

DRAINAGE DESIGNER/ENGINEER
 S.F.M. ENGINEERING ASSOCIATES
 410 TIGUE AVENUE
 COVENTRY, R.I. 02816
 (401)826-3736
 SCOTT.SFM@ATLANTICBB.NET

SCOTT F. MOOREHEAD
 REGISTERED PROFESSIONAL ENGINEER
 No. 4298

DATE: _____ REVISION: _____

CHK. BY: SFM JOB. NO. SFM848



- GENERAL NOTES**
- TOPOGRAPHY AND ELEVATIONS SHOWN ARE FROM AN ON-SITE SURVEY PERFORMED IN JUNE 2017. THE DATUM FOR THE PROJECT IS ASSUMED.
 - THE SITE LIES WITHIN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). REFERENCE F.I.R.M. MAP NUMBER 4400700145G DATED MARCH 2, 2009.
 - REFER TO SOIL EVALUATION APPLICATION #0813-1217 DATED OCTOBER 4, 2017 FOR WATER TABLE DATA. EXCEPT WHERE INDICATED SITE IS ENTIRELY UNDEVELOPED.
 - STRAW BALE EROSION CHECK (R.I. STANDARD 8.1.0) SILT FENCE AND OR SILT SOCK SHALL BE INSTALLED AT ALL DOWNGRADIENT LIMITS OF DISTURBANCE PRIOR TO EARTH DISTURBING ACTIVITIES, AND SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
 - ALL IMPROVEMENTS SHALL BE ACCURATELY LOCATED AND STAKED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - ALL DISTURBED AREAS SHALL BE STABILIZED WITH 4" LOAM AND SEED OR SOD, PROPOSED SLOPES SHALL BE 3:1 (TYPICAL).
 - EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. DIG SAFE AND APPROPRIATE UTILITY AUTHORITIES SHALL BE NOTIFIED PRIOR TO ANY CONSTRUCTION FOR ACCURATE UTILITY LOCATIONS.
 - ALL WORK SHALL BE PERFORMED IN STRICT CONFORMANCE WITH THE REQUIREMENTS OF THE R.I.D.E.M. O.W.T.S. PERMIT, AND IN COMPLIANCE WITH ALL TOWN REGULATIONS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
 - ALL STAGES OF O.W.T.S. CONSTRUCTION MUST BE SUPERVISED BY THE SYSTEM DESIGNER.
 - THE SITE IS 100' WITHIN THE SCITUATE RESERVOIR DRINKING WATER SUPPLY WATER SHED.
 - THERE ARE NO STRUCTURES, EXISTING ON-SITE WASTEWATER TREATMENT SYSTEMS OR WATER SUPPLY STRUCTURES WITHIN 100' OF THE PROPERTY LINES EXCEPT AS SHOWN.

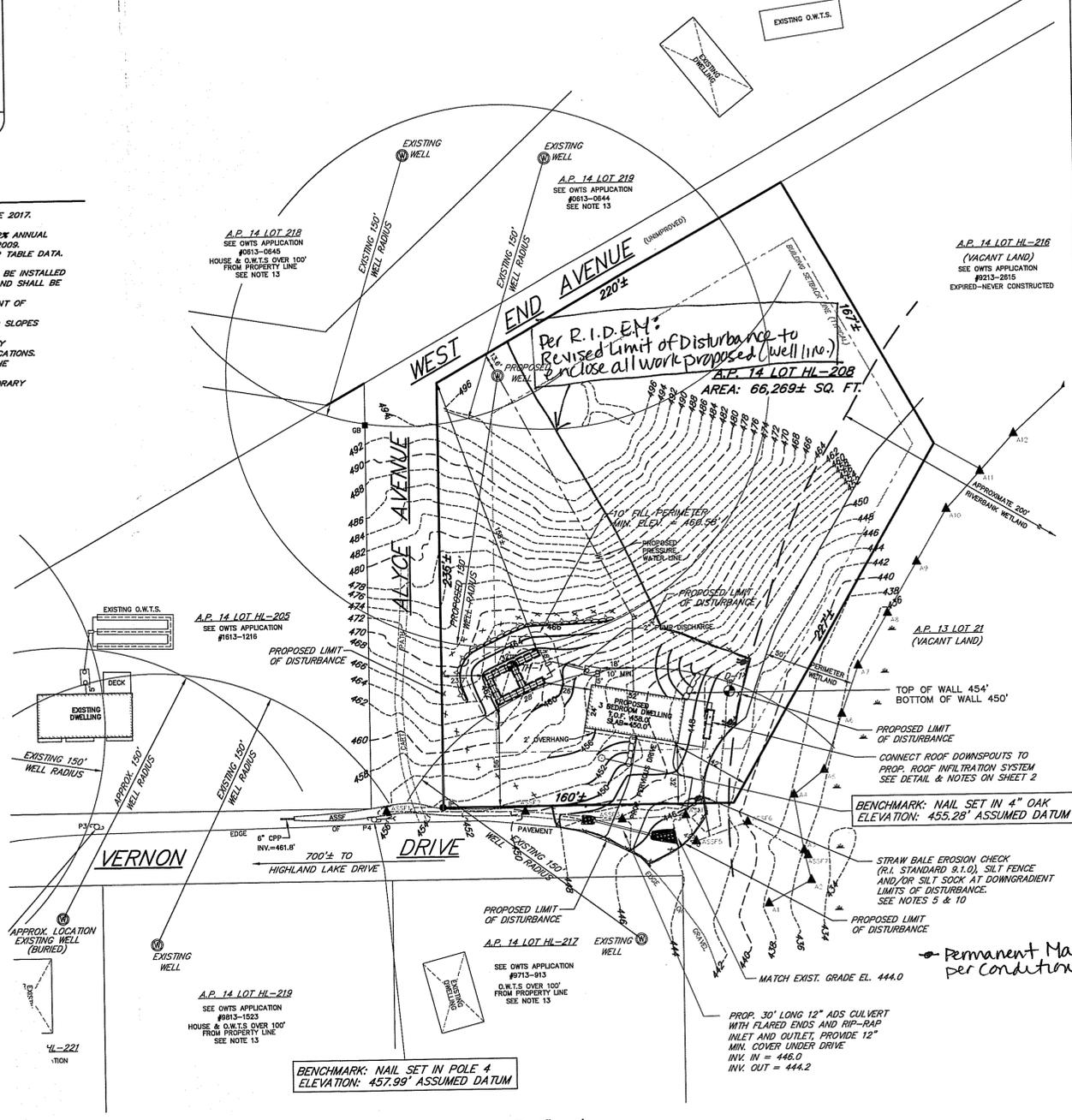
DESIGN CRITERIA

SEWAGE FLOW - 3 BEDROOMS - 115 GALLONS PER BEDROOM UNIT
 PERCOLATION RATE - SOIL CATEGORY 1m - .61 GALLONS/SQ. FT./DAY
 TOTAL DAILY FLOW: 115 GALLONS/DAY/BEDROOM - 115 x 3 = 345 GALLONS PER DAY
 MINIMUM REQUIRED LEACH FIELD AREA = 61 GALS./SQ. FT./DAY = 565.6 SQ. FT.
 345 GALLONS PER DAY (MAX.) + 61 GALS./SQ. FT./DAY = 588.5 SQ. FT.
 LEACH FIELD AREA PROVIDED: 21 ELLEN UNITS X 4 X 7 = 588 SQ. FT.
 LEACH FIELD DESIGN POINT: ELEVATION 464.0±

DOSING CALCULATIONS

LINEAR FEET OF LEACH FIELD PIPE = 871
 87' x .0873 (4" PIPE VOLUME) = 7.60cf
 DESIGN LOADING RATE OF 60% = 75%
 7.60cf x .60 = 4.56
 7.60cf x .75 = 5.70
 DISCHARGE LENGTH = 201'
 20' x .022 (2" PIPE VOLUME) = 0.44cf
 MAXIMUM DOSING RATE + DISCHARGE PIPE VOLUME
 5.70 + 0.44 = 6.14cf
 1,000 GAL. SEPTIC TANK AREA
 8.5' x 4.83' = 41 SQ. FT.
 MAXIMUM VOLUME + TANK AREA
 6.14cf + 41 SQ. FT. = .15' OR 1.75" DRAWDOWN

- LEGEND**
- A.P. ASSESSOR'S PLAT
 - UTILITY POLE
 - EXISTING CONTOUR ELEVATION
 - PROPOSED CONTOUR ELEVATION
 - SOIL EVALUATION TEST PIPE
 - CORRUGATED PLASTIC PIPE
 - EXISTING/PROPOSED WELL
 - EXISTING SPOT ELEVATION
 - IRON PIPE FOUND
 - GRANITE BOUND FOUND

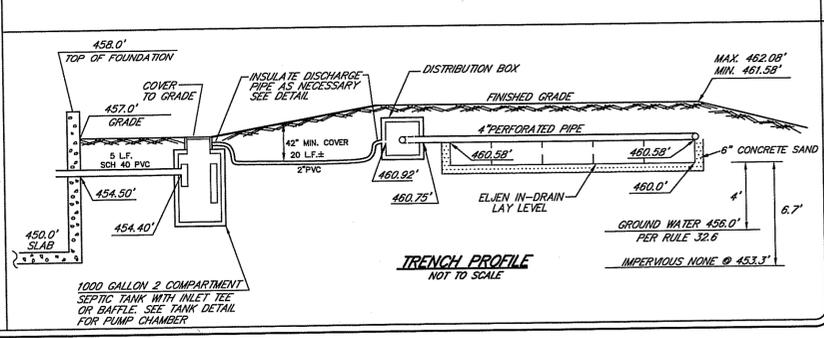
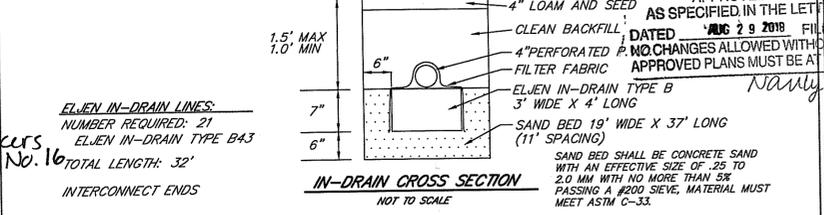
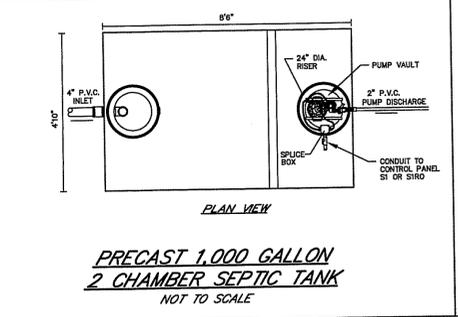
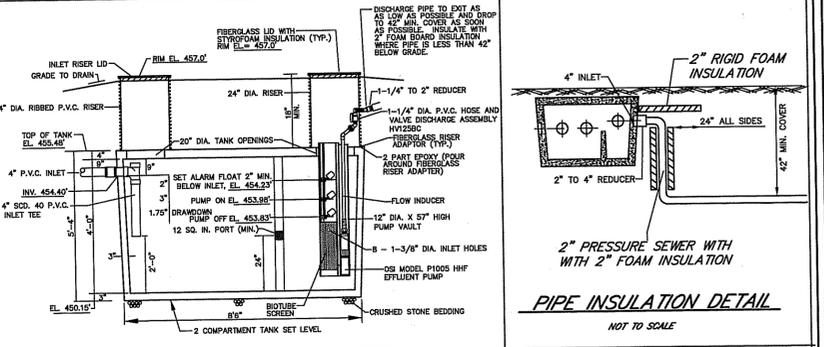


OWNER/APPLICANT
 NARDELLI PROPERTIES, LLC
 519 PUTNAM PIKE
 CHEPACHET, R.I. 02814

GROUND WATER & LEDGE DEPTH TABLE

TEST PIT	GROUNDWATER DEPTH	EXISTING GROUND	GROUNDWATER ELEVATION	LEDGE DEPTH	LEDGE ELEVATION
TH-1	8.0'	463.7'	455.7'	10.7'	453.0'
D-1	7.0'	444.0'	437.0'	9.0'	435.0'

- DESIGN AND CONSTRUCTION NOTES:**
- ALL WORK SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT RULES AND REGULATIONS, AS AMENDED.
 - THE TOP OF FOUNDATION SHOWN HAS BEEN DESIGNED FOR O.W.T.S. PURPOSES ONLY. THE OWNER AND/OR CONTRACTOR IS ADVISED TO DETERMINE WHETHER THE BASEMENT FLOOR OF THE PROPOSED DWELLING IS AT OR BELOW THE GROUND WATER TABLE AND, IF SO, RAISE THE FOUNDATION ACCORDINGLY.
 - THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THIS SITE PLAN. THE DESIGNER MUST PERFORM ALL NECESSARY INSPECTIONS, BOTH DURING AND AFTER INSTALLATION, BEFORE ANY COMPONENT OF THE SYSTEM IS COVERED.
 - THE PROPERTY BOUNDARIES SHOWN HEREON HAVE BEEN COMPILED FROM MAPS, DEEDS, AND OTHER SOURCES OF INFORMATION, AND ARE SUBJECT TO SUCH MODIFICATIONS AS AN ACTUAL BOUNDARY SURVEY MAY DISCLOSE. TO THE EXTENT THAT SUCH BOUNDARIES ARE CRITICAL TO THE O.W.T.S. LOCATION, THEY MUST BE ESTABLISHED PRIOR TO CONSTRUCTION.
 - ALL TREES, STUMPS, AND BRUSH WITHIN A 10' PERIMETER AROUND THE SYSTEM MUST BE CLEARED.
 - THE EXCAVATION SHALL BE LEVEL AND SCARIFIED.
 - ALL TOPSOIL AND SUBSOIL WITHIN A 5' PERIMETER OF THE SYSTEM SHALL BE STRIPPED AND BACKFILLED WITH CLEAN, COARSE GRAVEL. EXCAVATION INTO IMPERVIOUS MATERIAL IS PROHIBITED UNLESS OTHERWISE APPROVED BY THE DIRECTOR.
 - MAINTAIN TRENCH INVERT ELEVATION FOR 10' BEYOND THE PERIMETER OF THE LEACHING FIELD. MAINTAIN 5' TO PROPERTY LINE FROM TOE OF 3:1 SIDE SLOPE.
 - INSTALL CAST IRON PIPE OR EQUIVALENT FROM THE FOUNDATION TO THE SEPTIC TANK. ALL OTHER PIPES MUST BE SDR 35 P.V.C. OR EQUIVALENT.
 - SUBSURFACE DRAINS AND WATER SUPPLY LINE TO BE INSTALLED IN CONFORMANCE WITH DISTANCES SPECIFIED IN TABLE 22.1.
 - ALL KNOWN EXISTING AND PROPOSED PUBLIC WATER SUPPLY WELLS WITHIN 500' OF THE SYSTEM ARE SHOWN; ALL KNOWN EXISTING AND PROPOSED PRIVATE WELLS WITHIN 200' OF THE SYSTEM ARE SHOWN; ALL KNOWN EXISTING AND PROPOSED SEPTIC SYSTEMS WITHIN 100' OF THE WELL ARE SHOWN.
 - ALL WORK MUST CONFORM TO THE REQUIREMENTS OF OTHER EXISTING PERMITS, IF ANY.
 - WITH RESPECT TO MUNICIPAL ZONING REQUIREMENTS, THE DESIGNER HAS MADE A REASONABLE EFFORT TO ASCERTAIN THE APPLICABLE DIMENSIONAL SETBACKS AND OTHER CONSTRAINTS TO DEVELOPMENT. DUE, HOWEVER, TO THE POSSIBILITY OF UNRECORDED VARIANCES, NON-COMFORMING USES, AND OTHER RELEVANT DOCUMENTS, IT REMAINS THE RESPONSIBILITY OF THE OWNER TO VERIFY THAT THIS DESIGN SATISFIES LOCAL CODES.
 - ALL STAGES OF CONSTRUCTION MUST BE SUPERVISED BY THE DESIGNER OF RECORD, UNLESS WAIVED BY THE DESIGNER. ALL IMPROVEMENTS MUST BE STAKED BY THE DESIGNER OR HIS AGENTS PRIOR TO CONSTRUCTION. THESE INCLUDE THE O.W.T.S., FOUNDATION, WELL, EROSION CONTROLS, CLEARING LIMITS AND ANY OTHER FEATURES DEEMED CRITICAL TO THE DESIGN.



SCITUATE SURVEYS, INC.
 410 TIGUE AVENUE
 COVENTRY, RHODE ISLAND 02816
 (401) 821-8101

LAND SURVEYING / MAPPING / SITE PLANNING

SCALE IN FEET: 0 20 40 80 120

ASSESSOR'S PLAT 14 LOT HL-208

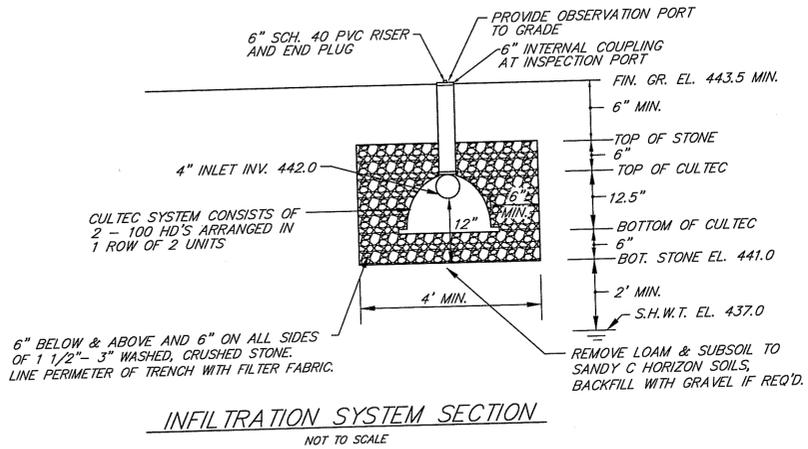
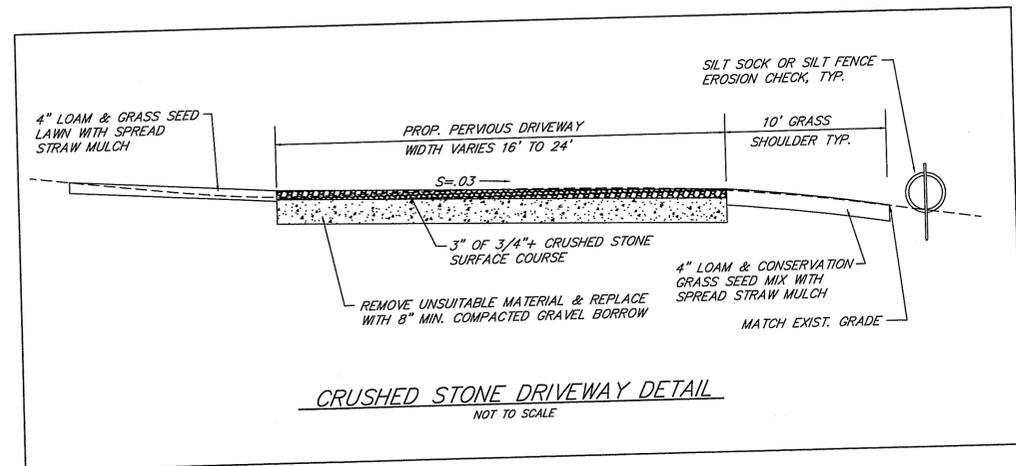
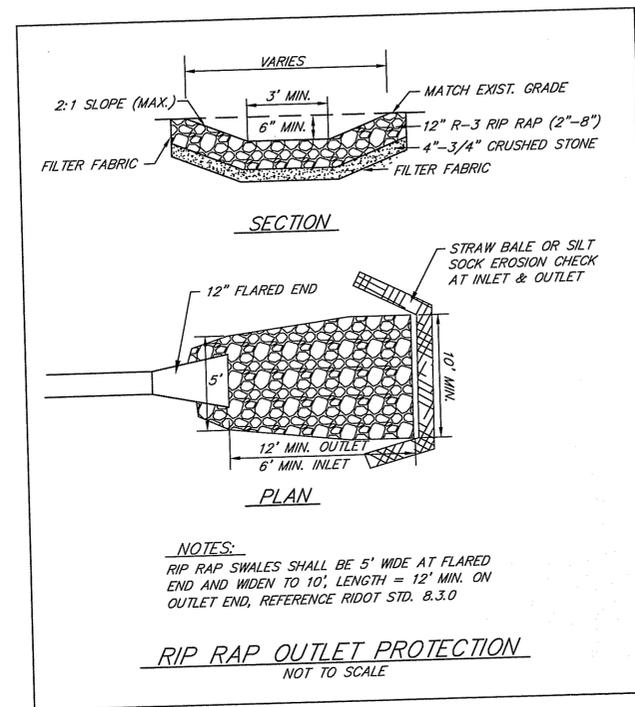
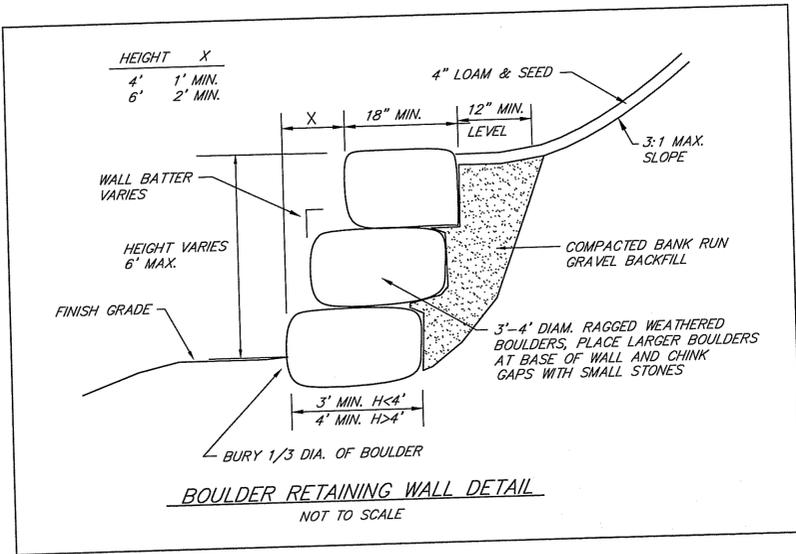
VERNON DRIVE
 GLOUCESTER, RHODE ISLAND

PREPARED FOR: NARDELLI PROPERTIES, LLC

DATE: JULY 19, 2017 REVISION: JULY 19, 2018

SCALE: 1"=40'

PROJECT NO.: SS2822 SHEET 1 OF 2
 DRAWING NO.: SS4422



ROOF INFILTRATION NOTES

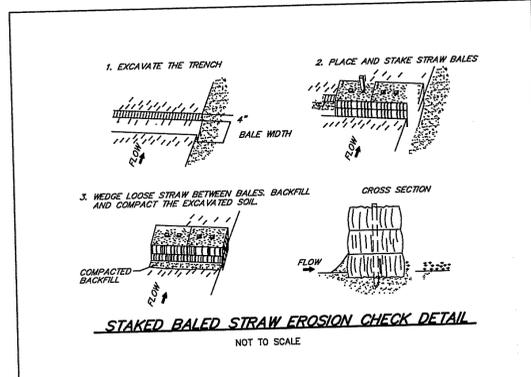
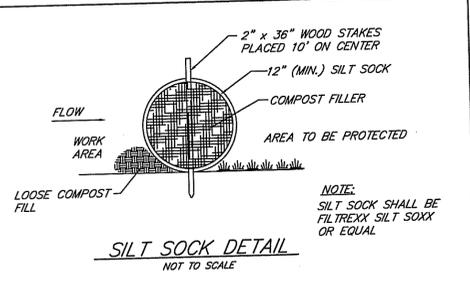
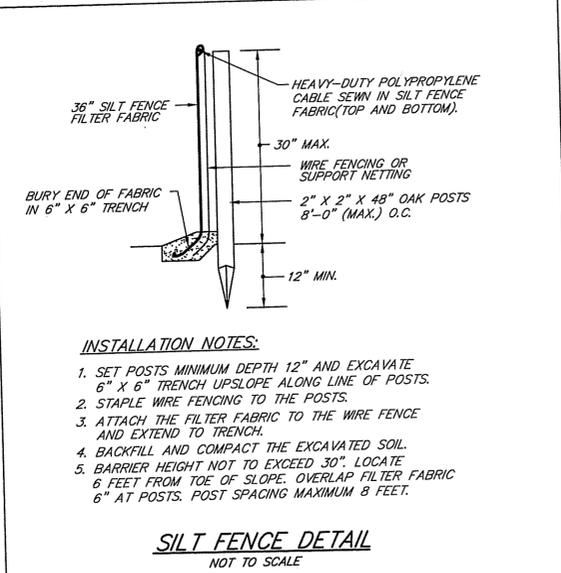
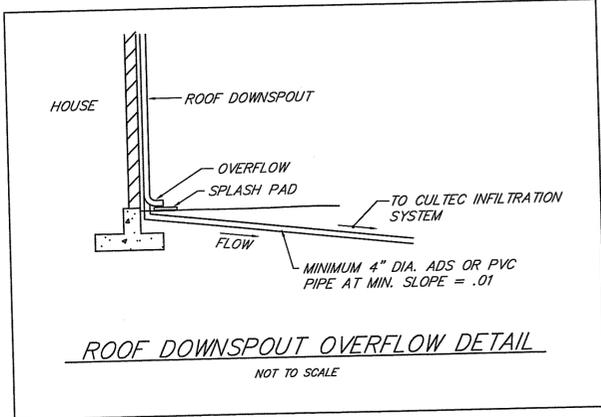
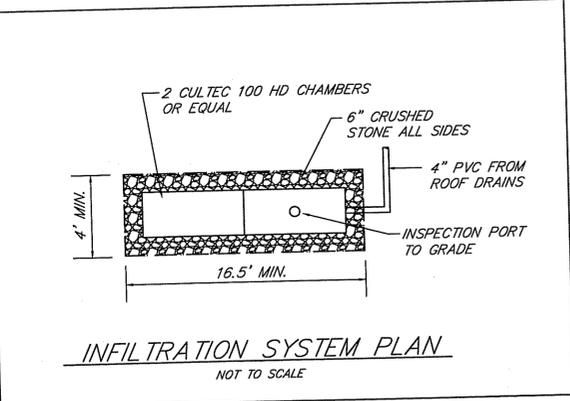
1. ROOF INFILTRATION SYSTEM AREA SHALL BE PROTECTED PRIOR TO COMMENCEMENT OF CONSTRUCTION TO PREVENT COMPACTION OF BOTTOM AREA.
2. INFILTRATION SYSTEM LOCATIONS AND ELEVATIONS MUST BE SET AND VERIFIED BY THE PROJECT ENGINEER PRIOR TO INSTALLATION.
3. INFILTRATION SYSTEM INSTALLATION MUST BE INSPECTED BY THE PROJECT ENGINEER.
4. INFILTRATION SYSTEM CHAMBERS SHALL BE CULTEC RECHARGER 100 HD UNITS OR EQUAL WITH 6\"/>
- 5. STONE AROUND CHAMBERS SHALL BE 1 1/2\"/>
- 6. FILTER FABRIC LINER SHALL BE MIRAFI 180-N 4 OR AMOCO 4552 OR EQUAL.
- 7. ROOF DRAINS SHALL BE 4\"/>
- 8. INFILTRATION SYSTEMS SHALL BE LOCATED A MINIMUM OF 10' FROM FOUNDATIONS AND PROPERTY LINES.
- 9. INFILTRATION SYSTEMS SHALL BE LOCATED A MINIMUM OF 15' FROM ALL OWTS COMPONENTS.

MAINTENANCE NOTES

1. THE INFILTRATION CHAMBERS SHALL BE PERIODICALLY INSPECTED AND MAINTAINED DURING CONSTRUCTION AND A MINIMUM OF TWICE PER YEAR UPON COMPLETION OF CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF ALL DRAINAGE FACILITIES, AS PER THEIR RESPECTIVE PROGRAMS, UNTIL FINAL ACCEPTANCE BY THE OWNER.
3. UPON FINAL ACCEPTANCE OF INSTALLATION, THE LOT OWNER SHALL BE RESPONSIBLE FOR ALL DRAINAGE INSPECTION AND MAINTENANCE.
4. ANY INADVERTENT OR DELIBERATE DISCHARGE OF WASTE OIL OR ANY OTHER POLLUTANT TO THE STORMWATER DISPOSAL SYSTEM REQUIRES IMMEDIATE NOTIFICATION OF THE RIDEM-UIC PROGRAM.
5. ANY INCIDENT OF GROUNDWATER CONTAMINATION RESULTING FROM THE IMPROPER DISCHARGE OF CONTAMINANTS TO THE DISPOSAL SYSTEM SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE RIDEM WILL REQUIRE THE PROPERTY OWNER TO REMEDIATE ANY INCIDENTS THAT MAY ADVERSELY IMPACT THE QUALITY OF THE GROUNDWATER.

ROOF INFILTRATION SYSTEM SIZING

ROOF INFILTRATION SYSTEM BASED ON A ROOF AREA OF 1,352 S.F.
 REQ'D. WATER QUALITY TREATMENT VOL. = 1,352' X 1\"/>



SCOTT F. MOOREHEAD
 REGISTERED PROFESSIONAL ENGINEER
 No. 4298

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DATE: _____ REVISION: _____
 CHK. BY: SFM JOB. NO. SFM848

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED **AUG 29 2018** FILE # **18-0180**
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED BY: *Nancy L. Freeman*

OWNER/APPLICANT
 NARDELLI PROPERTIES, LLC
 519 PUTNAM PIKE
 CHEPACHET, R.I. 02814

SCITUATE SURVEYS, INC.
 410 TIOGUE AVENUE
 COVENTRY, R.I. 02816
 401.826.1810

LAND SURVEYING/MAPPING/SITE PLANNING

SCALE IN FEET: _____

THIS SURVEY HAS BEEN CONDUCTED AND THE DATA HAS BEEN PREPARED PURSUANT TO SECTION 8 OF THE RULES AND REGULATIONS OF THE BOARD OF PROFESSIONAL LAND SURVEYORS OF THE STATE OF RHODE ISLAND, AS FOLLOWS:

DATE OF SURVEY: _____
 TYPE OF SURVEY: _____
 TYPE OF INSTRUMENTATION: _____
 TYPE OF ADJUSTMENT: _____
 TYPE OF CONTROL: _____
 TYPE OF ADJUSTMENT: _____
 TYPE OF ADJUSTMENT: _____

ANGELLO M. NARDELLI
 PROFESSIONAL LAND SURVEYOR
 No. 1762

PLAN OF PROPOSED IMPROVEMENTS TO
ASSESSOR'S PLAT 14 LOT HL-208

VERNON DRIVE
 GLOCESTER, RHODE ISLAND

PREPARED FOR: NARDELLI PROPERTIES, LLC

DATE: JULY 19, 2017 REVISION: JULY 18, 2018
 SCALE: AS NOTED

PROJECT NO.: SS2822 SHEET 2 OF 2
 DRAWING NO.: SS4422