

### DEEP TEST PIT RESULTS

DEEP TEST PITS WERE WITNESSED BY BRITANNY OTTO, E.H.S. OF THE NORTHEAST DISTRICT DEPARTMENT OF HEALTH ON 11/9/21.

- TP#1**  
 0 - 10" TOPSOIL  
 10 - 26" RED/BROWN SANDY LOAM  
 26 - 43" TAN SAND W/ SOME GRAVEL, MODERATELY COMPACT  
 43 - 70" GRAYISH MODERATELY COMPACT SAND W/ LARGE ROCKS  
 70 - 75" GROUNDWATER  
 NO MOTTLING  
 GROUNDWATER @ 70"  
 GROUNDWATER SEEPAGE @ 67"  
 NO LEDGE  
 ROOTS TO 43"  
 RESTRICTIVE @ 43"
- TP#2**  
 0 - 12" TOPSOIL  
 12 - 30" BROWN SANDY LOAM, MOIST  
 30 - 46" TAN MOTTLED VERY FINE SANDY LOAM  
 46 - 62" GRAYISH MEDIUM SAND, WET  
 62 - 73" GROUNDWATER  
 MOTTLING @ 30"  
 GROUNDWATER @ 62"  
 GROUNDWATER SEEPAGE @ 55"  
 NO LEDGE  
 ROOTS TO 28"  
 RESTRICTIVE @ 30"
- TP#3**  
 0 - 18" TOPSOIL  
 18 - 30" BROWN SANDY LOAM  
 30 - 40" TAN MOTTLED VERY FINE SANDY LOAM, MODERATELY COMPACT  
 40 - 62" GRAYISH MEDIUM SAND, WET  
 62 - 73" GROUNDWATER  
 MOTTLING @ 30"  
 GROUNDWATER @ 62"  
 GROUNDWATER SEEPAGE @ 50"  
 NO LEDGE  
 ROOTS TO 29"  
 RESTRICTIVE @ 30"

### PERCOLATION TEST RESULTS

PERCOLATION TEST WAS PERFORMED BY DEMIAN A. SORRENTINO, C.S.S. OF BOUNDARIES, LLC ON 11/9/21.

- PERC-1**  
 DEPTH OF PERC = 26"  
 PRESSURE: 1 HR  
 TIME READING  
 9:45 6-1/2"  
 9:50 13-1/2"  
 9:55 17"  
 10:00 19-1/4"  
 10:05 21"  
 10:10 22"  
 10:15 23"  
 10:20 24"  
 10:25 24-3/4"

PERCOLATION RATE AT 26"  
 DEPTH = 5.0 MINUTES/INCH

### SANITARY DESIGN CRITERIA & MLSS CALCULATIONS

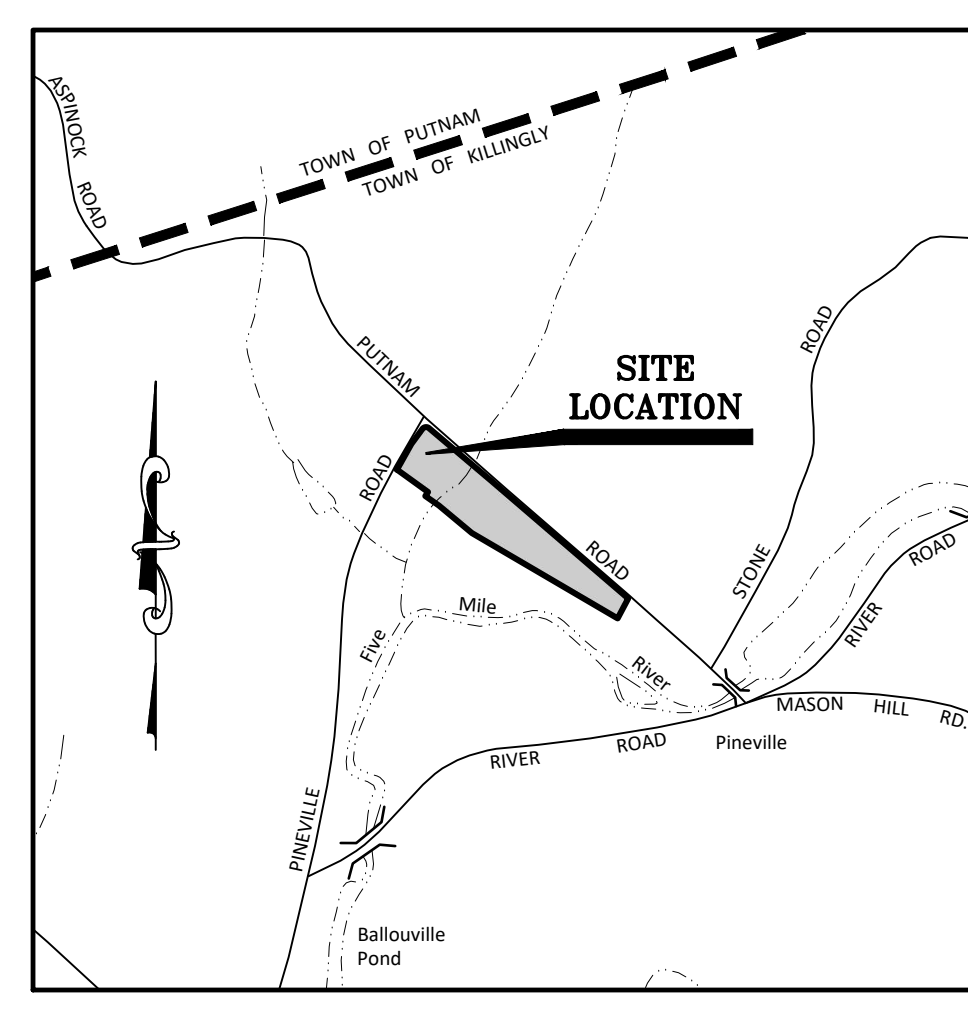
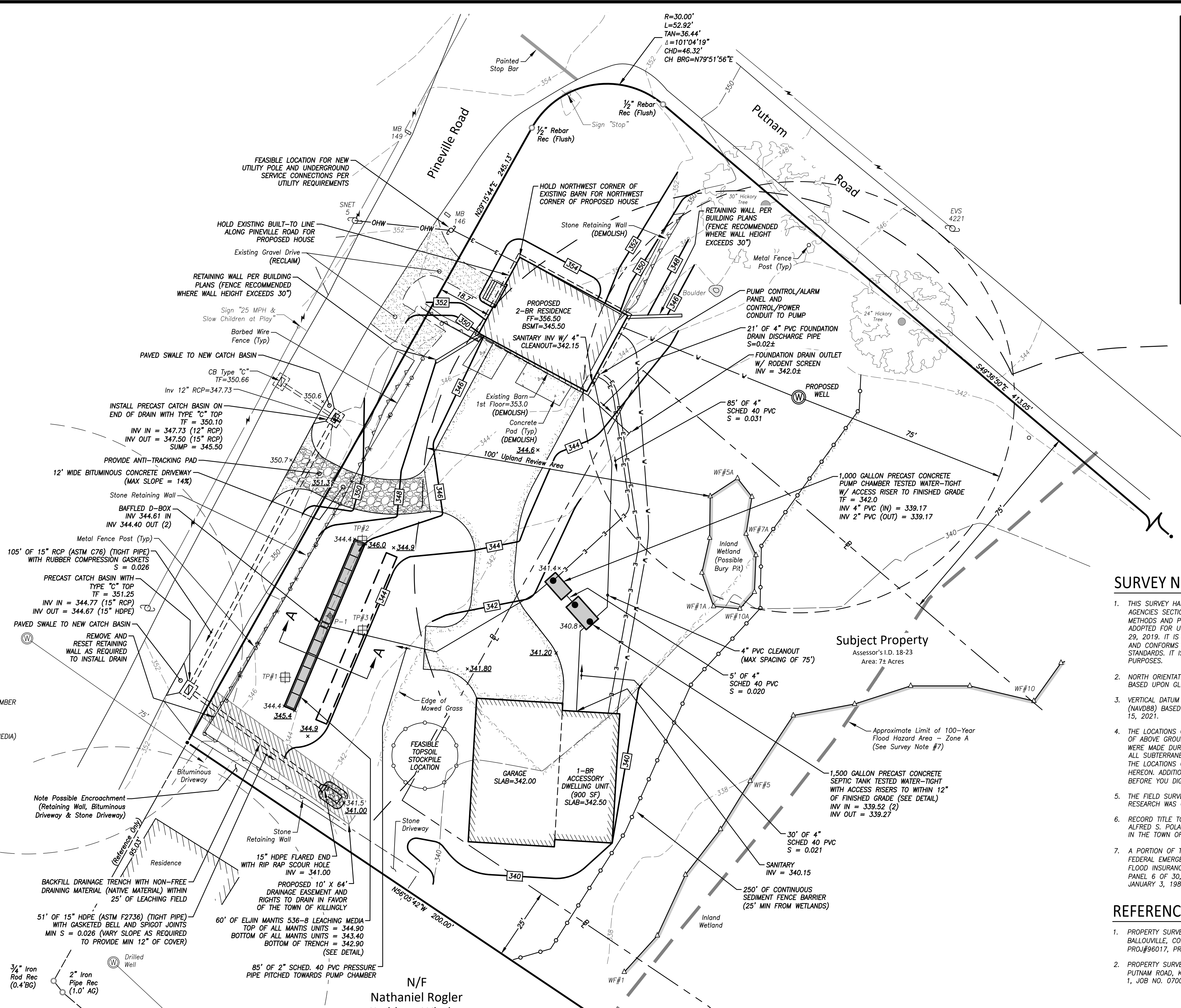
PROPOSED 2-BEDROOM HOUSE & 1-BR ACCESSORY DWELLING UNIT (DESIGN FOR MULTI-FAMILY RESIDENCE, 4-BR MINIMUM PER SECTION VII.F.1 OF THE TECHNICAL STANDARDS, LAST REVISED 1/1/19)  
 DESIGN PERCOLATION RATE = LESS THAN 10.1 MINUTES/INCH  
 LEACHING AREA REQUIRED = 660 SF EFFECTIVE (485 + 165)  
 DESIGN: 1,500 GALLON CONCRETE SEPTIC TANK, 1,000 GALLON CONCRETE PUMP CHAMBER AND 1 ROW OF 60' OF ELJIN MANTIS 536-8 LEACHING MEDIA INSTALLED PER MANUFACTURER'S SPECIFICATIONS.  
 LEACHING AREA PROVIDED = 660 SF EFFECTIVE (60 LF X 11.0 SF/LF)  
 100% RESERVE AREA PROVIDED (1 ROW OF 60' OF ELJIN MANTIS 536-8 LEACHING MEDIA)

#### MINIMUM LEACHING SYSTEM SPREAD (MLSS) CALCULATION

- |  |        |
|--|--------|
| HYDRAULIC GRADIENT                         | = 6.0% |
| DEPTH TO RESTRICTIVE LAYER (USE TP#4)      | = 30"  |
| HYDRAULIC FACTOR                           | = 30   |
| FLOW FACTOR FOR 4-BEDROOMS (MULTI-FAMILY)  | = 2.0  |
| PERCOLATION FACTOR FOR UP TO 10.0 MIN/INCH | = 1.0  |
| MLSS REQUIRED                              | = 60'  |
| MLSS PROVIDED                              | = 60'  |

### LEGEND & ABBREVIATIONS

- |      |                                |         |                     |
|------|--------------------------------|---------|---------------------|
| ⊕    | UTILITY POLE                   | △ WF#1  | WETLAND FLAG        |
| —    | GUY WIRE                       | ---     | EXISTING CONTOUR    |
| AT&T | AMERICAN TELEPHONE & TELEGRAPH | -180-   | PROPOSED CONTOUR    |
| ±    | MORE OR LESS                   | ⊙       | WELL                |
| N/F  | NOW OR FORMERLY                | x 174.2 | PROPOSED SPOT GRADE |
| BR   | BEDROOM                        | x 163.0 | EXISTING SPOT GRADE |
| FF   | FINISHED FLOOR                 | S       | SLOPE               |
| BSMT | BASEMENT                       | SAN     | SANITARY            |
| MB   | MAILBOX                        | INV     | INVERT              |
| TYP  | TYPICAL                        | ELEV    | ELEVATION           |
| ○    | REBAR                          | PVC     | POLYVINYL CHLORIDE  |
| ⊙    | DRILL HOLE                     | SCHED   | SCHEDULE            |
| REC  | RECOVERED                      | MIN     | MINIMUM             |
| AG   | ABOVE GROUND                   | ⊕       | DEEP TEST PIT       |
| W/   | WITH                           | ⊕       | PERCOLATION TEST    |



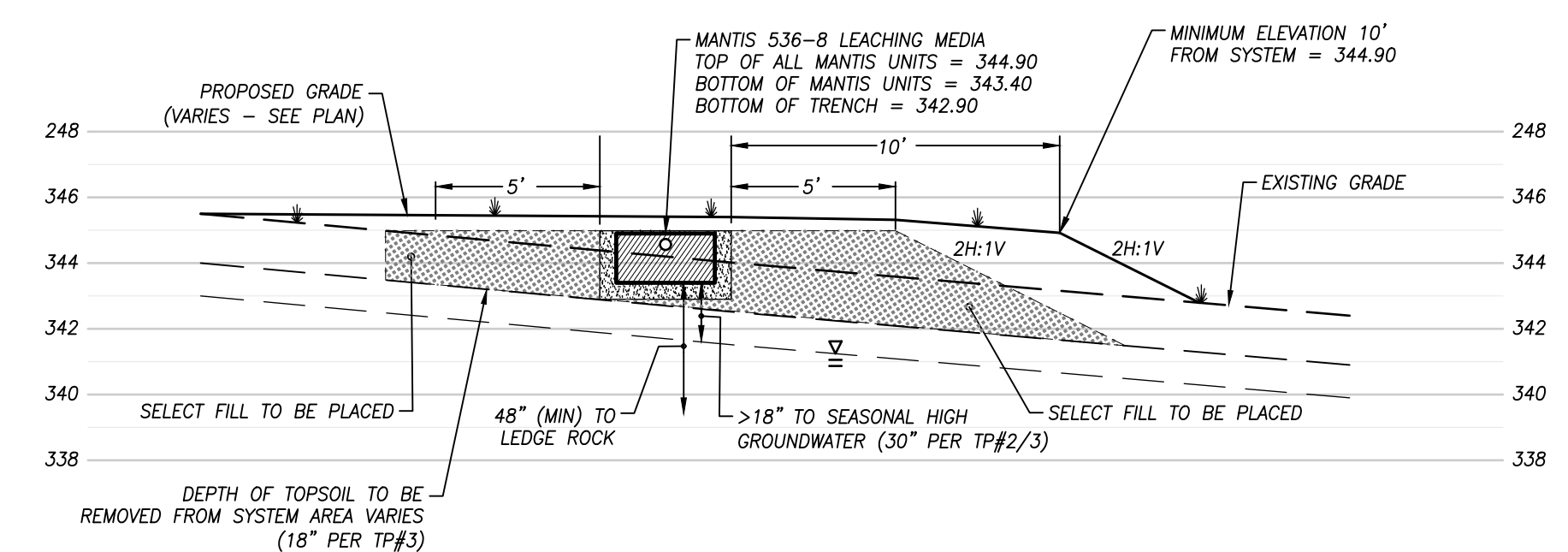
LOCATION MAP  
SCALE: 1"=1000'

### SURVEY NOTES

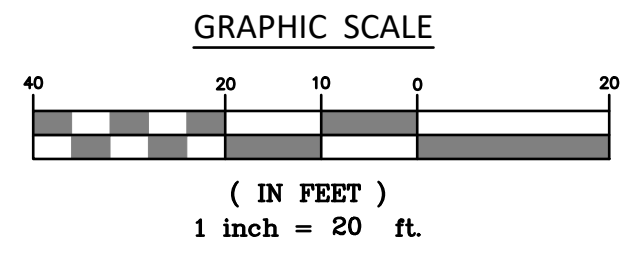
- THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-20 AND THE "STANDARDS AND SUGGESTED METHODS AND PROCEDURES FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED FOR USE BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON AUGUST 29, 2019. IT IS AN "IMPROVEMENT LOCATION & TOPOGRAPHIC SURVEY" BASED ON RESURVEY AND CONFORMS TO HORIZONTAL CLASS "A-2" AND TOPOGRAPHIC CLASS "T-2" ACCURACY STANDARDS. IT IS INTENDED TO BE USED FOR MUNICIPAL PERMITTING AND SITE DEVELOPMENT PURPOSES.
- NORTH ORIENTATION DEPICTED HEREON IS APPROXIMATE NORTH AMERICAN DATUM 1983 (NAD83) BASED UPON GLOBAL POSITIONING SYSTEM OBSERVATIONS, OBSERVED ON NOVEMBER 15, 2021.
- VERTICAL DATUM DEPICTED HEREON IS APPROXIMATE NORTH AMERICAN VERTICAL DATUM 1988 (NAV88) BASED GLOBAL POSITIONING SYSTEM OBSERVATIONS USING GEODET12B ON NOVEMBER 15, 2021.
- THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON THE LOCATION OF ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED BY OTHERS. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. ALL SUBTERRANEAN FEATURES AND IMPROVEMENTS MAY NOT BE DEPICTED OR NOTED HEREON. THE LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. CONTACT "CALL BEFORE YOU DIG" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OPERATIONS.
- THE FIELD SURVEY WAS COMPLETED ON NOVEMBER 15, 2021. LAND RECORD AND RELATED RESEARCH WAS COMPLETED ON OCTOBER 18, 2021.
- RECORD TITLE TO THE SUBJECT PROPERTY MAY BE REFERENCED TO A WARRANTY DEED FROM ALFRED S. POLANO AND JUDITH M. POLANO TO TAMMY RAINVILLE RECORDED AUGUST 10, 2021 IN THE TOWN OF KILLINGLY LAND RECORDS VOLUME 1388 PAGE 555.
- A PORTION OF THE SUBJECT PROPERTY RESIDES IN FLOOD ZONE "A" AS DEPICTED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) NATIONAL FLOOD INSURANCE PROGRAM (NFIP), FLOOD INSURANCE RATE MAP (FIRM), TOWN OF KILLINGLY, CONNECTICUT, WINDHAM COUNTY, PANEL 6 OF 30, COMMUNITY PANEL NUMBER 0901360006B, SCALE: 1"=400', EFFECTIVE DATE JANUARY 3, 1985.

### REFERENCE MAPS

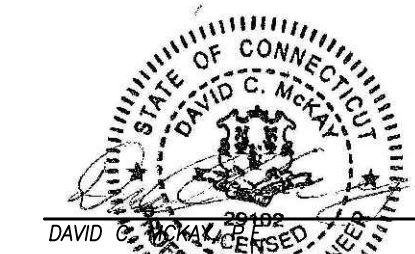
- PROPERTY SURVEY PREPARED FOR FRANK P. STANTON & KIM M. STANTON, PINEVILLE ROAD, BALLOUVILLE, CONNECTICUT, SCALE 1"=40', DATED: JANUARY 14, 1999, SHEET 1 OF 1, PROJ#96017, PREPARED BY: KWP ASSOCIATES.
- PROPERTY SURVEY PREPARED FOR ALFRED S. & JUDITH M. POLANO, PINEVILLE ROAD & PUTNAM ROAD, KILLINGLY, CONNECTICUT, SCALE 1"=50', DATED: FEBRUARY 2007, SHEET 1 OF 1, JOB NO. 07003, PREPARED BY: PC SURVEY ASSOCIATES, LLC.



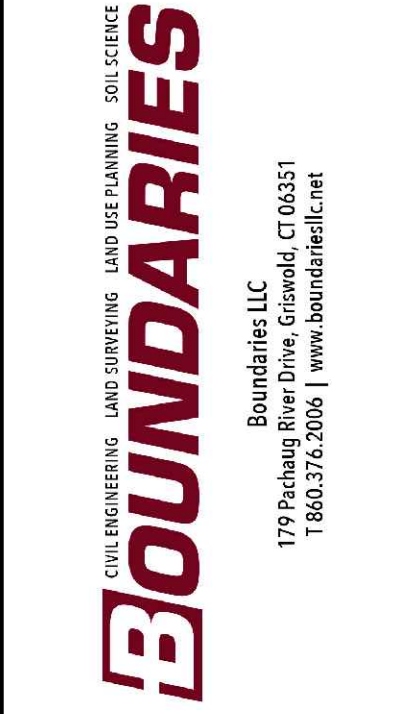
LEACHING SYSTEM CROSS SECTION A-A  
SCALE: 1"=5' (HORIZONTAL & VERTICAL)



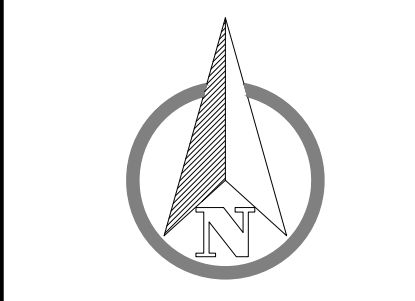
INLAND WETLANDS AS DEPICTED ON THIS PLAN WERE DERIVED FROM REFERENCE MAP #1, BASED ON AN INSPECTION OF CURRENT CONDITIONS. THE DELINEATION APPEARS TO BE ACCURATE.  
 DEMIAN A. SORRENTINO, C.S.S. DATE 2/7/22



TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED THEREON.  
 JOHN U. FAULSE, JR., SURVEYOR License No. 70016 DATE 2/7/22



Improvement Location & Topographic Survey  
 "Subsurface Sewage Disposal System (SSDS) Design Plan"  
 Prepared for  
 Tammy Rainville & Robert LaBonte  
 146 Pineville Road - Dayville, Connecticut



SCALE:	1" = 20'
DATE:	December 2021
JOB I.D. NO.:	21-3089
Revisions	Rev. "A" - Per Town Eng. Comments - 2/7/22
SHEET NO.	1

P:\CIVIL 3D PROJECTS\2021\21-3089 LABONTE\DWG\DESIGN\21-3089 LABONTE SSDS PLAN\_REV.A.DWG

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**NARRATIVE**

THIS PROPOSAL INVOLVES THE REDEVELOPMENT OF AN EXISTING 7.0± ACRE PROPERTY LOCATED AT 146 PINEVILLE ROAD IN THE TOWN OF KILLINGLY, CONNECTICUT. THE PROPERTY CURRENTLY CONTAINS AN EXISTING AGRICULTURAL BARN AND GRAVEL DRIVEWAY AND IS INTENDED TO BE REDEVELOPED FOR RESIDENTIAL USE. THE CURRENT ZONING DESIGNATION OF THE SUBJECT PROPERTY IS RURAL DEVELOPMENT (RD) DISTRICT.

IMPROVEMENTS TO THE SITE REQUIRED TO SUPPORT THE PROPOSED RESIDENTIAL USE INCLUDES: DEMOLITION OF THE EXISTING BARN AND CONSTRUCTION OF A NEW TWO-BEDROOM SINGLE-FAMILY RESIDENCE IN THE FORMER BARN'S LOCATION; CONSTRUCTION OF A DETACHED GARAGE WITH 900 SF ACCESSORY DWELLING UNIT; A NEW DRIVEWAY TO ACCESS THE RESIDENCE AND GARAGE; A CODE COMPLIANT SUBSURFACE SEWAGE DISPOSAL SYSTEM (SSDS); DRILLED WATER SUPPLY WELL; ASSOCIATED SITE GRADING, AND EROSION & SEDIMENT CONTROL.

ACCORDING TO THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA), NATURAL RESOURCES CONSERVATION SERVICE (NRCS) WEB SOIL SURVEY FOR THE STATE OF CONNECTICUT, THE SOILS LOCATED UPON THE SUBJECT PROPERTY WITHIN THE AREA OF PROPOSED DEVELOPMENT CONSIST OF:

- 30A HINCKLEY LOAMY SAND, 3-15% SLOPES
- 701A WINNETT FINE SANDY LOAM, 0-3% SLOPES

INLAND WETLANDS DEPICTED ON THIS PLAN WERE DELINEATED BY DEMIAN SORRENTINO, C.S.S. THE PROPOSAL INCLUDES THE FILLING OF A 630 SF ISOLATED WETLAND AREA THAT HAS FORMED IN WHAT IS LIKELY AN OLD EXCAVATED AREA OR BURY PIT. NO DISTURBANCE OF THE LARGER RIPARIAN WETLANDS ASSOCIATED WITH THE FIVE MILE RIVER IS PROPOSED BY THIS PLAN. LAND DISTURBING ACTIVITY IS PROPOSED WITHIN THE 100' UPLAND REVIEW AREA, WHICH WILL REQUIRE ISSUANCE OF A PERMIT TO CONDUCT WORK UNDER THE KILLINGLY INLAND WETLANDS & WATERCOURSES COMMISSION.

TOPSOIL SHALL BE STOCKPILED ON SITE FOR REUSE IN CONJUNCTION WITH FINAL GRADING AND FOR FINAL SITE STABILIZATION AFTER GRADING IS COMPLETED, A 4" MINIMUM DEPTH OF TOPSOIL SHALL BE PLACED AND SEEDING WITH GRASS AND MULCH WITH HAY OR STRAW FOR PERMANENT STABILIZATION.

SEDIMENT FENCE OR WOOD CHIP BERMS SHALL BE INSTALLED AT LOCATIONS SHOWN PRIOR TO ANY EARTHWORK OPERATIONS. THESE MEASURES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

**SANITARY NOTES**

- THIS SEPTIC SYSTEM INSTALLATION INCLUDING ALL MATERIALS (PIPING, SEPTIC TANK, STONE, FILL, ETC.) USED FOR THIS SEPTIC SYSTEM SHALL CONFORM TO THE CURRENT EDITION/REVISION OF THE TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS REVISED JANUARY 1, 2018 OF THE CONNECTICUT PUBLIC HEALTH CODE BY THE STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH.
- THE PROPOSED HOUSE SEWER FROM THE BUILDING TO THE SEPTIC TANK SHALL BE SCHEDULE 40 PVC ASTM D 1785/ASTM D 2865 OR APPROVED EQUAL AND INDICATED IN TABLE NO. 2 OF TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS. ALL OTHER SEWER PIPE FOR THIS SEPTIC SYSTEM SHALL BE 4" PVC ASTM D3034, SDR 35 WITH RUBBER COMPRESSION GASKET OR BELL AND SPOUT OR APPROVED EQUAL.
- THERE ARE NO WELLS (POTABLE, GEOTHERMAL, OR IRRIGATION) WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM. THERE ARE NO SEPTIC SYSTEMS WITHIN 75' OF THE PROPOSED WELL.
- THERE SHALL BE NO STUMPS BURIED ON SITE OR BOLLERS BURIED WITHIN 50' DOWN GRADIENT OF THE SEPTIC SYSTEM. SHOULD ANY SIGNIFICANT VARIATIONS FROM THE TEST HOLE DATA BE ENCOUNTERED DURING EXCAVATIONS (LEDGE, GROUNDWATER, MOTILING, SOIL TYPE, ETC.), THE DESIGN ENGINEER SHALL BE NOTIFIED PRIOR TO INSTALLATION OF THE SEPTIC SYSTEM.
- ALL EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS AND ELEVATIONS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL CONTACT "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
- THE PROPOSED FILL FOR THIS SEPTIC SYSTEM SHALL MEET THE FOLLOWING SPECIFICATIONS:
  - A. 100% OF FILL SHALL PASS THROUGH A 3" SIEVE.
  - B. MAXIMUM % OF GRAVEL (BETWEEN #4 & #30 SIEVE) = 45%.
  - C. GRADATION OF FILL WITHOUT THE GRAVEL SHALL MEET THE FOLLOWING CRITERIA:
 

SIEVE SIZE	% PASSING (WET)	% PASSING (DRY)
#4	100%	100%
#10	70 - 100%	70 - 100%
#40	10 - 50%	10 - 75%
#100	0 - 20%	0 - 5%
#200	0 - 5%	0 - 2.5%
  - D. \* PERCENT PASSING THE #40 WET SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
  - E. PERCOLATION RATE AFTER PLACEMENT AND COMPACTION SHALL BE FASTER THAN OR EQUAL TO 10.0 MINUTES/INCH. A WET OR DRY SIEVE ANALYSIS MAY BE REQUIRED PRIOR TO FILL PLACEMENT TO VERIFY THAT IT MEETS THESE SPECIFICATIONS. THE FILL SHALL BE APPROVED BY THE LOCAL HEALTH DISTRICT/DEPARTMENT OR DESIGN ENGINEER PRIOR TO ITS PLACEMENT ON SITE.

- ELEN MANTIS SPECIFIED SAND SHALL CONFORM TO ASTM C33 SAND WITH LESS THAN 10% PASSING #100 SIEVE AND LESS THAN 5% PASSING #200 SIEVE BASED ON A WET SIEVE ANALYSIS.
- NO DEVIATION FROM THE APPROVED DESIGN PLAN SHALL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE LOCAL HEALTH DISTRICT/DEPARTMENT AND THE DESIGN ENGINEER.
- THE SEPTIC TANK AND PUMP CHAMBER SHALL BE PRECAST CONCRETE UNLESS OTHERWISE AUTHORIZED BY THE DESIGN ENGINEER. THE TANK SHALL BE TESTED WATER-TIGHT AS VERIFIED BY THE LOCAL HEALTH DEPARTMENT/DISTRICT (VACUUM TEST OR WATER PRESSURE TEST) IN ACCORDANCE WITH SECTION V.6.6 OF THE TECHNICAL STANDARDS. IF RISER ASSEMBLIES ARE UTILIZED OVER CLEANOUT OPENINGS, THE COVERS SHALL BE LEFT ON THE TANK. RISER COVERS SHALL WEIGH AT LEAST 59 POUNDS AND A SECONDARY SAFETY LID OR DEVICE SHALL BE PROVIDED INSIDE THE RISER.
- THIS SEPTIC SYSTEM HAS NOT BEEN SIZED TO INCLUDE CAPACITY FOR A GARBAGE GRINDER OR LARGE TUB. A GARBAGE GRINDER OR LARGE TUB SHALL NOT BE USED IN THE RESIDENCE WITHOUT INCREASING THE SIZE OF THE SEPTIC TANK. IF A GARBAGE GRINDER OR LARGE TUB IS DESIRED THEN THE SEPTIC TANK SIZE SHALL BE INCREASED IN ACCORDANCE WITH SECTION V.8.4 OF THE TECHNICAL STANDARDS. WATER TREATMENT WASTEWATER (WATER SORTER) SHALL NOT BE DISCHARGED TO THIS SEPTIC SYSTEM.
- THE SUBMERSIBLE EFFLUENT PUMP SHALL BE A LIBERTY PUMPS MODEL FL-31, 115 VOLT, SINGLE PHASE, 1/3 HP, 1,725 RPM OR APPROVED EQUAL, CAPABLE OF PUMPING 28 GPM WITH A TOTAL DYNAMIC HEAD OF 15 FEET. EACH PUMP CYCLE SHALL DISCHARGE 110± GALLONS. THE PUMP SHALL BE INSTALLED IN A 1,000 GALLON (MINIMUM) PRECAST CONCRETE PUMP CHAMBER WITH A CHECK VALVE AND DISCONNECT INSTALLED ON THE FORCE MAIN BENEATH THE MANHOLE RISER AT A DEPTH NOT GREATER THAN 30" BELOW ACCESS GRADE. A WEEP HOLE SHALL BE INSTALLED IN THE FORCE MAIN JUST UPSTREAM OF THE CHECK VALVE TO ALLOW PIPE TO DRAIN WHEN PUMP IS OFF. PUMP SHALL BE EQUIPPED WITH A VISIBLE AND AUDIBLE HIGH LEVEL ALARM. AN ELECTRICAL PERMIT IS REQUIRED FROM THE TOWN BUILDING OFFICIAL.
- THE PROPOSED SANITARY FORCE MAIN SHALL BE 2" SCHEDULE 40 PVC PRESSURE PIPE (ASTM D 1785) OR APPROVED EQUAL AND INDICATED IN TABLE NO. 2-B OF THE TECHNICAL STANDARDS. THIS PIPE SHALL BE PITCHED TO DRAIN BACK TO THE PUMP CHAMBER OR BE INSTALLED WITH A MINIMUM OF 42" OF COVER WHEREVER POSSIBLE.
- SITE PREPARATION PROCEDURE FOR THE INSTALLATION OF THE PROPOSED SEPTIC SYSTEM:
  - A. STRIP ALL TOPSOIL, VEGETATION AND ORGANIC MATERIAL IN THE AREA OF, AND 5' SURROUNDING, THE PRIMARY LEACHING TRENCHES EXTENDING TO THE LIMITS SHOWN ON CROSS SECTION A-A.
  - B. USING A HEAVY RAKE OR EQUAL, THOROUGHLY CARRY AND ROUGHEN UP THE EXPOSED SOIL. REMOVE ANY LARGE STONES (3"+) AND OTHER DEBRIS. PREVENT ANY VEHICULAR TRAFFIC, BACKHOE, TRUCKS, ETC. FROM SMOOTHING/COMPACTING THE EXPOSED SUBSOIL.
  - C. PLACE AND COMPACT SELECT FILL MEETING SPECIFICATIONS INDICATED ABOVE (NOTE #6) IN LIFTS OF NOT GREATER THAN 12" IN THE AREA OF THE PROPOSED LEACHING SYSTEM UP TO AT LEAST THE ELEVATION OF THE TOP OF THE LEACHING SYSTEM. SELECT FILL SHALL BE PLACED 5' FROM THE EDGE OF THE SYSTEM AND SLOPE TO THE EXISTING SUBSOIL AT 2H:1V (MAX) OUTSIDE OF THAT LIMIT.
  - D. PERFORM AT LEAST 1 PERCOLATION TEST ON PLACED FILL. FILL MUST HAVE A PERCOLATION RATE EQUAL TO OR FASTER THAN THAT AS INDICATED IN NOTE #6E. IF PERCOLATION RATE IS SLOWER THAN THAT RATE, ALL FILL SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE FILL MEETING PROPER SPECIFICATIONS.
  - E. EXCAVATE TRENCH TO DESIGN GRADES AND INSTALL SEPTIC SYSTEM PER MANUFACTURER'S SPECIFICATIONS (SEE WWW.ELEJEN.COM OR CONTACT 1-800-444-1359) AS SHOWN ON THIS PLAN USING APPROVED MATERIALS (SAND, PIPE, ETC.). NOTE: THE MANTIS UNITS ARE NOT APPROVED FOR AND SHALL NOT BE INSTALLED UNDER TRAVEL/PARKING AREAS.
  - F. AFTER SETTLING, THE COVER OVER THE SYSTEM SHALL BE A MINIMUM OF 6" AND A MAXIMUM OF 18" OF MATERIAL MEASURED FROM THE TOP OF THE MODULE TO FINISHED GRADE. GRADE TO BE PREVENT PONDING AND SEED WITH GRASS TO STABILIZE. THE FINISHED GRADE 10' FROM ANY PART OF THE PROPOSED MANTIS UNITS SHALL BE AT LEAST THE SAME ELEVATION AS THE TOP OF THE MANTIS UNITS. DO NOT DRIVE OR PAVE OVER SYSTEM.
  - G. ACCESS MANHOLES AT THE INLET BAFFLE AND AT THE OUTLET FILTER OF THE SEPTIC TANK SHALL BE INSTALLED TO WITHIN 12" OF FINISHED GRADE.
- FOR EXACT HOUSE DIMENSIONS, SEE BUILDING PLANS.
- BENCHMARK SHALL BE LOCATED IN THE AREA OF DEVELOPMENT PRIOR TO THE START OF CONSTRUCTION.
- PRIOR TO CONSTRUCTION, THE BUILDINGS, WELL AND SEPTIC SYSTEM SHALL BE STAKED OUT BY A LICENSED LAND SURVEYOR.

**OPERATION & MAINTENANCE OF EROSION CONTROLS**

NO CONSTRUCTION SHALL PROCEED UNTIL PROPER SEDIMENTATION AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED AS THE SEQUENCE OF CONSTRUCTION NECESSITATES.

ALL TEMPORARY FILL, STORAGE OR STOCKPILE AREAS SHALL BE PROPERLY STABILIZED TO PREVENT EROSION AND SUITABLY CONTAINED TO PREVENT TURBID RUNOFF. ALL AREAS AFFECTED BY TEMPORARY FILLS MUST BE RESTORED TO THEIR ORIGINAL CONTOURS AND REVEGETATED WITH SUITABLE VEGETATION. THE USE OF TEMPORARY FILL AND/OR EXCAVATION SHALL BE MINIMIZED TO ONLY THAT AREA REQUIRED TO PERFORM THE WORK.

DUMPING OF OIL OR OTHER DELETERIOUS MATERIALS ON THE GROUND IS FORBIDDEN. THE DEVELOPER OR CONTRACTOR SHALL PROVIDE A MEANS OF CATCHING, RETAINING AND PROPERLY DISPOSING OF DRAINED OIL, REMOVED OIL FILTERS, OR OTHER DELETERIOUS MATERIAL FROM EQUIPMENT USED ON SITE. VEHICLE MAINTENANCE SHALL BE COMPLETED OFF SITE. ALL OIL SPILLS SHALL BE IMMEDIATELY REPORTED TO THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION/HAZARDOUS MATERIALS OFFICE. FAILURE TO DO SO MAY RESULT IN THE IMPOSITION OF FINES UNDER THE APPLICABLE CONNECTICUT GENERAL STATUTES.

EVERY PRECAUTION SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT AND MINIMIZE THE DEGRADATION OF THE EXISTING WATER QUALITY. ALL ACTIVITIES SHALL BE IN CONFORMANCE TO AND CONSISTENT WITH ALL APPLICABLE WATER QUALITY STANDARDS AND MANAGEMENT PRACTICES AS SET FORTH BY LOCAL, STATE AND FEDERAL AGENCIES.

DURING THE PERIOD OF CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENT CONTROL MEASURES. SAID MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL. ACCUMULATED DEPOSITS OF SEDIMENT AND SILT SHALL BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE EROSION AND SEDIMENT CONTROL BARRIERS, AND UPON ESTABLISHMENT OF PERMANENT VEGETATIVE COVER, SUCH MATERIALS REMOVED SHALL BE SPREAD AND STABILIZED IN NON-WETLAND AREAS WHICH ARE NOT SUBJECT TO EROSION, OR WHICH ARE NOT TO BE PAVED OR BUILT UPON.

WOOD CHIP BERMS, SEDIMENT FENCE AND OTHER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED, CLEANED AND/OR REPLACED AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD IN ORDER TO MAINTAIN COMPLETE AND INTEGRAL EROSION AND SEDIMENT CONTROL. PROTECTION. ONCE IN PLACE, ALL EROSION AND SEDIMENT CONTROL FACILITIES AND MEASURES ARE TO REMAIN IN PLACE AND IN PROPER CONDITION AND BE CONTINUOUSLY MAINTAINED UNTIL FINAL GRADING HAS BEEN COMPLETED. ALL DISTURBED AREAS UPGRADIENT OF SAID FACILITIES HAVE BEEN PERMANENTLY STABILIZED AND ALL NEWLY GRESSED AREAS HAVE BEEN PERMANENTLY STABILIZED. SUCH PERMANENT STABILIZATION, THE FACILITIES SHALL BE DISMANTLED, REMOVED, AND DISPOSED OF IN AN APPROVED MANNER. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES BEYOND THOSE SHOWN ON THE PLANS OR PRESCRIBED HEREIN SHALL BE PUT IN PLACE, WHENEVER NECESSARY, TO ADDRESS FIELD CONDITIONS AND/OR AS ORDERED BY THE TOWN STAFF OR THEIR DESIGNATED AGENT.

DISURBANCE OF THE LAND SHALL BE LIMITED TO THE MINIMUM EXTENT NECESSARY TO COMPLETE THE PROPOSED DEVELOPMENT. ALL EXISTING TREES AND SHRUBS SHALL BE CONSERVED WHERE POSSIBLE, EXCEPT THOSE WHOSE REMOVAL IS REQUIRED TO PERFORM THE PROPOSED WORK. THE LIMITS OF DISTURBANCE SHALL BE ESTABLISHED IN THE FIELD PRIOR TO STARTING ANY ACTUAL CONSTRUCTION ACTIVITIES AND SHALL BE GENERALLY AS DEPICTED ON THIS PLAN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE IN ACCORDANCE WITH THE PROCEDURES AS OUTLINED IN THE "GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DETERIORATING WASTEWATERS FROM CONSTRUCTION ACTIVITIES" AS ADOPTED BY THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, EFFECTIVE ON DECEMBER 31, 2020.

THE CONTRACTOR SHALL INSPECT ALL DISTURBED AREAS OF CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF ALL RAIN EVENTS, WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE CONSECUTIVE MONTHS.

DURING CONSTRUCTION AND IMMEDIATELY FOLLOWING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE INSPECTION AND MAINTENANCE TO ASSURE PROPER PERFORMANCE OF THE SEDIMENTATION AND EROSION CONTROL SYSTEM. INSPECTING AND MAINTAINING SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:

- \* INSPECTION OF ALL SEDIMENT FENCE AND STAKED HAY BALES, REMOVE ACCUMULATED SEDIMENT IF REQUIRED (GREATER THAN 4" DEPTH)
- \* INSPECTION OF ANTI-TRACKING PAD, REMOVE, DISPOSE AND REPLACE IF PAD IS NO LONGER FUNCTIONAL IN THE CATCHMENT OF SEDIMENTS FROM VEHICULAR/TRUCK TRAFFIC.
- \* INSPECTION OF ALL DRIVEWAY AND PARKING AREAS AFTER PAVING, REMOVE ACCUMULATED SEDIMENT AND ANY LITTER/DEBRIS.

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE INSPECTED TO INSURE THAT THEY ARE OPERATING CORRECTLY, DISCHARGE LOCATIONS OR POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO DOWNSTREAM WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRAVEL.

THE CONTRACTOR SHALL APPOINT AN AGENT WHO SHALL BE PERSONALLY RESPONSIBLE FOR MAINTAINING THIS EROSION AND SEDIMENT CONTROL PLAN AND ENFORCING THE PRESCRIBED SAFEGUARDS DURING THE CONSTRUCTION PERIOD.

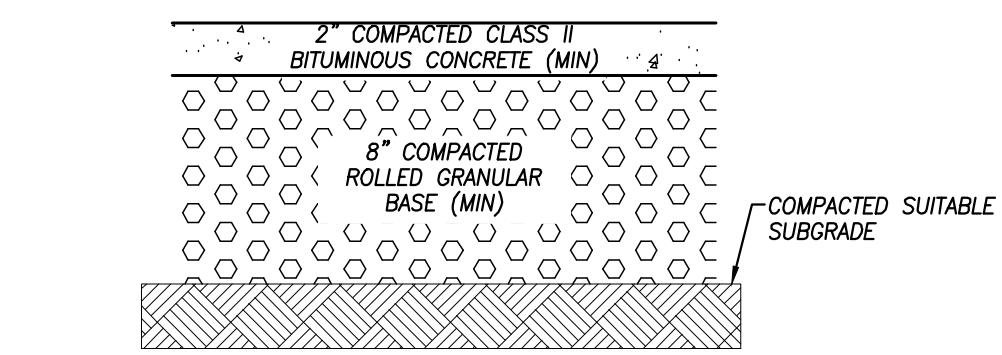
THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE PROPER TOWN AGENCIES AND OFFICIALS OF ANY TRANSFER OF THIS RESPONSIBILITY, AND CONVEYING A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IF THE TITLE OF THE LAND IS TRANSFERRED TO A THIRD PARTY.

**EROSION CONTROL NOTES**

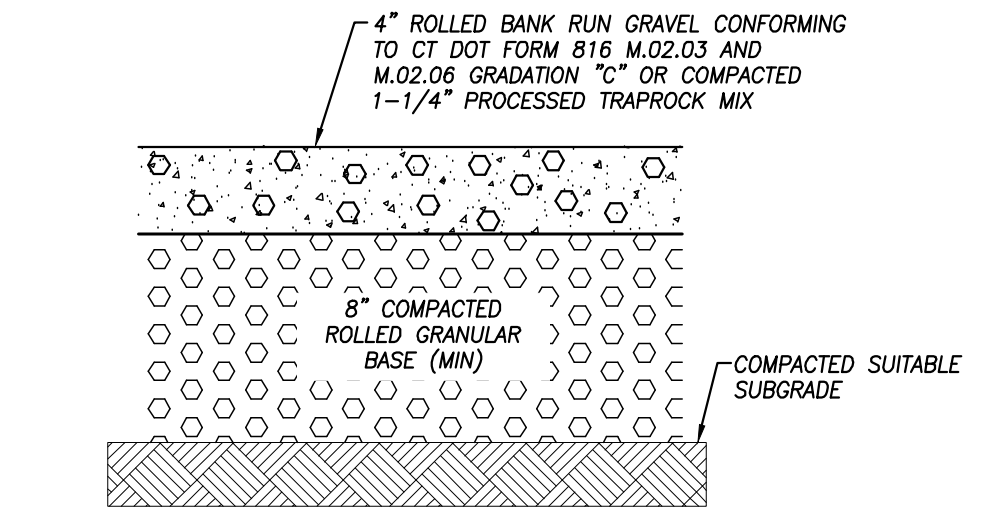
- ALL UTILITIES ARE APPROXIMATE. CONTRACTOR TO VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
- THE RESPONSIBLE PARTY FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES IS THE SITE CONTRACTOR.
- THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION, CT DEEP BULLETIN 34, SHALL BE USED FOR INSTALLING AND MAINTAINING ALL EROSION CONTROL MEASURES. THE PROPERTY OWNER SHALL INSTALL ADDITIONAL MEASURES AS NECESSARY IF DIRECTED BY THE ENGINEER OR TOWN STAFF.
- SEEDING FOR PERMANENT STABILIZATION SHALL BE COMPLETED BETWEEN APRIL 15 THROUGH JUNE 15 OR BETWEEN AUGUST 15 THROUGH SEPTEMBER 15. IF SEEDING CANNOT BE COMPLETED WITHIN THESE TIMES, APPLICATION OF TEMPORARY MULCH SHALL BE CONDUCTED UNTIL THE NEXT SEEDING PERIOD. SEED MIXTURE SHALL BE AS FOLLOWS:  
 APPROXIMATELY 2-3 BALE\$/1,000 SF.  
 KENTUCKY BLUEGRASS 20 LBS/ACRE OR 0.45 LBS/1,000 S.F.  
 CREEPING RED FESCUE 20 LBS/ACRE OR 0.45 LBS/1,000 S.F.  
 PERENNIAL RYEGRASS 5 LBS/ACRE OR 0.10 LBS/1,000 S.F.
- MULCH SHALL BE A GOOD QUALITY HAY OR STRAW AND SHALL BE APPLIED AT A RATE OF APPROXIMATELY 2-3 BALE\$/1,000 SF.
- ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WITHIN 24 HOURS AFTER RAIN EVENTS WITH GREATER THAN 0.5" OF RAINFALL IN A 24-HOUR PERIOD, AND REPAIRED OR REPLACED AS NECESSARY TO INSURE COMPLIANCE WITH THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.

**CONSTRUCTION SEQUENCE**

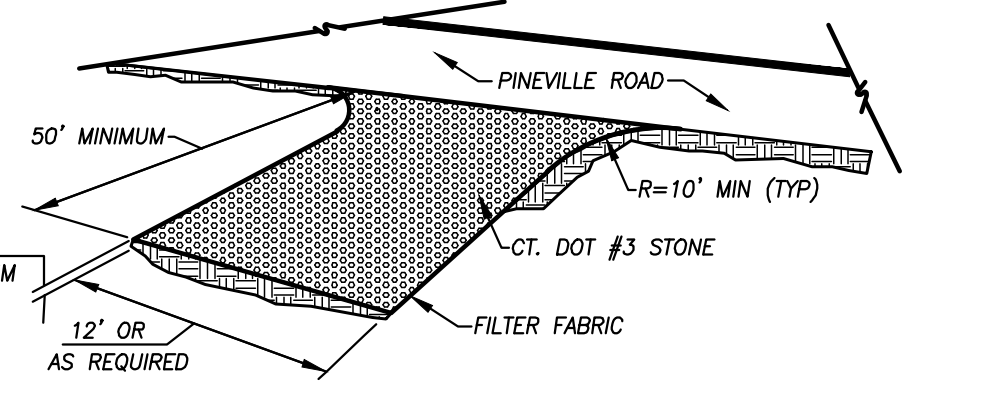
- SECURE ALL NECESSARY LOCAL, STATE AND FEDERAL PERMITS.
- INSTALL SEDIMENT FENCE IN SPECIFIED LOCATIONS AS SHOWN DOWNGRADIENT OF PROPOSED DEVELOPMENT AREA AND INSTALL ANTI-TRACKING PAD AT CONSTRUCTION ENTRANCE STRIP.
- DEMOLISH EXISTING BARN AND RETAINING WALLS. DISPOSE OF ALL DISCARDED MATERIALS AT AN APPROVED, OFF-SITE LOCATION.
- EXCAVATE FOR BUILDING FOUNDATIONS. INSTALL BUILDING FOUNDATIONS.
- PERFORM ALL NECESSARY ROUGH GRADING FOR BUILDING AND SUBSURFACE SEWAGE DISPOSAL SYSTEM.
- INSTALL UTILITY CONDUIT, CONSTRUCT HOUSE, INSTALL SUBSURFACE SEWAGE DISPOSAL SYSTEM AND WATER SUPPLY WELL, PERFORM FINAL SITE GRADING.
- AT COMPLETION OF CONSTRUCTION, LOAM ALL DISTURBED AREAS (4" MINIMUM), SEED WITH GRASS AND MULCH. AFTER ALL AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE EROSION CONTROL MEASURES.



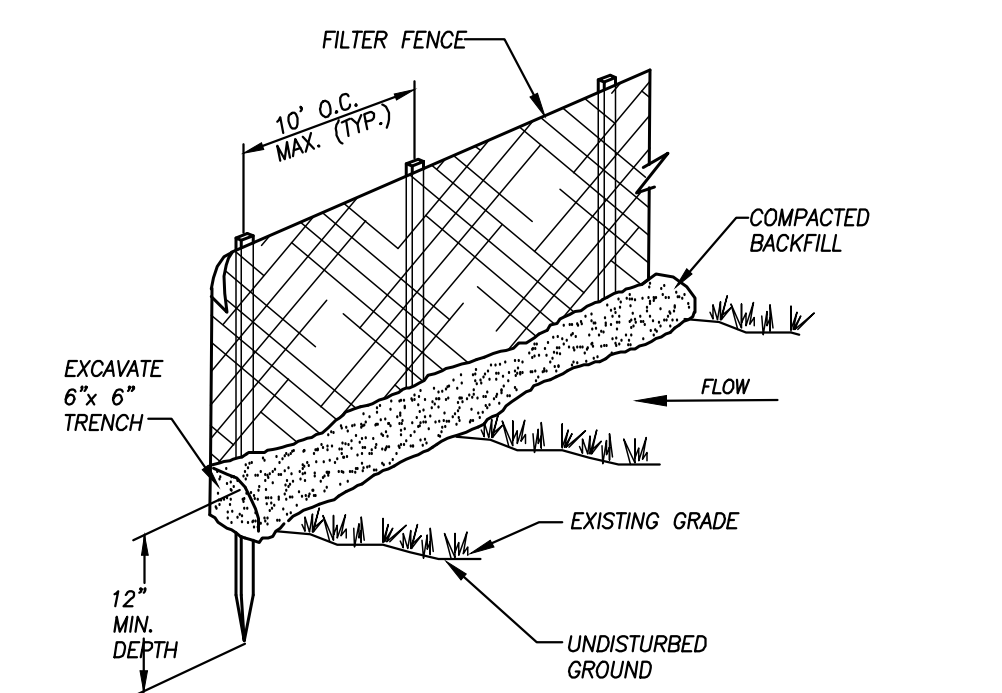
**BITUMINOUS CONCRETE PAVEMENT**  
NOT TO SCALE



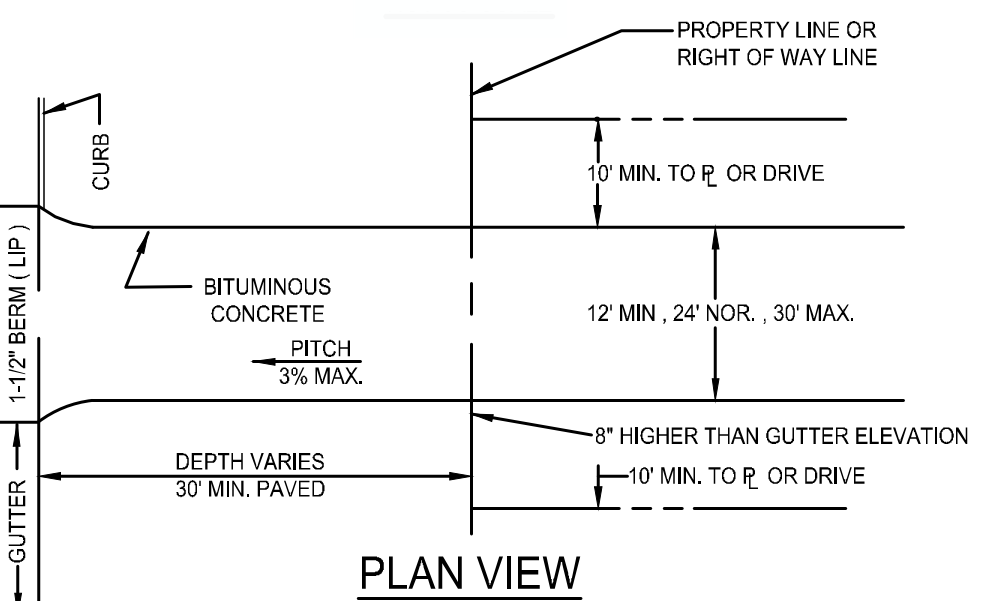
**TRAFFIC BOUND GRAVEL SURFACE**  
NOT TO SCALE



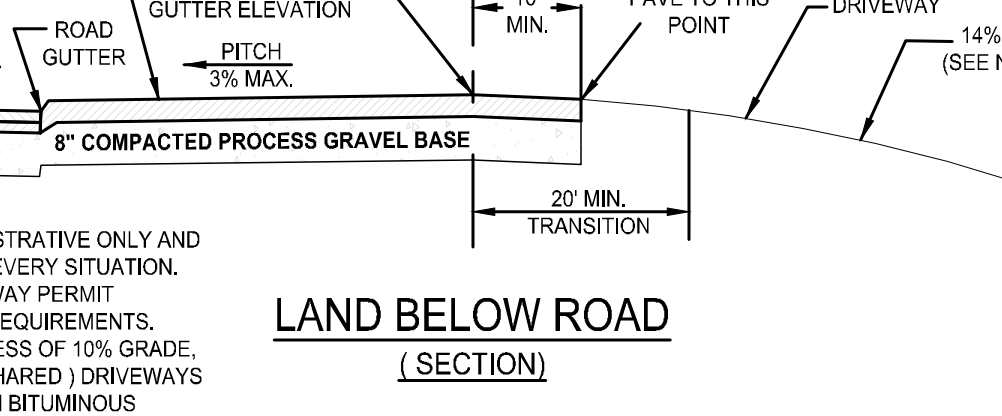
**ANTI-TRACKING PAD**  
NOT TO SCALE



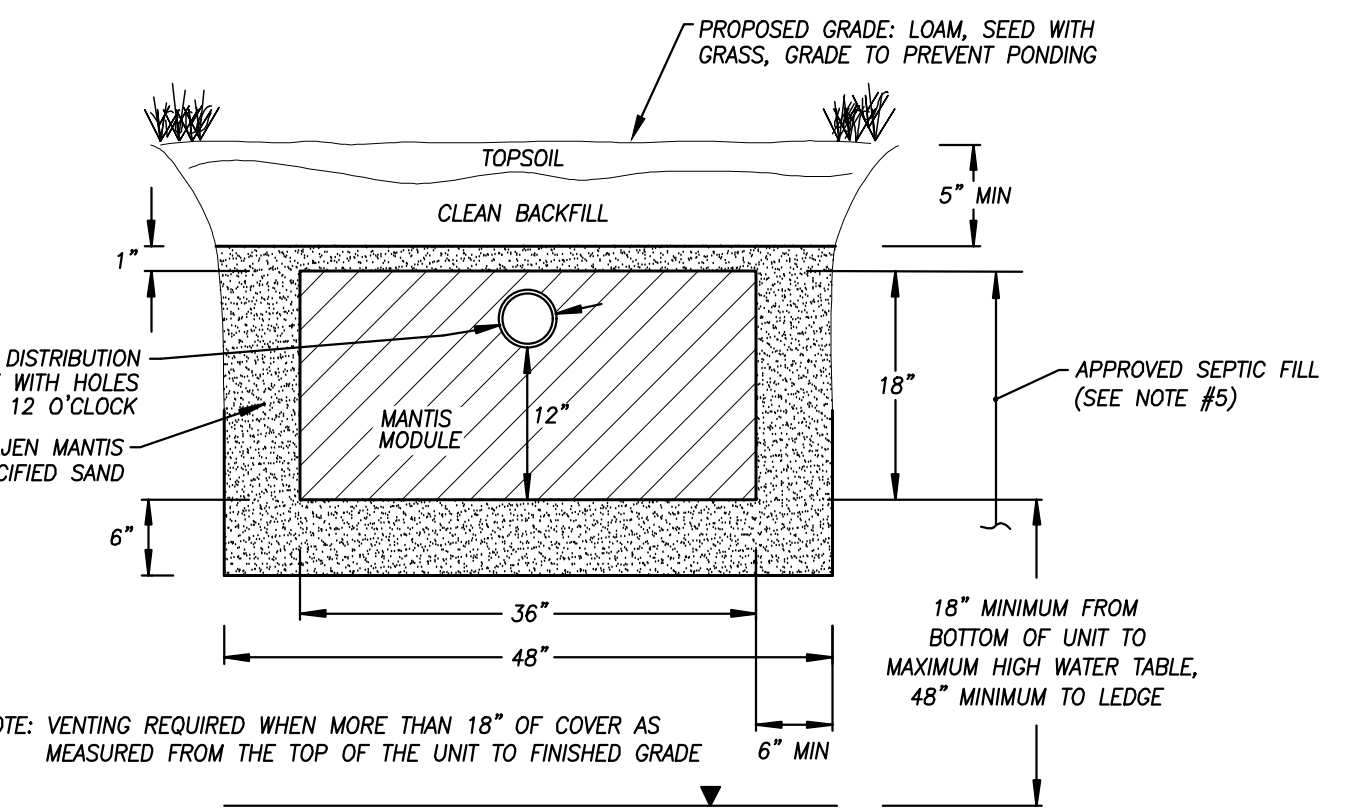
**SEDIMENT FENCE DETAIL**  
NOT TO SCALE



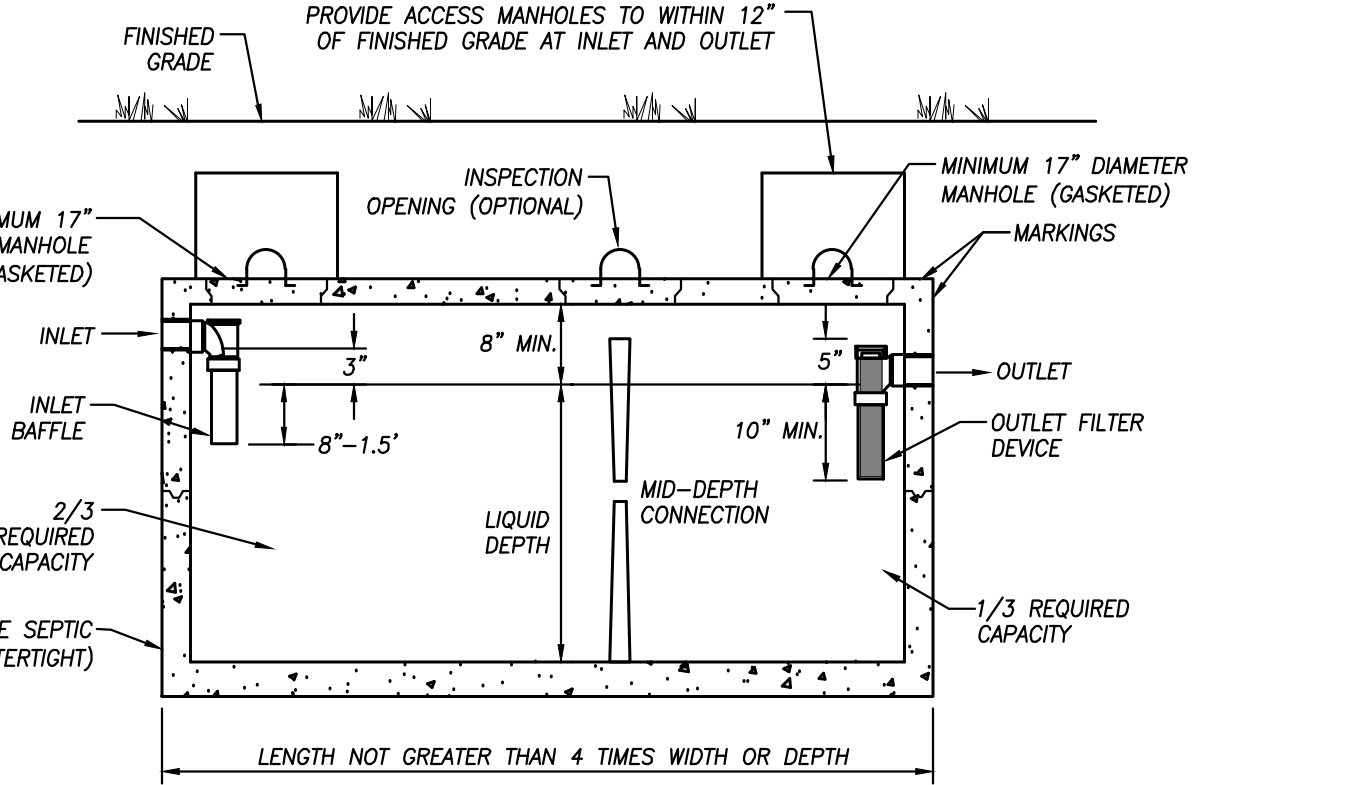
**LAND BELOW ROAD (SECTION)**  
NOT TO SCALE



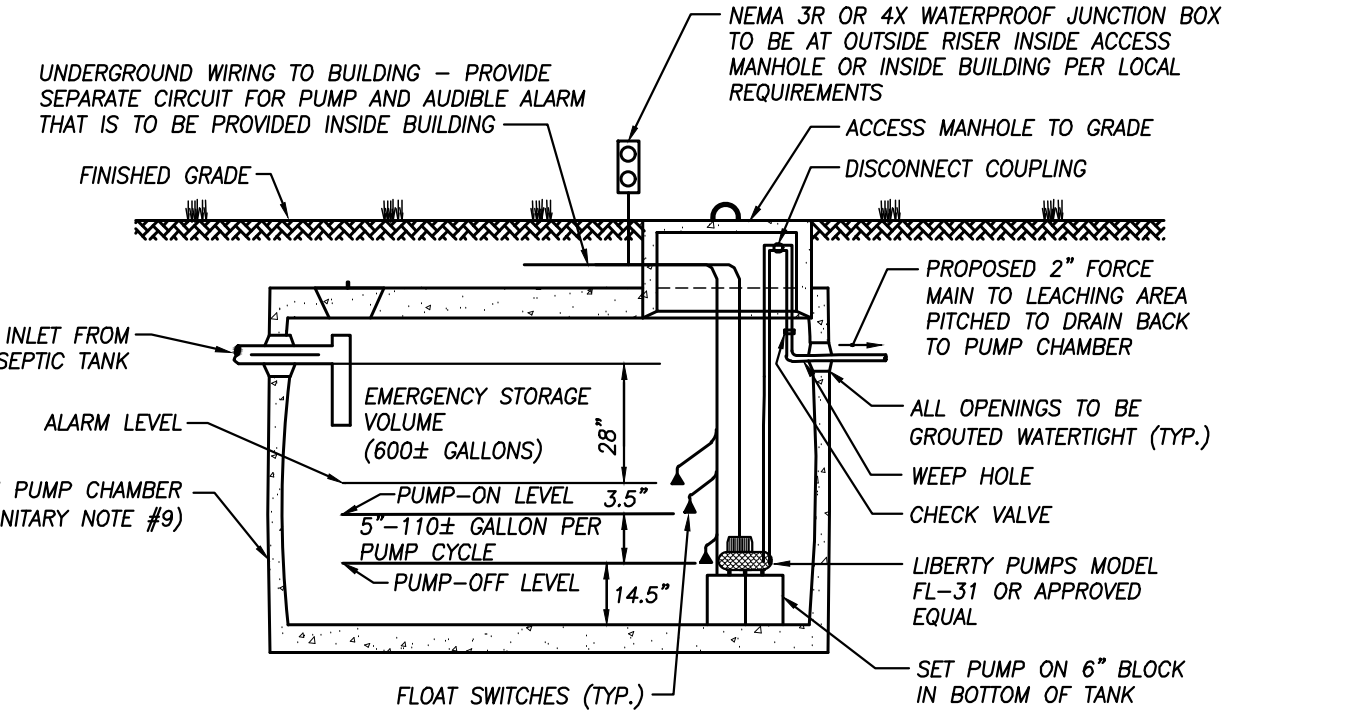
**PIPE AND OUTLET PROTECTION DETAIL**  
NOT TO SCALE



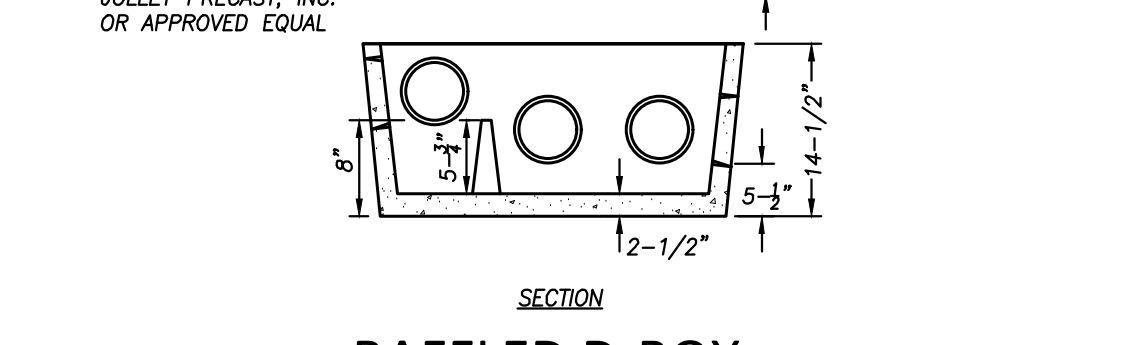
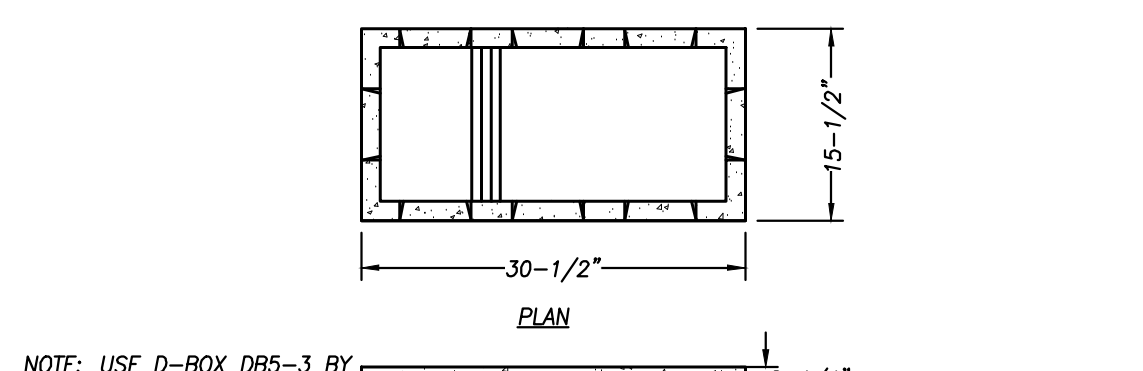
**MANTIS 536-8: CROSS SECTION**  
NOT TO SCALE



**CONCRETE SEPTIC TANK DETAIL**  
NOT TO SCALE



**CONCRETE PUMP CHAMBER DETAIL**  
NOT TO SCALE



**BAFFLED D-BOX**  
NOT TO SCALE

1. THIS DETAIL IS ILLUSTRATIVE ONLY AND DOES NOT APPLY TO EVERY SITUATION. REVIEW YOUR DRIVEWAY PERMIT FOR YOUR SPECIFIC REQUIREMENTS.  
 2. DRIVEWAYS IN EXCESS OF 10% GRADE, AND ALL COMMON (SHARED) DRIVEWAYS SHALL BE PAVED WITH BITUMINOUS CONCRETE.

**KILLINGLY STANDARD DRIVEWAY DETAIL**  
NOT TO SCALE