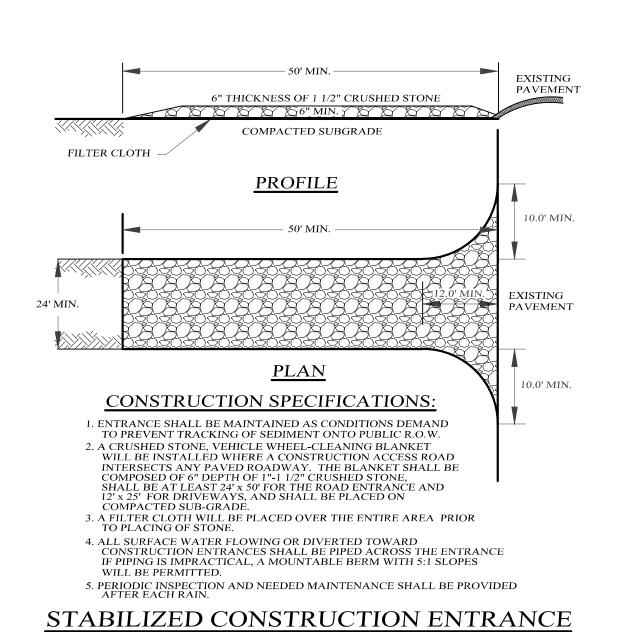
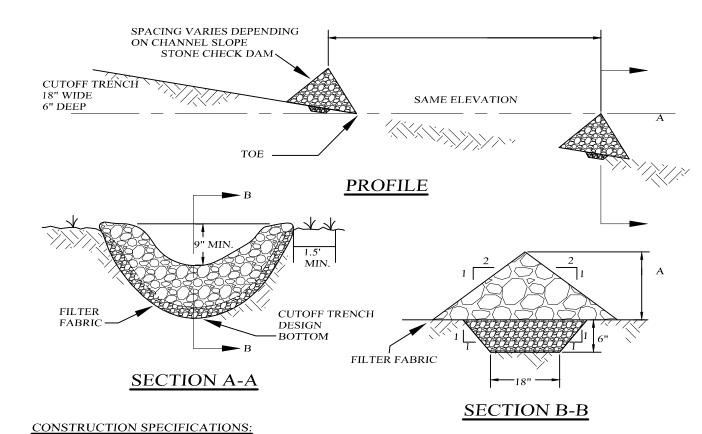


- 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED
- 3. ALL SILT FENCES SHALL RUN PARALLEL TO THE CONTOUR OF THE LAND. 4. ALL SILT FENCEING SHALL MEET THE MINIMUM REQUIREMENTS AS STATED UNLES OTHERWISE NOTED AND APPROVED BY THE BUILDING INSPECTOR AND ENGINEER.
- 5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL SHALL BE REMOVED

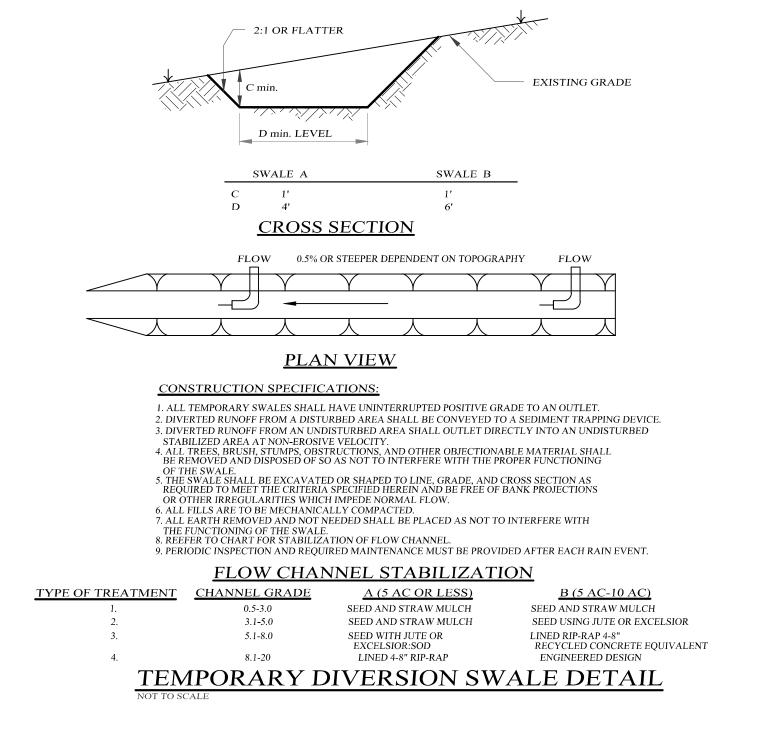
FILTER FABRIC SILT FENCE DETAIL

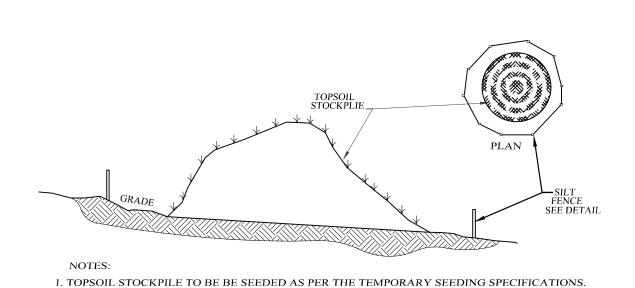




1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATION OF THE CREST OF THE DOWN STREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM. 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM. 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR 5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.
6. MAXIMUM DRAINAGE AREA IS 2 ACRES ABOVE THE CHECK DAM.

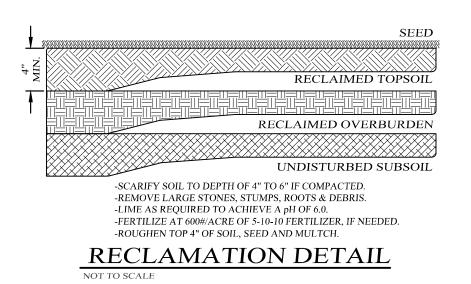
CHECK DAM DETAILS





TOPSOIL STOCKPILE DETAIL

2. SILT FENCE TO BE INSTALLED DOWN GRADIENT OF STOCKPILE.



PERMANENT SEEDING MIXTURES

SHADY DRY SITES (WELL TO SOMEWHAT POORLY DRAINED SOILS)

SHADY WET SITES (SOMEWHAT POOR TO POORLY DRAINED SOILS)

80% SHADE TOLERANT KENTUCKY

80% SHADE TOLERANT KENTUCKY

BLUEGRASS BLEND

20% PERENNIAL RYEGRASS

70% ROUGH BLUEGRASS

BLUEGRASS BLEND

MODERATE TO STEEP SLOPES AND LOW MAINTENANCE AREAS APPLICATION RATE EMPIRE BIRDSFOOT TREFOIL 8 LBS/ACRE TALL FESCUE 20 LBS/ACRE 5 LBS/ACRE

<u>APPLICATION RA</u>TE SUNNY SITES (WELL, MODERATELY WELL AND SOMEWHAT POORLY DRAINED SOILS) 65% KENTUCKY BLUEGRASS BLEND 85-114 LBS/ACRE 20% PERENNIAL RYEGRASS 26-35 LBS/ACRE

15% FINE FESCUE 19-26 LBS/ACRE <u>SUNNY DROUGHTY SITES</u> (SOMEWHAT TO EXCESSIVELY DRAINED SOILS) 114-143 LBS/ACRE 65% FINE FESCUE 15% PERENNIAL RYEGRASS 26-33 LBS/ACRE 20% KENTUCKY BLUEGRASS BLEND 35-44 LBS/ACRE

A. INSTALL NEEDED WATER AND EROSION CONTROL MEASURES AND BRING AREA TO BE SEEDED TO DESIRED GRADES USING A MINIMUM OF 4" OF TOPSOIL.

B. PREPARE SEED BED BY LOOSENING SOIL TO A DEPTH OF 4-6 INCHES

G. APPLY SEED PER PERMANENT SEEDING SCHEDULE.

C. LIME TO A pH OF 6.5 D. FERTILIZE PER SOIL TESTS, OR, IF FERTILIZER IS TO BE APPLIED BEFORE SOIL TESTS, APPLY 850 POUNDS OF 5-10-10 OR EQUIVALENT PER ACRE (20 LBS. / 1000 SQ. FT.) E. INCORPORATE LIME AND FERTILIZER IN TOP 2-4 INCHES OF SOIL.

F. SMOOTH. REMOVE ALL STONES OVER 1" IN DIAMETER, STICKS AND FOREIGN MATTER. FIRM SEED BED.

SLOPE STABILIZATION, SEEDING METHOD & MULCHING

SLOPES OF 4:1 OR GREATER (HORIZONTAL:VERTICAL) SLOPES SHALL BE HYDROSEEDED WITH THE MIXTURES AND RATES INDICATED IN THE PERMANENT SEEDING MIXTURE SCHEDULE. STRAW OR HAY MULCH SHALL BE APPLIED AT A RATE OF 2 TONS/ACRE. STRAW OR HAY MULCH SHALL BE ANCHORED WITH BioD-Mesh60 NETTING AS MANUFACTURED BY ROLANKA INTERNATIONAL OR APPROVED EQUIVALENT. NETTING TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS.

GENTLE SLOPES AND FLAT AREAS AREAS SHALL BE SEEDED BY HYDROSEEDING OR BROADCASTING WITH THE MIXTURES AND RATES INDICATED ON THE PERMANENT SEEDING MIXTURE SCHEDULE. HYDROSEEDED AREAS SHALL BE MULCHED WITH A WOOD FIBER MULCH APPLIED AT A RATE OF 500 LBS/ACRE. BROADCAST AREAS SHALL MULCHED WITH HAY OR STRAW AT A RATE OF 2 TONS/ACRE. AREAS SEEDED BY BROADCASTING SHALL BE LIGHTLY RAKED AND PACKED PRIOR TO PLACING MULCH.

TEMPORARY SEEDING SPECIFICATIONS

AREAS REMAINING DISTURBED FOR 14 DAYS OR MORE SHALL BE STABILIZED AS FOLLOWS: SCARIFY SOILS IF COMPACTED, LIME TO pH OF 6.0 IF REQUIRED, FERTILIZE WITH 600 LBS/ACRE 5-10-10 FERTILIZER IF REQ., SEED WITH SPECIES AND RATE SHOWN BELOW, MULCH WITH HAY OR STRAW AT A RATE OF 2 TONS/ACRE, ANCHOR MULCH WITH NETTING OF WOOD FIBER OR JUTE IF STEEP SLOPE OR HIGH POTENTIAL FOR EROSION. APPLICATION RATE RYEGRASS (ANNUAL OR PERENNIAL) 30 LBS/ACRE (USE WINTER RYE IF SEEDING IN OCT./NOV.) (0.7 LBS/1000 SF)

Lands of O'REILLY MINOR SUBDIVISION

TOWN OF CHESTER, ORANGE COUNTY, NEW YORK ROJECT TITLE

EROSION CONTROL DETAILS

RAWING TITLE

KIRK ROTHER, P.E.

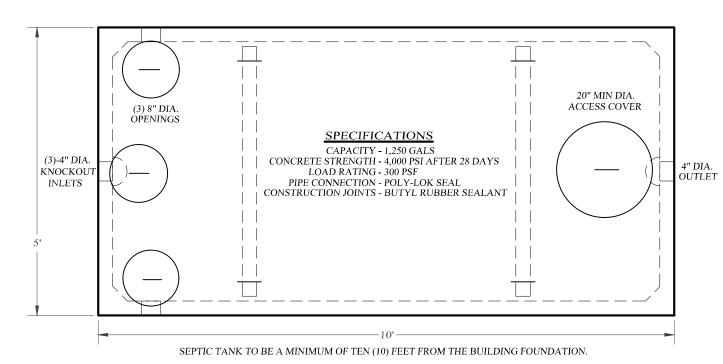
CONSULTING ENGINEER, PLLC 5 St. Stephens Lane, Warwick, NY 10990

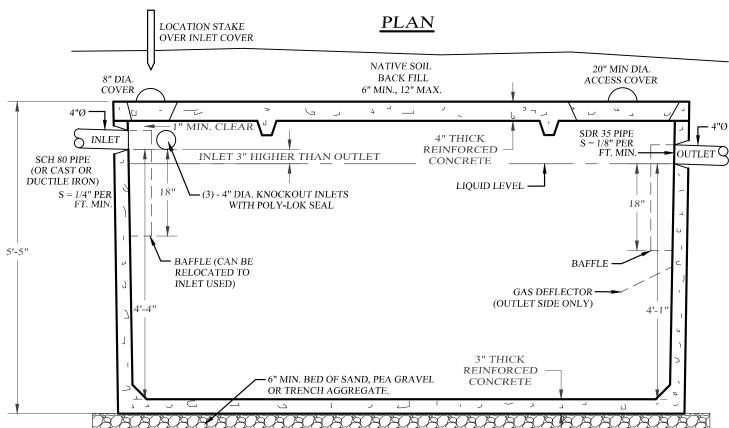
(845) 988-0620

10-08-20 REV. PER P.B. COMMENTS 09-23-20 REV. TO MINOR SUBDIVISION KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079053 09-18-19 INITIAL PREPARATION UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A DOCUMENT BEARING THE SEAL OF

BE CONSIDERED INVALID.

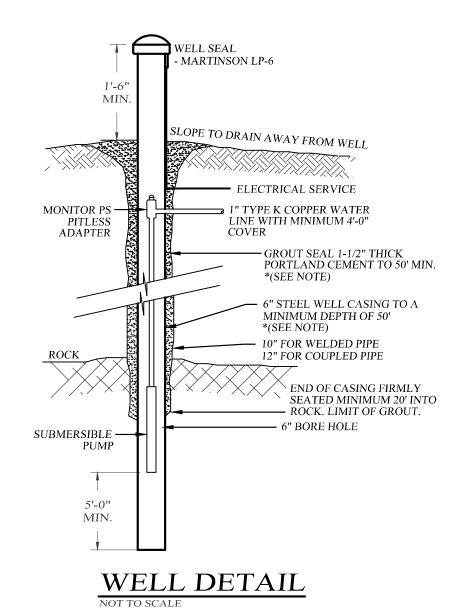
4 LOT SUB 03125.0 AS SHOWN





SEPTIC TANK DETAIL

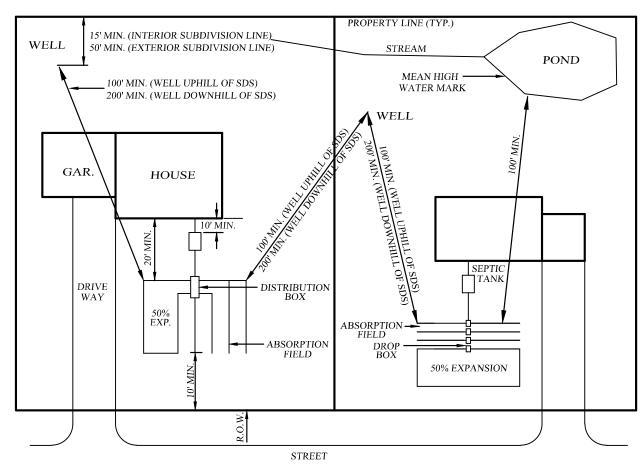
MODEL ST-1250 SEPTIC TANK BY WOODARDS CONCRETE, BULLVILLE, NY, OR EQUIVALENT



WATER SYSTEM NOTES

- 1. WELL CONSTRUCTION SHALL CONFORM TO THE MINIMUM STANDARDS SET FORTH BY THE N.Y.S. DEPARTMENT OF HEALTH FOR RURAL WATER SUPPLY.
- 2. SOFTENING OF HARD WATER WELL IS AT THE DISCERTION OF THE HOMEOWNER AND SHOULD BE CONSIDERED ONLY IF EXCESSIVE HARDNESS IS FOUND. (GREATER THAN 150 MG/L).
- 3. THE LOCATION OF WELLS AND SEPTIC FIELDS SHALL NOT BE CHANGED.
- 4. FOOTING DRAINS WITHIN 25 FEET OF A WELL SHALL BE WATERTIGHT
- 5. WELLS MUST BE INSTALLED AT LEAST 100 FEET FROM ALL SEPTIC SYSTEMS AND 200 FEET FROM ANY SEPTIC SYSTEM WHICH IS UPHILL FROM THE WELL.
- 6. A MINIMUM OF 50' CASING & GROUT SHALL BE PROVIDED UNLESS DOCUMENTED BY THE NYS LISCENSED WELL DRILLER AT THE TIME OF DRILLING THAT THE HIGHEST WATER. BEARING FEATURE ENCOUNTERED IS AT A MIN. DEPTH OF 50' BELOW GROUND LEVEL.
- 7. WELL CASING ABOVE GRADE SHALL BE A MINIMUM OF 24"

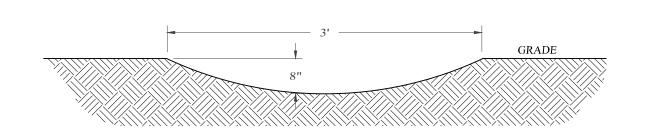
ABOVE THE 100 YEAR FLOOD LEVEL.



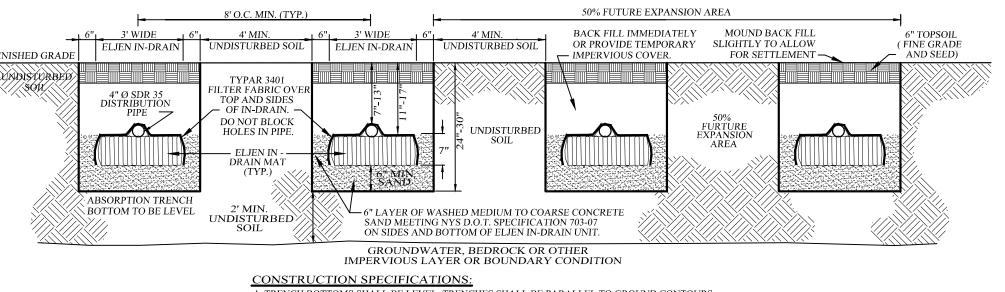
TYPICAL SEPARATION DISTANCE REQUIREMENTS

REQUIRED SEPARATION DISTANCE FROM WASTEWATER SYSTEM COMPONENTS

SYSTEM COMPONENTS	WELL (f) OR SUCTION LINE	TO STREAM,LAKE WATERCOURSE (B), OR WETLAND	DWELLING	PROPERTY LINE	DRAINAGE DITCH (b),(g)	MIN. SLOPE
HOUSE SEWER (WATERTIGHT JOINTS)	25' IF CAST IRON OR PVC WITH O-RING JOINTS, 50' OTHERWISE	25'	3'	10'	-	1/4" / FT.
SEPTIC TANK	50'	50'	10'	10'	10'	-
EFFLUENT LINE TO DISTRIBUTION BOX	50'	50'	10'	10'	10'	1/8" / FT.
DISTRIBUTION BOX	100'	100'	20'	10'	50'	-
ABSORPTION FIELD	100' (a)	100'	20'	10'	50'	1/16"-1/32"/ FT.



SEPTIC / SWALE CROSS SECTION



1. TRENCH BOTTOMS SHALL BE LEVEL. TRENCHES SHALL BE PARALLEL TO GROUND CONTOURS. 2. ON SLOPED SITES, A DIVERSION SWALE SHALL BE CONSTRUCTEED UPHILL OF THE SEPTIC FIELD TO PREVENT SURFACE WATER RUNOFF ONTO THE SEPTIC FIELD.

3. CONCRETE SAND SHALL ADHERE TO THE NYS D.O.T. CONCRETE SAND SPEC. 703-07 AS REQUIRED BY THE OCHD. 4. SEE SEPTIC SYSTEM NOTES FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
5. SEE ELJEN IN-DRAIN DESIGN AND INSTALLATION MANUAL FOR ADDITIONAL DETAILS. 6. ELJEN IN-DRAIN AVAILABLE IN NEW YORK STATE THROUGH RYCO ASSOCIATES, TROY, NY, 888-490-2989.

NYS D.O.T.

SPEC. 703-07

/8 IN. | 100 | 100

NO. 4 90 100

IO. 8 75 100

NO. 16 50 85

IO. 30 | 25 | 60

IO. 50 | 10 | 30

O. 100 | 1 | 10

IO. 200 0

WET)

4' WIDE TRENCH

SIZE

CONCRETE SAND

BY WEIGH

MIN. MAX

TYPICAL ELJEN TYPE TRENCH CROSS SECTION

PRECAST CONCRETE DROP BOX MODEL NO. DB-6DB AS

-8' ON CENTER MIN.-

UNDISTURBED

SOIL BETWEEN

TRENCHES

"Ø PERFORATED SDR 35 RIGID PVO

MEETING ASTM STANDARDS FOR USE

IN SEPTIC SYSTEMS. SLOPE AT 1/16" TO

1/32" PER FOOT. HOLES FACING DOWN.

WASHED MEDIUM TO COURSE

D.O.T. SPECIFICATION 703-07.

PLAN

DISTRIBUTION PIPE LABELED AS

- 4"Ø NON-PERFORATED TIGHT IOINT

PIPE, SLOPE = 1/8" PER FT. MINIMUM.

— 4"Ø SOLID, NON-PERFORATED TIGHT JOINT

PIPE TO EXTEND 2' FROM BOX.

5" WIDE x 7" HIGH 1/2"THICK BAFFLE T

BE GROUTED IN PLACE

UNUSED KNOCKOUTS TO REMAIN CLOSED —

' WIDE x 4' LONG

OR EOUIVALENT

POLYLOC SEA

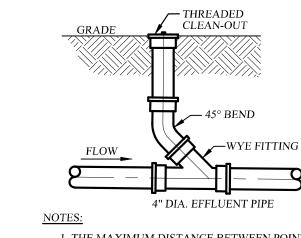
--| 4"|--

24" NATIVE SOIL

OR IMPERVIOUS

BACKFILL

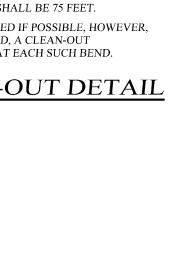
OR EQUIVALENT

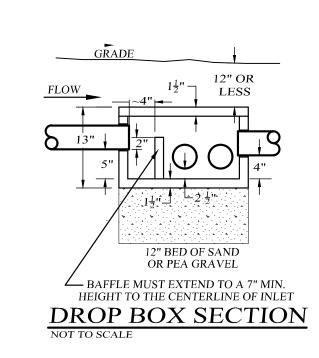


1. THE MAXIMUM DISTANCE BETWEEN POINTS OF POSSIBLE CLEAN-OUT SHALL BE 75 FEET 2. BENDS SHALL BE AVOIDED IF POSSIBLE, HOWEVER,

IF BENDS ARE REQUIRED, A CLEAN-OUT SHALL BE INSTALLED AT EACH SUCH BEND.

SEWER CLEAN-OUT DETAIL





SOIL TEST RESULTS & SEPTIC SYSTEM DESIGN **DEEP TEST PIT #1** DEEP TEST PIT #2 **DEEP TEST PIT #3** ELJEN J.S.I. RESULTS PERC RESULTS RESULTS DESIGN SDS DESIGNED FOR PT1: 9 MIN. 12"-60" GRAVELLY SILT LOAM W/ SOME CLAY 4 BEDROOM MAX. DEPTH: 24" 28"-48" GRAVELLY SILT LOAM, LITTLE CLAY 60"-86" GRAVELLY SILT LOAM 4 ROWS OF 10 UNITS 48"-86" GRAVELLY SILT LOAM 40 L.F. PER ROW PT2: 6 MIN. REQUIRED 88 L.F. TOTAL DEPTH: 24" PROVIDED 160 L.F. TOTAL MOTTLING @ 36" MOTTLING @ 30" CURTAIN DRAIN REQ. PT1: 9 MIN SDS DESIGNED FOR 00"-06" TOPSOIL 06"-72" SILTY CLAY LOAM WITH GRAVEL FEW COBBLES 04"-24" SILT LOAM 4 BEDROOM MAX. DEPTH: 24" FEW COBBLES 3 ROWS OF 12 UNITS PT2: 10 MIN. LOT 2 48 L.F. PER ROW DEPTH: 24" REQUIRED 112 L.F. TOTAL JSI - PT3: 18 MIN PROVIDED 144 L.F. TOTA MOTTLING @ 15* MOTTLING @ 24" DEPTH: 24" CURTAIN DRAIN REO. PT1: 10 MIN. SDS DESIGNED FOR 24"-48" CLAY LOAM WITH LIGHT MOTTLING & SOME COBBLES 06"-72" SILTY CLAY LOAM WITH GRAVEL 06"-50" SILTY CLAY LOAM WITH GRAVEL 4 BEDROOM MAX DEPTH: 24" 3 ROWS OF 12 UNITS PT2: 9 MIN. LOT 3 48 L.F. PER ROW DEPTH: 24" REQUIRED 96 L.F. TOTAL NO SEEPAGE IO SEEPAGE IO BEDROCK JSI - PT3: 5 MIN PROVIDED 144 L.F. TOTA NO BEDROCK DEPTH: 24" MOTTLING @ 16" MOTTLING @ 15 CURTAIN DRAIN REQ. SDS DESIGNED FOR PT1: 4 MIN. 06"-50" SILT LOAM WITH SHALE 06"-50" SILT LOAM WITH SHALE & FEW COBBLES | 04"-24" SILT LOAM 4 BEDROOM MAX. DEPTH: 24" 24"-49" CLAY LOAM WITH LIGHT MOTTLING & SOME COBBLES 4 ROWS OF 9 UNITS PT2: 5 MIN. LOT 4 48 L.F. PER ROW DEPTH: 24" NO SEEPAGE NO MOTTLING REQUIRED 96 L.F. TOTAL JSI - PT3: 12 MIN PROVIDED 144 L.F. TOTAL DEPTH: 24" BEDROCK @ 49"

- 1. PERCOLATION TESTS FOR LOT 1 PERFORMED ON 12/08/14 BY KIRK ROTHER, PE, PLLC. 2. DEEP TESTS FOR LOT 1 PERFORMED ON 12/08/14 BY KIRK ROTHER, PE, PLLC.
- 3. PERCOLATION TESTS FOR LOTS 2, 3 & 4 PERFORMED IN OCTOBER 2020 BY KIRK ROTHER, PE, PLLC 4. DEEP TESTS FOR LOTS 2, 3 & 4 PERFORMED IN OCTOBER 2020 BY KIRK ROTHER, PE, PLLC.
- 5. PERCOLATION TEST JSI #3 FOR LOTS 2, 3 & 4 PERFORMED ON AUGUST 18, 2022 BY KIRK ROTHER, PE, PLLC. AND WITNESSED BY THE TOWN ENGINEER.
- 4. DEEP TEST JSI #3 FOR LOTS 2, 3 & 4 PERFORMED ON AUGUST 18, 2022 BY KIRK ROTHER, PE, PLLC. AND WITNESSED BY THE TOWN ENGINEER.

(A) WHEN SEWAGE TREATMENT SYSTEMS ARE LOCATED IN COARSE GRAVEL

(C) FOR ALL SYSTEMS INVOLVING THE PLACEMENT OF FILL MATERIAL,

WATER MAIN TO PROTECT THE POTABLE WATER SUPPLY.

AWAY FROM THE WELL (B) MEAN HIGH WATER MARK.

STORM SEWERS.

WATER SUPPLY WELS.

(G) RECOMMENDED SEPARATION DISTANCES.

SEWER OR CATCH BASIN - 50'.

(WITH GASKETED, TIGHT PIPE) -35'.

OR UPGRADE AND IN THE GENERAL PATH OF DRAINAGE TO A WELL, THE CLOSEST PART OF THE TREATMENT SYSTEM SHALL BE AT LEAST 200 FT.

SEPARATION DISTANCES ARE MEASURED FROM THE TOE OF THE SLOPE

(D) ANY WATER SERVICE LINE UNDER PRESSURE (i.e., PUBLIC WATER SUPPLY MAIN, HOUSEHOLD SERVICE LINE, WELL TO HOUSEHOLD SERVICE LINE) LOCATED WITHIN TEN FT. OF ANY ABSORPTION FIELD, SEEPAGE PIT OR SANITARY PRIVY SHALL BE INSTALLED INSIDE A LARGER DIAMETER

(E) ANY WATER SERVICE LINE UNDER PRESSURE (i.e., PUBLIC WATER SUPPLY

(F) THE MINIMUM SEPARATION DISTANCE BETWEEN A SEPTIC TANK AND A

ORANGE COUNTY D.O.H. REVISIONS AND ADDITIONS AS OF 10/2003

1. SEPARATION: WELL TO SWALE, STREAM OR WATERCOURSE - 25'.

4. SEPARATION: ABSORPTION FIELD TO CURTAIN DRAIN - 15'.

6. SEPARATION: WELL TO CEMETERY PROPERTY LINE - 100'. 7. DRAINAGE PIPES WITHIN 25' OF ANY WELL MUST BE WATERTIGHT

EMBANKMENT OR STEEP (10N 3) SLOPE - 25

3. SEPARATION: ABSORPTION FIELD TO CULVERT OR STORM SEWER

5. SEPARATION: ABSORPTION FIELD, PITS, EXPANSION AREA, TO TOP OF

MAIN HOUSEHOLD SERVICE LINE WELL TO HOUSEHOLD SERVICE LINE)

JOINTS ARE AS FAR AS POSSIBLE FROM THE SEWER. SECTION 8.6 OF THE

G.L.U.M.R.B. RECOMMENDED STANDARDS FOR WATER WORKDS, SHALL BE

FOLLOWED FOR SEPARATION OF WATER MAINS, SANITARY SEWERS AND

COMMUNITY TYPE PUBLIC WATER SUPPLY WELL SHOULD BE AT LEAST 100 FT. DISTRIBUTION BOXES AND ABSORPTION FACILITIES (e.g., ABSORPTION

TRENCHES/BEDS, SEEPAGE PITS, RAISED SYSTEMS, MOUND SYSTEMS, etc.)

2. SEPARATION: ABSORPTION FIELD TO OPEN DRAINAGE, CULVERT, STORM

SHOULD BE LOCATED AT LEAST 200 FT. FROM COMMUNITY TYPE PUBLIC

WATER MAIN CENTERED ABOVE THE SEWER SO BOTH WATER CONNECTING

CROSSING A SEWER SHALL BE INSTALLED WITH ONE FULL LENGTH OF

- SEPTIC SYSTEM NOTES 1. SEPTIC SYSTEMS ARE DESIGNED TO CONFORM TO THE MINIMUM REQUIREMENTS SET FORTH BY N.Y.S. DEPARTMENT OF HEALTH APPENDIX 75A STANDARDS.
- 2. A NEW YORK STATE PROFESSIONAL ENGINEER (OR OTHER DESIGN PROFESSIONAL AS ALLOWED BY THE NYS EDUCATION DEPT.) SHALL INSPECT THE SANITARY FACILIITES (WATER SUPPLY, ANY WATER TREATMENT, AND SEWAGE DISPOSAL FACILITIES) AT THE TIME OF CONSTRUCTION. PRIOR TO OCCUPANCY OF THE DWELLING. THE NGINEER SHALL CERTIFY TO THE ORANGE COUNTY DEPARTMENT OF HEALTH AND THE LOCAL CODE ENFORCEMENT OFFICER THAT THE FACILITIES HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND THAT ANY SEPTIC TANK JOINTS HAVE BEEN SEALED AND TESTED FOR WATER TIGHTNESS. A COPY OF THE NYSDEC WELL COMPLETION REPORT MUST ALSO BE PROVIDED
- 3. THE DESIGN AND LOCATION OF WELLS AND SEPTICS SHALL NOT BE CHANGED.
- 4. THE SEPTIC DESIGN IS BASED ON THE SLOWEST PERCOLATION RATE IN THE
- AREA OF THE PROPOSED SYSTEM. 5. ABSORPTION LINES USED WITH PRESSURE DISTRIBUTION OR DOSING SHALL NOT
- EXCEED 100 FEET IN LENGTH. 6. ABSORPTION LINES USED WITH GRAVITY DISTRIBUTION SHALL NOT EXCEED
- 7. SEWER RUNS SHALL NOT EXCEED 75' BETWEEN POINTS OF CLEAN OUT.
- AT LEAST ONE CLEAN OUT IS REQUIRED AND BENDS SHALL BE AVOIDED. IF BENDS MUST BE INSTALLED, A CLEAN OUT SHALL BE INSTALLED AT EACH BEND.
- 8. SEPTIC FIELDS SHALL NOT BE CONSTRUCTED IN WET SOILS. 9. TRENCHES SHALL BE INSTALLED PARALLEL TO CONTOURS. TRENCHES SHALL BE INSTALLED AS SHALLOW AS POSSIBLE WHILE STILL CONFORMING TO THE DIMENSIONAL REOUIREMENTS SHOWN IN THE CONSTRUCTION DETAILS. SIDES
- AND BOTTOM OF ABSORPTION LINE TRENCHES SHALL BE RAKED IMMEDIATELY PRIOR TO PLACING THE SAND. 10. THE ENDS OF ALL DISTRIBUTION PIPES SHALL BE CAPPED.
- 11. REGRADING IS NOT PERMITTED IN THE AREA OF THE ABSORPTION FIELD.
- 12. THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR ANY PUMPING OR DOSING CHAMBER) TO THE HOUSE, ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK VENT.
- 13. DRIVEWAYS, SWIMMING POOLS OR OTHER STRUCTURES WHICH CAN COMPACT THE SOIL SHALL NOT BE LOCATED OVER ANY PORTION OF THE ABSORPTION FIELD. 14. HEAVY EOUIPMENT SHALL BE KEPT OFF THE AREA OF THE TILE FIELD EXCEPT
- FOR THE ACTUAL CONSTRUCTION OF THE FIELD. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE AREA OF THE PROPOSED FIELD BEFORE, DURING AND AFTER CONSTRUCTION. EXTREME CARE MUST BE TAKEN DURING THE ACTUAL CONSTRUCTION AS TO AVOID ANY UNDUE COMPACTION THAT COULD RESULT IN A CHANGE OF THE ABSORPTION CAPACITY
- 15. THIS SYSTEM WAS NOT DESIGNED TO ACCOMMODATE GARBAGE GRINDERS, OR "JACUZZI" TYPE SPA TUBS OVER 100 GALLONS. AS SUCH, THESE ITEMS SHALL NOT BE INSTALLED UNLESS THE SDS IS REDESIGNED TO ACCOUNT FOR THEM AND REAPPROVED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH.
- 16. LAUNDRY WASTE SHALL DISCHARGE INTO THE SEPTIC SYSTEM.

OF THE SOIL ON WHICH THE DESIGN WAS BASED.

- 17. ROOF, CELLAR AND CURTAIN DRAINS SHALL NOT BE DISCHARGED INTO THE SEPTIC SYSTEM OR IN THE VICINITY OF THE TILE FIELD. FOOTING AND CURTAIN DRAINS SHALL RUN TO DAYLIGHT AND BE EQUIPPED WITH RODENT SCREENS.
- 18. TOILETS OR SINKS IN THE BASEMENTS MAY REQUIRE SPECIAL DESIGN AND
- 19. SEPTIC TANKS SHOULD BE INSPECTED PERIODICALLY AND PUMPED EVERY 2-3 YEARS.
- 20. DISTRIBUTION BOXES / DROP BOXES SHOULD BE INSPECTED PERIODICALLY TO ASSURE THAT THEY ARE LEVEL AND OPERATING PROPERLY.

Lands of O'REILLY MINOR SUBDIVISION

TOWN OF CHESTER, ORANGE COUNTY, NEW YORK ROJECT TITLE

> **SANITARY DETAILS**

DRAWING TITLE

KIRK ROTHER, P.E.

CONSULTING ENGINEER, PLLC

5 St. Stephens Lane, Warwick, NY 10990 (845) 988-0620

03125.0

08-18-20 ADDITIONAL DETAIL 09-18-19 | INITIAL PREPARATION KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079053

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A DOCUMENT BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 of the New York State Education Law. Reproductions of this plan which | NOT BEAR THE ORIGINAL SEAL OF A LICENSED PROFESSIONAL ENGINEER SHALL

08-18-22 REV. PER JSI SOIL TESTS

11-18-20 REV. PER P.B. COMMENTS

10-08-20 REV. PER P.B. COMMENTS

BE CONSIDERED INVALID.

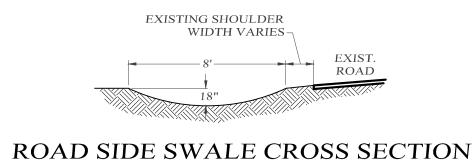
09-23-20 REV. TO MINOR SUBDIVISION

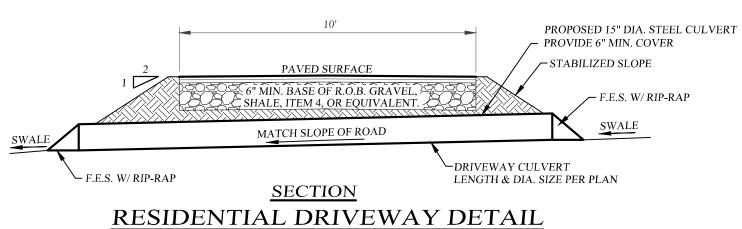
4 LOT SUB

CAD # 03125 PROJECT #

AS SHOWN

TYPICAL SECTION ELJEN IN-DRAIN SYSTEM

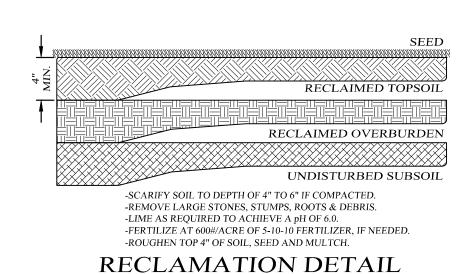


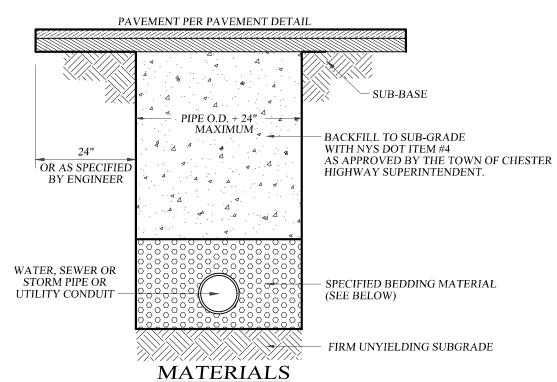


CROSS SECTION

RATIONAL METHOD SIZING FOR DRIVEWAY CULVERTS

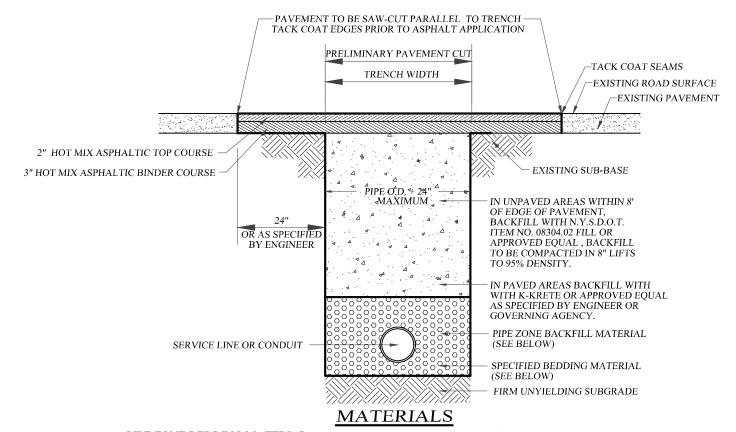
- C = RESIDENTIAL NEIGHBORHOOD
- I = 25 YEAR STORM / 6 inA = 1.5 ac.
- Q = (0.3) (6 in.) (1.5 ac. MAX)Q = 2.7 cfs
- PROPOSED 15" STEEL DRIVEWAY CULVERT 1% MIN.
- 25 YEAR STORM DEPTH OF FLOW = 0.56'





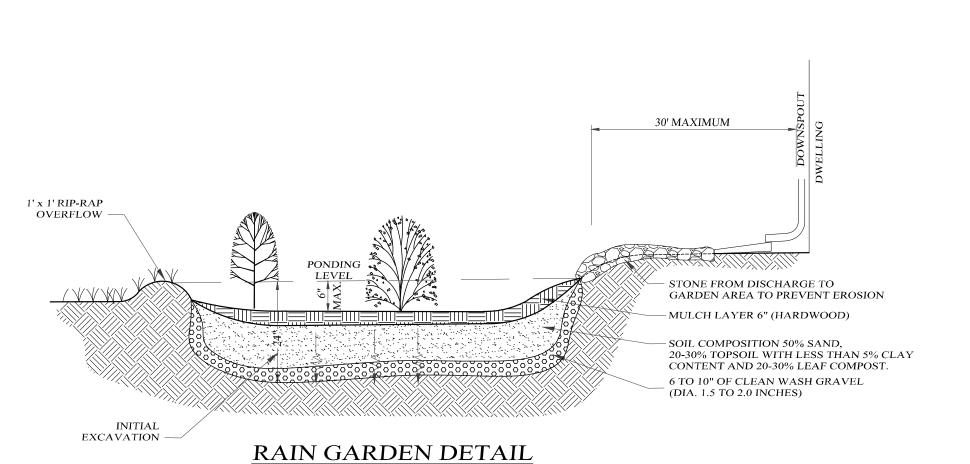
PIPE ZONE BEDDING MATERIAL: PIPE ZONE BACKFILL MATERIAL: 1. WATER MAINS: SAND OR RUN-OF-BANK 1. WATER MAINS: ON-SITE MATERIAL FREE OF STONE, GRAVEL, AS APPROVED BY SOILS ENGINEER. CLAY FOREIGN MATERIAL OR FROZEN EARTH 2. SEWER MAINS: 1/4" CHRUSHED STONE. AS APPROVED BY SOILS ENGINEER. 2. SEWER MAINS: 1/4" CHRUSHED STONE

PIPE BEDDING AND BACKFILL DETAIL



PIPE ZONE BACKFILL MATERIAL: PIPE ZONE BEDDING MATERIAL: 1. WATER MAINS: SAND OR RUN-OF-BANK 1. WATER MAINS: ON-SITE MATERIAL FREE OF STONE, GRAVEL, AS APPROVED BY SOILS ENGINEER. CLAY FOREIGN MATERIAL OR FROZEN EARTH 2. SEWER MAINS: SAND OR PEA GRAVEL. AS APPROVED BY SOILS ENGINEER. 3. STORM SEWER: 3/4" CRUSHED STONE. 2. SEWER MAINS: SAND OR PEA GRAVEL S. STORM SEWER:ON-SITE MATERIAL FREE OF STONE, CLAY FOREIGN MATERIAL OR FROZEN EARTH AS APPROVED BY SOILS ENGINEER.

PIPE BEDDING AND BACKFILL DETAIL (WITHIN TOWN OR COUNTY R.O.W.)



NOTES: 1. RELATIVLELY FLAT SLOPES ARE REQUIRED TO ACCOMADATE RUNOFF FILTERING THROUGH THE SYSTEM, WHEN MODERATE SLOPES ARE PRESENT THE USE OF A BERM OR WALL MAY BE REQUIRED.

2. RUNOFF MUST ENTER AT THE SURFACE. 3. USE PLANTS AND SHRUBS WHICH ARE NATIVE TO THE SURROUNDING COMMUINITY THE FOLLOWING IS A LIST OF PLANTS AND SHRUBS

WHICH CAN BE USED TO STABLIZE THE PONDING AREA BUT ARE NOT LIMITED TO: - SHURBS-WITCH HAZEL, WINTERBERRY, ARROWWOOD, BROOK-SIDE ALDER, RED-OSIER DOGWOOD, SWEER PEPPERBUSH. - HERBACEOUS PLANTS-CINNAMON FERN, CUTLEAF CONEFLOWER, WOOLGRASS, NEW ENGLAND ASTER, FOX SEDGE,

SPOTTED JOE-PYE WEED, SWITCH GRASS, GREAT BLUE LOBELIA, WILD BERGAMOT, RED MILKWEED. 5. WEEDING AND WATERING ARE ESSENTIAL FOR THE FRIST YEAR TO ESTABLISH HARDY GROWTH. REPLACE PLANTS AS REQUIRED. 6. LENGTH TO WIDTH RATIO OF 2:1, WITH THE LONG AXIS PERPENDICULAR TO THE SLOPE OF THE FLOW PATH.

RAIN GARDEN WATER QUALITY CALCULATION

 \overline{I} , % Impervious Area = 0.05/0.10 = **50%**

P, Orange Cty = 0.12 ft. $\mathbf{R}\mathbf{v} = 0.05 + 0.009 \, \mathbf{I} = 0.05 + (0.009)(50) = \mathbf{0.50}$

 $\mathbf{WQv} = (P)(Rv)(A) = (0.12)(0.10)(0.50) = 0.006$ acre-ft = **261 c.f.** = \mathbf{WQv} required per **2,000 s.f.** House

WQv Provided for 135 s.f. Rain Garden =

WQv = (Volume of Soils Media c.f.) + (Vol. of Gravel Drainage Layer c.f.) + (Depth of Ponding ft. x Rain Garden Surface Area s.f.)/ Vsm = (Rain Garden Surface Area c.f.) (Depth of soils media ft.) (porosity of soils %)

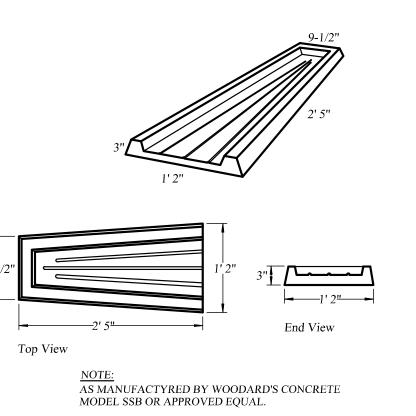
Vsm = (135.0) (1.5) (0.2) = 40.5

Vdl = (Rain Garden Surface Area c.f.) (Depth of drainage layer ft.) (porosity of gravel %)

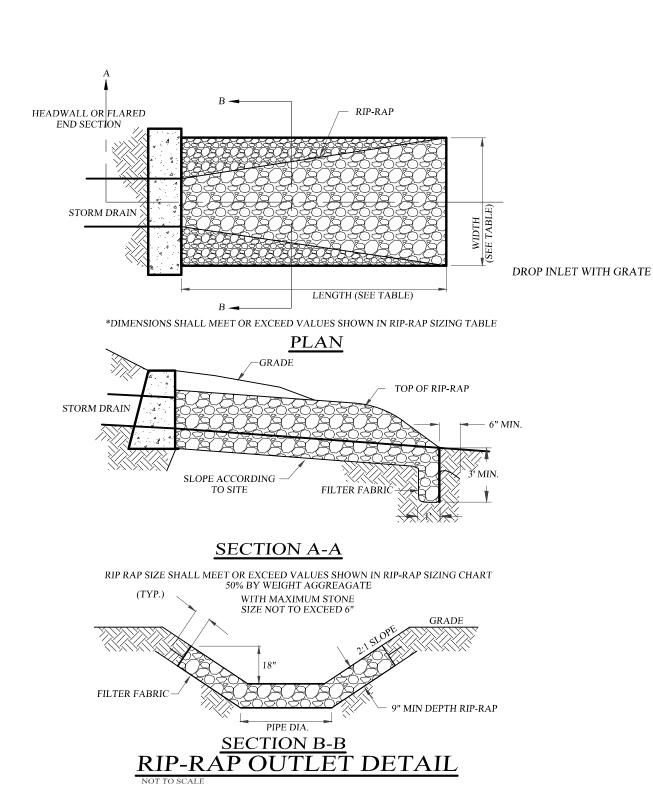
Vsm = (135.0) (0.80) (0.40) = 43.2 $WQv = 40.5 + 43.2 + (0.5 \times 135) = 40.5 + 43.5 + 67.5 = 151.5$

WQv Provided per Rain Garden = 151.5 c.f. WQv per Rain Garden

2 Rain Gardens per House = $2 \times 151.5 = 303$ c.f. WQv provided per House



CONCRETE SPLASH PAD DETAIL





SITE DETAILS

DRAWING TITLE

KIRK ROTHER, P.E.

CONSULTING ENGINEER, PLLC 5 St. Stephens Lane, Warwick, NY 10990 10-08-20 REV. PER P.B. COMMENTS (845) 988-0620 09-23-20 REV. TO MINOR SUBDIVISION

KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079053 09-18-19 INITIAL PREPARATION UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A DOCUMENT BEARING THE SEAL OF D.O.T. SHEET # | D.E.C.. SHEET # | O.C.H.D. SHEET # | SHEET # A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7203, SOSSINGER 15 A VIOLATION OF THIS PLAN WHICH CAD # 03125 PROJECT #

07-21-20 REV. PER CLIENT AND TOWN DPW MEETING

08-18-20 ADDITIONAL DETAIL

03125.0 AS SHOWN

4 LOT SUB