

PERCOLATION TEST DATA 137 GAY HILL ROAD, MONTVILLE, CT

DATE - NOVEMBER 5, 2021 ENGINEER - DAVID COOLEY, P.E., DLC ENGINEERING SERVICES, LLC

PERCOLATION TEST 1 - PT1

DEPTH - 15" PRE-SOAK - 11:50AM

TIME	READING	WATER LEVEL	DROP (INCATE MIN./)
1:05	5.40"		
1:10	6.72 "	1.32"	3.79
1:15	7.92"	1.20"	4.17
1:20	8.88"	0.96"	5.21
1: 25	9.60"	0.72"	6.94
1: 30	10.32"	0.72"	6.94
1: 35	10.92"	0.60"	8.33
1: 40	11.52"	0.60"	8.33
1:50	12.72 "	1.20"	8.33
2:00	13.80 "	1.08"	9.26
2:10	14.88 "	1.08"	9.26
2:20	FULLY	DRAINED	

PERCOLATION RATE AT 15" DEPTH = < 10.1 MINUTES/INCH

PERCOLATION TEST 2 - PT2

DEPTH - 15"

PRE-SOAK - 11:50AM

TIME	READING	WATER LEVEL DRI	JP (INRATE MIN./
1:03	7.44"		
1: 08	9.60"	2.16"	2.32
1:13	10.68 "	1.08"	4.63
1:18	11.76 "	1.08"	4.63
1: 23	12.60 "	0.84"	5.95
1: 28	13.56 "	0.96"	5.21
1: 33	1 4. 16"	0.60"	8.33
1: 38	14.88 "	0.72"	6.94
1: 43	15.48 "	0.60"	8.33
1:53	16.56 "	1.08"	9.26
2:03	17.64 "	1.08"	9.26
2:13	FULLY DR	AINED	

PERCOLATION RATE AT 15" DEPTH = < 10.1 MINUTES/INCH

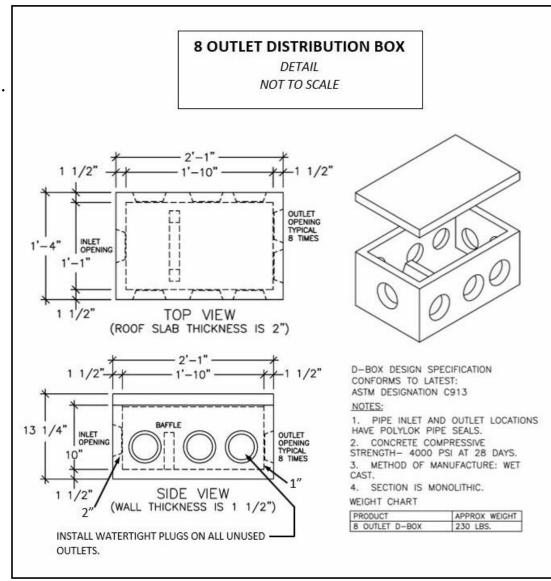
CONSTRUCTION SEQUENCE:

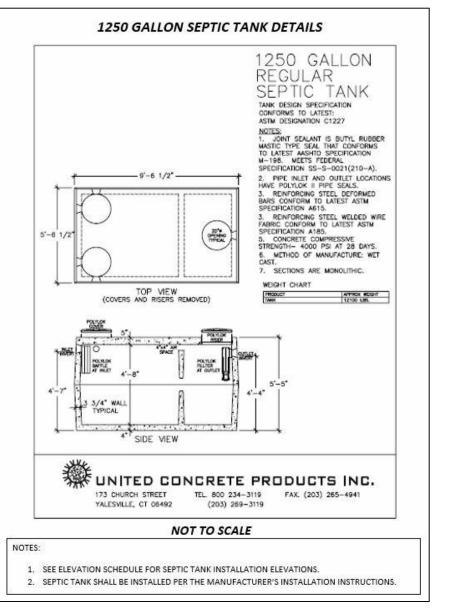
- SURVEYOR TO MARK LIMITS OF CLEARING AND THE AREA OF DISTURBANCE
- INSTALL SILT FENCE AS INDICATED ON THE SITE PLAN AND PER EROSION AND SEDIMENT CONTROL PLAN INSTALL CONSTRUCTION ENTRANCE AS INDICATED ON THE SITE PLAN AND PER EROSION AND SEDIMENT
- SURVEYOR TO MARK LIMITS OF FOUNDATION FOR PROPOSED BUILDING.
- EXCAVATE FOR AND CONSTRUCT FOUNDATION FOR PROPOSED BUILDING.
- EXCAVATE FOR AND INSTALL UTILITY SERVICE TO THE PROPOSED BUILDING.
- CONSTRUCT PROPOSED BUILDING.
- COMPLETE FINAL GRADING WITHIN THE AREA OF DISTURBANCE.
- INSTALL SEPTIC SYSTEM.
- INSTALL DRIVEWAY AND PARKING AREAS.
- TOPSOIL OF EXPOSED SOILS TO PREPARE FOR RESEEDING.
- RESEED ALL EXPOSED AREAS PER EROSION AND SEDIMENT CONTROL PLAN. COVER WITH STRAW. 13. SILT FENCE TO REMAIN IN PLACE UNTIL ALL UP-GRADIENT AREAS ARE PERMANENTLY ESTABLISHED TO
- THE SATISFACTION OF THE TOWN.

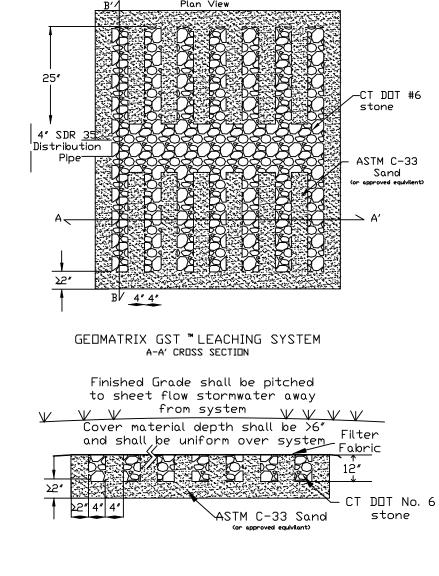
EROSION AND SEDIMENT CONTROL PLAN:

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AND INSTALLED PER THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

- ESTIMATED DURATION OF MAJOR CONSTRUCTION ACTIVITIES 90 DAYS.
- SURVEYOR TO MARK WETLAND SETBACK LIMITS ON THE PROPERTY AS APPLICABLE SILT FENCE IS TO BE INSTALLED, AS INDICATED ON THE SITE PLAN, PRIOR TO ANY CONSTRUCTION ACTIVITY AND INSPECTED BY TOWN STAFF. A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN FOR THE PURPOSE OF INSPECTION PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- CONSTRUCTION ENTRANCE TO BE INSTALLED, AS INDICATED ON THE SITE PLAN, PRIOR TO ANY CONSTRUCTION ACTIVITY.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS INDICATED IN THE
- CONSTRUCTION SEQUENCE ON THE SITE PLAN. STOCKPILE AREAS MUST BE DIRECTLY CONTAINED WITHIN SILT FENCE AROUND THE COMPLETE
- PERIMETER. EXCESS SPOILS SHALL BE DISPOSED OF OFF SITE AT AN APPROPRIATELY LICENSED FACILITY.
- ALL REMAINING DISTURBED AREAS SHALL BE SEEDED UPON COMPLETION OF CONSTRUCTION IF DURING THE PLANTING SEASON, RECOMMENDED SEEDING DATES SHALL BE BETWEEN APRIL 15 AND SEPTEMBER 15. SEED MIX WILL CONSIST OF 0.45 LB PER 1,000 S.F. OF CREEPING RED OR TALL FESCUE, 0.05 LB PER 1,000 S.F. OF REDTOP AND 0.20 LB PER 1,000 S.F. OF BIRD'S FOOT TREFOIL WITH INNOCULENT, FERTILIZER MAY BE APPLIED AT THE RATE OF 7.5 LB PER 1.000 S.F. OF
- 10-10-10. SILT FENCE BARRIER TO BE MAINTAINED AND LEFT IN PLACE UNTIL ALL DISTURBED AREAS HAVE ESTABLISHED VEGETATION TO THE SATISFACTION OF TOWN STAFF.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTION AND MAINTENANCE OF SILT FENCE
- AND EROSION AND SEDIMENT CONTROL CONDITIONS ONSITE DURING CONSTRUCTION.
 PROJECT ENGINEER MAY BE CALLED FOR SPECIAL INSPECTIONS TO ASSESS EROSION AND
- SEDIMENT CONTROL PLAN EFFECTIVENESS AND MAKE REVISIONS AS NECESSARY.
- PROJECT ENGINEER MAY ALSO BE CALLED IN TO ASSESS EMERGENCY SITUATIONS (I.E. SEVERE FLOODING, RAINS OR OTHER ENVIRONMENTAL PROBLEMS).



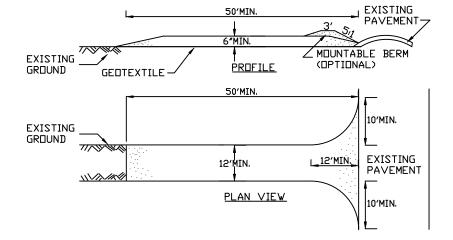




CT D□T No. 6

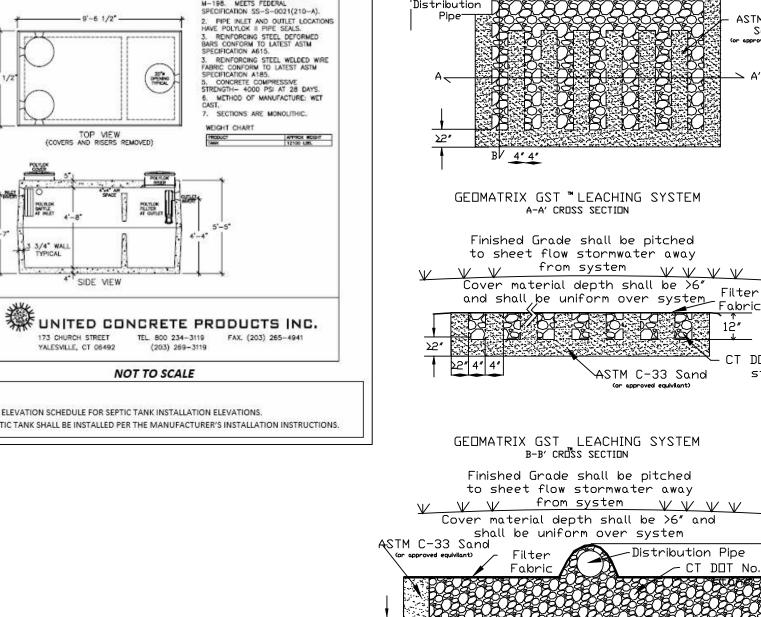
GEOMATRIX GST ™ LEACHING SYSTEM

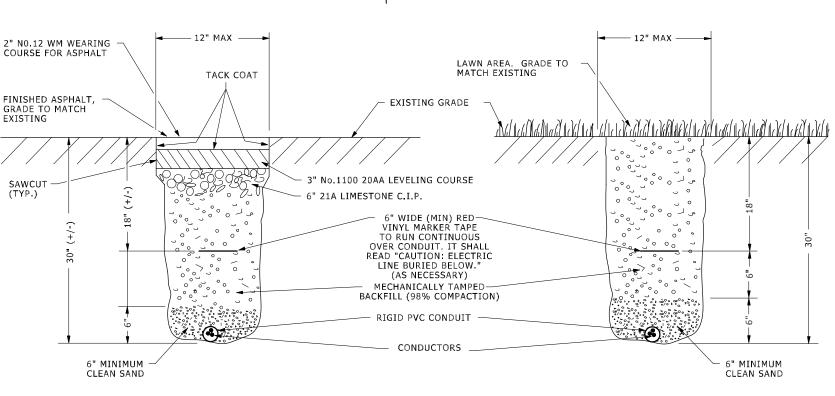
CONSTRUCTION ENTRANCE DETAIL



CONSTRUCTION SPECIFICATIONS

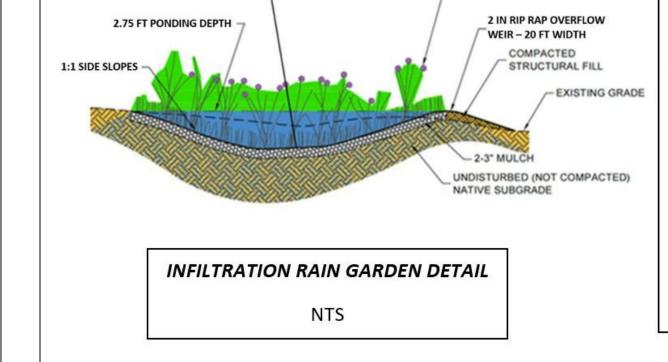
- 1. STONE SIZE USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2. LENGTH NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES.
- 4. WIDTH TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE
- 5. GEDTEXTILE WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- 8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH





ELECTRIC/COMMUNICATIONS TRENCH DETAIL

NOT TO SCALE



1. CONSTRUCTED TO SCALE AND GRADES INDICATED ON 2. RAIN GARDEN TO BE PLANTED WITH THE FOLLOWING

NATIVE PLANT THROUGHOUT THE MULCHED AREA.

PLANTS ARE TO BE 2 IN. PLUGS. a. SWAMP MILKWEED

RAIN GARDEN NOTES:

- b. NEW ENGLAND ASTER c. FOX SEDGE
- d. SPOTTED JOE-PYE WEED
- e. BLUE FLAG f. CARDINAL FLOWER
- g. WILD BERGAMOT
- h. GOLDEN RAGWORT
- i. SMOOTH BEARDTONGUE
- CUT-LEAF CONEFLOWER
- k. IRONWEED I. GOLDEN ALEXANDERS

137 GAY HILL ROAD - EXISTING STRUCTURE DATA

TEST HOLE DATA — EXISTING STRUCTURE

137 GAY HILL ROAD, MONTVILLE, CT DATE - JUNE 22, 2016

PRESENT - BILL BOND, JOHN & LYNETTE CROWLEY

HEALTH DEPARTMENT - KIMBERLY HAMLEY, SANITARIAN, UNCAS HD

TEST HOLE 1 - TH1

15" - 35" BROWN FINE SANDY LOAM

35" - 75" WET SAND AND GRAVEL

TOTAL TEST HOLE DEPTH - 75" - NO LEDGE REDOX/GW MOTTLING - 35"

PERCOLATION TEST DATA — EXISTING STRUCTURE 137 GAY HILL ROAD, MONTVILLE, CT DATE - JUNE 22, 2016

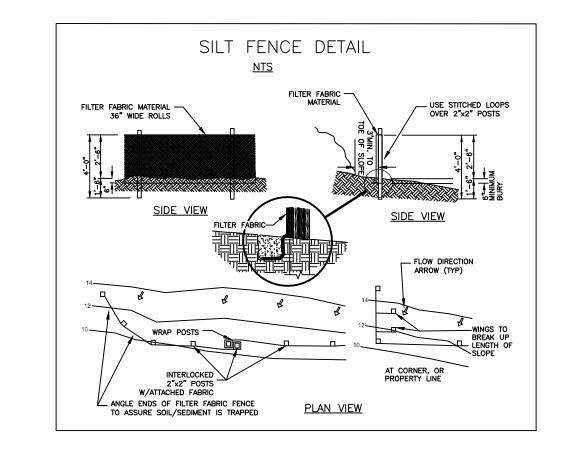
PRESENT - BILL BOND, JOHN & LYNETTE CROWLEY HEALTH DEPARTMENT - KIMBERLY HAMLEY, SANITARIAN, UNCAS HD

PERCOLATION TEST 1 - PT1 DEPTH - 24"

PRE-SOAK - 9:10AM

TIME	READING	WATER LEVEL DROP	(IRATE MIN./IN.
9: 45	4.50"		
9: 51	15.50 "	11.00"	0.55
9: 59	18.00 "	2.50"	3.20
10:06	19.50"	1.50"	4.67
10: 20	21.00"	1.50"	9.33
10: 25	21.50"	0.50"	10.00
10: 30	21.50"	0.00"	0.00
10: 35	22.00 "	0.50"	10.00
10: 40	23.00"	1.00"	5.00
10: 45	23.50 "	0.50"	10.00

PERCOLATION RATE AT 24" DEPTH = 10 MINUTES/INCH



DETAIL DRAWINGS 137 GAY HILL ROAD SUBDIVISION PROPERTY BELONGING TO: JOHN M. & LYNETTE S. CROWLEY 137 GAY HILL ROAD MONTVILLE, CONNECTICUT

REVISIONS:

June 27, 2022 JULY 26, 2022 AUGUST 15, 2022

SHEET 3 OF 3

WATER QUALITY VOLUME

NATIVE PLANTS AS SPECIFIED

THE WATER QUALITY VOLUME (WQV) FOR THE SUBDIVISION IS CALCULATED TO BE 2,071 FT³ AS PRESENTED BELOW. THE WQV IS TREATED WITH A PROPOSED RAIN GARDEN ON LOT 1A WITH MINIMUM 2,100 FT³ OF TREATMENT CAPACITY.

$$WQV = \frac{(1")(R)(A)}{12}$$

 $WQV = 0.0475 \ acre - foot$ $WQV = 2,071 ft^3$

R = 0.05 + 0.009(1)I = percent impervious coverI = 6.06% (6.06)R = 0.05 + 0.009(6.06)R = 0.1045A = 5.46 acres