14	MAPLE
850	18	MAPLE
851	16	MAPLE
852	14	MAPLE
853	24	TWN MAPLE
854	14	MAPLE
855	12	HICKORY
856	16	HICKORY
857	14	HICKORY
858	16	HICKORY
859	16	CHERRY
860	60	TWN OAK
861	8	MAPLE
862	14	MAPLE
863	12	HICKORY
864	12	HICKORY
865	20	OAK
866	10	HICKORY
867	14	MAPLE
868	22	OAK
869	20	OAK
870	24	CHERRY
871	30	OAK
872	12	CHERRY
873	14	CHERRY
874	16	CHERRY
875	40	OAK
876	40	OAK
877	18	HICKORY
878	18	HICKORY
879	30	OAK
880	30	OAK
881	28	TWN OAK
882	18	OAK
883	18	HICKORY
884	30	OAK
885	30	OAK
886	18	MAPLE
887	18	MAPLE
888	14	OAK
889	30	OAK
890	14	CHERRY
891	14	OAK
892	30	OAK
893	30	HICKORY
894	30	HICKORY
895	10	HICKORY
896	14	OAK
897	12	HICKORY
898	18	HICKORY
899	22	MAPLE
900	14	CHERRY
901	12	LOCUST
902	12	LOCUST
903	12	LOCUST
904	12	CHERRY
905	12	CHERRY
906	14	LOCUST
907	12	LOCUST
908	12	LOCUST
909	12	LOCUST
910	12	LOCUST
911	14	LOCUST
912	12	LOCUST
913	20	OAK
914	10	LOCUST
915	12	LOCUST
916	12	LOCUST
917	20	OAK
918	12	OAK
919	14	MAPLE
920	14	MAPLE
921	14	TWN ASH
922	12	MAPLE
923	12	MAPLE
924	14	MAPLE
925	14	ASH
926	10	ASH
927	14	CHERRY
928	10	ASH
929	10	ASH
930	14	LOCUST
931	14	LOCUST
932	14	LOCUST
933	12	OAK
934	14	ASH
935	10	ASH
936	10	CHERRY
937	12	LOCUST
938	12	CHERRY
939	12	OAK
940	8	MAPLE
941	12	LOCUST
942	12	LOCUST
943	14	HICKORY
944	12	OAK
945	14	MAPLE
946	14	HICKORY
947	12	LOCUST
948	14	MAPLE
949	12	OAK
950	12	LOCUST
951	12	LOCUST
952	12	MAPLE
953	12	OAK
954	14	LOCUST
955	14	LOCUST
956	14	LOCUST
957	14	LOCUST
958	14	LOCUST
959	14	LOCUST
960	14	LOCUST
961	12	LOCUST
962	12	LOCUST
963	12	LOCUST
964	10	CHERRY
965	10	LOCUST

LEGEND OF EXISTING TREES

PLANTING SCHEDULE

SYMBOL	NUMBER	QUANTITY	COMMON NAME	LATIN NAME	SIZE
1	1	9	LITTLELEAF LINDEN	(TILIA CORDATA GREENSPIRE)	2 1/2" CAL.
2	2	9	SHADEMASTER HONEYLOCUST	(GLEDITSIA TRIACANTHOS)	2 1/2" CAL.
3	3	9	PIN OAK	(QUERCUS PALUSTRIS)	2 1/2" CAL.
4	4	9	RED OAK	(QUERCUS RUBRA)	2 1/2" CAL.

ROAD SIGN SCHEDULE

SYMBOL	QUANTITY	DESCRIPTION (MUTCD IDENTIFICATION)
A	2	STOP (R1-1)
B	1	NO OUTLET (W14-2)
C*	2	CHILDREN AT PLAY (NYW7-4)
D	2	ROAD NAME (D3-1)
E	1	PROJECT ID (N/A TO MUTCD)
F	3	PUBLIC TRAIL ID (N/A TO MUTCD)
G	2	ONE WAY (R6-1)

* *THE TOWN HIGHWAY SUPERINTENDENT MUST APPROVE THE USE OF THIS SIGN AS WELL AS THE LOCATION*

SEE DETAILS ON SHEET 21

LEGEND

- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN
- PROPOSED PROPERTY LINE
- PROPOSED RESIDENCE
- LOT 18 — LOT NUMBER
- PROPOSED EASEMENT
- WETLAND BOUNDARY
- PROPOSED RETAINING WALL
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED TREE & LABEL
- PROPOSED LIGHT POLE
- PROJECT IDENTIFICATION SIGN LOCATION
- PROPOSED SIGNS
- PROPOSED NYSDOT GUIDE RAIL
- PROPOSED POND PERIM

REV. PER DEPT OF HEALTH COMMENTS: 10-18-13
REV. PER TOWN COMMENTS: 04-13-13
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN COMMENT LETTER DATED 9/7/10 REV. DATE: 10-06-10
REV. PER CLENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER TOWN COMMENT LETTER DATED 3/11/10 REV. DATE: 05-03-10
REV. PER TOWN COMMENT LETTER DATED 9/7/10 REV. DATE: 10-06-10
REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

JOSEPH ZARECKI, PE
N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

ZARECKI & ASSOCIATES, LLC
ENGINEERS & SURVEYORS
SALEM, N.Y.

11 Wall Marsh St. Rhinebeck, NY 12572
Consulting Engineers - Land Surveyors - Architects
845.855.3172 (Fax) 203.426.3704
Ridgefield, CT 06877

UTILITY PLAN – OVERALL

PREPARED FOR

BEEKMAN HOMES & LAND DEVELOPMENT, LLC

TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: 1"=50'	CHECKED BY: J.Z.	DRAWN BY: SW	
DATE: 2-1-2010	PROJECT NO. 2006.025	DESIGN BY: JW	SHEET NO. 9 OF 22
			FILED MAP # 8 OF 16

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

NORTH

DESIGN DATA:
1. No. OF BUILDING LOTS - 18
2. No. OF BEDROOMS PER LOTS - 5 MAXIMUM

GENERAL NOTES:
1. LOT #14 ROOF LEADER SHALL DISCHARGE A MINIMUM OF 20FT UPGRADIENT TO THE BIORETENTION GARDEN WHICH SHALL BE DIRECTED BY RYAN GRADING INTO THE GARDEN AREA OF THE BIORETENTION SYSTEM.
2. ROOF LEADERS FOR PROPOSED RESIDENCES ON LOTS #15, #17, & #18 SHALL DISCHARGE DIRECTLY INTO DRAINAGE STRUCTURES DS 10 TO DISCHARGE INTO ALUMINUS SURFACE FLOW TO DRAINAGE SYSTEM FOR TREATMENT.
3. ALL OTHER ROOF LEADER LOCATIONS AND DISCHARGES ARE PROVIDED IN THE SWPPP APPROVAL FOR ROOF LEADER & PLACEMENT AND DISCHARGE. FINAL APPROVAL BY APPROVAL AND DISCHARGE SHALL BE SUBJECT TO AND SHALL BE COORDINATED IN THE FIELD AS PER SITE CONDITIONS.
4. FOUNDATION DRAINS SHALL DISCHARGE DIRECTLY INTO STORMWATER BASINS WHEN FURTHER REVIEW AND APPROVAL BY ENGINEER LOT IS DETERMINED.
5. ALL DRIVEWAYS SHALL BE CONSTRUCTED TO A CATCH BASIN AND NO OVERLAND DISCHARGE TOWARD A ROADSIDE. THE OUTLET OF ANY FOOTING DRAIN UNDER A STONE ROCK ROAD FOOTING DRAINS SHALL DISCHARGE DIRECTLY INTO STORMWATER BASINS WHEN ROAD SHALL BE ASPHALT. THE FOOTING DRAIN CONNECTION AND SHORT STUB PIPE SHALL BE CONSTRUCTED WHEN THE ROADWAY CATCH BASINS ARE CONSTRUCTED. ALL FOOTING DRAIN DISCHARGES ARE SUBJECT TO FURTHER REVIEW AND APPROVAL AS EACH LOT IS DEVELOPED.
6. BASEMENTS AND/OR BATHROOMS ARE NOT PERMITTED IN BASEMENTS
7. SEWER LATERALS ARE THE RESPONSIBILITY OF THE HOMEOWNER FROM THE RESIDENCE TO THE CLEANOUT LOCATED AT THE PROPERTY LINE OR SEWER EASEMENT
8. AN ACCESS EASEMENT IS REQUIRED FOR STANDARD WATER METER READINGS AND EMERGENCY UTILITY REPAIRS FOR ALL RESIDENCES
9. ALL LOTS IN THIS DEVELOPMENT SHALL HAVE THE RIGHT TO DISCHARGE STORMWATER RUNOFF ACROSS, OVER AND THROUGH ANY OTHER LOT IN THIS DEVELOPMENT TO THE STORM DRAIN SYSTEM TO AN EXISTING DRAINAGE COURSE OR TO NATURAL SURFACE DISCHARGE.

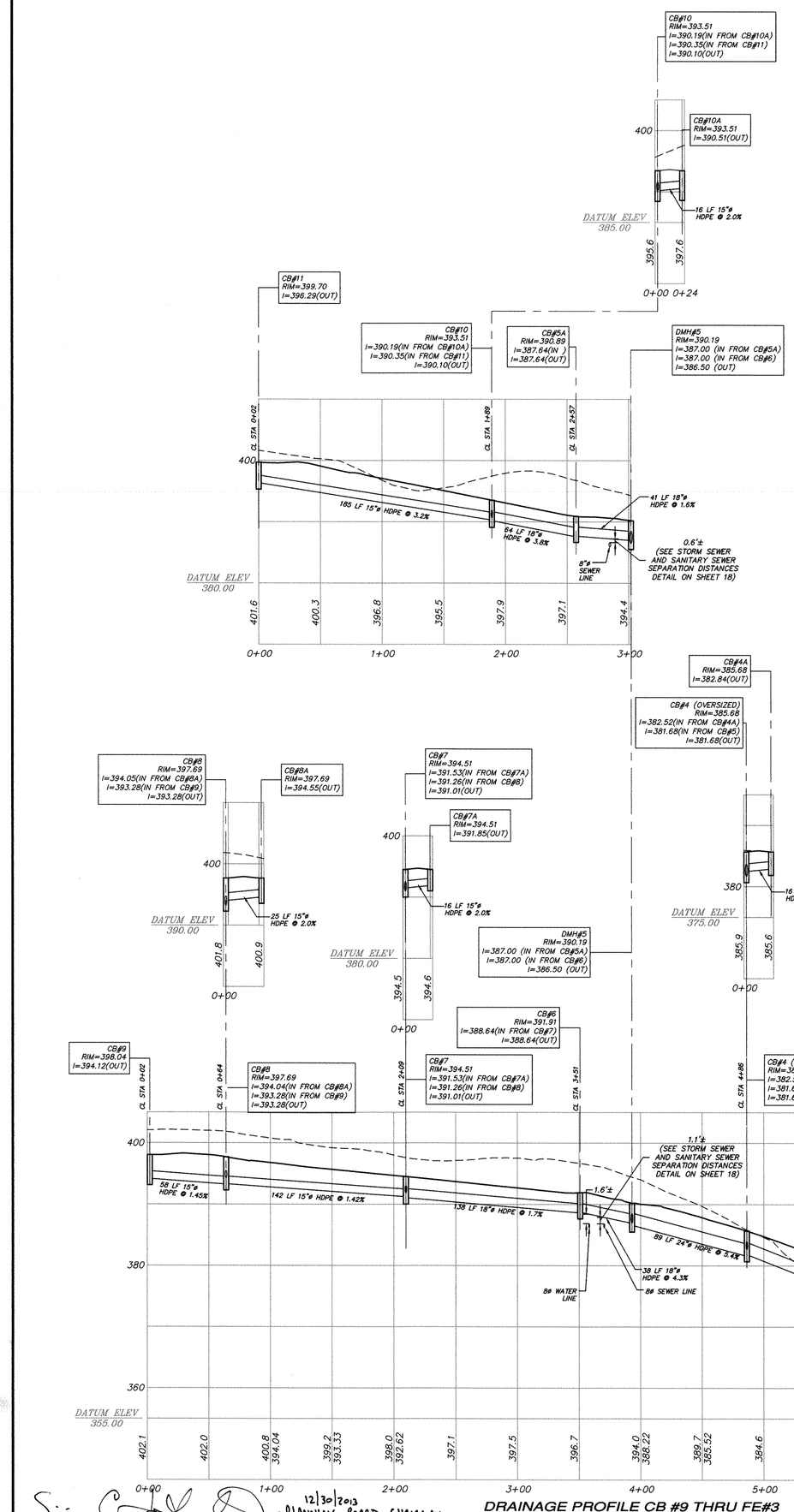
UTILITY OWNERS AND MAINTENANCE RESPONSIBILITIES (POST CONSTRUCTION):
1. WATER SYSTEM
THE BEEKMAN WELL CAN BE RESPONSIBLE FOR ALL DRAINAGE SYSTEMS WITHIN THE RIGHT OF WAY AND ROAD DISCHARGE LINE AND POINT (DEP). THE TOWN OF BEEKMAN WILL ALSO OWN AND BE RESPONSIBLE FOR THE DRAINAGE SYSTEMS WITHIN THE HIGHWAY BY USER LWITS N NTSC. THE H.O.A. WILL OWN AND BE RESPONSIBLE FOR MAINTAINING THE STORMWATER POND, POND OUTLETS (FE#2 & FE#3), POND OUTLET STRUCTURE, DISCHARGE LINE AND STRUCTURE (DEP#4), AND DISCHARGE POINT (FE #5) AND OPEN SPACE 'B' OUTLET (DEP#4) THE BIORETENTION SYSTEM ON LOT #14 WILL BE OWNED AND MAINTAINED BY THE OWNER OF LOT #14.
THE TOWN OF BEEKMAN WILL OWN AND BE RESPONSIBLE FOR ALL DRAINAGE SYSTEMS WITHIN THE RIGHT OF WAY AND ROAD DISCHARGE LINE AND POINT (DEP). THE TOWN OF BEEKMAN WILL ALSO OWN AND BE RESPONSIBLE FOR THE DRAINAGE SYSTEMS WITHIN THE HIGHWAY BY USER LWITS N NTSC. THE H.O.A. WILL OWN AND BE RESPONSIBLE FOR MAINTAINING THE STORMWATER POND, POND OUTLETS (FE#2 & FE#3), POND OUTLET STRUCTURE, DISCHARGE LINE AND STRUCTURE (DEP#4), AND DISCHARGE POINT (FE #5) AND OPEN SPACE 'B' OUTLET (DEP#4) THE BIORETENTION SYSTEM ON LOT #14 WILL BE OWNED AND MAINTAINED BY THE OWNER OF LOT #14.
2. SEWER SYSTEM
STONE RIDGE ESTATES SEWAGE CORPORATION WILL OWN AND BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF THE SEWER SYSTEM COMPONENTS TO AND INCLUDING THE PROPERTY LINE. EASEMENT LINE AND/OR RIGHT OF WAY LWITS. THE PROPERTY OWNER WILL OWN AND BE RESPONSIBLE FOR THE BUILDING SEWER TO THE SEWER EASEMENT LINE OR PROPERTY LINE.
3. DRAINAGE SYSTEM
THE TOWN OF BEEKMAN WILL OWN AND BE RESPONSIBLE FOR ALL DRAINAGE SYSTEMS WITHIN THE RIGHT OF WAY AND ROAD DISCHARGE LINE AND POINT (DEP). THE TOWN OF BEEKMAN WILL ALSO OWN AND BE RESPONSIBLE FOR THE DRAINAGE SYSTEMS WITHIN THE HIGHWAY BY USER LWITS N NTSC. THE H.O.A. WILL OWN AND BE RESPONSIBLE FOR MAINTAINING THE STORMWATER POND, POND OUTLETS (FE#2 & FE#3), POND OUTLET STRUCTURE, DISCHARGE LINE AND STRUCTURE (DEP#4), AND DISCHARGE POINT (FE #5) AND OPEN SPACE 'B' OUTLET (DEP#4) THE BIORETENTION SYSTEM ON LOT #14 WILL BE OWNED AND MAINTAINED BY THE OWNER OF LOT #14.

LEGEND

- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- EXISTING 10 FT CONTOUR
- EXISTING 2 FT CONTOUR
- PROPOSED PROPERTY LINE
- PROPOSED RESIDENCE W/ ELEVATIONS
- LOT NUMBER
- PROPOSED EASEMENT
- WETLAND BOUNDARY
- CONTOURS
- PROPOSED RETAINING WALL
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED CATCH BASIN
- PROPOSED DRAINAGE MANHOLE
- PROPOSED FLARED END/ STABILIZED OUTLET
- PROPOSED BIORETENTION BASIN
- PROPOSED GRASS SWALE
- PROPOSED DRAINAGE PIPE
- PROPOSED ROOF DRAIN
- PROPOSED SANITARY MAIN
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT & 6" VALVE
- PROPOSED WATER MAIN
- PROPOSED NYSDOT GUIDE RAIL
- PROPOSED POND PERIMETER FENCE
- PROPOSED SANITARY SEWAGE LINE W/ CLEAN OUT
- PROPOSED WATER SERVICE LINE W/ VALVE

OVERALL UTILITY PLAN
SCALE: 1"=50'

OPEN SPACE 'A'
OPEN SPACE 'B'
OPEN SPACE 'C'
OPEN SPACE 'D'
OPEN SPACE 'E'
OPEN SPACE 'F'
ROAD 'A'
ROAD 'B'
ROAD 'C'
BEEKMAN ROAD (COUNTY ROUTE 9)
TO (COUNTY ROUTE 9) BEEKMAN ROAD
STONE RIDGE DRIVE
STONE RIDGE COURT
STONE WALL
LOT 1 through LOT 19
PROPOSED STORMWATER BASIN
PROPOSED GABION WALL
PROPOSED RETAINING WALL
PROPOSED SWALE
PROPOSED FLARED END SECTION
PROPOSED BIORETENTION SYSTEM
PROPOSED 20' UNPLACEMENT OF BIORETENTION
DISCHARGE ROOF LEADERS
PROPOSED 1,000 GAL. UNDERGROUND TANK
INV. IN = 388.0
INV. OUT = 388.37
PROPOSED GABION RETAINING WALL
TOP EL. = 393
INV. IN = 386.37
EXISTING UTILITY POLE (TYP.)
EXISTING LEACHFIELD (TYP.)
EXISTING SEPTIC TANK (TYP.)
EXISTING WELL (TYP.)
EXISTING DRIVEWAY (TYP.)
EXISTING STONE WALL (TYP.)
EXISTING STONE MANHOLE (TYP.)
EXISTING ROAD SIGN (TYP.)
EXISTING STONE MANHOLE (TYP.)
EXISTING STONE MANHOLE (TYP.)
EXISTING STONE MANHOLE

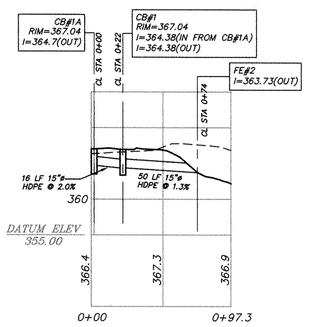


SEPARATION NOTE:
ALL VERTICAL SEPARATIONS BETWEEN SANITARY, WATER OR DRAINAGE SHALL BE A MINIMUM OF 1.5' UNLESS NOTED.

12/30/2013
- PLANNING BOARD CHAIRMAN

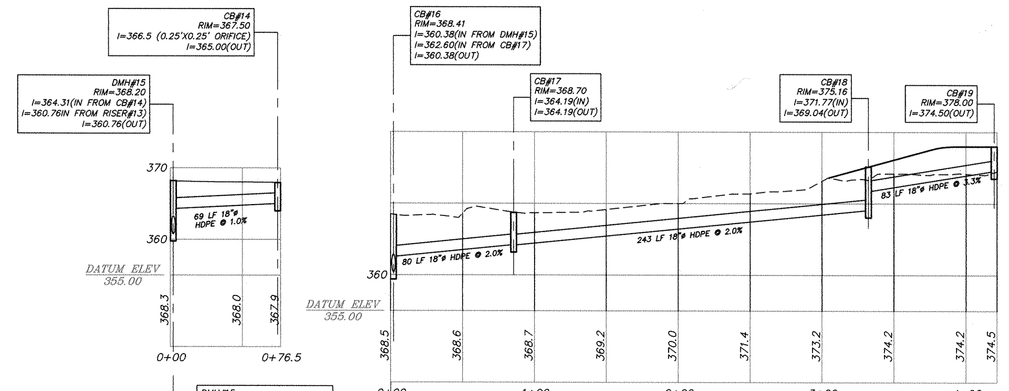
DRAINAGE PROFILE CB #9 THRU FE#3

SCALE: HOR.: 1"=50'
VERT.: 1"=10'



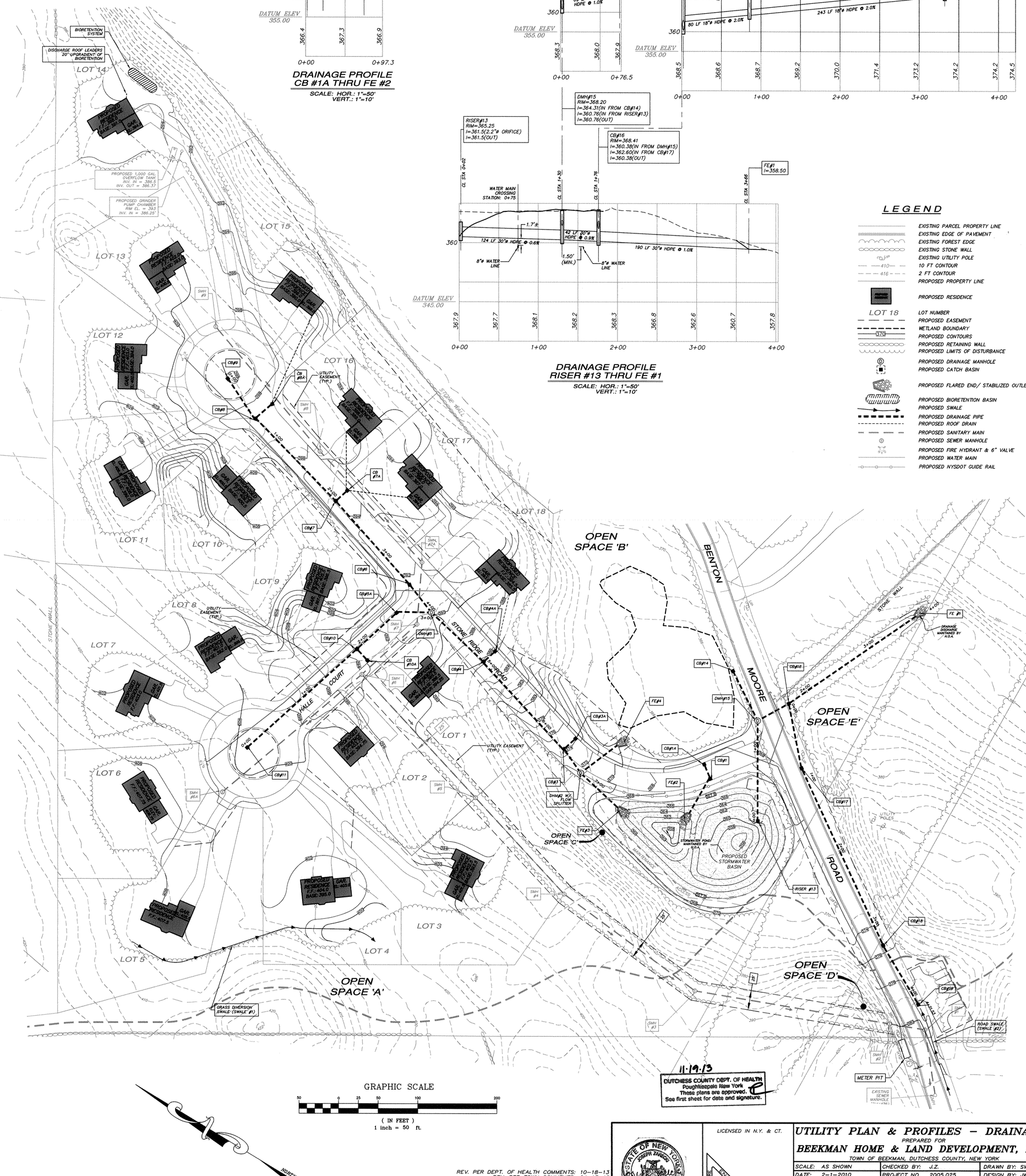
DRAINAGE PROFILE CB #1A THRU FE #2

SCALE: HOR.: 1"=50'
VERT.: 1"=10'



DRAINAGE PROFILE RISER #13 THRU FE #1

SCALE: HOR.: 1"=50'
VERT.: 1"=10'



LEGEND

- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- 10 FT CONTOUR
- 2 FT CONTOUR
- PROPOSED PROPERTY LINE
- PROPOSED RESIDENCE
- LOT 18 — LOT NUMBER
- PROPOSED EASEMENT
- WETLAND BOUNDARY
- PROPOSED CONTOURS
- PROPOSED RETAINING WALL
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FLARED END/ STABILIZED OUTLET
- PROPOSED BIORETENTION BASIN
- PROPOSED SWALE
- PROPOSED DRAINAGE PIPE
- PROPOSED ROOF DRAIN
- PROPOSED SANITARY MAIN
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT & 6" VALVE
- PROPOSED WATER MAIN
- PROPOSED NYSDOT GUIDE RAIL

11-19-13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

NORTH

REV. PER DEPT. OF HEALTH COMMENTS: 10-18-13
REV. PER TOWN COMMENTS: 04-13-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT OF HEALTH COMMENTS: 11-23-11
REV. PER CLIENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 5/17/10 REV. DATE: 10-08-10
REV. PER TOWN COMMENT LETTER DATED 3/11/10 REV. DATE: 05-03-10
REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

STATE OF NEW YORK
JOSEPH ZARECKI
049 079 0
JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

ZARECKI & ASSOCIATES LLC
ENGINEERING
SURVEYING

UTILITY PLAN & PROFILES - DRAINAGE

PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	CHECKED BY: JZ	DRAWN BY: SW/JC
DATE: 2-1-2010	PROJECT NO. 2005.025	DESIGN BY: JW

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564
845.855.3771
845.855.3772 (Fax)
Ridgefield, CT 06877
203.438.7094

SHEET NO. 10 OF 22
FILED MAP # 9 OF 16

LEGEND

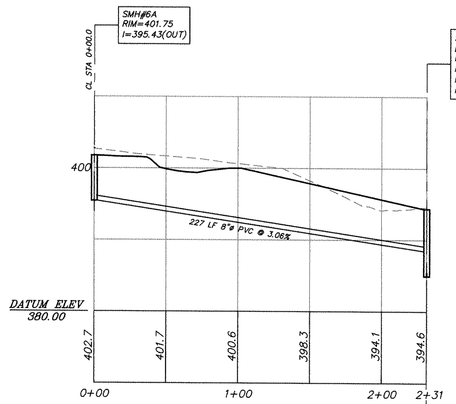
- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- 410 — 10 FT CONTOUR
- 416 — 2 FT CONTOUR
- PROPOSED PROPERTY LINE
- PROPOSED RESIDENCE W/ ELEVATIONS
- LOT 18 — LOT NUMBER
- PROPOSED EASEMENT
- WETLAND BOUNDARY
- 370 — PROPOSED CONTOURS
- PROPOSED RETAINING WALL
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FLARED END/ STABILIZED OUTLET
- PROPOSED BIORETENTION BASIN
- PROPOSED GRASS SWALE
- PROPOSED DRAINAGE PIPE
- PROPOSED ROOF DRAIN
- PROPOSED SANITARY MAIN
- SS — PROPOSED SANITARY SERVICE LINE W/ CLEAN OUT
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT & 6" VALVE
- PROPOSED WATER MAIN
- WS — PROPOSED WATER SERVICE LINE W/ VALVE
- PROPOSED NYSDOT GUIDE RAIL

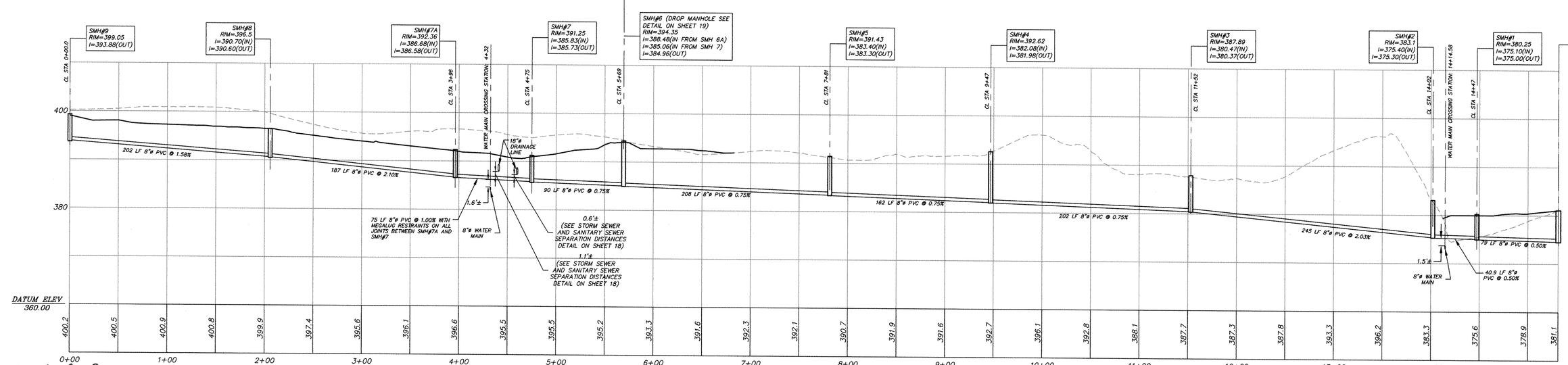
DESIGN DATA:

1. No. OF BUILDING LOTS – 18
2. No. OF BEDROOMS PER LOTS – 5 MAXIMUM
3. ESTIMATED MAXIMUM SEWAGE FLOW 7920 GPD

GENERAL NOTES:

1. THE TOWN ENGINEER'S OFFICE, DCDOH, AND NYSDEC IS TO BE NOTIFIED 24 HOURS BEFORE COMMENCING SITE CONSTRUCTION, WATER MAIN CONNECTION OR SEWER CONNECTION.
2. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE TOWN CODE.
3. ALL CONDITIONS, LOCATIONS, AND DIMENSIONS SHALL BE FIELD VERIFIED AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY DISCREPANCIES.
4. ALL CHANGES MADE TO THE PLANS SHALL BE APPROVED BY THE TOWN ENGINEER AND ANY SUCH CHANGES SHALL BE FILED AS AMENDMENTS TO THE ORIGINAL BUILDING PERMIT. ANY MAJOR CHANGES TO THE APPROVED PLANS MUST BE APPROVED BY THE DCDOH, NYSDEC, AND THE TOWN OF BEEKMAN.
5. ALL WRITTEN DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ANY SCALED DIMENSIONS.
6. PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CALL DIG SAFELY NEW YORK AT 1-800-962-7962 OR 811 AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF EXCAVATION, BUT NOT MORE THAN TEN (10).
7. SUBSTRUCTURES AND THEIR ENCROACHMENTS BELOW GRADE, IF ANY ARE NOT SHOWN.
8. CONTRACTOR TO IDENTIFY ALL SUBSTRUCTURES ENCOUNTERED DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR THE ACTS AND OMISSIONS OF HIS EMPLOYEES, SUBCONTRACTORS, AND THEIR AGENTS AND EMPLOYEES, AND ANY OTHER PERSONS PERFORMING ANY WORK UNDER A CONTRACT WITH THE CONTRACTOR.
11. REFER TO SHEET 2 FOR DUTCHESS COUNTY DEPARTMENT OF HEALTH GENERAL NOTES.
12. REFER TO SANITARY SEWER AND WATER DISTRIBUTION ENGINEERS REPORT PREPARED BY ZARECKI & ASSOCIATES, LLC FOR ADDITIONAL DESIGN INFORMATION.
13. THE SEWER CONNECTION SHOWN ON THIS PLAN IS RESTRICTED TO SERVICING THE DOMESTIC SEWAGE GENERATED FROM THE PROPOSED 18 LOT SUBDIVISION. NO STORMWATER OR FOUNDATION DRAINAGE MAY BE DISCHARGED INTO THIS SEWER.
14. THIS DEVELOPMENT IS SITUATED AND DESIGNED TO ALLOW FOR GRAVITY FLOW OF SANITARY SEWAGE FROM THE FIRST FLOOR OF ALL HOUSE WITH THE EXCEPTION OF LOT 14. ANY ALTERATION TO THE LAYOUT OR DESIGN SHOWN MAY REQUIRE SUBMISSION OF PLANS PREPARED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH FOR REVIEW AND APPROVAL.
15. BEDROOMS AND/OR BATHROOMS ARE NOT PERMITTED IN BASEMENTS.
16. SEWER MAIN BETWEEN SMH#7A AND SMH#7 SHALL BE INSTALLED WITH MEGALUG CONNECTIONS AT ALL JOINTS.





SEWER PROFILE
SMH #9 THRU EXISTING SMH #76

SCALE: HOR.: 1"=50'
VERT.: 1"=10'

11-19-13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

S. C. H. – PLANNING BOARD CHAIRMAN – 12/3/2013

SEPARATION NOTE:
ALL VERTICAL SEPARATIONS BETWEEN SANITARY, WATER OR DRAINAGE SHALL BE A MINIMUM OF 1.5' UNLESS NOTED.

REV. PER DEPT. OF HEALTH COMMENTS: 10-18-13
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 5/17/10 REV. DATE: 10-08-10
REV. PER TOWN COMMENT LETTER DATED 3/11/10 REV. DATE: 05-03-10
REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

STATE OF NEW YORK – JOSEPH ZARECKI – 061468
JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

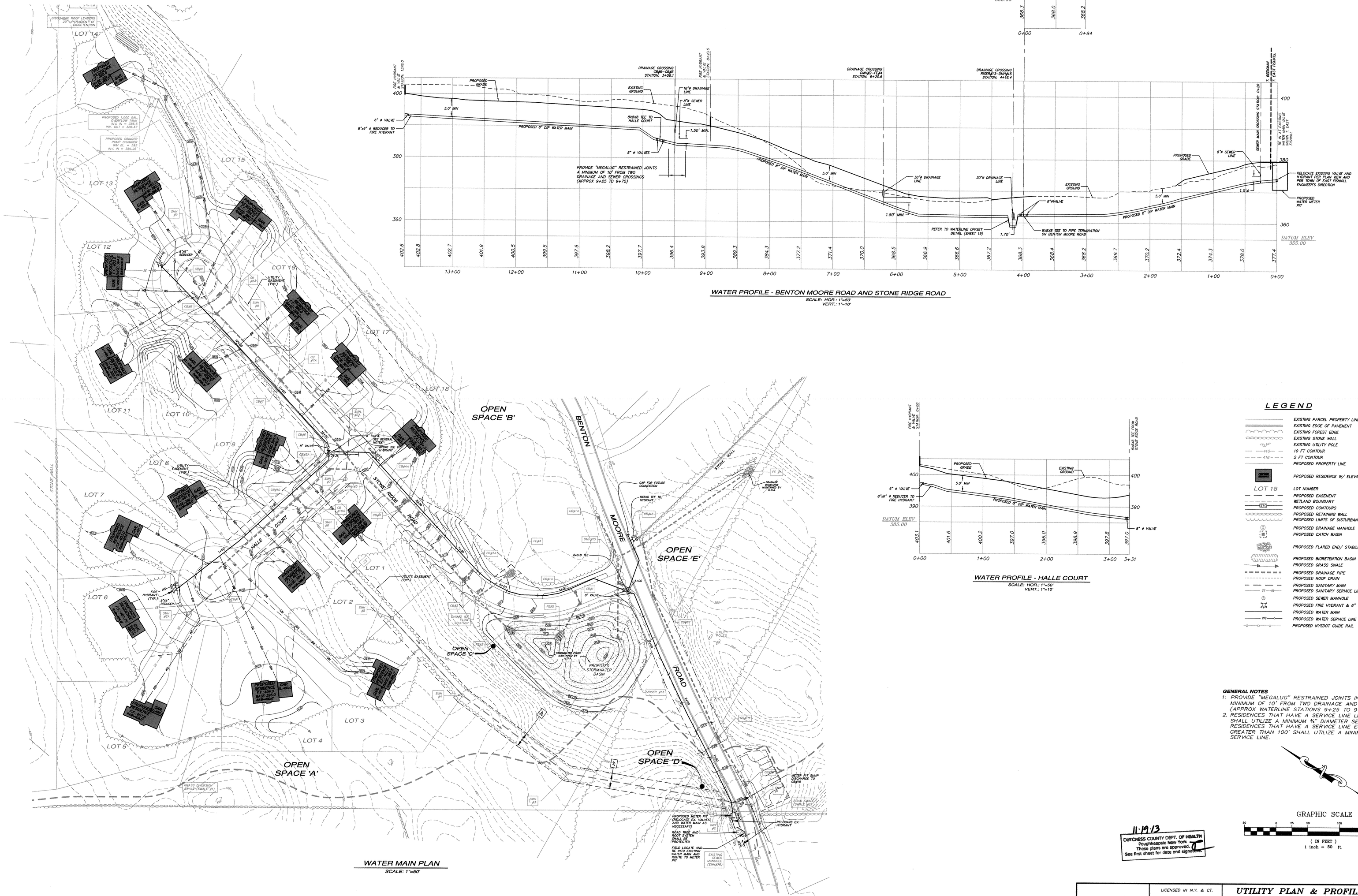
ZARECKI & ASSOCIATES LLC SURVEYING

UTILITY PLAN & PROFILE – SEWER

PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	DRAWN BY: SW/JC
DATE: 2-1-2010	CHECKED BY: JZ
PROJECT NO. 2005.025	DESIGN BY: JW
SHEET NO. 11 OF 22	FILED MAP # 10 OF 16

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564
845.855.3771
845.855.3772 (Fax)
Ridgefield, CT 06877
203.438.7094



WATER PROFILE - BENTON MOORE ROAD AND STONE RIDGE ROAD

SCALE: HOR.: 1"=50'
VERT.: 1"=10'

WATER MAIN PLAN

SCALE: 1"=50'

WATER PROFILE - HALLE COURT

SCALE: HOR.: 1"=50'
VERT.: 1"=10'

LEGEND

- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- EXISTING UTILITY POLE
- 10 FT CONTOUR
- 2 FT CONTOUR
- PROPOSED PROPERTY LINE
- PROPOSED RESIDENCE W/ ELEVATIONS
- LOT 18 — LOT NUMBER
- PROPOSED EASEMENT
- WETLAND BOUNDARY
- PROPOSED CONTOURS
- PROPOSED RETAINING WALL
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FLARED END/ STABILIZED OUTLET
- PROPOSED BIORETENTION BASIN
- PROPOSED GRASS SWALE
- PROPOSED DRAINAGE PIPE
- PROPOSED ROOF DRAIN
- PROPOSED SANITARY MAIN
- PROPOSED SANITARY SERVICE LINE W/ CLEAN OUT
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT & 6" VALVE
- PROPOSED WATER MAIN
- PROPOSED WATER SERVICE LINE W/ VALVE
- PROPOSED NYSDOT GUIDE RAIL

GENERAL NOTES

1. PROVIDE "MEGALUG" RESTRAINED JOINTS IN WATERLINE A MINIMUM OF 10' FROM TWO DRAINAGE AND SEWER CROSSINGS (APPROX WATERLINE STATIONS 9+25 TO 9+75)
2. RESIDENCES THAT HAVE A SERVICE LINE LESS THAN 100' SHALL UTILIZE A MINIMUM ¾" DIAMETER SERVICE LINE. RESIDENCES THAT HAVE A SERVICE LINE EQUAL TO OR GREATER THAN 100' SHALL UTILIZE A MINIMUM 1" DIAMETER SERVICE LINE.

NORTH

GRAPHIC SCALE

50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

11-19-13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved
See first sheet for date and signature.

- PLANNING BOARD CHAIRMAN- 12/30/2013

SEPARATION NOTE:
ALL VERTICAL SEPARATIONS BETWEEN SANITARY, WATER OR DRAINAGE SHALL BE A MINIMUM OF 1.5' UNLESS NOTED.

REV. PER DEPT. OF HEALTH COMMENTS: 10-18-13
REV. PER TOWN OF EAST FISHKILL COMMENTS: 10-03-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLIENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 5/17/10 REV. DATE: 10-08-10
REV. PER TOWN COMMENT LETTER DATED 3/11/10 REV. DATE: 05-03-10
REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

STATE OF NEW YORK — JOSEPH ZARECKI — 61488 — LICENSED PROFESSIONAL ENGINEER
JOSEPH ZARECKI, P.E.
N.Y. LIC. No: 61488

LICENSED IN N.Y. & CT.

ZARECKI & ASSOCIATES LLC — LICENSED LAND SURVEYOR

UTILITY PLAN & PROFILE – WATER

PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	CHECKED BY: J.Z.	DRAWN BY: SW
DATE: 2-1-2010	PROJECT NO. 2005.025	DESIGN BY: JW

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564 — 845.855.3271 — 845.855.3772 (Fax)
Ridgefield, CT 06877 — 203.438.7094

SHEET NO. 12 OF 22
FILED MAP # 11 OF 16

ROAD LAYOUT & PROFILES

PREPARED FOR

BEEKMAN HOME & LAND DEVELOPMENT, LLC

TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	DRAWN BY: SW
CHECKED BY: JJZ	DESIGN BY: JW
DATE: 2-11-2010	PROJECT NO. 2005.025
SHEET NO.	13 OF 22

ZARECKI & ASSOCIATES, L.L.C.

11 Wall Main St. Pawling, NY 12564 — Consulting Engineers - Land Surveyors - Architects — Ridgefield, CT. 06877

845.855.3171 — 203.438.7594

LICENSED IN N.Y. & CT.

ZARECKI & ASSOCIATES, L.L.C. — SURVEYING

JOSEPH ZARECKI, P.E. — N.Y. LIC. No. 61468

NOT VALID UNLESS EMBOSSED WITH SEAL

NOT INCLUDED IN FILED SET

REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLIENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 9/17/10 REV. DATE: 10-04-10
REV. PER TOWN COMMENT LETTER DATED 3/11/10 REV. DATE: 05-03-10
REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

NORTH

DUTCHESS COUNTY DEPT. OF HEALTH
Soil & Water Conservation Districts may require additional measures. These plans are approved. See final sheet for date and signature
11.19.13

GENERAL NOTES:

1. INSTALL GUIDE RAIL IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS LATEST EDITION. LOCATE AS DIRECTED BY THE TOWN ENGEER TO GUIDE RAIL DETAILS ON SHEET 21 FOR ADDITIONAL INFORMATION.
2. THE PROPOSED STONE RIDGE ROAD APRON (STA 0+00 TO 0+75) SHALL UTILIZE THE SAME SURFACE (CROSS SECTIONAL COURSES) AS THE TOWN OF BEEKMAN ROADWAY SECTION DETAIL ON SHEET 21.

ROAD LAYOUT PLAN
SCALE: HOR.: 1"=50'

OPEN SPACE 'A'
OPEN SPACE 'B'
OPEN SPACE 'C'
OPEN SPACE 'E'
STONE RIDGE ROAD
HALLE COURT
317± LF NYSDOT GUIDE RAIL W/ 50' RADIUS
UTILITY POLES
GUY WIRE (TYP.)
STONE WALL
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
LOT 10
LOT 11
LOT 12
LOT 13
LOT 14
LOT 15
LOT 16
LOT 17
LOT 18
PROPOSED RESIDENCE
CAVE
SEPTIC
WELL

STONE RIDGE ROAD
SCALE: HOR.: 1"=50'
VERT.: 1"=10'

DATUM ELEV 350.00

EDGE OF PAVEMENT BENTON MOORE ROAD
CENTER OF CUL-DE-SAC
EDGE OF PAVEMENT CUL-DE-SAC STONE RIDGE ROAD

STA. 5+38.68 ELEV. 381.17
HALLE COURT

EXCS. 1+39.27
EXCS. 2+89.27
EXCS. 375.12
EXCS. 382.16
EXCS. 3+77.23

PI STA = 4+77.23
PVI ELEV = 380.16
A.D. = -6.00
K = 33.33

250.00' VC
LOW POINT STA = 0+89.27
PVI STA = 1+64.27
PVI ELEV = 383.12
A.D. = 10.00
K = 25.00'

200.00' VC

HALLE COURT
SCALE: HOR.: 1"=50'
VERT.: 1"=10'

DATUM ELEV 380.00

CENTERLINE STONE RIDGE ROAD
CUL-DE-SAC
EDGE OF PAVEMENT HALLE COURT

LOW POINT ELEV = 390.76
LOW POINT STA = 0+28.67
PVI STA = 0+43.7
PVI ELEV = 390.43
A.D. = 6.00
K = 8.33

50.00' VC

ROAD CROSS SECTIONS

PREPARED FOR

BEEKMAN HOME & LAND DEVELOPMENT, LLC

TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	CHECKED BY: JZ	DRAWN BY: SW	
DATE: 2-1-2010	PROJECT NO. 2003.025	DESIGN BY: JW	

ZARECKI & ASSOCIATES, LLC.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Rhinebeck, NY 12572 Ridgefield, CT 06877
845.876.3371 845.853.3173 (FAX) 203.438.7094

SHEET NO. 14 OF 22

NOT INCLUDED IN FILED SET

LICENSED IN N.Y. & CT.

JOSEPH ZARECKI, PE
N.Y. LIC. No. 61468

REVISED TO SUIT TOWN COMMENTS

REV. PER TOWN & DEPT OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT OF HEALTH COMMENTS: 11-02-11
REV. PER CLIENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 9/17/10 REV. DATE: 10-08-10
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REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

DUTCHESS COUNTY DEPT. OF HEALTH
These plans are approved.
Poughkeepsie New York
See first sheet for date and signature.
11.19.13

DUTCHESS COUNTY HEALTH DEPARTMENT NOTE:
THIS SHEET NOT PART OF DUTCHESS COUNTY HEALTH DEPARTMENT REVIEW AND/ OR APPROVAL.

Philip W. Cogar Chislam Av. 12/20/2013

SECTIONS - HALLE COURT

SCALE: HOR. 1"=50'
VERT. 1"=10'

FOR ROAD STATIONING REFER TO ROAD LAYOUT & PROFILES SHEET
(SHEET NO. 13 OF 21)

STA 3+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 398.2

STA 3+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 398.4

STA 3+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 398.0

SECTIONS - STONE RIDGE ROAD

SCALE: HOR. 1"=50'
VERT. 1"=10'

FOR ROAD STATIONING REFER TO ROAD LAYOUT & PROFILES SHEET
(SHEET NO. 13 OF 21)

STA 9+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 398.0

STA 9+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 398.6

STA 9+65 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 398.0

STA 0+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 394.2

STA 0+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 394.0

STA 1+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 393.5

STA 1+50 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 393.6

STA 2+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 393.0

STA 2+50 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 393.0

STA 6+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.8

STA 6+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.8

STA 7+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.6

STA 7+50 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.6

STA 8+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.6

STA 8+50 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.6

STA 3+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.9

STA 3+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 397.0

STA 4+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.9

STA 4+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 397.2

STA 5+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.7

STA 5+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.5

STA 0+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 396.2

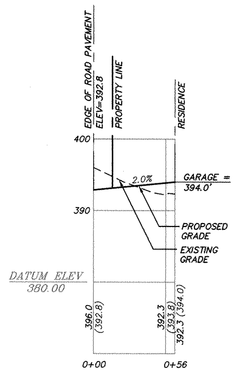
STA 0+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; GUIDERAIL; CL EL. 396.4

STA 1+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; GUIDERAIL; CL EL. 397.2

STA 1+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; GUIDERAIL; CL EL. 397.9

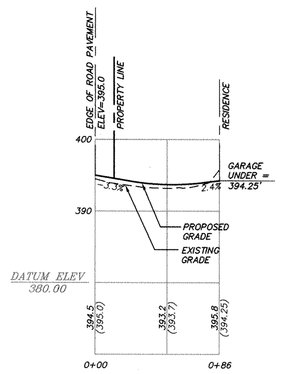
STA 2+00 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; GUIDERAIL; CL EL. 398.8

STA 2+60 — PROPERTY LINE; EXISTING GRADE; PROPOSED GRADE; CL EL. 398.7



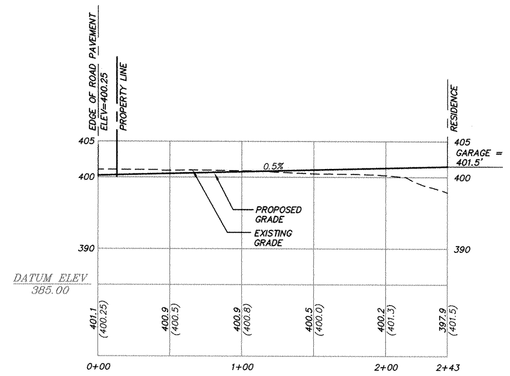
LOT 1 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



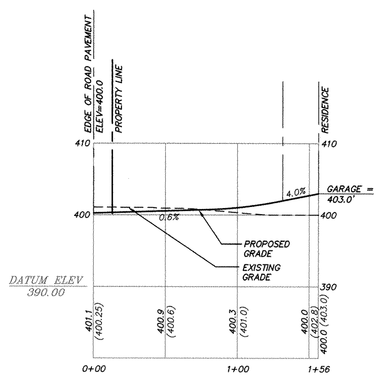
LOT 2 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



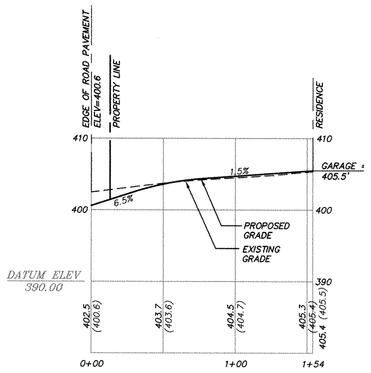
LOT 3 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



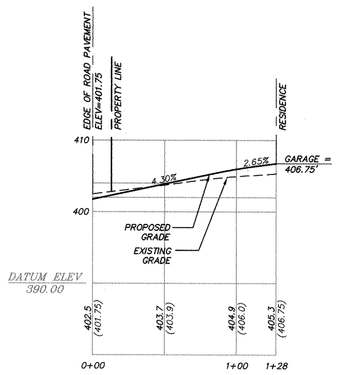
LOT 4 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



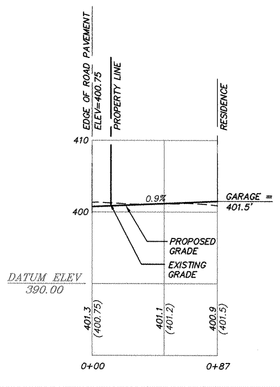
LOT 5 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



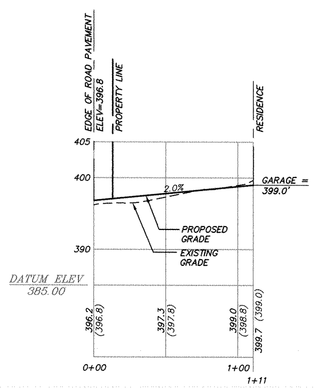
LOT 6 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



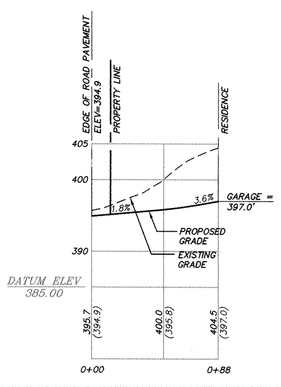
LOT 7 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



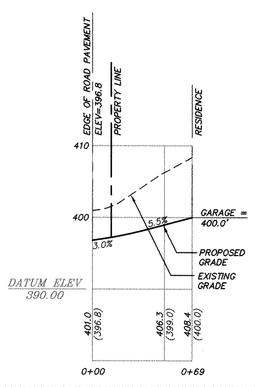
LOT 8 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



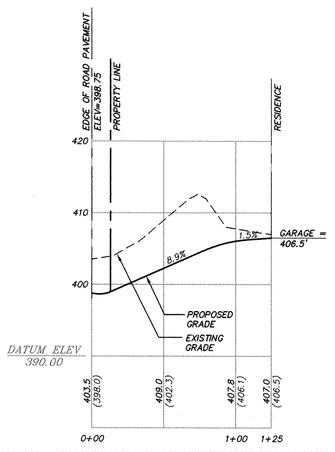
LOT 9 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



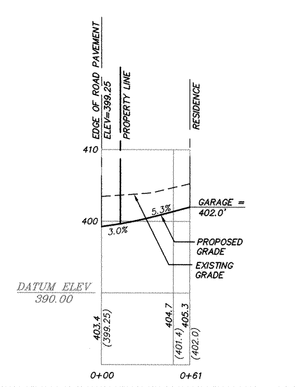
LOT 10 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



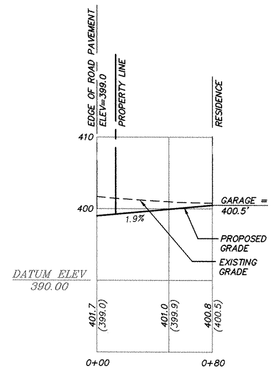
LOT 11 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



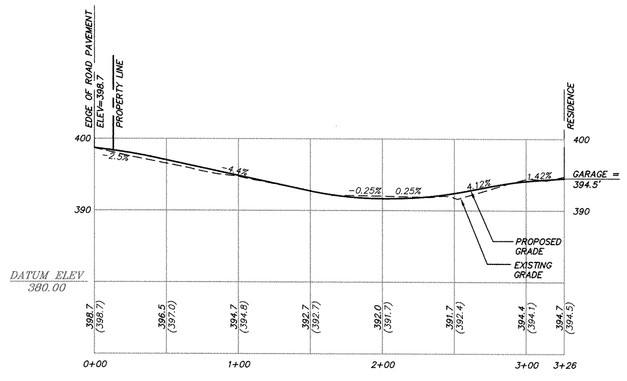
LOT 12 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



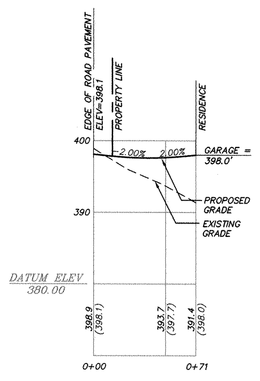
LOT 13 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



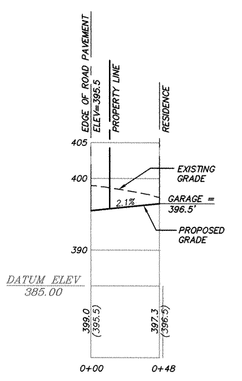
LOT 14 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



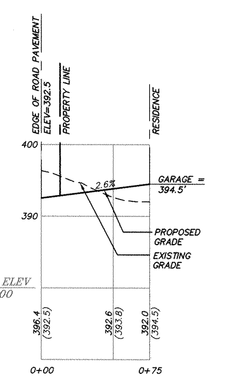
LOT 15 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



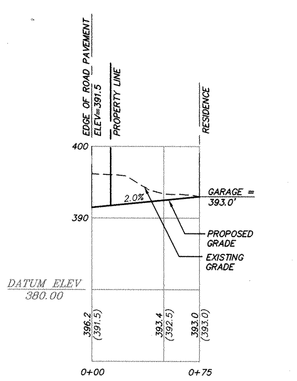
LOT 16 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



LOT 17 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'



LOT 18 DRIVEWAY PROFILE

SCALE: HOR. 1"=50'
VERT. 1"=10'

11-19-13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved
See first sheet for date and signature.

PLANNING BOARD CHAIRMAN- 12/3/2013

DUTCHESS COUNTY HEALTH DEPARTMENT NOTE:

THIS SHEET NOT PART OF DUTCHESS COUNTY HEALTH DEPARTMENT REVIEW AND/ OR APPROVAL.

REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 5/17/10 REV. DATE: 10-08-10
REV. PER TOWN COMMENT LETTER DATED 3/17/10 REV. DATE: 05-03-10
REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

STATE OF NEW YORK — JOSEPH ZARECKI — 061468
JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

ZARECKI & ASSOCIATES, LLC — ENGINEERS - LAND SURVEYORS

DRIVEWAY PROFILES

PREPARED FOR

BEEKMAN HOME & LAND DEVELOPMENT, LLC

TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	CHECKED BY: J.Z.	DRAWN BY: SW
DATE: 2-1-2010	PROJECT NO. 2005.025	DESIGN BY: JW

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564 — 845.855.3771 — 845.855.3772 (Fax)
Ridgefield, CT 06877 — 203.438.7094

SHEET NO. 15 OF 22

NOT INCLUDED IN FILED SET

REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER DEPT. OF HEALTH COMMENTS: 11-23-11
REV. PER CLIENT REQUEST REV. DATE: 11-08-10
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REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

JOSEPH ZARECKI P.E.
N.Y. LIC. No. 61468

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 Main St. Poughq. NY 12564 845.855.1571
Saugerties, CT 06071 203.536.7014

LICENSED IN N.Y. & CT.

ENTRANCE PLAN & DETAILS
PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	CHECKED BY: J.Z.
DATE: 2-17-2010	PROJECT NO. 2006.025
DRAWN BY: SW	DESIGN BY: JW
SHEET NO.	16 OF 22

NOT INCLUDED IN FILED SET

DUTCHESS COUNTY DEPT. OF HEALTH
These plans are approved for
household sewage use only.
See first sheet for date and signature.
11.M.13

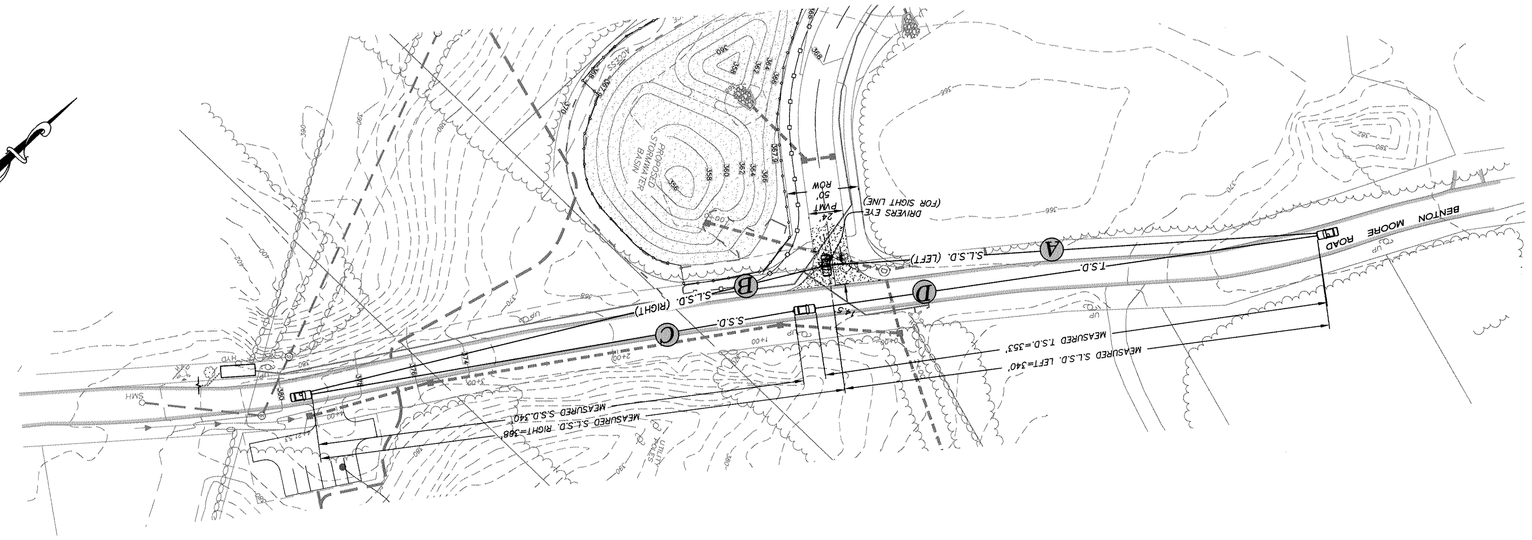
DUTCHESS COUNTY HEALTH DEPARTMENT NOTE:
THIS SHEET NOT PART OF DUTCHESS COUNTY HEALTH DEPARTMENT REVIEW AND/OR APPROVAL.

PLANNING BOARD CHAIRMAN - 12/5/2013

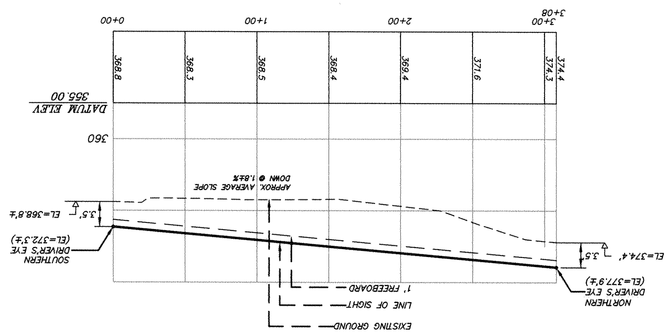
BENTON MOORE ENTRANCE LINE OF SIGHT COMPUTATIONS

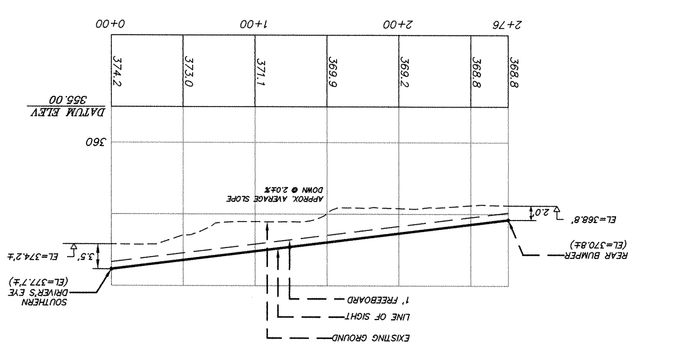
DESIGN SPEED = 30 M.P.H. NORTHBOUND – DOWNGRADE APPROACH 2.1% SOUTHBOUND – DOWNGRADE APPROACH 2.6%	DISTANCE REQUIRED	DISTANCE PROVIDED
(A) S.L.S.D. (LEFT) DOWNGRADE APPROACH	100'	340'
(B) S.L.S.D. (RIGHT) DOWNGRADE APPROACH	100'	368'
(C) S.S.D.	100'	340'
(D) T.S.D.	100'	353'

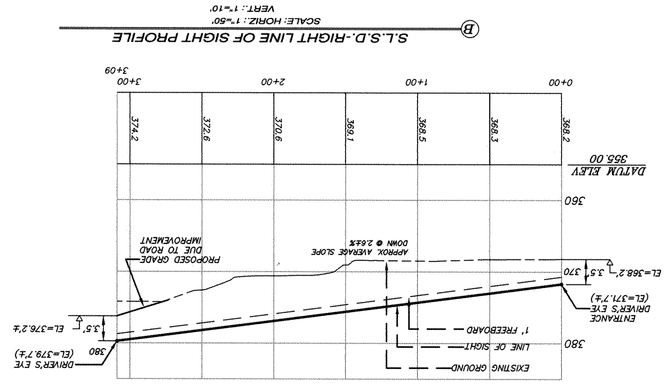
THE DISTANCE REQUIRED IS TAKEN FROM THE TOWN OF BEEKMAN LAND SUBDIVISION REGULATIONS

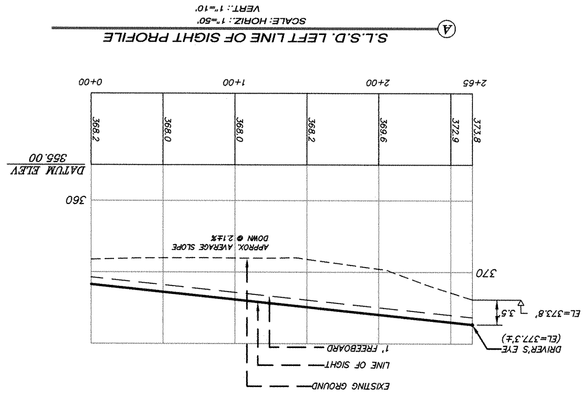


BENTON MOORE ROAD ENTRANCE SITE PLAN
SCALE: 1"=50'









EARTHWORK SPECIFICATIONS

ROAD FILL SPECIFICATIONS

1. SUITABLE ROAD SUBGRADE AREA MATERIAL: SUBGRADE AREA MATERIAL SHALL CONSIST OF ANY SUITABLE MATERIAL HAVING NO PARTICLES GREATER THAN 6 INCHES IN MAXIMUM DIMENSION, UNLESS SELECT GRANULAR SUBGRADE WITH THE WELL GRADED ROCK OPTION IS USED. IN THAT CASE, REFER TO NYSDOT 203-2.02 E. 1. A. IF CONCRETE IS USED, ANY EXPOSED MESH OR REBAR SHALL NOT EXCEED 1 INCH IN LENGTH.
2. COMPACTION OF ROAD SUBGRADE MATERIAL:
   GENERAL REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY PLACE AND COMPACT ALL MATERIALS IN THE ROAD SECTION AND OTHER LOCATIONS SPECIFIED IN THE DESIGN DRAWINGS AND TO CORRECT ANY DEFICIENCIES RESULTING FROM INSUFFICIENT OR IMPROPER COMPACTION OF SUCH MATERIALS THROUGHOUT THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL DETERMINE THE TYPE, SIZE AND WEIGHT OF COMPACTOR BEST SUITED TO THE WORK AT HAND, SELECT AND CONTROL THE LIFT (LAYER) THICKNESS, EXERT CONTROL OVER THE MOISTURE CONTENT OF THE MATERIAL, AND OTHER DETAILS NECESSARY TO OBTAIN SATISFACTORY RESULTS. DURING THE PROGRESSION OF THE WORK, THE TOWN ENGINEER OR DESIGN ENGINEER WILL INSPECT THE CONTRACTOR'S OPERATIONS AND MILL PERMIT THE WORK TO CONTINUE WHERE:
   1. LIFT THICKNESS SHALL BE A MINIMUM OF 6" UNLESS THE LIFT THICKNESS IS CONTROLLED AND DOES NOT EXCEED THE MAXIMUM ALLOWED ACCORDING TO THE EQUIPMENT CLASSIFICATIONS IN NYSDOT SUBPARAGRAPH 203-3.01 B OF NYSDOT SECTION 203—3.12 COMPACTION, AND THE EQUIPMENT MEETS ALL SPECIFICATION CRITERIA. THINNER LIFTS AND LIGHTER EQUIPMENT THAN THE MAXIMUM ALLOWED MAY BE NECESSARY FOR SATISFACTORY RESULTS ON SOME MATERIALS.
   2. THE COMPACTIVE EFFORT (NUMBER OF PASSES AND TRAVEL SPEED) IS UNIFORMLY APPLIED AND NOT LESS THAN THAT SPECIFIED FOR THE GIVEN EQUIPMENT CLASS AND LIFT THICKNESS. HIGHER EFFORTS THAN THE MINIMUM ALLOWED MAY BE NECESSARY FOR SATISFACTORY RESULTS ON SOME MATERIALS.
   3. THE ENGINEER CONCLUDES FROM A VISUAL OBSERVATION THAT ADEQUATE COMPACTION HAS BEEN ATTAINED, WITH THE EXCEPTION OF BACKFILL AT STRUCTURES, CULVERTS, PIPES, CONDUITS, AND DIRECT BURIAL CABLES. HOWEVER, THE TOWN RESERVES THE RIGHT TO PERFORM DENSITY TESTS AT ANY TIME. WHEN TESTS ARE PERFORMED, THE RESULTS SHALL INDICATE THAT NOT LESS THAN 90 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY IS ATTAINED IN ANY PORTION OF AN EMBANKMENT, OR 95 PERCENT IN A SUBGRADE AREA, OR AS SPECIFIED FOR OTHER ITEMS WITH A PERCENT MAXIMUM DENSITY REQUIREMENT.
   4. SIGNIFICANT RUTTING UNDER THE ACTION OF THE COMPACTOR IS NOT OBSERVED ON THE FINAL PASSES ON A LIFT.

MISC FILL SPECIFICATIONS

A. PIPE BEDDING MATERIAL: FOUNDATION MATERIAL FOR TRENCH BOTTOM AND BACKFILL FOR THE FIRST 12" LIFT OVER PIPE INSTALLATIONS SHALL BE AS DEFINED AS PIPE BEDDING MATERIAL AND SHALL BE NATURAL RUN-OF-BANK SAND GRADED FROM FINE TO COARSE PARTICLES, OR A GRADED MIXTURE OF CRUSHED STONE OR CRUSHED GRAVEL BEDDING MATERIAL. PIPE BEDDING MATERIAL SHALL BE HARD, DURABLE AND SOUND AND SHALL BE WELL GRADED FROM COURSE TO FINE. THE GRADATION TO BE USED IS TO BE AS APPROVED BY THE ENGINEER. HOWEVER, IN GENERAL, THE MAXIMUM DIAMETER OF THE LARGE PARTICLES SHALL NOT EXCEED 3/4 INCH; ONE HUNDRED PERCENT (100%) BY WEIGHT SHALL PASS THE 3/4-INCH SIEVE, NOT MORE THAN SEVENTY PERCENT (70%) BY WEIGHT SHALL PASS THE NO. 40 MESH SIEVE; AND NOT MORE THAN TEN PERCENT (10%) BY WEIGHT SHALL PASS THE NO. 200 MESH SIEVE.
B. RUN OF BANK (R.O.B.) GRAVEL SHALL BE HARD, DURABLE AND SOUND MEETING THE REQUIREMENTS OF NYSDOT 304-1 TYPE 3, AND SHALL BE WELL GRADED FROM COURSE TO FINE. THE GRADATION TO BE USED IS TO BE AS APPROVED BY THE ENGINEER. HOWEVER, IN GENERAL, ONE HUNDRED PERCENT (100%) BY WEIGHT OF THE PARTICLES SHALL BE OF SUCH SIZE AS WILL PASS THROUGH A FOUR-INCH-SQUARE HOLE; 50 – 75 PERCENT BY WEIGHT SHALL PASS THE NO. 4, 5 – 40 PERCENT BY WEIGHT SHALL PASS THE NO. 40 MESH SIEVE; AND NOT MORE THAN 10 PERCENT BY WEIGHT SHALL PASS THE NO. 200 MESH SIEVE.

CONSTRUCTION ACTIVITIES:

1. WORK ZONES ON OPPOSITE SIDES OF THE ROAD SHALL BE PROHIBITED. A WORK ZONE IS DEFINED AS THAT AREA IN WHICH TRAFFIC IS RESTRICTED BECAUSE OF CONSTRUCTION ACTIVITIES OR THAT ARE WHICH INVOLVED A DROP-OFF WITHIN 10 FT OF THE EDGE OF PAVEMENT.
2. NO MATERIAL IS TO BE STORED WITHIN THE CLEAR ROADSIDE AREA IS LOCATED 30FT BEYOND THE EDGE OF THE TRAVEL WAY INSIDE A SPEED LIMIT ZONE OF 45 MPH OR LESS.
3. CONSTRUCTION SIGNS SHALL BE REMOVED WHEN THE CLEAR ROADSIDE AREA REQUIREMENT INCLUDING WITHIN DEFLECTION RANGE, IS NOT MAINTAINED ON THE PAVEMENT DURING THE HOURS THAT THE CONTRACTOR IS NOT WORKING. THIS REQUIREMENT SHALL NOT BE LIMITED DOT THE CONTRACT LIMITS.
4. CONTRACTOR VEHICLES NOT IN USE AND PRIVATE VEHICLES OWNED BY CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED IN THE CLEAR ROADSIDE AREA, OR ANY OTHER LOCATION CONSIDERED BY THE ENGINEER TO BE A HAZARD THIS REQUIREMENT IS NOT LIMITED TO THE CONTRACT LIMITS.
5. ALL OPERATIONS INCLUDING PAVING, ROLLING, GRADING, SUPPLYING OF MATERIAL AND THE TRAVEL OF SUPERVISORY PERSONNEL THROUGH THE WORK ZONE AND THE ENTIRE LENGTH OF THE CONTRACT SHALL ALWAYS BE IN THE DIRECTION OF NORMAL TRAFFIC EXCEPT WHERE SPECIFICALLY ALLOWED OTHERWISE BY THE ENGINEER TO PERFORM A PARTICULAR OPERATION.
6. ALL VEHICLES THAT WILL BE MOVING IN AND OUT OF TRAFFIC AT WORK AREAS SHALL BE EQUIPPED WITH AN APPROVED AMBER ROTATING SAFETY LIGHT. THE LIGHTS SHALL BE MOUNTED SO AS TO BE EASILY SEEN BY APPROACHING TRAFFIC.
7. WHEN REOPENING DRIVING LANES TO TRAFFIC, THE CONTRACTOR SHALL START BY REMOVING THE CONES AT THE FAR END OF THE LANE CLOSURE AND WORKING TOWARDS THE SIGNS AT THE BEGINNING OF THE LANE CLOSURE. THE SIGNS ARE NOT TO BE TAKEN DOWN UNTIL ALL THE CONES VEHICLES HAVE BEEN REMOVED.
8. EXCAVATIONS THAT PRODUCE DROP-OFFS ON BOTH SIDES OF THE TRAVEL WAY AT THE SAME TIME SHALL NOT BE PERMITTED.
9. THE CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS/EGRESS TO/FROM THE EXISTING DRIVEWAYS THROUGHOUT THE CORRIDOR AT ALL TIMES.

CONTRACTOR NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE EMERGENCY SERVICES IN THE TOWN OF EAST FISHKILL, TOWN OF BEEKMAN, AS WELL AS DUTCHESS COUNTY 911 AND THE TWO SCHOOL DISTRICTS.
2. CONTRACTOR SHALL COORDINATE WITH THE TOWN OF BEEKMAN AND THE TOWN OF EAST FISHKILL HIGHWAY SUPERINTENDENTS PRIOR TO CONSTRUCTION AND OBTAIN ALL APPROPRIATE PERMITS.
3. THE FINAL PHASE OF PROJECT IS RAISING BENTON MOORE ROAD, WHICH REQUIRES CLOSING THE ENTIRE ROAD AT THE SEGMENT AND DETOURING TRAFFIC. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL APPROPRIATE AGENCIES AND PROVIDING APPROPRIATE DETOUR AND CONSTRUCTION SIGNAGE PER THE DIRECTION OF THE TOWN OF EAST FISHKILL AND TOWN OF BEEKMAN HIGHWAY SUPERINTENDENTS.
4. CONTRACTOR SHALL PREPARE ROAD SURFACE BY FILLING IN POTHOLES AND SHIMMING ROAD IN AREAS OF PROPOSED OVERLAY COURSE PER THE TOWN OF BEEKMAN HIGHWAY SUPERINTENDENT'S DIRECTION.

ROAD IMPROVEMENT CONSTRUCTION SEQUENCE:

1. SAW CUT BENTON MOORE ROAD AT ENDS OF ROAD RAISING LIMITS (AS INDICATED ON THIS DRAWING).
2. REMOVE EXISTING ASPHALT COURSES (DISPOSE OF OFFSITE).
3. RAISE GRADE PER EARTHWORK SPECIFICATIONS.
4. INSTALL ROADWAY SUBBASE COURSE PER TOWN OF EAST FISHKILL AND TOWN OF BEEKMAN ROAD SECTION SPECIFICATIONS.
5. SAWCUT BENTON MOORE ROAD AT THE LIMITS OF OVERLAY COURSE PER PAVEMENT MATCH TREATMENT DETAIL.
6. REPAIR POTHOLES/SOFT AREAS AND PREPARE EXISTING ROAD SURFACE IN AREAS OF OVERLAY COURSE PER TOWN OF HIGHWAY SUPERINTENDENT'S DIRECTION.
7. INSTALL BINDER COURSE IN AREAS OF ROAD RAISING AND NYSDOT BINDER COURSE WHERE REQUIRED IN AREAS OF OVERLAY COURSE AND PROVIDE CENTERLINE ROAD CROWN.
8. LEAVE ROAD WITH BINDER COURSE DURING THE DEVELOPMENT OF STONE RIDGE ESTATES.
9. INSTALL TOPCOURSE/WEARING COURSE ON BENTON MOORE ROAD WITH A ROLLED DEPTH OF 2" CONCURRENTLY WITH STONE RIDGE ESTATES NEW ROADS. IF STONE RIDGE ESTATES CONSTRUCTION IS PROLONGED BEYOND THREE YEARS FROM START OF CONSTRUCTION, THE TOWN OF BEEKMAN HIGHWAY SUPERINTENDENT MAY DIRECT THE DEVELOPER TO INSTALL BENTON MOORE ROAD PAVEMENT IMPROVEMENTS PRIOR TO FINISHING STONE RIDGE ESTATES.

GENERAL MAINTENANCE AND PROTECTION OF TRAFFIC:

1. MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 619 – MAINTENANCE AND PROTECTION OF TRAFFIC – OF THE NYSDOT STANDARD SPECIFICATIONS, NATIONAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH NYS SUPPLEMENT AND ANY PROVISIONS CONTAINED IN THE PLANS AND/OR PROPOSAL OF THIS CONTRACT. MAINTENANCE AND PROTECTION OF TRAFFIC SHALL MEET THE REQUIREMENTS OF NYSDOT ITEM 619.01 AND AS DIRECTED BY THE ENGINEER.
2. THE CORRECT SEQUENCE AND SPACING OF SIGNS, EITHER PERMANENT OR TEMPORARY, MUST BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH MUTCD, UNLESS SHOWN OTHERWISE ON THE PLANS. ALL SIGNS, INCLUDING GUIDE SIGNS, SHALL INDICATE ACTUAL CONDITIONS AT ALL TIMES AND SHALL BE COVERED BY OPTIONAL MEANS USING EITHER BLACK FABRIC OR PAINTED BLACK PLYWOOD CUT TO THE SIGN DIMENSIONS. PLYWOOD TO BE SECURED WITH SCREWS AROUND PERIMETER OF SIGN FACE. FABRIC TO BE SECURED WITH WIRE.
3. SHORT DURATION ALTERNATING ONE-WAY TRAFFIC ON TWO-WAY ROADWAYS MAY BE MAINTAINED DURING THE WORKING HOURS 8AM TO 4PM IN ACCORDANCE WITH MUTCD AND AS SHOWN ON THE PLANS. ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE UNOBSTRUCTED TO FIT WIDE LANES FOR TWO-WAY TRAFFIC WHENEVER POSSIBLE AND DURING NON-WORKING HOURS. DRIVING SURFACE SHALL BE 12' CRUSHER RUN MINIMUM FOR TWO-WAY TRAFFIC. STEEL PLATING MAY BE USED IN ISOLATED AREAS TO KEEP TRAFFIC FLOWING. NO LANE CLOSURES WILL BE ALLOWED ON SATURDAYS OR SUNDAYS WITHOUT PRIOR PERMISSION FROM THE TOWN OF BEEKMAN HIGHWAY SUPERINTENDENT OR THE ENGINEER. FLAGGERS SHALL BE REQUIRED TO USE RADIO OR SIMILAR CONTACT WHEN THEY ARE MAINTAINING ONE-WAY TRAFFIC WHEN ONE FLAGGER IS NOT VISIBLE TO THE OTHER OR IF IN THE OPINION OF THE ENGINEER, THIS COMMUNICATION IS NECESSARY. NO TEMPORARY LANE CLOSURES SHALL BE ALLOWED BEFORE SUNRISE OR AFTER SUNSET, OR AT OTHER TIMES WHEN VISIBILITY IS REDUCED TO LESS THAN 1,000 FEET UNLESS DIRECTED BY THE ENGINEER. ALL PIPE CROSSINGS AND/OR AREAS OF PAVEMENT REMOVAL SHALL BE TEMPORARILY PAVED BY FRIDAY OF THE SAME WEEK OR ASPHALT (PRIOR TO ROAD RECONSTRUCTION).
4. IF THE ENGINEER NOTIFIES THE CONTRACTOR OR CONTRACTOR'S SUPERINTENDENT OF ANY HAZARDOUS CONSTRUCTION PRACTICES, ALL OPERATION IN THAT AREA SHALL BE DISCONTINUED AND IMMEDIATE REMEDIAL ACTION SHALL BE TAKEN TO THE SATISFACTION OF THE ENGINEER BEFORE WORK RESUMED.
5. THE CONTRACTOR SHOULD NOTE THAT BURIED UTILITIES EXIST WITHIN THE PROJECT LIMITS AND MAY BE ENCOUNTERED DURING CONSTRUCTION. ALL AFFECTED AGENCIES SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK. EXTREME CARE SHOULD BE EXERCISED TO AVOID DAMAGE TO THESE FACILITIES. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND TO THE OWNER OF THE FACILITY. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPAIRS.
6. THE COST OF PROVIDING AND MAINTAINING SAFE AND ADEQUATE INGRESS AND EGRESS (PEDESTRIAN AND VEHICULAR) TO AND FROM HOMES AND COMMERCIAL ESTABLISHMENTS AT ALL TIMES, SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.
7. MOST WORK OPERATIONS ARE CONSIDERED TO BE LIMITED DURATION OPERATIONS, WHERE EQUIPMENT BEING USED PROGRESSES ALONG THE ROADWAY MORE OR LESS CONTINUOUSLY, AS IN SEEDING AND PAVEMENT MARKINGS OPERATIONS CAN BE CONSIDERED MOVING WORK AREAS.
8. IN ORDER TO MAINTAIN EFFECTIVE TRAFFIC CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN SURE ALL SIGNS, CONES, FLASHERS, DRUMS, ETC., ARE IN PLACE AND IN GOOD CONDITION. THE SOLE JUDGE OF THE EFFECTIVENESS OF THE CONTRACTOR'S EFFORTS TOWARDS THE PROTECTION OF TRAFFIC AND PERSONNEL SHALL BE THE ENGINEER.
9. EXISTING TRAFFIC SIGNS SHALL BE COVERED AND UNCOVERED AS NECESSARY DURING CONSTRUCTION.

DELINEATION AND CHANNELIZATION:

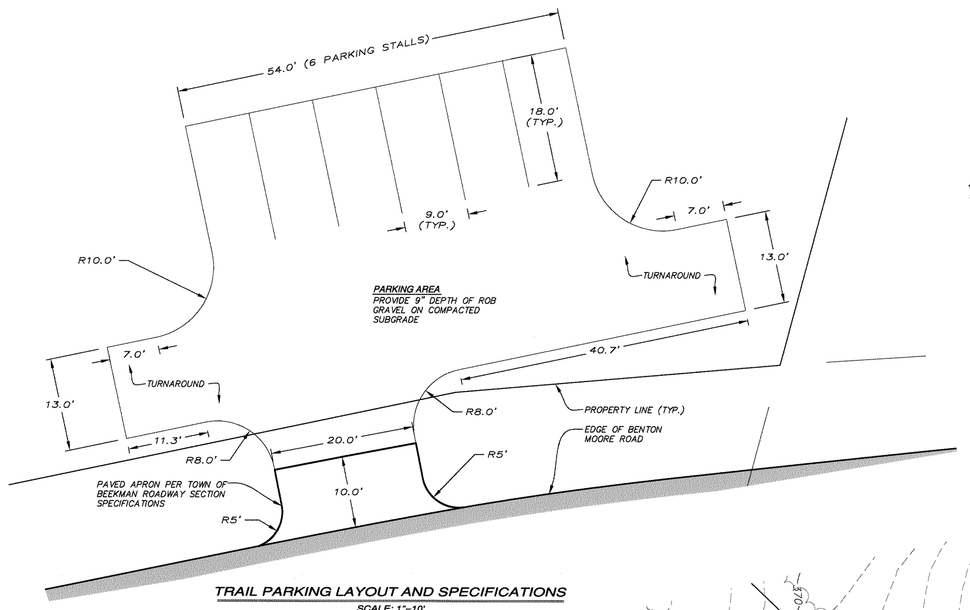
1. SHORT-TERM PAVEMENT MARKINGS SHALL BE APPLIED PER SECTION 619 OF THE NYSDOT STANDARD SPECIFICATION AND SHALL CONFORM TO THE PROJECT'S PERMANENT MARKINGS WITH RESPECT TO COLOR AND PATTERN.
2. THE CONTRACTOR SHALL DELINEATE AREAS WHERE THERE IS A DROP-OFF NEAR THE EDGE OF THE TRAVELED WAY AND AREAS ON WHICH IT IS UNSAFE TO TRAVEL. THE PROVISIONS FOR DELINEATION SHALL BE IN ACCORDANCE WITH SECTION 619-3.03K OF THE NYSDOT STANDARD SPECIFICATION – "PAVEMENT EDGE DROP OFF PROTECTION." THIS SECTION INDICATES MINIMUM DELINEATION REQUIREMENTS. ADDITIONAL DELINEATION MAY BE REQUIRED AS DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS. REFLECTORIZED PLASTIC DRUMS SHALL BE USED AT HAZARDOUS LOCATIONS DETERMINED BY THE ENGINEER. DRUMS SHALL REMAIN IN PLACE UNTIL SATISFACTORY PROTECTION IS PROVIDED. DRUMS SHALL BE SPACED AT A DISTANCE NOT TO EXCEED 50 FT OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR MAY BE REQUIRED, AT NO ADDITIONAL COST, TO INSTALL TEMPORARY CONCRETE BARRIERS TO ELIMINATE DROP-OFFS OR OTHER HAZARDS.
3. EXCAVATIONS MADE FOR THE INSTALLATION OF PIPES SHALL BE BACK FILLED AT THE CLOSE OF EACH DAY UNLESS OTHERWISE APPROVED BY THE ENGINEER. IF APPROVAL IS GIVEN, THE EXCAVATION SHALL BE ADEQUATELY DELINEATED AND FENCED OR STEEL PLATED AT ALL TIMES.
4. ALL TEMPORARY STRIPPING IS TO BE REMOVED WITHIN 24 HOURS AFTER THE INSTALLATION OF PERMANENT STRIPING.

CONSTRUCTION SIGNS:

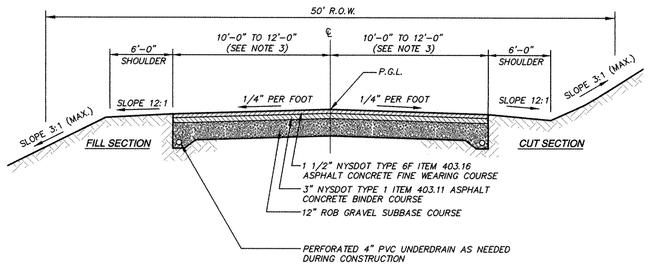
1. DIAMOND-SHAPED ADVANCE WARNINGS SHALL BE USED FOR ALL ADVANCE WARNING SIGNS. COLOR REQUIREMENTS SHALL BE BLACK TEXT ON ORANGE BACKGROUND. COLOR REQUIREMENTS FOR GUIDE SIGNS AND REGULATORY SIGNS USED FOR CONSTRUCTION SIGNING SHALL BE AS SPECIFIED IN THE MUTCD FOR EACH SIGN, OR AS NOTED ON THE PLANS.
2. LONGITUDINAL PLACEMENT OF CONSTRUCTION SIGNS SHALL BE AS SHOWN ON THE MAINTENANCE AND PROTECTION OF TRAFFIC PLANS, AND AS DIRECTED BY THE ENGINEER. LATERAL PLACEMENT OF CONSTRUCTION SIGNS SHALL BE SUCH THAT THE LATERAL CLEARANCE FROM THE EDGE OF THE TRAVEL LANE TO THE EDGE OF SIGN IS A MINIMUM OF 6 FT, AS APPROVED BY THE ENGINEER. SIGNS SHALL BE PLACED TO PROVIDE OPTIMUM VISIBILITY.
3. ALL PERMANENT GUIDE SIGNS SHALL BE MOUNTED SUCH THAT THE BOTTOM IS BE 7FT. MINIMUM MEASURED FROM THE GROUND SURFACE TO THE BOTTOM OF THE SIGN.
4. DURING CONSTRUCTION ALL EXISTING SIGNS ARE TO BE MAINTAINED AND RELOCATED AS NECESSARY UNTIL INSTALLATION OF NEW SIGNS.
5. THE UNEVEN TRANSVERSE PAVEMENT SURFACES (I.E. PAVEMENT REBATES, TRANSITIONS INTO AND OUT OF FULL DEPTH RECONSTRUCTION AREAS) SHALL BE SIGNED WITH A W8-1 "BUMP" SIGN AT OR NEAR THE POINT OF NEED.

MAINTENANCE AND PROTECTION OF PEDESTRIANS AND BICYCLISTS:

1. PEDESTRIAN AND BICYCLIST TRAFFIC SHALL BE MAINTAINED AND PROTECTED AT ALL TIMES IN ACCORDANCE WITH SECTION 619 OF THE NYSDOT STANDARD SPECIFICATIONS. ALL PEDESTRIAN ACCESS SHALL BE HANDICAPPED ACCESSIBLE IN ACCORDANCE WITH THE CURRENT AMERICANS WITH DISABILITIES ACT.

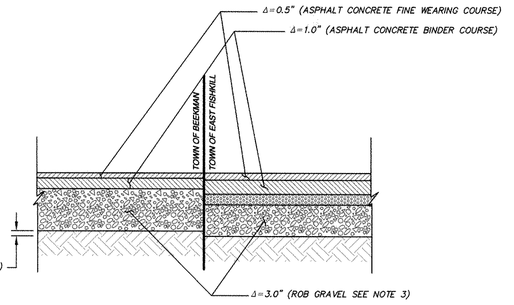


TRAIL PARKING LAYOUT AND SPECIFICATIONS
SCALE: 1"=10'



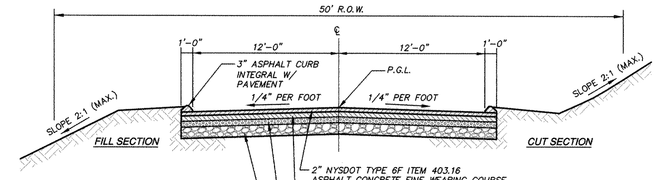
NOTES:
1. UNPAVED AREAS WITHIN THE RIGHT OF WAY SHALL BE LANDSCAPED AND SEEDED REFER TO LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
2. P.G.L. = PROFILE GRADE LINE
3. WIDTH OF PROPOSED PAVEMENT SHALL TAPER INTO EXISTING PAVEMENT WIDTH.

TOWN OF BEEKMAN ROADWAY SECTION
N.T.S.



NOTES:
1. REFER TO PLAN FOR LOCATION AND ORIENTATION
2. REFER TO TOWN ROAD SECTIONS ABOVE FOR COURSE THICKNESS
3. TOTAL THICKNESS OF SUBBASE IS 12" FOR BOTH SECTIONS. COMPOSITION OF SUBBASE IS DIFFERENT (SEE TOWN ROADWAY SECTION).

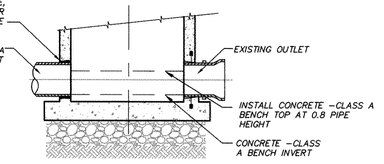
PAVEMENT TRANSITION DETAIL
N.T.S.



NOTES:
1. UNPAVED AREAS WITHIN THE RIGHT OF WAY SHALL BE LANDSCAPED AND SEEDED REFER TO LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
2. INSTALL CURB FOR BENTON MOORE ROAD IMPROVEMENT WITHIN TOWN OF EAST FISHKILL LIMITS.
3. P.G.L. PROFILE GRADE LINE
4. WIDTH OF PROPOSED PAVEMENT SHALL BE 24' (IN GENERAL)

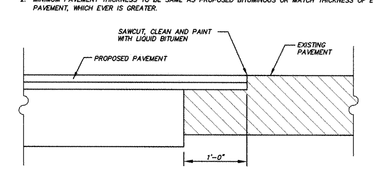
TOWN OF EAST FISHKILL ROADWAY SECTION
N.T.S.

CONTRACTOR SHALL PACK CONNECTION WITH CONCRETE REPAIR MATERIAL PER NYSDOT 701-04. AFTER A MINIMUM 24 HOUR CURE TIME, PERFORM VACUUM TEST ON EXISTING SEWER MANHOLE PER VACUUM TESTING PROCEDURE



EXISTING SMH#76 TIE IN DETAIL
N.T.S.

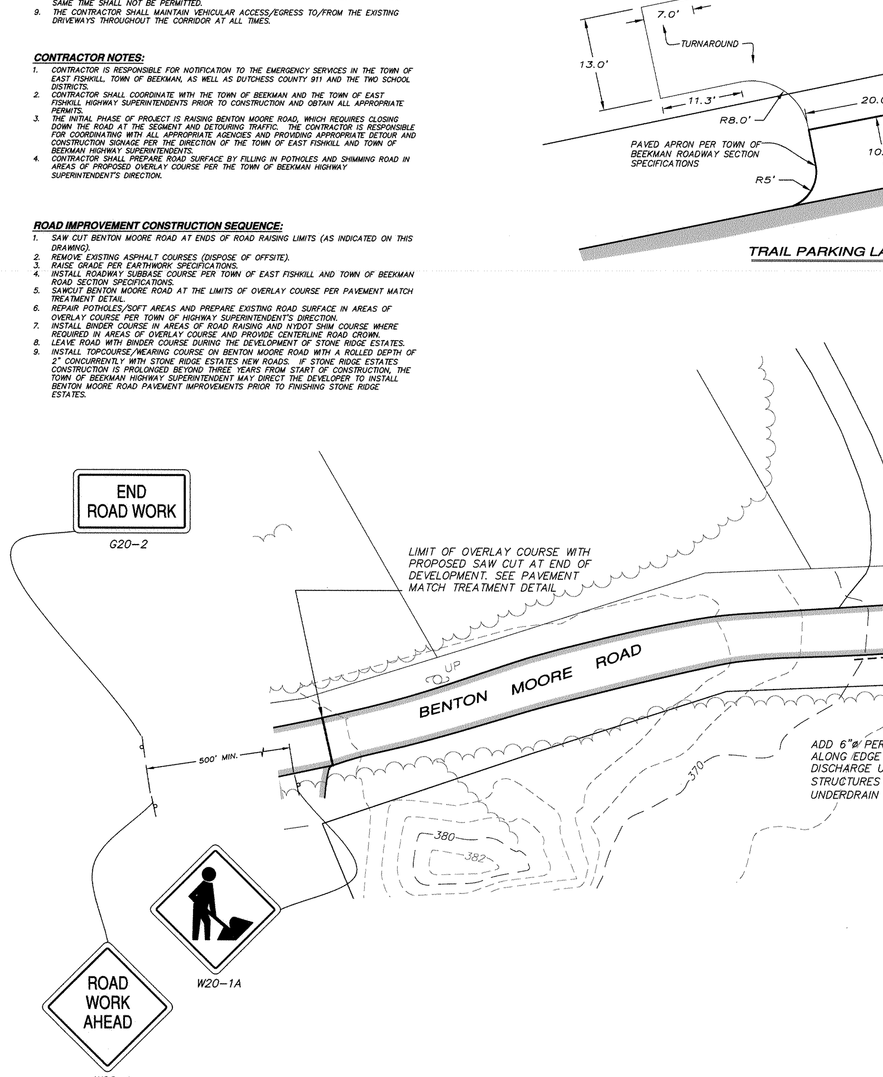
NOTES:
1. OVERLAP BOTH PROPOSED BITUMINOUS CONCRETE COURSES OVER EXISTING SUBBASE.
2. MINIMUM PAVEMENT THICKNESS TO BE SAME AS PROPOSED BITUMINOUS OR MATCH THICKNESS OF EXISTING PAVEMENT, WHICH EVER IS GREATER.

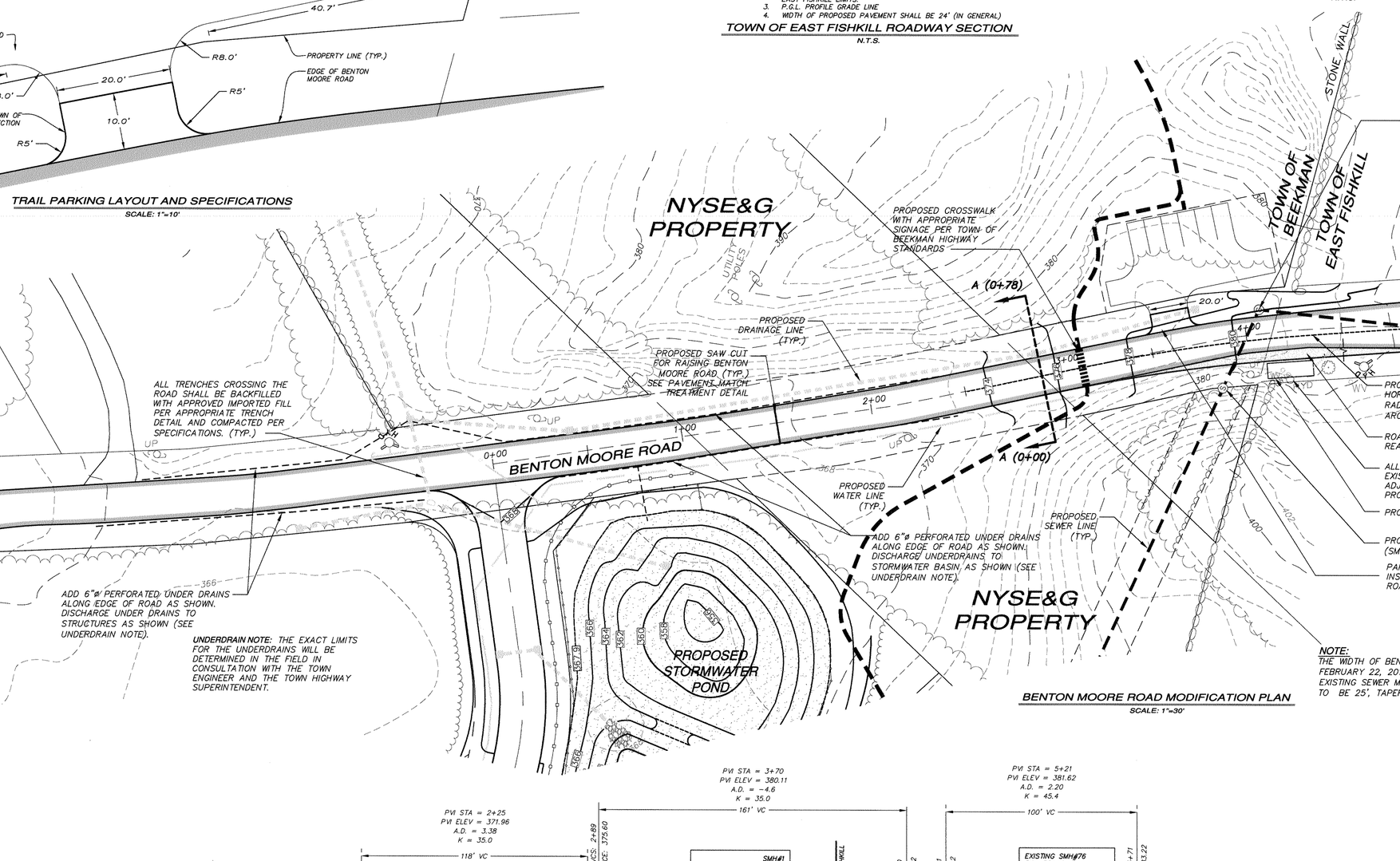


PAVEMENT MATCH TREATMENT
N.T.S.

LEGEND

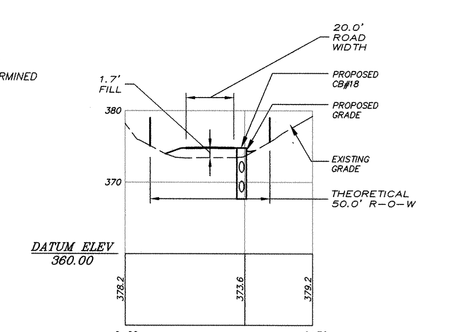
- EXISTING PARCEL PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING FOREST EDGE
- EXISTING STONE WALL
- UP — EXISTING UTILITY POLE
- 410 — EXISTING 10 FT CONTOUR
- 416 — EXISTING 2 FT CONTOUR
- SMH — EXISTING SEWER MANHOLE
- WV — EXISTING WATER VALVE
- HYD — EXISTING HYDRANT
- 370 — PROPOSED CONTOURS
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FLARED END/ STABILIZED OUTLET
- PROPOSED DRAINAGE PIPE
- PROPOSED SEWER LINE
- S — PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT & 6" VALVE
- PROPOSED WATER MAIN
- PROPOSED NYSDOT GUIDE RAIL
- PROPOSED POND PERIMETER FENCE



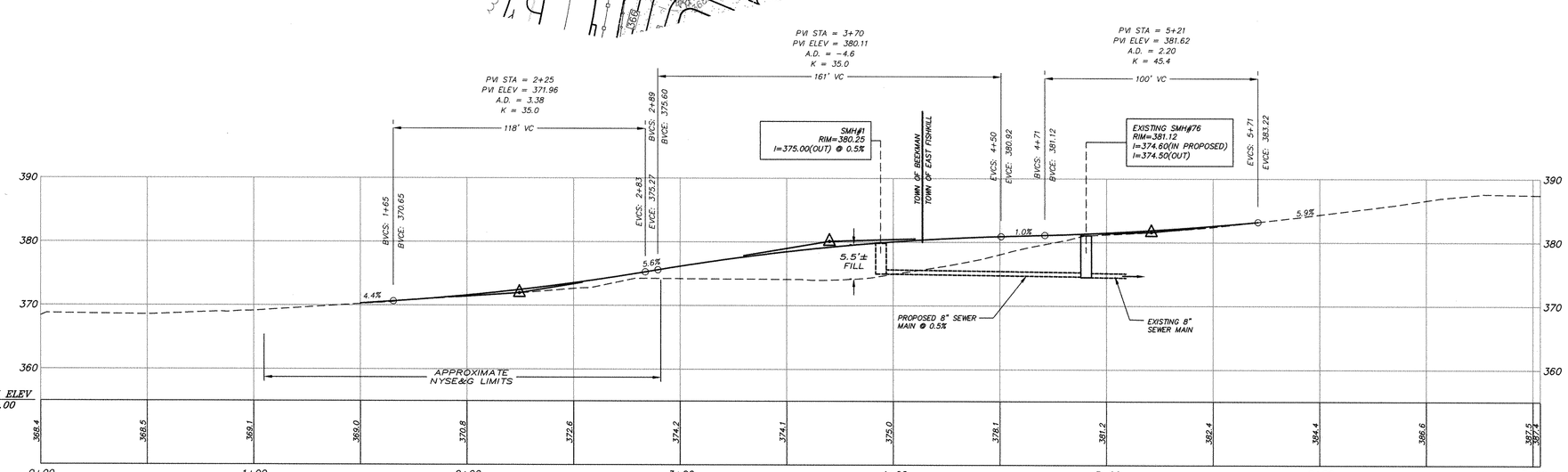


BENTON MOORE ROAD MODIFICATION PLAN
SCALE: 1"=30'

NOTE:
THE WIDTH OF BENTON MOORE ROAD VARIES. FIELD MEASUREMENTS WERE MADE ON FEBRUARY 22, 2010. IT'S WIDTH WAS DETERMINED TO BE 20'; IT'S WIDTH NEAR THE EXISTING SEWER MANHOLE (SMH#76), WITHIN THE TOWN OF EAST FISHKILL, WAS DETERMINED TO BE 25', TAPERING TO 20' WIDE (APPROX) AT THE TOWN BOUNDARY.



BENTON MOORE ROAD IMPROVEMENT CROSS SECTION AA
SCALE: HORIZ.: 1"=30'
VERT.: 1"=10'



BENTON MOORE ROAD IMPROVEMENT PROFILE
SCALE: HORIZ.: 1"=30'
VERT.: 1"=10'

11.19.13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

Sim C Jaeckle – PLANNING BOARD CHAIRMAN – 12/30/2013

REV. PER DEPT. OF HEALTH COMMENTS: 10-18-13
REV. PER TOWN COMMENTS: 04-13-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12

LICENSED IN N.Y. & CT.

STATE OF NEW YORK — JOSEPH ZARECKI — 061468 — LICENSED PROFESSIONAL ENGINEER

JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

ZARECKI & ASSOCIATES, LLC — ENGINEERING — SURVEYING

BENTON MOORE ROAD IMPROVEMENT

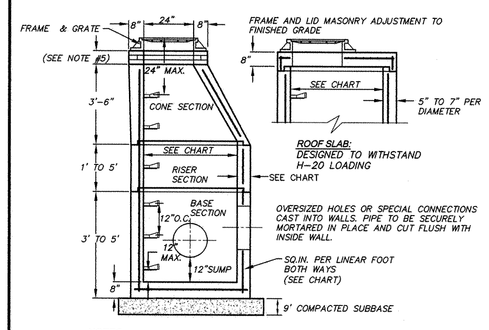
PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	CHECKED BY: J.Z.	DRAWN BY: JC
DATE: 9-03-2010	PROJECT NO. 2005.025	DESIGN BY: JC

SHEET NO. 17 OF 22

NOT INCLUDED IN FILED SET

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564 — 845.855.3771 — 845.855.3772 (Fax)
Ridgefield, CT 06877 — 203.438.7094

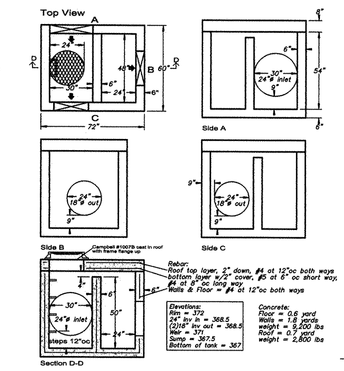


NOTES:
1. ALL MATERIALS IN STRICT CONFORMANCE WITH ASTM C478, LATEST REVISION, AND NYSDOT SECTION 706-04.
2. CONCRETE TO TEST 4000PSI AT 28 DAYS.
3. 2 LIFTING HOLES OR RINGS IN EACH SECTION.
4. FOR UNITS OVER 10'-0" IN DEPTH, WALL THICKNESS WILL BE 8" BELOW THE 10'-0" DEPTH. IF THE WALL THICKNESS IS INCREASED DUE TO DEPTH, THE INSIDE DIAMETER OF THE MANHOLE SHALL REMAIN FLUSH.
5. NYSDOT PAVER BRICK COURSE (8" MAX.) OR CONCRETE SPACER RING (12" MAX.)
6. MANHOLES DEEPER THAN 20' WILL REQUIRE SPECIAL FALL PROTECTION PER OSHA REQUIREMENTS.

GRATES & COVER:
1. DMH#5: ROOF SLAB W/ FRAME AND GRATE: CAMPBELL FOUNDRY CO. PATTERN # 3408
2. DMH#15: CONE OR SLAB ROOF W/ CAMPBELL FRAME & GRATE 1104B OR EQUAL.

MANHOLE CHART			
INSIDE DIAMETER	WALL THICKNESS	MAX. DEPTH	CIRCUMFERENTIAL STEEL SQ. IN PER VERT. FOOT
48"	5"	10'	0.12
60"	5"	20'	0.15
72"	6"	20'+	0.18
84"	7"	20'+	0.21

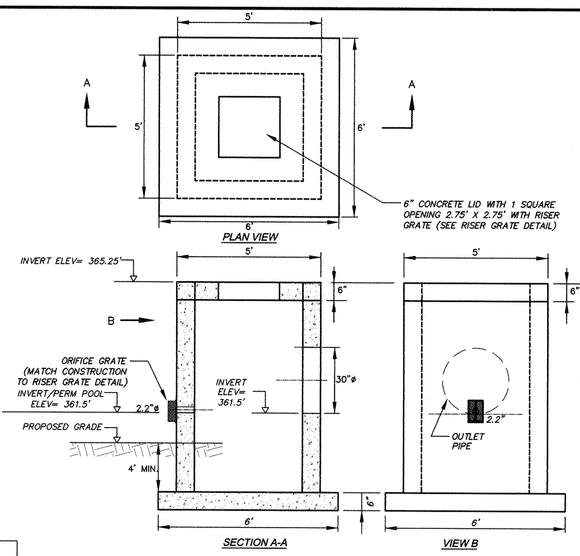
TYPICAL DRAINAGE MANHOLE
N.T.S.



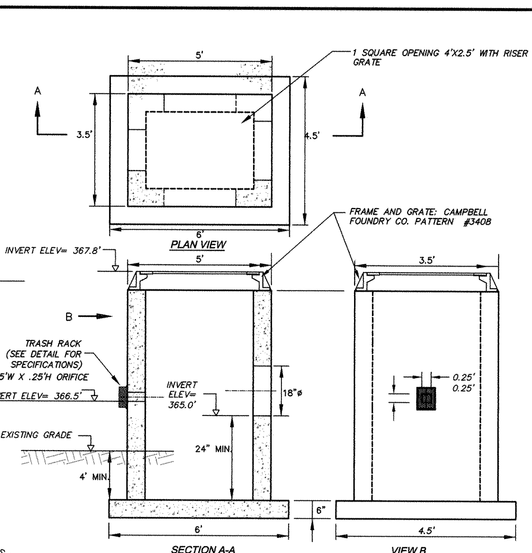
NOTE:
1. STRUCTURE SHALL BE PREFABRICATED AND CONSTRUCTED MONOLITHICALLY

DRAINAGE MANHOLE #2
N.T.S.

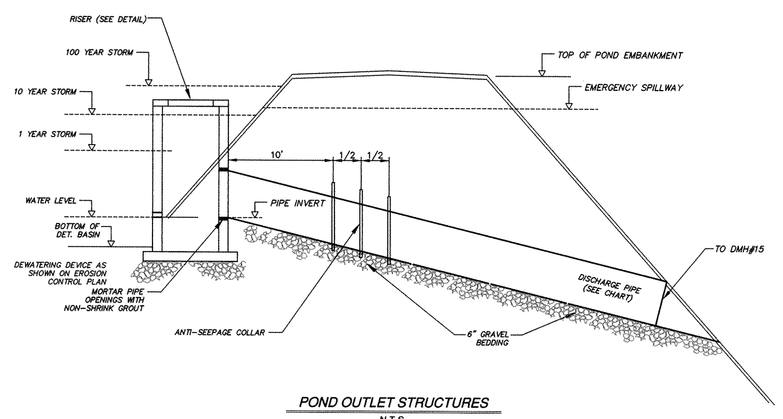
ALL CONCRETE SANITARY SPECIFICATIONS
CONCRETE MIN. STRENGTH: 4,000 PSI AT 28 DAYS REINFORCEMENT: 4X4 WIRE MESH / ASTM C478 AIR ENTRAINMENT: 5% CONSTRUCTION JOINT: BUTYL RUBBER SEALANT PIPE CONNECTIONS: RUBBER BOOTS LOAD RATING: H20 / ASTM C857
MANUFACTURE
Woodard's Concrete Products, Inc. 629 Lybolt Road, Bullville, NY 10915 (845) 361-3471 / Fax 361-1050



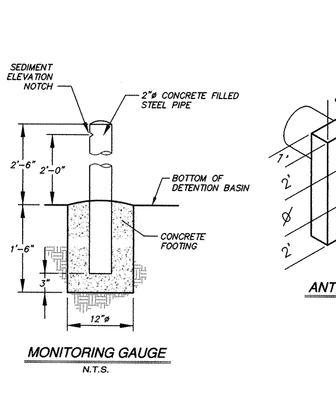
RISER #13 (STORMWATER BASIN)
N.T.S.



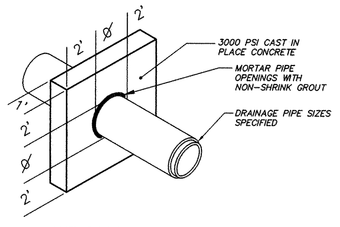
CB#14 (NATURAL BASIN OUTLET)
N.T.S.



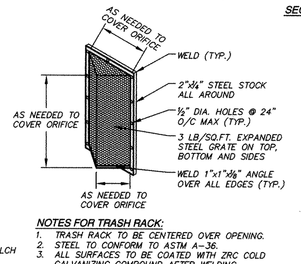
POND OUTLET STRUCTURES
N.T.S.



MONITORING GAUGE
N.T.S.

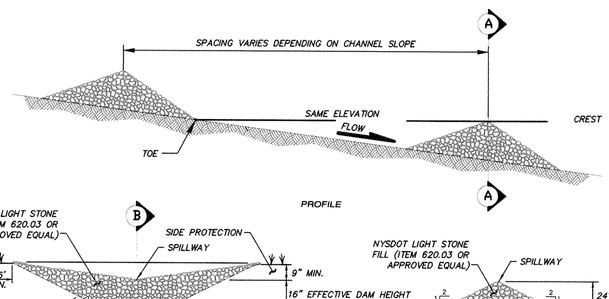


ANTI-SEEPAGE COLLAR
N.T.S.



NOTES FOR TRASH RACK:
1. TRASH RACK TO BE CENTERED OVER OPENING.
2. STEEL TO CONFORM TO ASTM A-36.
3. ALL SURFACES TO BE COATED WITH ZRC COLD GALVANIZING COMPOUND AFTER WELDING.

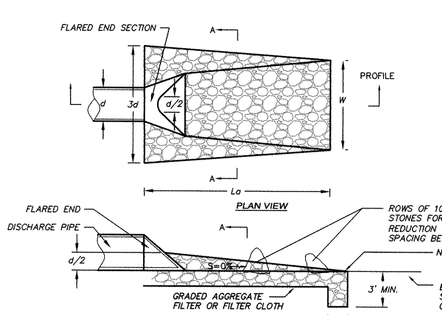
TRASH RACK DETAIL
N.T.S.



NOTE ROCK CHECK DAMS SHALL BE PLACED OUTSIDE OF THE CLEAR ZONE, OR BEHIND TRAFFIC BARRIER.

TO BE USED IN SWALE WHERE THE PROFILE SLOPE IS GREATER THEN 5%

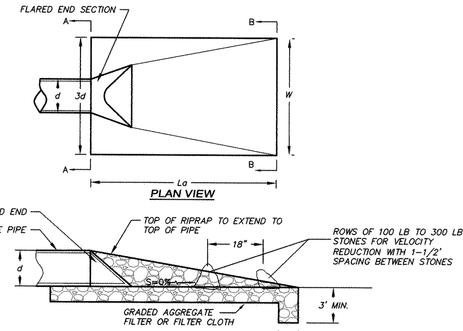
ROCK CHECK DAM
N.T.S.



NOTE:
DRAIN OUTLETS SHALL COMPLY WITH STATE GUIDELINES FOR EROSION AND SEDIMENT CONTROL

	Dia. of Pipe, d	Min. Length of Apron, La	Min. Width of Apron, W	Median Riprap Diameter, d50	Riprap Blanket Thickness
FE #2	12"	4'-0"	3'-0"	6"	14"
FE #3	18"	21'-0"	10'-0"	6"	14"

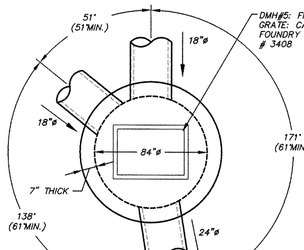
RIPRAP OUTFALL APRON
N.T.S.



NOTE:
DRAIN OUTLETS SHALL COMPLY WITH STATE GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

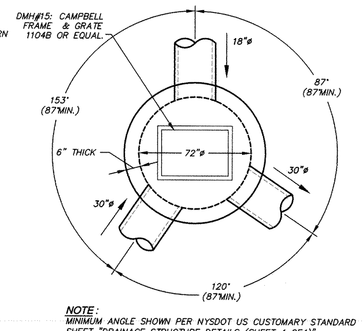
	Dia. of Pipe, d	Min. Length of Apron, La	Min. Width of Apron, W	Median Riprap Diameter, d50	Riprap Blanket Thickness
FE #1	30"	12'-0"	7'-4"	6"	14"
FE #4	30"	10'-0"	7'-0"	6"	14"

FE #1 & 4 RIPRAP OUTFALL APPROVAL
N.T.S.



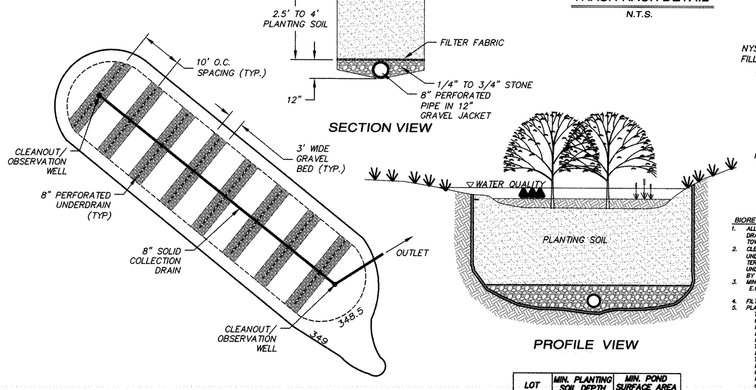
NOTE:
MINIMUM ANGLE SHOWN PER NYSDOT US CUSTOMARY STANDARD SHEET "DRAINAGE STRUCTURE DETAILS (SHEET 4 OF4)" EFFECTIVE DATE: 01/08/09

DRAINAGE MANHOLE #5
N.T.S.



NOTE:
MINIMUM ANGLE SHOWN PER NYSDOT US CUSTOMARY STANDARD SHEET "DRAINAGE STRUCTURE DETAILS (SHEET 4 OF4)" EFFECTIVE DATE: 01/08/09

DRAINAGE MANHOLE #15
N.T.S.



LOT	MIN. PLANTING SOIL DEPTH (FT)	MIN. POND SURFACE AREA (SF)
Lot 14	3.0	240

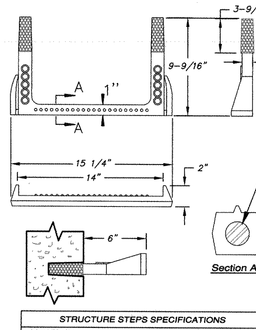
NOTES:
1. ALL UNDERDRAINS SHALL BE PITCHED TOWARD DAY LIGHT.
2. REFER TO LANDSCAPE PLAN FOR PLANTING SCHEDULE.
3. BIORETENTION BASIN TO BE INSTALLED ON LOT 14 ONLY.

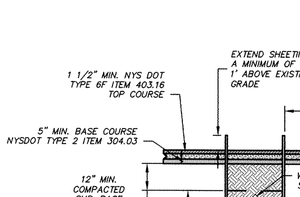
UNDERDRAIN COLLECTION SYSTEM

TYPICAL BIORETENTION BASIN
N.T.S.

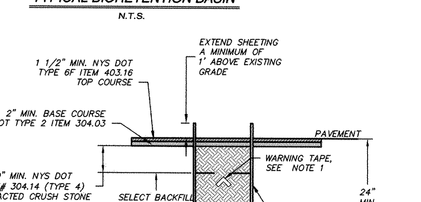
BIORETENTION NOTES:
1. ALL UNDERDRAINS PITCHED TOWARD COLLECTION DRAIN AND COLLECTION DRAIN PITCHED.
2. CLEANOUT CONSISTS OF VERTICAL 6"ø SOLID PIPE (MATCH SOLID UNDERDRAIN) TERMINATING AT GRADE WITH REMOVABLE CAP AND CONNECTED TO SOLID UNDERDRAIN.
   ST SEE QR WC ELBOW WHERE APPLICABLE
3. MIN. LENGTH OF PERFORATED UNDERDRAIN = 10X OF POND SURFACE AREA. E.G. 240 SF POND = 2400 LF UNDERDRAIN
   UNDERDRAIN = 10X OF POND SF = 104.17
4. FILTER FABRIC FOR GRAVEL JACKET: MIRAFI 100-N OR APPROVED EQUAL PLANTING SOIL:
   THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SOILS SHALL BE MIXED, SPREAD OR PLACED within THE BIORETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE SOIL SHALL BE FREE OF PLANTS OR PLANT PARTS. IF NEEDED, THE SOIL SHALL BE SCREENED OR HAND GRADED BEFORE PLACEMENT TO ASSURE THAT IS NOT A SOURCE OF RHIZOMATOUS, WEED IS GREATLY PREFERRED TO AVOID THE INTRODUCTION OF INVASIVE SPECIES. THE PLANTING SOIL COMPOST MIX IS UNACCEPTABLE AS IT IS EXPECTED TO BE THE MOST A MAJOR SOURCE OF PHOSPHORUS FOR THE FIRST SEVERAL YEARS OF OPERATION (TO UNDERDRAIN WATER OR PERHAPS GROUNDWATER) WHEN THE SOILS BECOME ANAEROBIC. COMPOST EASILY LOSES PHOSPHORUS UNDER ANAEROBIC CONDITIONS. COMPOST SHALL NOT HAVE THIS ROLE OF LEACHATE. THE ENGINEERED MEDIA SHALL HAVE A LOW PHOSPHORUS INDEX (0-25). (HUNT, 2006). MEDIA SHOULD CONTAIN NO MORE THAN
   DOUBLE SALTS NOT TO EXCEED 500 PPM. ALL BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF THE FOLLOWING: SIEVE ANALYSIS OF SOILS, ORGANIC CONTENT, PH, SOLUBLE SALTS AND ADDITIONAL TESTS OF GRAVELS WATER ARE REQUIRED AS THE TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF THE SOILS ARE IMPORTED, THE TESTING SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED. IF PERFORMED DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING SHALL BE PERFORMED BY THE SAME TESTING FACILITY.
   SHOULD THE PH FALL OUTSIDE OF THE ACCEPTABLE RANGE, THE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.
5. SOIL PREPARATION:
   IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORGANIC SOIL IN BIORETENTION AREAS AND EXCAVATED SOILS. IF EXCAVATORS MUST BE USED, PLACE MATS OR TRACKS OR NARROW TRACK EQUIPMENT. DO NOT ALLOW EXCAVATORS TO USE WIDE TRACK OR WATER TRACK EQUIPMENT. OR LIGHT EQUIPMENT WITH RUBBER TRACK WITH LARGE LUGS. DO NOT USE HEAVY EQUIPMENT WHICH CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND SURFACE VOLUMES AND IS NOT ACCEPTABLE. COMPACTION OF THE BASE OF THE BIORETENTION AREA SHALL BE REMEDIED BY THE USE OF AN AUGER BIT AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY FILLING OF THE EXCAVATION SUCH AS A CRIBBED PLAN, RIPPED, OR SCARIFIED BEFORE PLACEMENT OF THE NEXT LIFT OF BACKFILL. THE FILL PROFILE THROUGH THE 12 INCH COMPACTION ZONE WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS OF OR GREATER. DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT SHALL BE KEPT OUTSIDE OF THE BASIN AREA AT ALL TIMES. SUPPLY SMALL GRADE BIORETENTION MATERIALS BY HAND OR WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH WATER TRACKS.

BIORETENTION NOTES

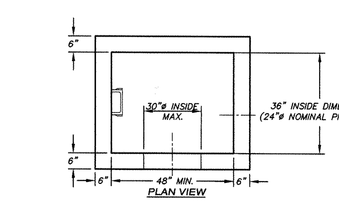




TYPICAL PIPE TRENCH DETAIL TOWN ROADS
N.T.S.

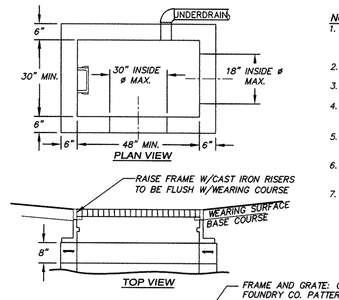


TYPICAL PIPE TRENCH DETAIL DRIVEWAY & PARKING AREAS
N.T.S.



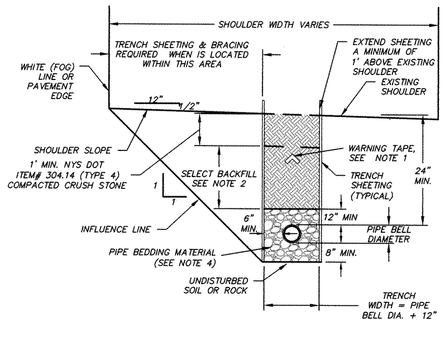
NOTE: THE OVERSIZED CATCH BASIN CONSTRUCTION AND SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE TYPICAL CATCH BASIN DETAIL WITH THE FOLLOWING NOTED DEVIATIONS: THE NARROW DIMENSION SHALL BE WIDENED TO ALLOW FOR A 24"ø (NOMINAL DIMENSION) HDPE PIPE AND A CONCRETE ROOF SLAB SHALL BE PROVIDED WITH APPROPRIATE OPENING FOR THE GRATE (CAMPBELL CO. PATTERN #3408).

OVERSIZED CATCH BASIN
(CB#3 & CB#4)

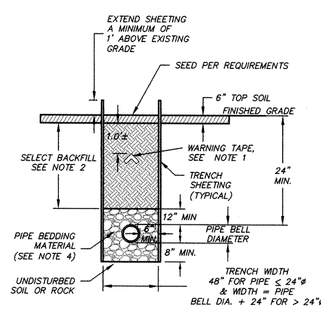


TYPICAL CATCH BASIN
N.T.S.

NOTES:
1. ALL MATERIAL IN STRICT CONFORMANCE WITH ASTM C478, LATEST REVISION, AND NYSDOT SECTION 706-04.
2. CONCRETE TO TEST 4000 PSI AT 28 DAYS
3. 2 LIFTING HOLES OR RINGS ARE TO BE PROVIDED IN EACH SECTION.
4. FOR UNITS OVER 10'-0" IN DEPTH, WALL THICKNESS WILL BE 8" BELOW THE 10'-0" DEPTH.
5. ALL GRATES MUST BE BICYCLE SAFE. ALL OPENINGS MUST HAVE CHILD SAFETY BARS.
6. CATCH BASINS ARE TO BE FIELD LOCATED TO ACCOUNT FOR THE COUNTRY CURB BEHIND THEM.
7. CATCH BASINS #9,#11, #14, #16, #17, #18, AND #19 ARE OUTSIDE PAVED AREAS AND SHALL BE SET TO ALLOW FOR 2" OF HEAD TO ACCOMMODATE DRAINAGE FOR THE DESIGN STORMS.



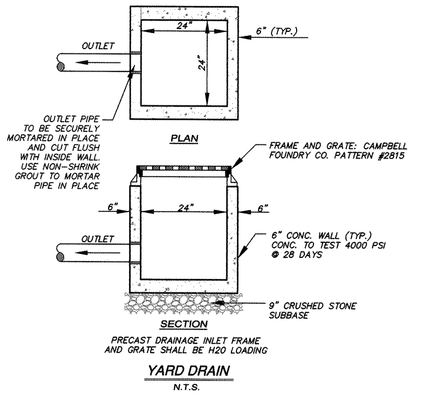
TYPICAL PIPE TRENCH DETAIL UNPAVED ROAD SHOULDER
N.T.S.



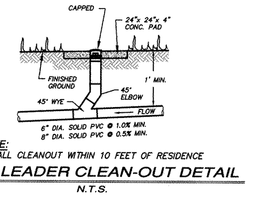
TYPICAL PIPE TRENCH DETAIL UNPAVED AREAS
N.T.S.

NOTES FOR ALL PIPE TRENCH DETAILS:
1. 6" WIDE X 4 MIL THICK, POLYETHYLENE UNDERGROUND WARNING TAPE READING IN BLACK INK "CAUTION BURIED DRAINLINE BELOW"
2. SELECT BACKFILL TO BE AS EXCAVATED MATERIAL WHICH HAS PAVEMENT, ROOTS, DEBRIS AND STONES GREATER THAN 3" REMOVED. MATERIAL TO BE PLACED IN A MAXIMUM LIFT OF 8" AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
3. CONTRACTOR SHALL SHEET AND BRACE TRENCH PER OSHA STANDARDS WHEN INSUFFICIENT SPACE IS AVAILABLE TO SIDE SLOPE TRENCH PER OSHA STANDARDS, UNLESS OTHERWISE APPROVED, SHEETING AND BRACING MUST BE REMOVED AS BACKFILL PROGRESSES.
4. FOUNDATION MATERIAL FOR TRENCH BOTTOM AND BACKFILL FOR THE FIRST 12" LIFT OVER PIPE INSTALLATIONS SHALL BE DEFINED AS PIPE BEDDING MATERIAL AND SHALL BE NATURAL RUN-OF-BANK SAND GRADED FROM FINE TO COARSE PARTICLES, OR A GRADED MIXTURE OF CRUSHED STONE OR CRUSHED GRAVEL BEDDING MATERIAL. PIPE BEDDING MATERIAL SHALL BE HARD, DURABLE AND SOUND AND SHALL BE WELL GRADED FROM COURSE TO FINE. THE GRADATION TO BE USED IS TO BE AS APPROVED BY THE ENGINEER. HOWEVER, IN GENERAL, THE MAXIMUM DIAMETER OF THE LARGE PARTICLES SHALL NOT EXCEED 3/4 INCH; ONE HUNDRED PERCENT (100%) BY WEIGHT SHALL PASS THE 3/4-INCH SIEVE; NOT MORE THAN SEVENTY PERCENT (70%) BY WEIGHT SHALL PASS THE NO. 40 MESH SIEVE; AND NOT MORE THAN TEN PERCENT (10%) BY WEIGHT SHALL PASS THE NO. 200 MESH SIEVE.

   RUN OF BANK (R.O.B.) GRAVEL SHALL BE HARD, DURABLE AND SOUND MEETING THE REQUIREMENTS OF NYSDOT 304-1 TYPE 3, AND SHALL BE WELL GRADED FROM COURSE TO FINE. THE GRADATION TO BE USED IS TO BE AS APPROVED BY THE ENGINEER. HOWEVER, IN GENERAL, ONE HUNDRED PERCENT (100%) BY WEIGHT OF THE PARTICLES SHALL BE OF SUCH SIZE AS WILL PASS THROUGH A FOUR-INCH-SQUARE HOLE; 50 - 75 PERCENT BY WEIGHT SHALL PASS THE NO. 4, 5 - 40 PERCENT BY WEIGHT SHALL PASS THE NO. 40 MESH SIEVE; AND NOT MORE THAN 10 PERCENT BY WEIGHT SHALL PASS THE NO. 200 MESH SIEVE.

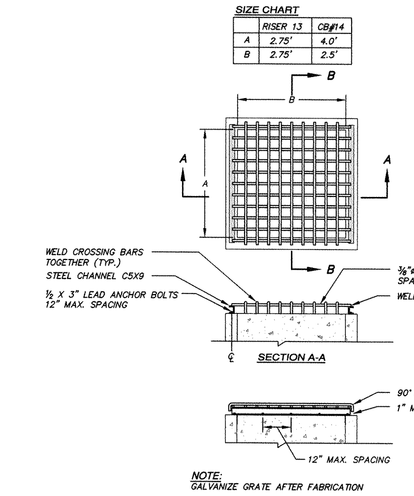


YARD DRAIN
N.T.S.



NOTE:
INSTALL CLEANOUT WITHIN 10 FEET OF RESIDENCE

ROOF LEADER CLEAN-OUT DETAIL
N.T.S.

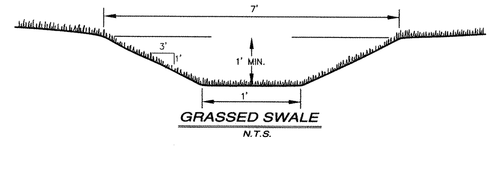


NOTE:
GALVANIZE GRATE AFTER FABRICATION

RISER GRATE DETAIL
N.T.S.

STRUCTURE STEPS SPECIFICATIONS	
CONSTRUCTION:	COPOLYMER POLYPROPYLENE PLASTIC
REINFORCEMENT:	#4 REBAR, GRADE 60
MANUFACTURE	
Woodard's Concrete Products, Inc. 629 Lybolt Road, Bullville, NY 10915 (845) 361-3471 / Fax 361-1050	

CONCRETE STRUCTURES STEP DETAIL
N.T.S.

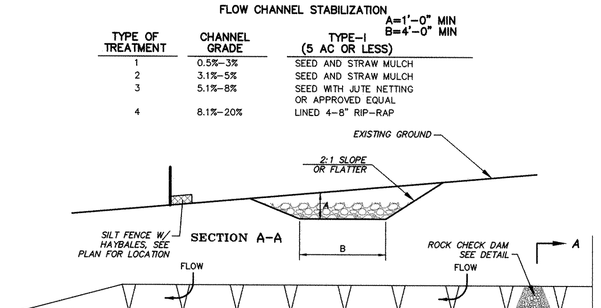


GRASSED SWALE
N.T.S.

NOTES:
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED DOWNGRADE SLOPE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE AS SHOWN.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS OBSTRUCTION, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED TO 90% MAXIMUM DENSITY (REFER TO SHEET 2 FOR ADDITIONAL INFORMATION) .
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW.
9. INSTALL ROCK CHECK DAMS AT 100' INTERVALS WHERE CHANNEL SLOPE EXCEEDS 5%.
10. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

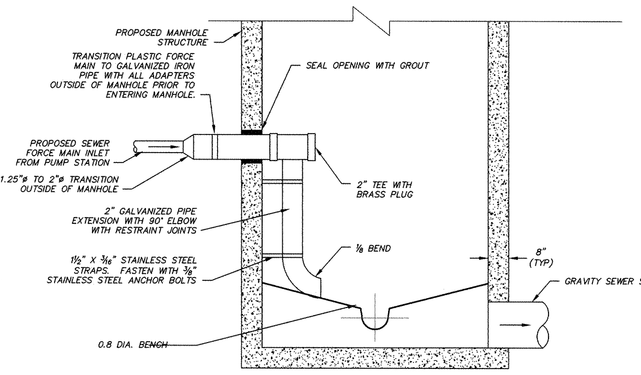
FLOW CHANNEL STABILIZATION
A=1'-0" MIN
B=4'-0" MIN

TYPE OF TREATMENT	CHANNEL GRADE	TYPE-I (5 AC OR LESS)
1	0.5%-3%	SEED AND STRAW MULCH
2	3.1%-5%	SEED AND STRAW MULCH
3	5.1%-8%	SEED WITH JUTE NETTING OR APPROVED EQUAL
4	8.1%-20%	LINED 4-8" RIP-RAP



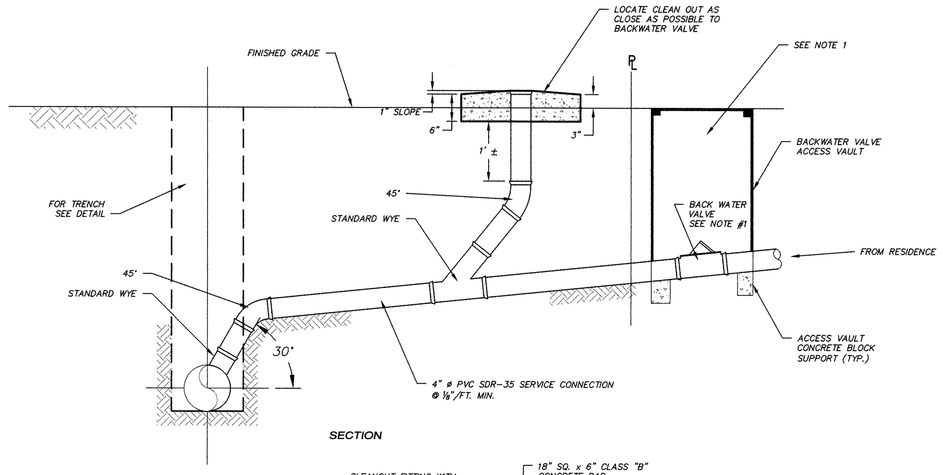
TEMPORARY DIVERSION SWALE
N.T.S.

CONSTRUCTION SPECIFICATIONS:
1. ALL BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONAL MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
2. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. ALL EARTH REMOVED AND NOT NEEDED TO CONSTRUCTION SHALL BE SPREAD OR, DISPO

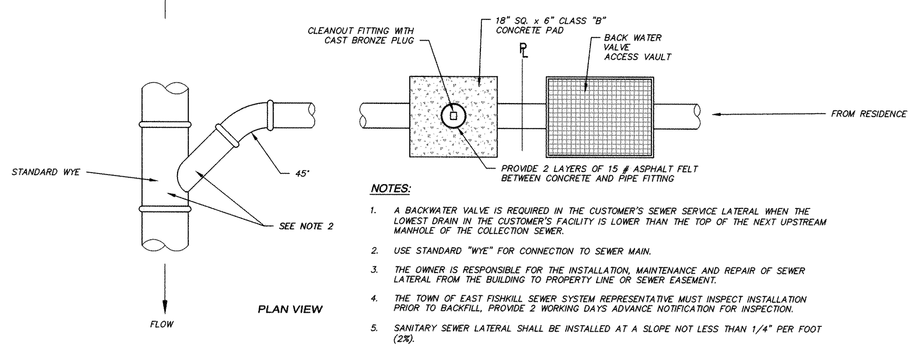


DETAIL OF FORCE MAIN CONNECTION TO GRAVITY SEWER MANHOLE
N.T.S.

ALL CONCRETE SANITARY SPECIFICATIONS
CONCRETE MIN. STRENGTH: 4,000 PSI AT 28 DAYS
REINFORCEMENT: 4X4 WIRE MESH / ASTM C478
AIR ENTRAINMENT: 5%
CONSTRUCTION JOINT: BUTYL RUBBER SEALANT PIPE
CONNECTIONS: RUBBER BOOTS
LOAD RATING: H20 / ASTM C857
MANUFACTURE
Woodard's Concrete Products, Inc. 629 Lybolt Road, Bullville, NY 10915 (845) 361-3471 / Fax 361-1050



SECTION

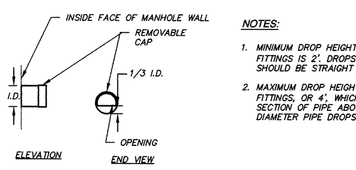


PLAN VIEW

NOTES:

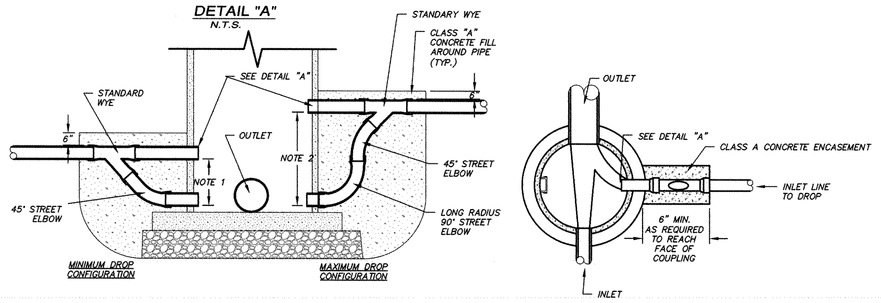
1. A BACKWATER VALVE IS REQUIRED IN THE CUSTOMER'S SEWER SERVICE LATERAL WHEN THE LOWEST DRAIN IN THE CUSTOMER'S FACILITY IS LOWER THAN THE TOP OF THE NEXT UPSTREAM MANHOLE OF THE COLLECTION SEWER.
2. USE STANDARD "WYE" FOR CONNECTION TO SEWER MAIN.
3. THE OWNER IS RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND REPAIR OF SEWER LATERAL FROM THE BUILDING TO PROPERTY LINE OR SEWER EASEMENT.
4. THE TOWN OF EAST FISHKILL SEWER SYSTEM REPRESENTATIVE MUST INSPECT INSTALLATION PRIOR TO BACKFILL. PROVIDE 2 WORKING DAYS ADVANCE NOTIFICATION FOR INSPECTION.
5. SANITARY SEWER LATERAL SHALL BE INSTALLED AT A SLOPE NOT LESS THAN 1/4" PER FOOT (2%).
6. PLUG END OF PIPE AND MARK TO GRADE WITH TREATED 2" x 4" POST.
7. PROVIDE CLEANOUT WITHIN ROAD RIGHT-OF-WAY OR WRITTEN EASEMENT (SEE DETAIL)

SANITARY SEWER HOUSE SERVICE CONNECTION - GRAVITY
N.T.S.



NOTES:

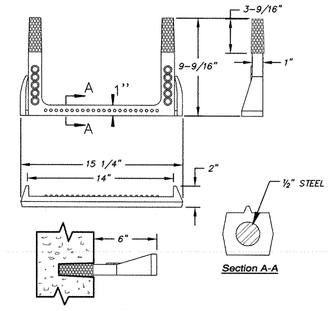
1. MINIMUM DROP HEIGHT LIMITED TO THIS CONFIGURATION OF FITTINGS IS 2'. DROPS REQUIRING LESS OF A DIMENSION SHOULD BE STRAIGHT PIPED INTO MANHOLE.
2. MAXIMUM DROP HEIGHT LIMITED TO THIS CONFIGURATION OF FITTINGS, OR 4', WHICH EVER IS GREATEST. INSERT VERTICAL SECTION OF PIPE ABOVE LONG RADIUS ELBOW FOR SMALLER DIAMETER PIPE DROPS.

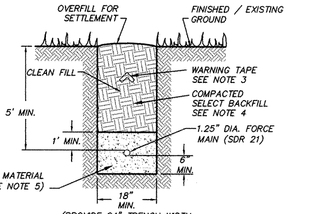


TYPICAL DROP MANHOLE
N.T.S.

STRUCTURE STEPS SPECIFICATIONS	
CONSTRUCTION:	COPOLYMER POLYPROPYLENE PLASTIC
REINFORCEMENT:	#4 REBAR, GRADE 60
MANUFACTURE	
Woodard's Concrete Products, Inc. 629 Lybolt Road, Bullville, NY 10915 (845) 361-3471 / Fax 361-1050	

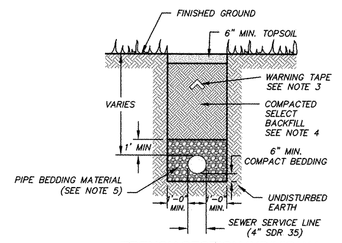
CONCRETE STRUCTURES STEP DETAIL
N.T.S.



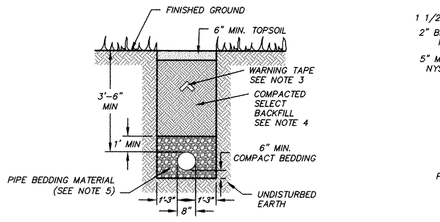


FORCE MAIN SHALL BE WRAPPED IN INSULATION WHERE PIPE IS LESS THAN 60" BELOW GRADE TO PREVENT FREEZING. INSULATION MUST BE APPROVED BY DUTCHESS COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION

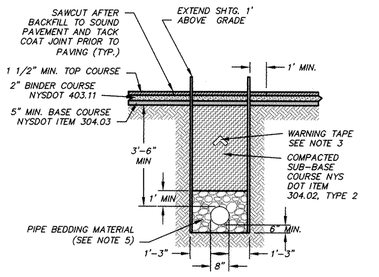
FORCE MAIN TRENCH (LOT 14)
N.T.S.



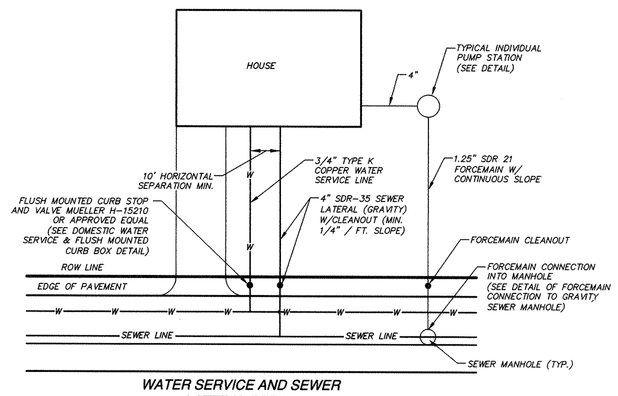
TRENCH SECTION INDIVIDUAL HOUSE SEWER CONNECTION
N.T.S.



SEWER MAIN PIPE TRENCH DETAIL (TYPICAL)
N.T.S.



SEWER MAIN PIPE TRENCH DETAIL WITHIN TOWN ROAD
N.T.S.



WATER SERVICE AND SEWER LATERAL DETAIL
N.T.S.

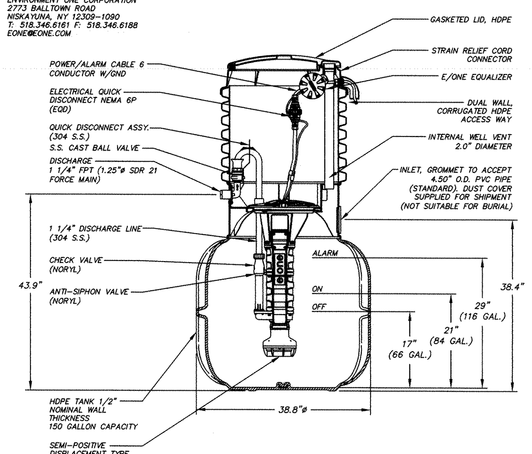
NOTES FOR ALL PIPE TRENCH DETAILS:

1. PLACE AND COMPACT HAUNCH LAYER MATERIAL FROM TOP OF BEDDING TO 1/2 PIPE O.D. UNIFORMLY AND USE CARE IN PLACING AND COMPACTING TO PREVENT PIPE MISALIGNMENT.
2. CONTRACTOR SHALL EXCAVATE THE TRENCH IN A SAFE MANNER THAT COMPLIES WITH OSHA REQUIREMENTS INCLUDING SHEETING AND BRACING AND TRENCH BOXES WHEN EXCAVATION SIDE SLOPING IS NOT POSSIBLE DUE TO SPACE OR JOB REQUIREMENTS. HOWEVER, PAYMENT FOR EXCAVATION IS LIMITED TO RECTANGULAR SECTION INDICATED. ALL EXCAVATIONS SUPPORTING SYSTEMS MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF NEW YORK. UNLESS OTHERWISE APPROVED, SHEETING & BRACING MUST BE REMOVED AS BACKFILL PROGRESSES.
3. 6" WIDE x 4 MIL. THICK, POLYETHYLENE GREEN UNDERGROUND DETECTABLE WARNING TAPE LABELED IN BLACK INK "CAUTION BURIED SEWER LINE BELOW".
4. SELECT BACKFILL TO BE EXCAVATED MATERIAL WHICH HAS ALL PAVEMENT, ROOTS, DEBRIS AND STONES GREATER THAN 3" REMOVED. MATERIAL MAY NOT BE FROZEN. MATERIAL TO BE PLACED IN A MAXIMUM LIFTS OF 8" AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
5. FOUNDATION MATERIAL FOR TRENCH BOTTOM AND BACKFILL FOR THE FIRST 12" LIFT OVER PIPE INSTALLATIONS SHALL BE DEFINED AS PIPE BEDDING MATERIAL AND SHALL BE NATURAL RUN-OF-BANK SAND GRADED FROM FINE TO COARSE PARTICLES; OR A GRADED MIXTURE OF CRUSHED STONE OR CRUSHED GRAVEL BEDDING MATERIAL. PIPE BEDDING MATERIAL SHALL BE HARD, DURABLE AND SOUND AND SHALL BE WELL GRADED FROM COURSE TO FINE. THE GRADATION TO BE USED IS TO BE AS APPROVED BY THE ENGINEER. HOWEVER, IN GENERAL, THE MAXIMUM DIAMETER OF THE LARGE PARTICLES SHALL NOT EXCEED 3/4 INCH; ONE HUNDRED PERCENT (100%) BY WEIGHT SHALL PASS THE 3/4-INCH SIEVE; NOT MORE THAN SEVENTY PERCENT (70%) BY WEIGHT SHALL PASS THE NO. 40 MESH SIEVE; AND NOT MORE THAN TEN PERCENT (10%) BY WEIGHT SHALL PASS THE NO. 200 MESH SIEVE.

   RUN OF BANK (R.O.B.) GRAVEL SHALL BE HARD, DURABLE AND SOUND MEETING THE REQUIREMENTS OF NYSDOT 304-1 TYPE 3, AND SHALL BE WELL GRADED FROM COURSE TO FINE. THE GRADATION TO BE USED IS TO BE AS APPROVED BY THE ENGINEER. HOWEVER, IN GENERAL, ONE HUNDRED PERCENT (100%) BY WEIGHT OF THE PARTICLES SHALL BE OF SUCH SIZE AS WILL PASS THROUGH A FOUR-INCH-SQUARE HOLE; 50 -- 75 PERCENT BY WEIGHT SHALL PASS THE NO. 4, 5 -- 40 PERCENT BY WEIGHT SHALL PASS THE NO. 40 MESH SIEVE; AND NOT MORE THAN 10 PERCENT BY WEIGHT SHALL PASS THE NO. 200 MESH SIEVE.

PUMP CHAMBER NOTES:

1. CONTRACTOR SHALL DETERMINE LENGTHS OF REQUIRED ELECTRICAL CABLE AND AVAILABLE VOLTAGES PRIOR TO ORDERING EQUIPMENT (ALL PUMP POWER AND CONTROL WIRING SHALL BE MADE WITHOUT ANY OUTSIDE SPLICES).
2. ALL WIRING SHALL CONFORM TO NATIONAL ELECTRICAL CODE & LOCAL CODE REQUIREMENTS.
3. THE PUMP CONTROL PANEL, DISCONNECTS AND ALARMS SHALL BE LOCATED INSIDE THE BUILDING.
4. AN ELECTRICAL UNDERWRITER'S CERTIFICATE FOR THE PUMP CHAMBER MUST BE PROVIDED TO THE DEPARTMENT CONDUCTING A FINAL INSPECTION ON THE PUMP CHAMBER.
5. RECOMMENDED MANUFACTURER:
   ENVIRONMENT ONE CORPORATION
   2773 HIGHWAY 5 WEST
   HOSKINS, NY 12309-1090
   T. 518.346.6161 F: 518.346.6188
   EONE@ONE.COM



LOT 14 PUMP CHAMBER
N.T.S.

PUMP CALCULATIONS (LOT 14):

INVERT IN SMH #9 (APPROXIMATE) 394.0
BOTTOM PUMP CHAMBER 383.0
STATIC HEAD ..... 11.0'(SH)

EQUIVALENT PIPE LENGTH (FOR 1.25" DIA. PIPE)

Amt.	Fittings	Each (Ft.)	Total (Ft.)
2	90 ELBOW	3.5	7.0
2	45 ELBOW	1.7	3.4
1	CHECK VALVE	9.0	9.0

TOTAL EQUIVALENT PIPE LENGTH..... 19.4 (EPL)

TOTAL PIPE LENGTH ..... 240 (PL)
TOTAL EQUIVALENT PIPE LENGTH ..... 19.4 (EPL)
TOTAL EQUIVALENT LENGTH ..... 259.4 (EL)
ASSUMED PUMP RATE ..... 13.0 GPM
PIPE FRICTION LOSS PER 100' ..... 2.962 (FH)

TOTAL DYNAMIC HEAD= $\frac{(EL)(FH)}{100}$ +(SH)

$\frac{(259.4)(2.962)}{100}$ +(11)= 18.68 (TDH)

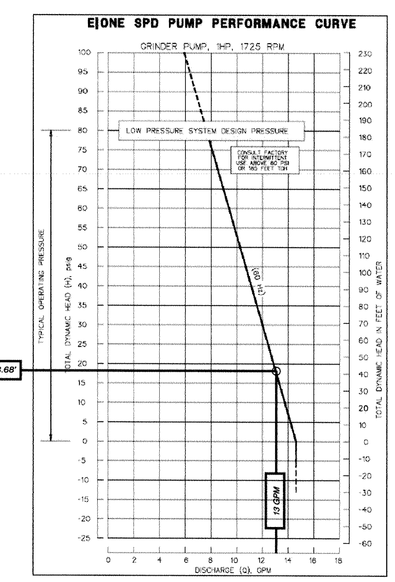
PUMP & CHAMBER SPECIFICATIONS:

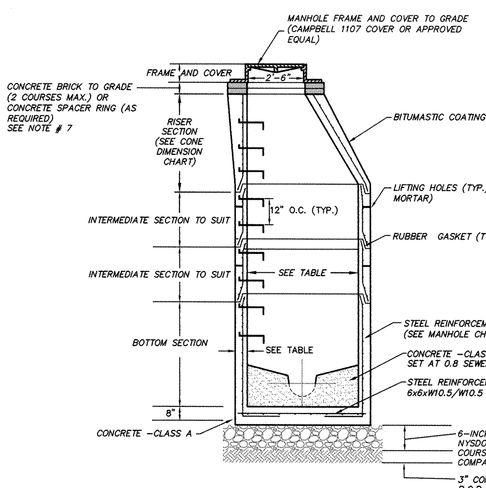
E/ONE MODEL DH151 SIMPLEX GRINDER PUMP STATION

PUMP MOTOR
1 HP, 1725 RPM, HIGH TORQUE, CAPACITOR START, THERMALLY PROTECTED, 240 OR 120 VOLT, 60 HERTZ, 1 PHASE

MIN. PUMP RUN TIME:
PUMP ON/OFF VOLUME = 18 GAL
RUN TIME=18 GAL/13.00 GPM = 1.4 MIN > 1 MIN ∴ OK

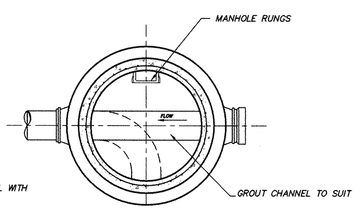
FORCE MAIN VELOCITY:
CROSS-SECTIONAL AREA FOR 1.25 INCH DIA. PIPE = 0.00852 SF
13.0 GPM = .029 CFS
0.029 CFS / 0.00852 SF = 3.40 FPS > 2 FPS ∴ OK



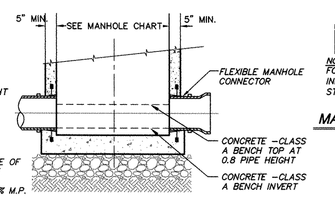


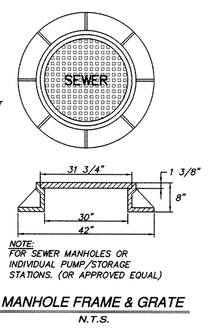
CONE DIMENSIONS	
DIAM. OPENING	HEIGHT
30"	24" OR 42"
30"	36"

SECTION AT CHANNEL
N.T.S.



PLAN AT CHANNEL
N.T.S.

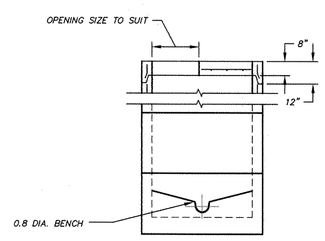




NOTE:
FOR SEWER MANHOLES OR INDIVIDUAL PUMP/STORAGE STATIONS. (OR APPROVED EQUAL)

MANHOLE FRAME & GRATE
N.T.S.

MANHOLE CHART			
INSIDE DIAMETER	WALL THICKNESS	MAX. DEPTH	CIRCUMFERENTIAL STEEL SQ IN PER VERT FOOT
48"	5"	10'	0.12
60"	6"	20'	0.15
72"	7"	20'±	0.18

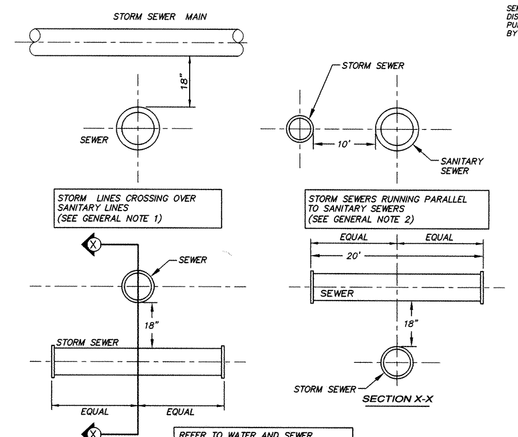


TYPICAL 48" DIAMETER MANHOLE WITH TOP SLAB
N.T.S.

NOTES:

1. ADAPTER RING WHERE REQUIRED.
2. CONCRETE BASE SHALL BE "BOTTOM SECTION CAST INTEGRAL W/ BASE"
3. CAST "SEWER" INTO TOP OF MANHOLE LID.
4. ALL MATERIALS IN STRICT CONFORMANCE WITH ASTM C478, LATEST REVISION, AND NYSDOT SECTION 706-04
5. CONCRETE TO TEST 4000PSI AT 28 DAYS.
6. THE FIRST STEP SHALL BE 24" MAXIMUM TO THE TOP OF GRATE. THE LAST STEP SHALL BE 12" MAXIMUM TO THE MANHOLE INSIDE BOTTOM.
7. PRECAST COLLAR RINGS SHALL BE USED FOR ADJUSTING RIM ELEVATIONS GREATER THAN 8" OR TWO BRICK COURSE MAX.
8. MANHOLES DEEPER THAN 20' WILL REQUIRE SPECIAL FALL PROTECTION PER OSHA REQUIREMENTS.
9. REINFORCEMENT FOR MANHOLE AND SLAB TOP SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR H-20 VEHICULAR LOADING AND 25%IMPACT.
10. FRAME AND COVER SHALL BE DESIGNED FOR H-20 VEHICLE LOADING AND 25% IMPACT.
11. MAXIMUM CHANGE OF DIRECTION FOR ONE MANHOLE IS 90°

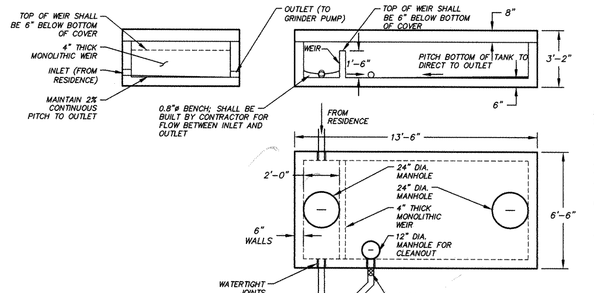
STANDARD SANITARY MANHOLE SECTION (H-20 LOADING)
N.T.S.



GENERAL NOTES:

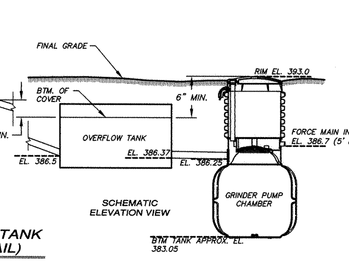
1. STORM SEWERS CROSSING OVER SANITARY SEWERS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 18 INCHES FROM TOP OF SEWER TO BOTTOM OF STORM SEWER LINE. IF 18 INCHES SEPARATION BETWEEN SANITARY SEWER TO STORM SEWER IS UNOBTAINABLE, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE, AND SHALL BE PRESSURE TESTED AT 150 PSI (1034 KPA) TO ASSURE WATER TIGHTNESS
2. STORM SEWERS RUNNING PARALLEL TO SANITARY SEWERS SHALL MAINTAIN A HORIZONTAL SEPARATION OF 10 FEET. IN AREAS LOCATED NEARER THAN THIS MINIMUM SEPARATION THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED FROM UP GRADIENT MANHOLE TO DOWN GRADIENT MANHOLE EQUAL TO WATER PIPE, AND SHALL BE PRESSURE TESTED AT 150 PSI (1034 KPA) TO ASSURE WATER TIGHTNESS
3. STORM SEWERS CROSSING UNDER SANITARY SEWERS SHALL HAVE;
   A. A MINIMUM VERTICAL SEPARATION OF 18" FROM TOP OF STORM LINE TO BOTTOM OF SEWER. IF 18 INCHES SEPARATION BETWEEN SANITARY SEWER TO STORM SEWER IS UNOBTAINABLE, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED FROM UP GRADIENT MANHOLE TO DOWN GRADIENT MANHOLE EQUAL TO WATER PIPE, AND SHALL BE PRESSURE TESTED AT 150 PSI (1034 KPA) TO ASSURE WATER TIGHTNESS
   B. ADDITIONAL STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED TO PREVENT DEFLECTION

STORM SEWER AND SANITARY SEWER SEPARATION DISTANCES
N.T.S.



NOTES:

1. BOTTOM OF OVERFLOW TANK COVER SHALL BE 6" MIN. BELOW HOUSE RAW INVERT TO PREVENT BACKFLOW INTO HOUSE.
2. BOTTOM OF OVERFLOW TANK COVER SHALL BE 6" MIN. BELOW RIM OF PUMP CHAMBER.
3. H20 LOADING IS REQUIRED FOR N/F HUGHES PROPERTY.
4. CONCRETE MIN. STRENGTH: 4,000 PSI AT 28 DAYS.
5. STEEL REINFORCEMENT: ASTM A-615 GR. 60, A-185, OR A-497, 1" MIN. COVER.
6. MINIMUM AMOUNT OF FILL COVER SHALL BE 6"-12". MAXIMUM AMOUNT OF FILL COVER SHALL BE 24". FILL COVER EXCEEDING 24" REQUIRES MANHOLE RISERS TO GRADE.
7. RECOMMENDED MANUFACTURER:
   WOODARD'S CONCRETE PRODUCTS, INC.
   629 LYBOLT ROAD, BULLVILLE, NY 10915
   (845) 361-3471 / FAX (845) 361-1050



1,000 GALLON OVERFLOW TANK (LOT 14 LAYOUT & DETAIL)
N.T.S.

11.19.13
OUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLENT REQUEST REV. DATE: 11-08-10
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REV. PER TOWN COMMENT LETTER DATED 2/17/10 REV. DATE: 03-02-10

STATE OF NEW YORK — JOSEPH ZARECKI — LICENSED PROFESSIONAL ENGINEER

JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

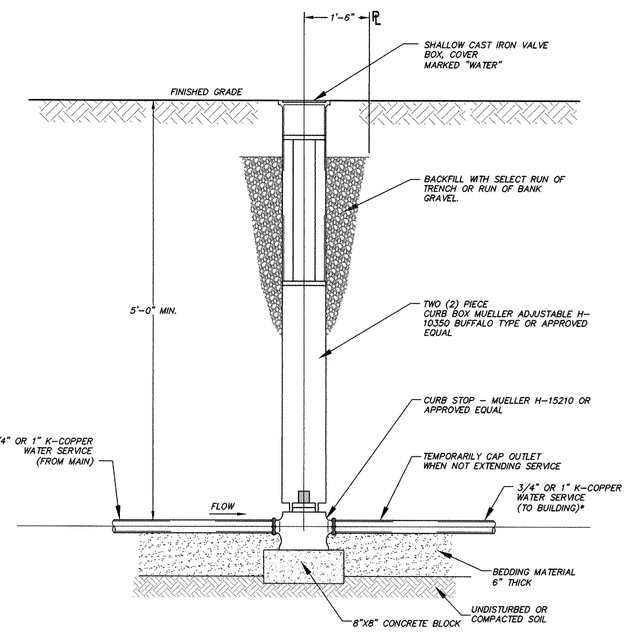
ZARECKI & ASSOCIATES, L.L.C. — CONSULTING ENGINEERS

DETAILS
PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: N.T.S.	CHECKED BY: JZ	DRAWN BY: SW/JC
DATE: 2-1-2010	PROJECT NO. 2005.025	DESIGN BY: JW
		SHEET NO. 19 OF 22
		FILED MAP # 13 OF 16

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Poveling, NY 12564 — 845.855.3271 — 845.855.3772 (Fax)
Ridgefield, CT 06877 — 203.438.7094

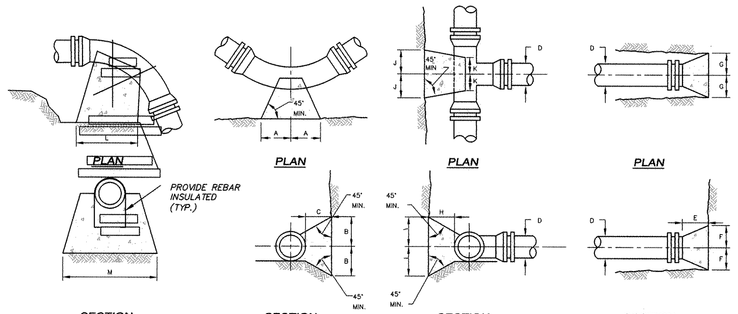
Sue Cobb - PLANNING BOARD CHAIRMAN - 12/30/2013



* ¾" DIAMETER NOTES ANTICIPATED DESIGN, ACTUAL DIAMETER OF THE WATER SERVICE LINE MAY VARY AS REQUIRED TO PROVIDE A MINIMUM OF 20 PSI AT SECOND FLOOR ELEVATION AT A FLOW RATE OF 5 GPM

DOMESTIC WATER SERVICE AND FLUSH MOUNTED CURB BOX

N.T.S.



BEND	D	4"	6"	8"
11 1/4°	L	24"	24"	24"
	W	24"	24"	24"
	VOL	4CF	4CF	4CF
	ROD	#3	#3	#5
	EMBED	6"	6"	6"
22 1/2°	L	24"	24"	24"
	W	24"	24"	24"
	VOL	4CF	4CF	4CF
	ROD	#3	#3	#5
	EMBED	6"	6"	6"
45°	L	24"	24"	36"
	W	24"	24"	36"
	VOL	4CF	8CF	15CF
	ROD	#3	#3	#5
	EMBED	6"	6"	6"
90°	L	24"	36"	48"
	W	24"	36"	48"
	VOL	4CF	16CF	42CF
	ROD	#3	#3	#5
	EMBED	6"	6"	6"

VERTICAL DOWNWARD BENDS (GRAVITY BLOCKS)

BEND	D	4"	6"	8"
11 1/4°	A	12"	12"	12"
	B	11"	11"	11"
	C	5"	5"	5"
22 1/2°	A	13"	13"	13"
	B	11"	11"	11"
	C	6"	6"	7"
45°	A	15"	15"	18"
	B	12"	13"	13"
	C	7"	7"	8"
90°	A	24"	16"	20"
	B	15"	13"	15"
	C	9"	8"	11"

HORIZONTAL & VERTICAL UPWARD BENDS

D	4"	6"	8"
H	9"	9"	11"
J	11"	13"	15"
K	6"	6"	8"

TEE

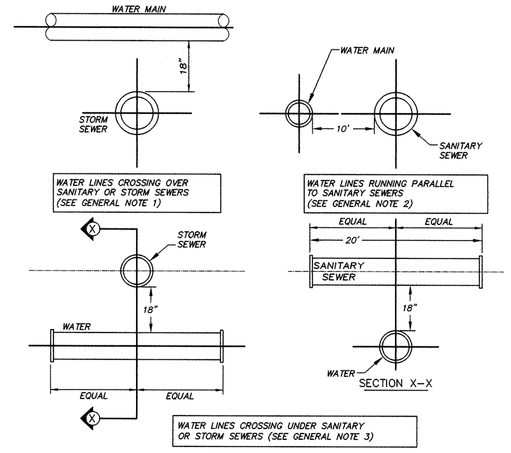
D	4"	6"	8"
E	18"	18"	20"
F	12"	12"	14"
G	24"	24"	28"

END

NOTES:
1. ALL CONCRETE SHALL BE 3000 PSI (MIN). BEARING CAPACITY OF SOIL ASSUMED AS 2000 PSI.
2. ALL THRUST BLOCKS SHALL BE CARRIED TO UNDISTURBED EARTH.
3. MINIMUM BEARING AREA SHALL BE 4 Sq. FT.
4. ALL DIMENSIONS SHOWN ARE MINIMUM.
5. ALL BOLTS SHALL BE COVERED WITH BURLAP BEFORE POURING CONCRETE.
6. WHERE POSSIBLE, CONCRETE FOR THRUST BLOCKS SHALL NOT COVER BOLTS OR BELTS.
7. THRUST SHALL BE PLACED AT ALL BENDS.

THRUST BLOCK DETAILS

N.T.S.



GENERAL NOTES:

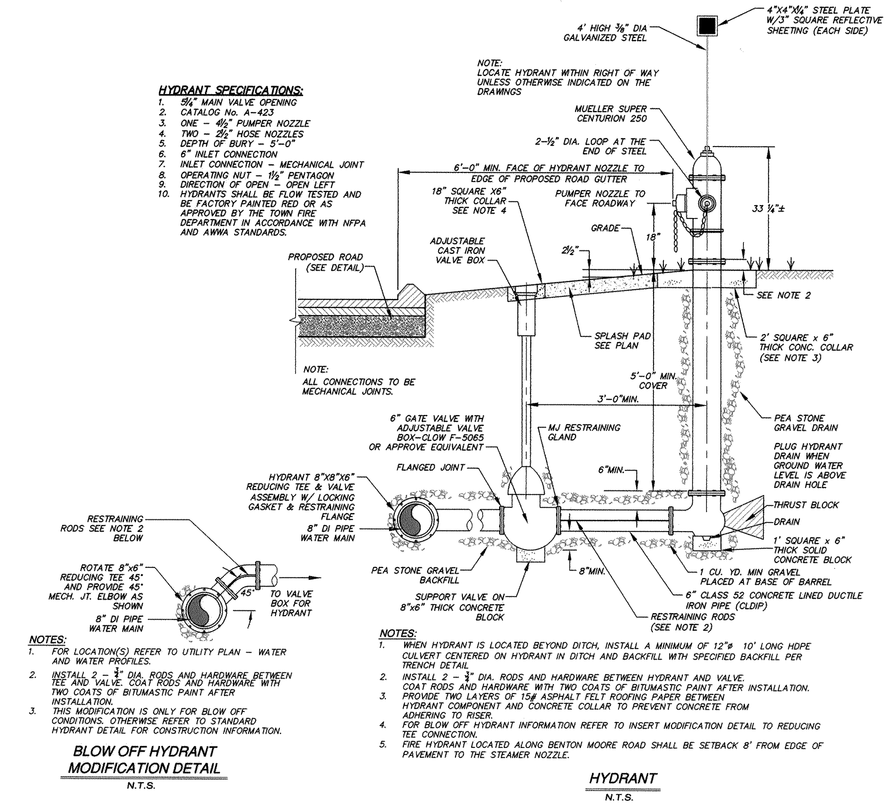
1. WATER LINES CROSSING OVER SANITARY OR STORM SEWERS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 18 INCHES FROM TOP OF SEWER OR DRAIN LINE TO BOTTOM OF WATER LINE.
2. WATER LINES RUNNING PARALLEL TO SANITARY OR STORM SEWERS SHALL MAINTAIN A HORIZONTAL SEPARATION OF 10 FEET. SANITARY OR STORM SEWERS LOCATED NEARER THAN THIS MINIMUM SEPARATION SHALL BE SLEEVED WITHIN 12" PVC – SDR-21 PIPE.
3. WATER LINES CROSSING UNDER SANITARY OR STORM SEWERS SHALL HAVE:
   A. A MINIMUM VERTICAL SEPARATION OF 18" FROM TOP OF WATER LINE TO BOTTOM OF SEWER (UNLESS SHOWN OTHERWISE) SEWER WILL BE SLEEVED WITH A 20 LINEAR FOOT 12" PVC–SDR–21 PIPE. SLEEVE TO BE CENTER ON WATER MAIN
   B. ADDITIONAL STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED TO PREVENT DEFLECTION.
   C. THE 20 FOOT LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SUCH THAT THE JOINTS WILL BE EQUALLY SPACED FROM CENTERLINE FROM OF SEWER PIPE.

WATER AND SEWER SEPARATION DISTANCES

N.T.S.

HYDRANT SPECIFICATIONS:

1. 5¼" MAIN VALVE OPENING
2. CATALOG No. A-423
3. ONE – 4½" PUMPER NOZZLE
4. TWO – 2½" HOSE NOZZLES
5. DEPTH OF BURY – 5'-0"
6. 6" INLET CONNECTION
7. INLET CONNECTION – MECHANICAL JOINT
8. OPERATING NUT – 1½" PENTAGON
9. DIRECTION OF OPEN – OPEN LEFT
10. HYDRANTS SHALL BE FLOW TESTED AND BE FACTORY PAINTED RED OR AS APPROVED BY THE TOWN FIRE DEPARTMENT IN ACCORDANCE WITH NFPA AND AWWA STANDARDS.



NOTES:
1. FOR LOCATION(S) REFER TO UTILITY PLAN – WATER AND WATER PROFILES.
2. INSTALL 2 – ¾" DIA. RODS AND HARDWARE BETWEEN 1½" A.V. VALVE SOLA ROD AND HARDWARE WITH TWO COATS OF BITUMASTIC PAINT AFTER INSTALLATION.
3. THIS MODIFICATION IS ONLY FOR BLOW OFF CONDITIONS. OTHERWISE REFER TO STANDARD HYDRANT DETAIL FOR CONSTRUCTION INFORMATION.

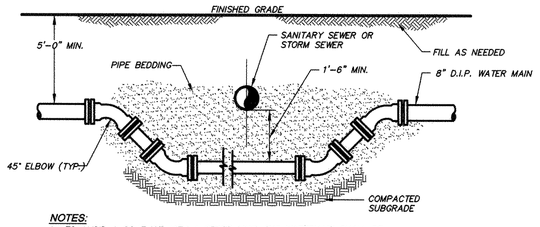
BLOW OFF HYDRANT MODIFICATION DETAIL

N.T.S.

NOTES:
1. WHEN HYDRANT IS LOCATED BEYOND DITCH, INSTALL A MINIMUM OF 12"ø 10' LONG HDPE CULVERT CENTERED ON HYDRANT IN DITCH AND BACKFILL WITH SPECIFIED BACKFILL PER TRENCH DETAIL.
2. INSTALL 2 – ¾" DIA. RODS AND HARDWARE BETWEEN HYDRANT AND VALVE. COAT RODS AND HARDWARE WITH TWO COATS OF BITUMASTIC PAINT AFTER INSTALLATION.
3. PROVIDE TWO LAYERS OF 15# ASPHALT FELT ROOFING PAPER BETWEEN HYDRANT COMPONENT AND CONCRETE COLLAR TO PREVENT CONCRETE FROM ADHERING TO RISER.
4. FOR BLOW OFF HYDRANT INFORMATION REFER TO INSERT MODIFICATION DETAIL TO REDUCING TEE CONNECTION.
5. FIRE HYDRANT LOCATED ALONG BENTON MOORE ROAD SHALL BE SETBACK 8' FROM EDGE OF PAVEMENT TO THE STEAMER NOZZLE.

HYDRANT

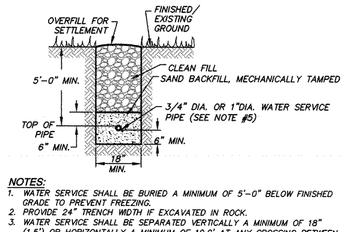
N.T.S.



NOTES:
1. TO AVOID A CONFLICT WITH A SEWER LINE, THE WATERMAIN SHALL BE CONSTRUCTED 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/UNDER THE SEWER SO BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE. WATER LINE MUST BE SLEEVED IF IT RUNS UNDER THE SEWER REGARDLESS OF SEPARATION.
2. WHEN IT IS NOT POSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE, SANITARY OR STORM SEWERS LOCATED NEARER THAN THIS MINIMUM SEPARATION SHALL BE SLEEVED WITHIN 12" PVC – SDR–21 PIPE. THE SLEEVE SHALL BE CONSTRUCTED OF PRESSURE–RATED PIPE MATERIAL AND PIPE JOINTS COMPLYING WITH AWWA STANDARDS.
3. ALL PIPING AND APPURTENANCES SHALL BE PROPERLY SECURED AND RESTRAINED WITH "MEGALUG" (EBAA IRON) MECHANICAL JOINT RESTRAINTS.

WATERLINE OFFSET DETAIL

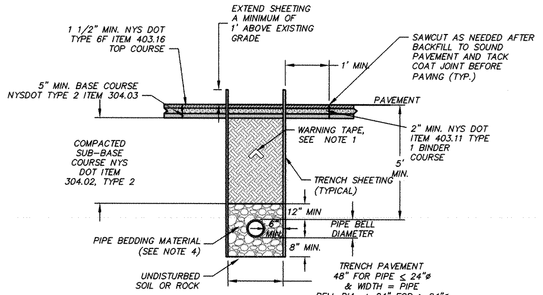
N.T.S.



NOTES:
1. WATER SERVICE SHALL BE BURIED A MINIMUM OF 5'-0" BELOW FINISHED GRADE TO PREVENT FREEZING.
2. PROVIDE 24" TRENCH WIDTH IF EXCAVATED IN ROCK.
3. WATER SERVICE SHALL BE SEPARATED VERTICALLY A MINIMUM OF 18" (1.5') OR HORIZONTALLY A MINIMUM OF 10.0' AT ANY CROSSING BETWEEN SANITARY & STORM SEWER PIPE.
4. RESIDENCES THAT HAVE A SERVICE LINE EQUAL TO OR GREATER THAN 100' SHALL UTILIZE A MINIMUM 1" DIAMETER SERVICE LINE.
5. RESIDENCES THAT HAVE A SERVICE LINE LESS THAN 100' SHALL UTILIZE A MINIMUM ¾" DIAMETER SERVICE LINE.

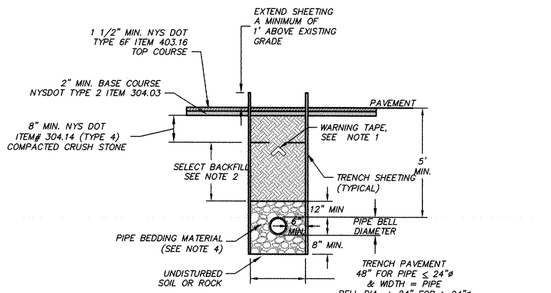
INDIVIDUAL RESIDENCE WATER SERVICE LINE

N.T.S.



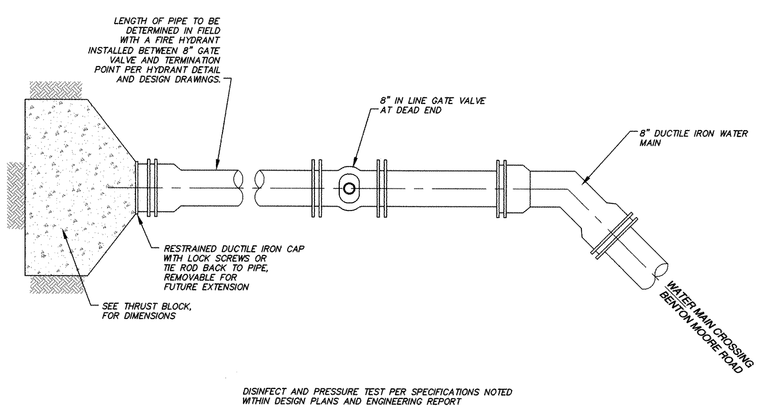
TYPICAL PIPE TRENCH DETAIL - TOWN ROADS

N.T.S.



TYPICAL PIPE TRENCH DETAIL - DRIVEWAY & PARKING AREAS

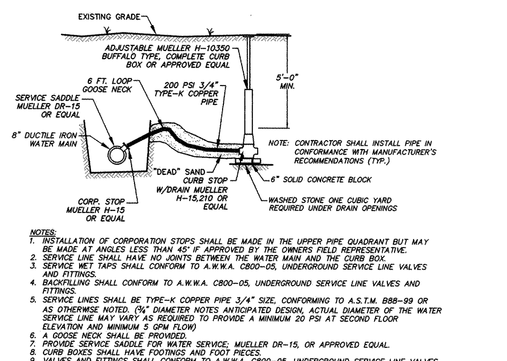
N.T.S.



DISINFECT AND PRESSURE TEST PER SPECIFICATIONS NOTED WITHIN DESIGN PLANS AND ENGINEERING REPORT

PIPE TERMINATION ALONG BENTON MOORE ROAD

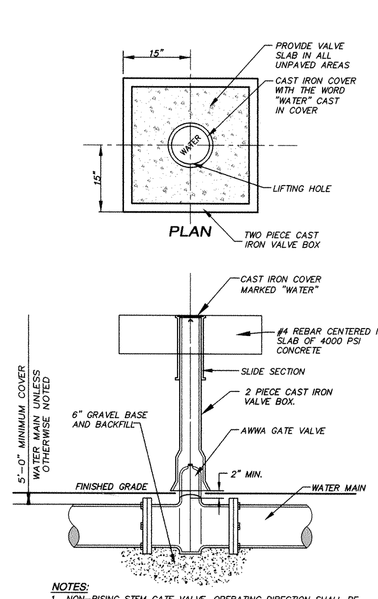
N.T.S.



NOTES:
1. INSTALLATION OF CORPORATION STOPS SHALL BE MADE IN THE UPPER PIPE QUADRANT BUT MAY BE MADE AT ANGLES LESS THAN 45° IF APPROVED BY THE OWNERS FIELD REPRESENTATIVE.
2. SERVICE LINE SHALL HAVE NO JOINTS BETWEEN THE WATER MAIN AND THE CURB BOX.
3. SERVICE LINE TAPS SHALL CONFORM TO A.W.W.A. C800–05, UNDERGROUND SERVICE LINE VALVES AND FITTINGS.
4. BACKFILLING SHALL CONFORM TO A.W.W.A. C800–05, UNDERGROUND SERVICE LINE VALVES AND FITTINGS.
5. SERVICE LINES SHALL BE TYPE–K COPPER PIPE 3/4" SIZE, CONFORMING TO A.S.T.M. B88–99 OR AS OTHERWISE NOTED. (¾" DIAMETER NOTES ANTICIPATED DESIGN, ACTUAL DIAMETER OF THE WATER SERVICE LINE MAY VARY AS REQUIRED TO PROVIDE A MINIMUM 20 PSI AT SECOND FLOOR ELEVATION AND MINIMUM 5 GPM FLOW)
6. A GOOSE NECK SHALL BE PROVIDED.
7. PROVIDE SERVICE SADDLE FOR WATER SERVICE; MUELLER DR–15, OR APPROVED EQUAL.
8. CURB BOXES SHALL HAVE FOOTINGS AND FOOT PIECES.
9. VALVES AND FITTINGS SHALL CONFORM TO A.W.W.A. C800–05, UNDERGROUND SERVICE LINE VALVES AND FITTINGS.
10. SERVICE LINES TO BE DISINFECTED IN ACCORDANCE WITH A.W.W.A. 651.
11. SERVICE LINES SHALL BE VISIBLY TESTED FOR LEAKS PRIOR TO BACK FILLING ENTIRE PIPE. ALL FITTINGS SHALL BE CHECKED AND THEN TESTED WITH WATER MAIN FOR TWO HOURS AT 150 PSI.
12. A WATER METER CONFORMING TO A.W.W.A. STANDARDS SHALL BE INSTALLED. NEPTUNE T–10 METER FOR 3/4" SERVICE LINES.
13. REFER TO WATER SUPPLY NOTES FOR WET TAPPING SPECIFICATIONS.

WATER SERVICE CONNECTION (TYP.)

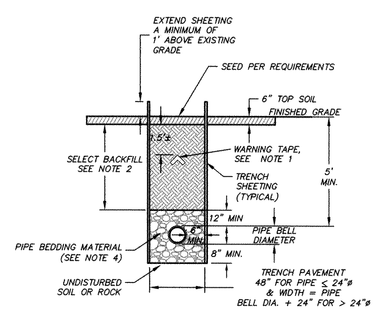
N.T.S.



NOTES:
1. NON–RISING STEM GATE VALVE, OPERATING DIRECTION SHALL BE COUNTERCLOCKWISE TO OPEN.
2. MINIMUM DISTANCE TO JOINTS, FITTINGS OR OTHER WET TAPS OR STOPS SHALL BE 3 FEET.

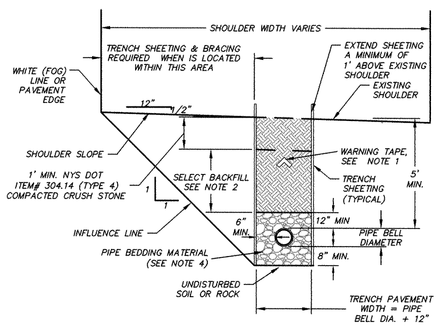
GATE VALVE DETAIL (TYPICAL)

N.T.S.



TYPICAL PIPE TRENCH DETAIL - UNPAVED AREAS

N.T.S.



TYPICAL PIPE TRENCH DETAIL - UNPAVED ROAD SHOULDER

N.T.S.

NOTES FOR ALL PIPE TRENCH DETAILS:

1. 6" WIDE X 4 MIL THICK, POLYETHYLENE UNDERGROUND WARNING TAPE READING IN BLACK INK "CAUTION BURIED DRAINLINE BELOW"
2. SELECT BACKFILL TO BE AS EXCAVATED MATERIAL WHICH HAS PAVEMENT, ROOTS, DEBRIS AND STONES GREATER THAN 3" REMOVED. MATERIAL TO BE PLACED IN A MAXIMUM LIFT OF 8" AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
3. CONTRACTOR SHALL SHEET AND BRACE TRENCH PER OSHA STANDARDS WHEN INSUFFICIENT SPACE IS AVAILABLE TO SIDE SLOPE TRENCH PER OSHA STANDARDS, UNLESS OTHERWISE APPROVED, SHEETING AND BRACING MUST BE REMOVED AS BACKFILL PROGRESSES.
4. FOUNDATION MATERIAL FOR TRENCH BOTTOM AND BACKFILL FOR THE FIRST 12" LIFT OVER PIPE INSTALLATIONS SHALL BE DEFINED AS PIPE BEDDING MATERIAL AND SHALL BE NATURAL RUN–OF–BANK SAND GRADED FROM FINE TO COARSE PARTICLES, OR A GRADED MIXTURE OF CRUSHED STONE OR CRUSHED GRAVEL BEDDING MATERIAL. PIPE BEDDING MATERIAL SHALL BE HARD, DURABLE AND SOUND AND SHALL BE WELL GRADED FROM COURSE TO FINE. THE GRADATION TO BE USED IS TO BE AS APPROVED BY THE ENGINEER. HOWEVER, IN GENERAL, THE MAXIMUM DIAMETER OF THE LARGE PARTICLES SHALL NOT EXCEED 3/4 INCH; ONE HUNDRED PERCENT (100%) BY WEIGHT SHALL PASS THE 3/4–INCH SIEVE; NOT MORE THAN SEVENTY PERCENT (70%) BY WEIGHT SHALL PASS THE NO. 40 MESH SIEVE; AND NOT MORE THAN TEN PERCENT (10%) BY WEIGHT SHALL PASS THE NO. 200 MESH SIEVE.

   RUN OF BANK (R.O.B.) GRAVEL SHALL BE HARD, DURABLE AND SOUND MEETING THE REQUIREMENTS OF NYSDOT 304–1 TYPE 3, AND SHALL BE WELL GRADED FROM COURSE TO FINE. THE GRADATION TO BE USED IS TO BE AS APPROVED BY THE ENGINEER. HOWEVER, IN GENERAL, ONE HUNDRED PERCENT (100%) BY WEIGHT OF THE PARTICLES SHALL BE OF SUCH SIZE AS WILL PASS THROUGH A FOUR–INCH–SQUARE HOLE; 50 – 75 PERCENT BY WEIGHT SHALL PASS THE NO. 4, 5 – 40 PERCENT BY WEIGHT SHALL PASS THE NO. 40 MESH SIEVE; AND NOT MORE THAN 10 PERCENT BY WEIGHT SHALL PASS THE NO. 200 MESH SIEVE.

S... C... H... S... - PLANNING BOARD CHAIRMAN - 12/30/2013

11.19.13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved.
See first sheet for date and signature.

REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02–27–12
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STATE OF NEW YORK — JOSEPH ZARECKI — 061468 — JOSEPH ZARECKI, PE. N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

ZARECKI & ASSOCIATES, LLC — ENGINEERING SURVEYING

DETAILS

PREPARED FOR

BEEKMAN HOME & LAND DEVELOPMENT, LLC

TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: N.T.S.	CHECKED BY: JZ	DRAWN BY: SW/JC
DATE: 2–1–2010	PROJECT NO. 2005.025	DESIGN BY: JW

SHEET NO. 20 OF 22

FILED MAP # 14 OF 16

ZARECKI & ASSOCIATES, L.L.C.
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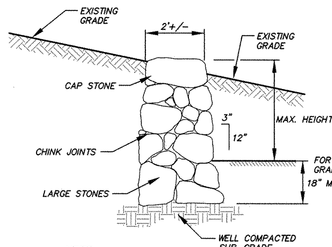
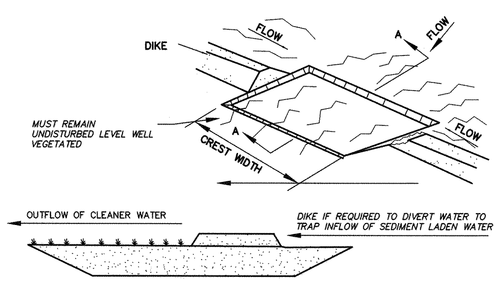


NOTE:
ANY PROPOSED WALL OVER 4 FEET HIGH WILL REQUIRE A SPECIFIC DESIGN PREPARED BY A NEW YORK LICENSED PROFESSIONAL ENGINEER. THE CERTIFIED DESIGN SHALL BE PRESENTED WITH A PLOT PLAN WHEN APPLICATION FOR A BUILDING PERMIT IS MADE

STONE RETAINING WALL
N.T.S.



SECTION A-A CREST WIDTH (FT)=4xDRAINAGE AREA (ACRES)

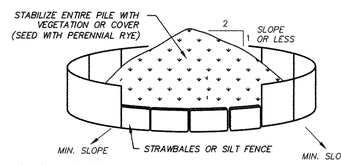
CONSTRUCTION SPECIFICATION FOR ST-II

1. VOLUME OF SEDIMENT STORAGE SHALL BE 3600 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE AREA.
2. MINIMUM CREST WIDTH SHALL BE 4 x DRAINAGE AREA
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
6. THE SEDIMENT TRAP SHALL BE REMOVED AND AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
7. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.

GRASS OUTLET SEDIMENT TRAP
N.T.S.

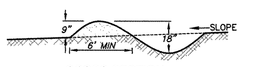
TRAP #	AREA (ACRE)	REQ'D VOL (CF)	SIZE (SF)	DEPTH (FT)	STORAGE (CF)
ST#1	4.25	15,300	3700	5.0	15,500
ST#2	1.75	6300	1575	4.0	15,500

*MAX. DRAINAGE AREA TO INDIVIDUAL TRAPS NOT DISTURBED AREA.
(ADDITIONAL VOLUME WILL BE PROVIDED BY BASINS BUT NOT CALCULATED)

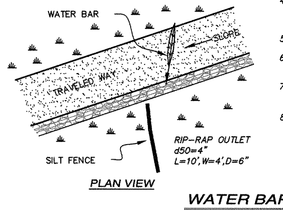


INSTALLATION NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. PROVIDE DIVERSION SWALE UP GRADIENT OF LOCATION.

SOIL STOCKPILING
N.T.S.



CROSS-SECTION

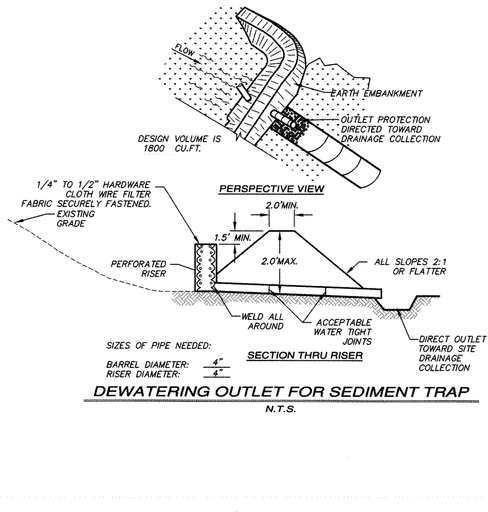


PLAN VIEW

CONSTRUCTION SPECIFICATIONS:

1. INSTALL WATER BAR AS SOON AS THE RIGHT OF WAY IS CLEARED
2. DISK OR STRIP THE SOD FROM THE BASE FOR THE CONSTRUCTED RIDGE BEFORE PLACING FILL.
3. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION
4. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL AREAS ARE NOT ADEQUATE.
5. VEHICLE CROSSING SHALL BE STABILIZED WITH GRAVEL. EXPOSED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED.
6. PERIODICALLY INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.
7. INSTALLATION SHALL BE ACCORDING TO THE FOLLOWING SCHEDULE:
   (5%-10%) SLOPE = 100' O.C.
   (10%-20%) SLOPE = 75' O.C.
8. RIP-RAP OUTLET IS TO BE INSTALLED IF SWALE ALONGSIDE DRIVEWAY HAS NOT ALREADY BEEN INSTALLED AND STABILIZED.

WATER BAR
N.T.S.



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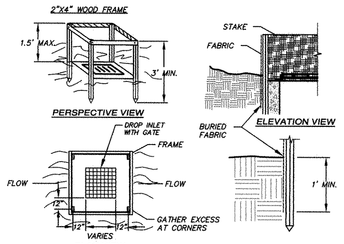
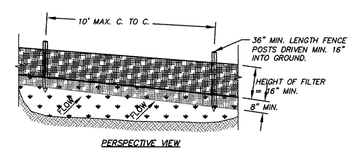
DEWATERING OUTLET FOR SEDIMENT TRAP
N.T.S.



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. USE FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NECESSARY, FABRIC MUST BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
   MAXIMUM DRAINAGE AREA 1 ACRE

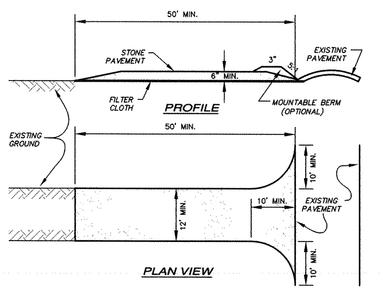
SILT FENCE/CATCH BASIN INLET PROTECTION DETAIL
N.T.S.



CONSTRUCTION SPECIFICATIONS:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER 'T' OR 'U' TYPE OR HARDWOOD.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAX. MESH OPENING.
3. WHERE TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

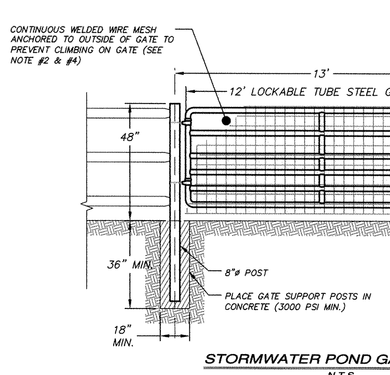
SILT FENCE DETAIL
N.T.S.



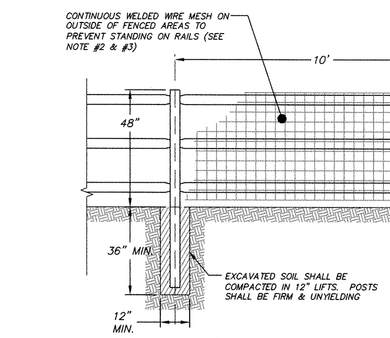
CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" STONE.
2. LENGTH – NO LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WITH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY – FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH (MIRAFI 140 N)– WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TO CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS- OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



STORMWATER POND GATE DETAIL
N.T.S.



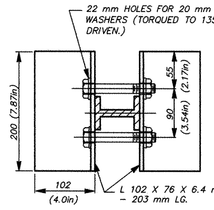
NOTES:
1. POST AND RAIL SHALL BE NORTHERN WHITE CEDAR ROUND.
2. WELDED WIRE MESH SHALL BE 1.5"X4" 14 GAGE HEAVY DUTY BLACK (POOL CODED).
3. MESH TO WOOD POSTS SHALL BE STAPLED TO POSTS AT EACH OF THE THREE INTERSECTING RAILS AND AT THE VERY TOP AND BOTTOM WIRES, AND EVERY 30-INCHES ALONG EACH OF THE THREE (3) RAILS.
4. MESH TO STEEL TUBE GATE SHALL BE ANCHORED TO GATE BY AN APPROVED METHOD.

STORMWATER POND PERIMETER FENCE
N.T.S.

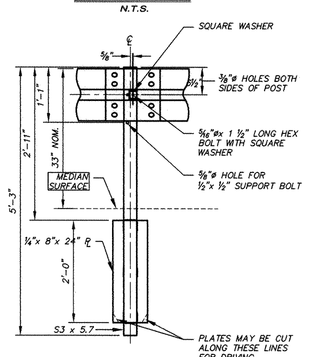
TYPICAL END TREATMENT FOR DRIVEWAYS, WALKWAYS, & OTHER OPENINGS IN CORRUGATED BEAM GUIDE RAILING
N.T.S.

GUIDE RAIL NOTES:

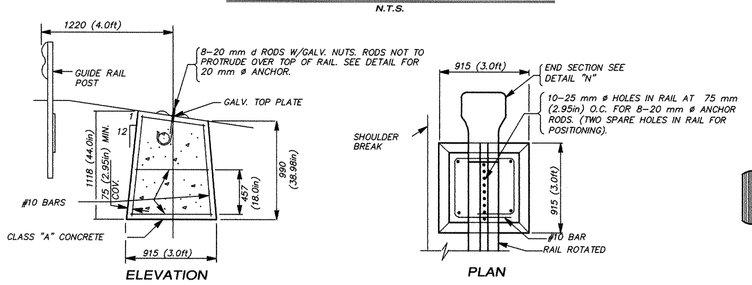
1. GUIDE RAIL SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NYSDOT SPECIFICATIONS
2. FACE OF GUIDE RAIL SHALL BE SET 18" OFF CENTERLINE OF BENTON MOORE ROAD AND STONE RIDGE ROAD
3. TWO GUIDE RAIL ENDS ARE REQUIRED. UTILIZE A TURN DOWN END (PER DETAIL "C") FOR THE NORTHERN END ADJACENT TO STONE RIDGE ROAD AND UTILIZE DETAIL "N" FOR THE END AT SOUTHERN END ADJACENT TO BENTON MOORE ROAD.
4. GUIDE RAIL ALONG THE HORIZONTAL CURVE OF 50' (AT INTERSECTION OF BENTON MOORE ROAD AND STONE RIDGE ROAD) SHALL HAVE POST SPACINGS OF 3'-1.5" PER NYSDOT GUIDELINES.
5. THE RAIL MOUNTING HEIGHT OF ALL GUIDE RAIL OR MEDIAN BARRIER PLACED BEHIND CURB (REGARDLESS OF CURB HEIGHT OR SPEED) SHALL BE MEASURED FROM THE PAVEMENT SURFACE WHEN THE OFFSET IS 230 mm (9 in) OR LESS AND TO THE GROUND SURFACE UNDER THE FACE OF THE RAIL WHEN THE OFFSET IS GREATER THAN 3048 mm (10 ft).



SECTION A-A'
N.T.S.

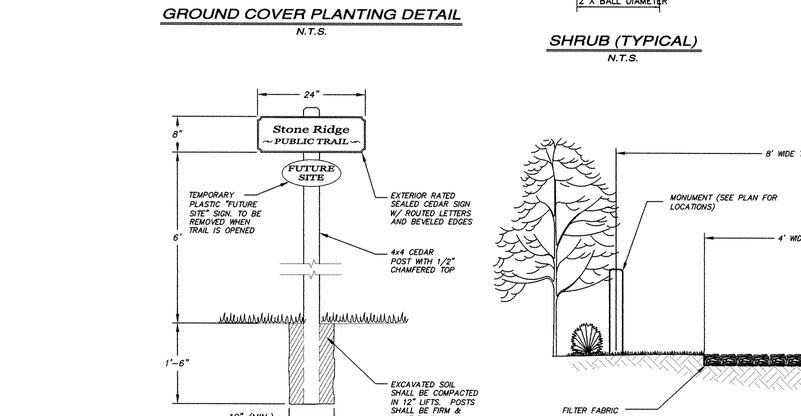


TYPICAL POST DETAIL
N.T.S.



ELEVATION PLAN

DETAIL "A" CONCRETE ANCHOR
N.T.S.

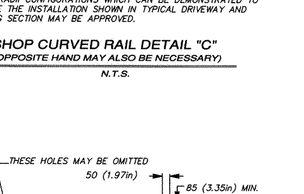


NOTES:
1. UNPAVED AREAS WITHIN THE RIGHT OF WAY SHALL BE LANDSCAPED AND SEEDED REFER TO LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
2. EXTEND SHOULDER TWO (2) FEET BEYOND BACK EDGE OF NYSDOT GUIDE RAIL.

TOWN OF BEEKMAN ROADWAY SECTION
N.T.S.

NOTE:
DRIVEWAYS 4% GRADE OR GREATER TOWARDS ROAD MUST BE PAVED

TYPICAL DRIVEWAY CROSS SECTION
N.T.S.

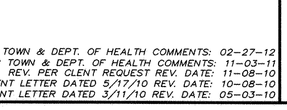


NOTES:
1. THE MAXIMUM ACCESS SLOPE SHALL BE 15%
2. FOR ACCESS SLOPES GREATER THAN 5% DO NOT APPLY TOPSOIL, SEED, AND MULCH

BASIN MAINTENANCE CROSS SECTION
N.T.S.

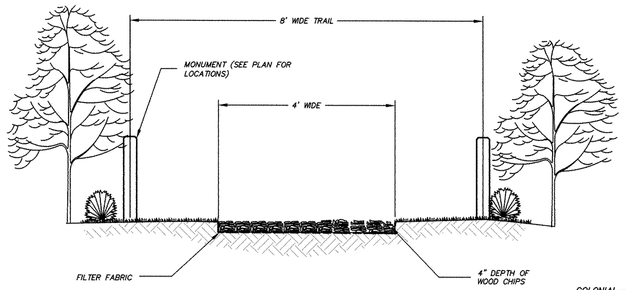
NOTE: GROUND COVERS SHOULD BE POT OR CONTAINER GROWN

GROUND COVER PLANTING DETAIL
N.T.S.



SHRUB (TYPICAL)
N.T.S.

PUBLIC TRAIL SIGN (TYP.)
N.T.S.

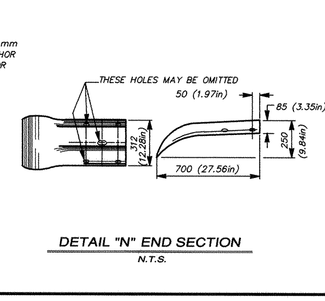


GENERAL NOTES:
1. CONTRACTOR SHALL MEANDER PATH AROUND TREES TO LIMIT CLEARING.
2. PATH LOCATION MAY BE MODIFIED OR CHANGED PER THE DIRECTION OF THE TOWN ENGINEER TO REDUCE ENVIRONMENTAL IMPACTS OR LIMIT THE REMOVAL OF TREES.
3. MONUMENTS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF ANY RESIDENTIAL DWELLINGS
4. SEE TRAIL MONUMENT DETAIL FOR TYPE AND INSTALLATION SPECIFICATIONS

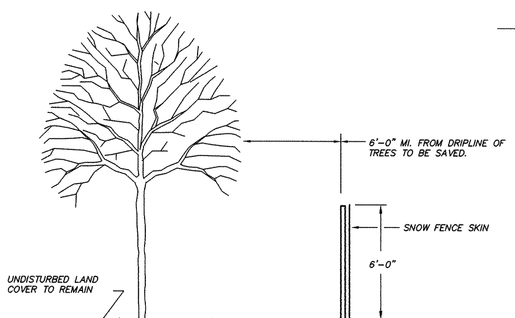
WALKING TRAIL THROUGH OPEN SPACE DETAIL
N.T.S.

OTHER RADII CONFIGURATIONS WHICH CAN BE DEMONSTRATED TO PROVIDE THE INSTALLATION SHOWN IN TYPICAL DRIVEWAY AND OPENING SECTION MAY BE APPROVED.

SHOP CURVED RAIL DETAIL "C"
(OPPOSITE HAND MAY ALSO BE NECESSARY)
N.T.S.

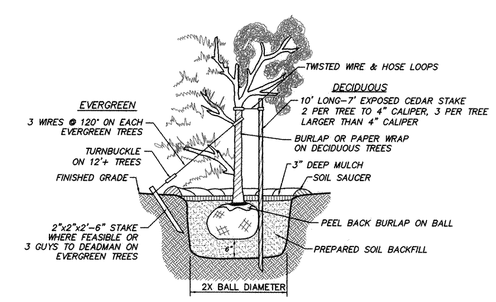


DETAIL "N" END SECTION
N.T.S.

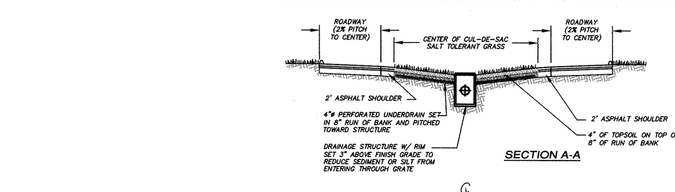


ELEVATION

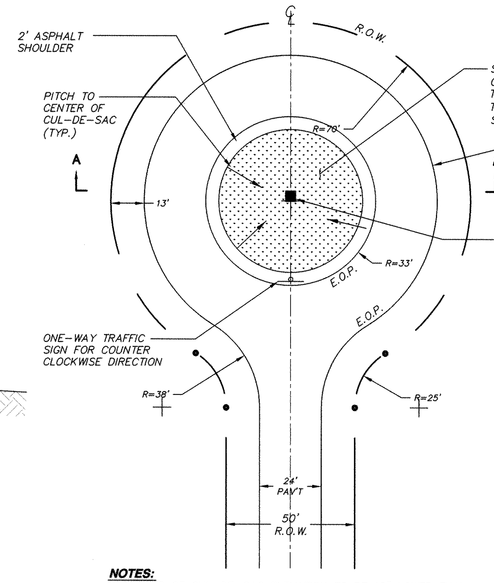
TREE PROTECTION DETAIL
N.T.S.



TYPICAL TREE PLANTING
N.T.S.

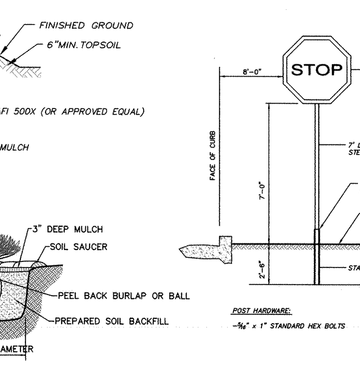


SECTION A-A



NOTES:
1. CENTER OF CUL-DE-SAC ELEVATION TO BE 12" LOWER THAN EDGE OF PAVEMENT.
2. DRAIN INLET RIM ELEVATION TO BE SET 9" ABOVE CENTER OF CUL-DE-SAC TO ALLOW FOR SEDIMENTATION.
3. THE TOWN MAY USE CUL-DE-SAC FOR SNOW STORAGE. VEGETATION IN CUL-DE-SAC SHALL BE SALT TOLERANT

TOWN OF BEEKMAN CUL-DE-SAC DETAIL
N.T.S.

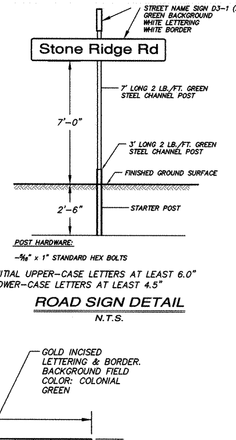


NOTE: REFER TO ROADWAY DETAIL FOR ADDITIONAL INFORMATION

6" HEIGHT BITUMINOUS LIP CURBING
N.T.S.

NOTES:
1. ALL ASSEMBLY HARDWARE TO BE CAST ALUMINUM OR ALUMINUM ALLOY.
2. ALL SIGNS SHALL BE MANUFACTURED TO N.Y.S. D.O.T. SPECIFICATIONS AS STATED UNDER TITLE 17 OF THE NYCRR
3. ALL SIGNS TO BE REFLECTORIZED

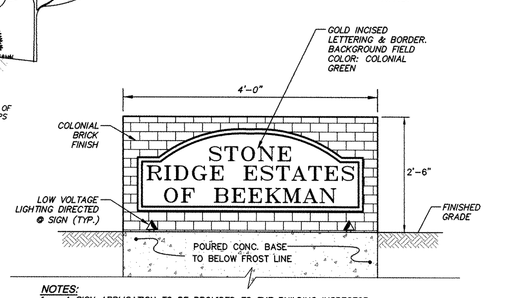
SIGN DETAILS
N.T.S.



POST HARDWARE:
-5/8" x 1" STANDARD HEX BOLTS

INITIAL UPPER-CASE LETTERS AT LEAST 6.0"
LOWER-CASE LETTERS AT LEAST 4.5"

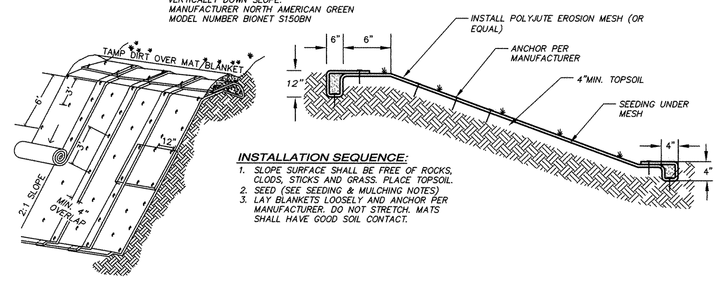
ROAD SIGN DETAIL
N.T.S.



NOTES:
1. A SIGN APPLICATION TO BE PROVIDED TO THE BUILDING INSPECTOR BY SIGN CONTRACTOR PRIOR TO INSTALLATION.
2. PROJECT IDENTIFICATION SIGN SHALL BE LOCATED OUTSIDE OF BENTON MOORE AND STONE RIDGE ROADS RIGHT OF WAY AND POSITIONED SO THAT IT DOES NOT OBSTRUCT SIGHT LINES AT THE INTERSECTION.

PROJECT IDENTIFICATION SIGN
N.T.S.

SPECIAL NOTE:
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWN SLOPE.
MANUFACTURER NORTH AMERICAN GREEN
MODEL NUMBER BIONET S150BN



INSTALLATION SEQUENCE:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRADED. PLACE TOPSOIL.
2. SEED (SEE SEEDING & MULCHING NOTES)
3. LAY BLANKETS LOOSELY AND ANCHOR PER MANUFACTURER. DO NOT STRETCH. MATS SHALL HAVE GOOD SOIL CONTACT.

EROSION CONTROL MATTING/SLOPE STABILIZATION
N.T.S.

- PLANNING BOARD CHAIRMAN- 12/30/2013

11.19.13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved
See first sheet for date and signature.

REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 02-27-12
REV. PER TOWN & DEPT. OF HEALTH COMMENTS: 11-03-11
REV. PER CLENT REQUEST REV. DATE: 11-08-10
REV. PER TOWN COMMENT LETTER DATED 5/17/10 REV. DATE: 10-08-10
REV. PER TOWN COMMENT LETTER DATED 3/11/10 REV. DATE: 05-03-10

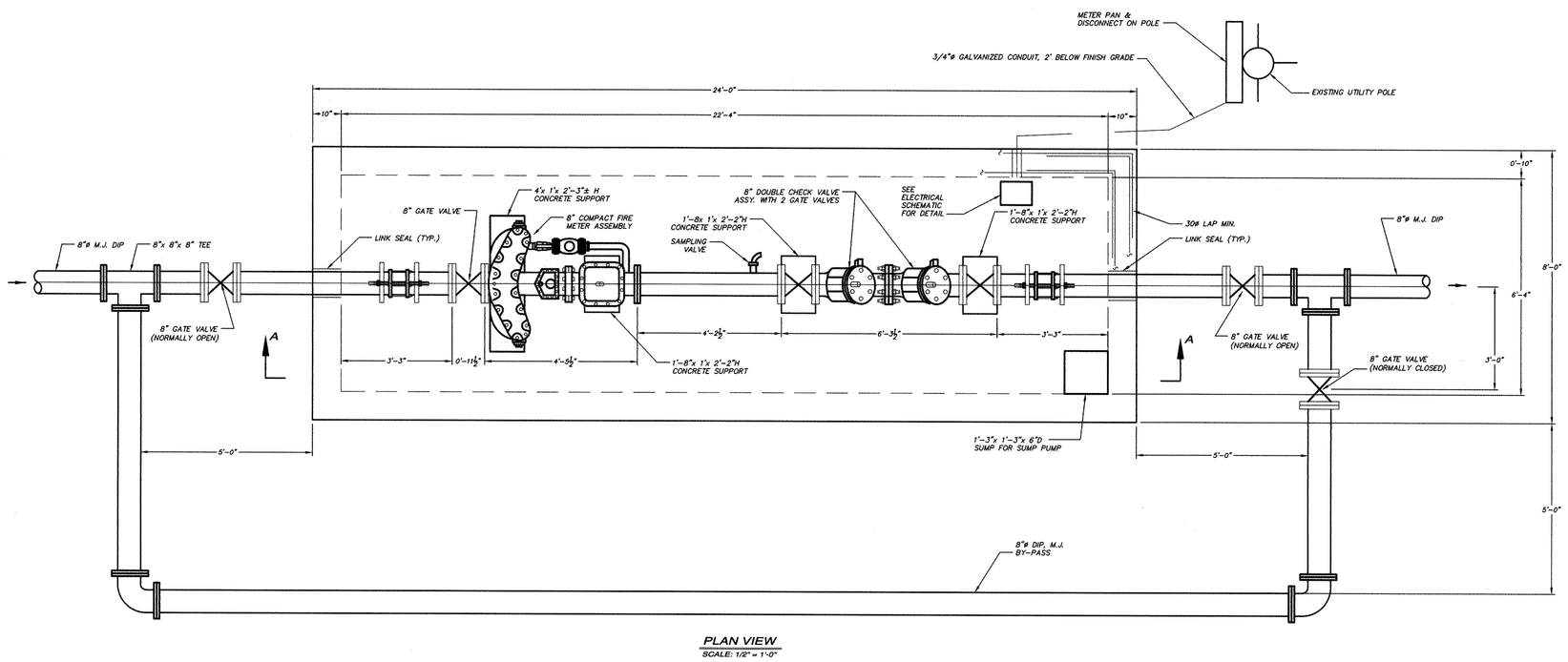
STATE OF NEW YORK — JOSEPH ZARECKI — LICENSED PROFESSIONAL ENGINEER
JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

LICENSED IN N.Y. & CT.

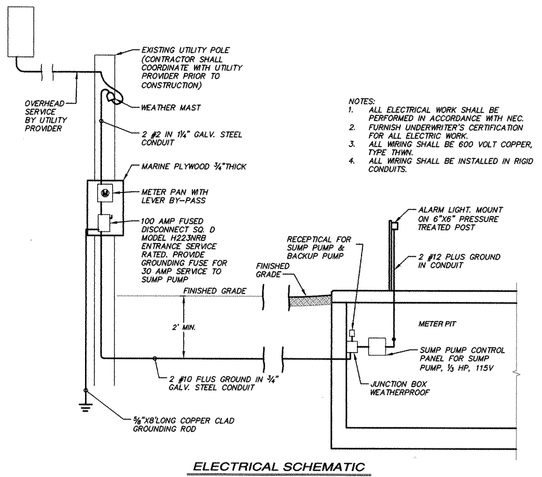
ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Bowling, NY 12564 — Ridgefield, CT 06877
845.855.3771 — 203.438.7094
845.855.3772 (Fax)

DETAILS
PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: N.T.S.	CHECKED BY: JZ	DRAWN BY: SW/JC
DATE: 3-2-2010	PROJECT NO. 2005.025	DESIGN BY: JW
		SHEET NO. 21 OF 22
		FILED MAP # 15 OF 16

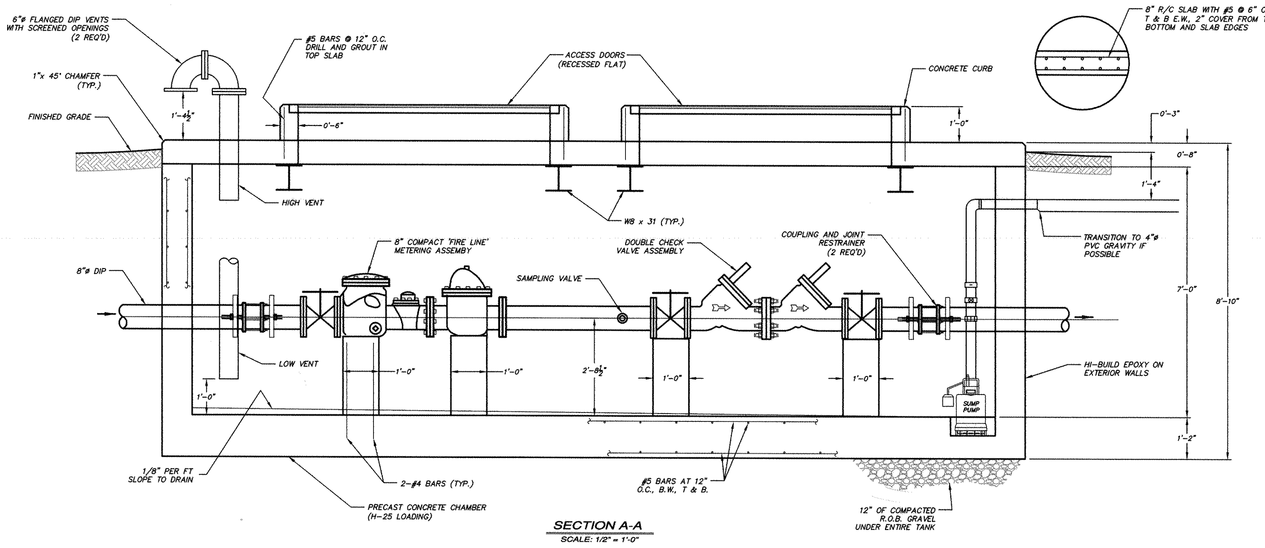


PLAN VIEW
SCALE: 1/2" = 1'-0"

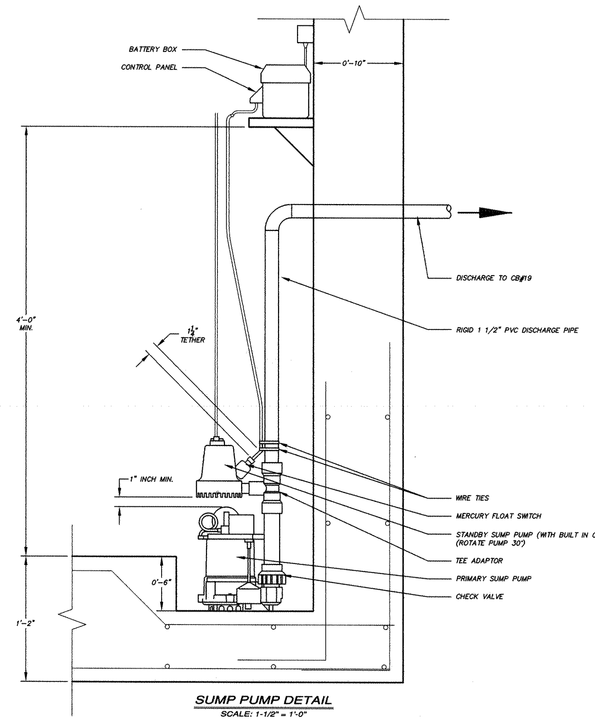


NOTES:
1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NEC.
2. FURNISH UNDERWRITER'S CERTIFICATION FOR ALL ELECTRIC WORK.
3. ALL WIRING SHALL BE 600 VOLT COPPER, TYPE THWN.
4. ALL WIRING SHALL BE INSTALLED IN RIGID CONDUITS.

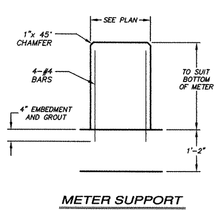
ELECTRICAL SCHEMATIC
N.T.S.



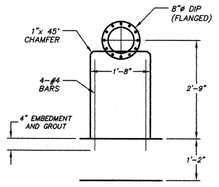
SECTION A-A
SCALE: 1/2" = 1'-0"



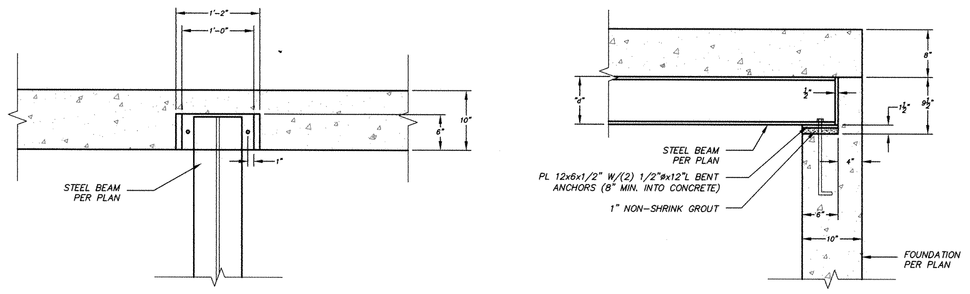
SUMP PUMP DETAIL
SCALE: 1-1/2" = 1'-0"



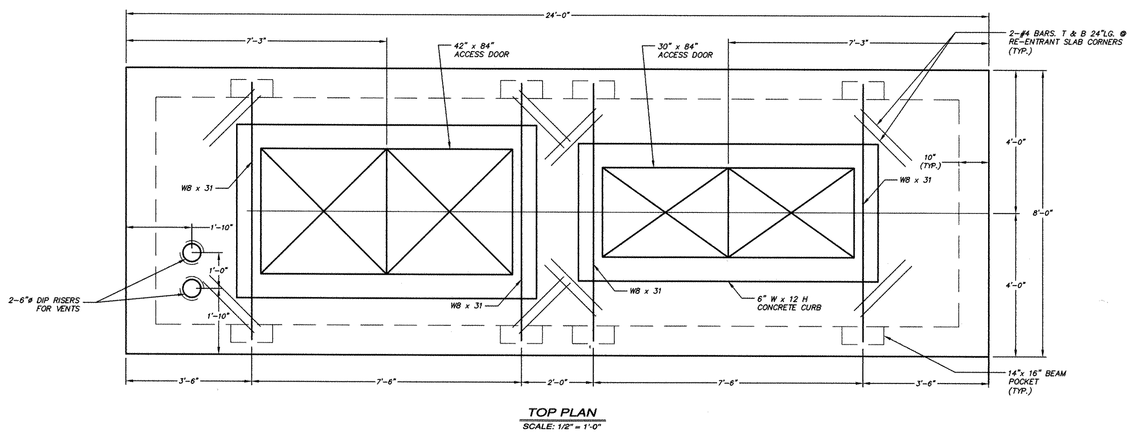
METER SUPPORT
N.T.S.



PIPE SUPPORT
N.T.S.



BEAM POCKET DETAIL
SCALE: 1" = 1'-0"



TOP PLAN
SCALE: 1/2" = 1'-0"

PROPOSED METER PIT DETAILS
BENTON MOORE ROAD TOWN OF EAST FISHKILL, NY
SCALE: AS SHOWN

11.19.13
DUTCHESS COUNTY DEPT. OF HEALTH
Poughkeepsie New York
These plans are approved
See first sheet for date and signature.

- PLANNING BOARD CHAIRMAN - 12/30/2013

LICENSED IN N.Y. & CT.

JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

ZARECKI ASSOCIATES LLC SURVEYING

DETAILS
PREPARED FOR
BEEKMAN HOME & LAND DEVELOPMENT, LLC
TOWN OF BEEKMAN, DUTCHESS COUNTY, NEW YORK

SCALE: AS SHOWN	CHECKED BY: JZ	DRAWN BY: SW/JC
DATE: 10-18-2013	PROJECT NO. 2005.025	DESIGN BY: JC

SHEET NO. 22 OF 22
FILED MAP # 16 OF 16

ZARECKI & ASSOCIATES, L.L.C.
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