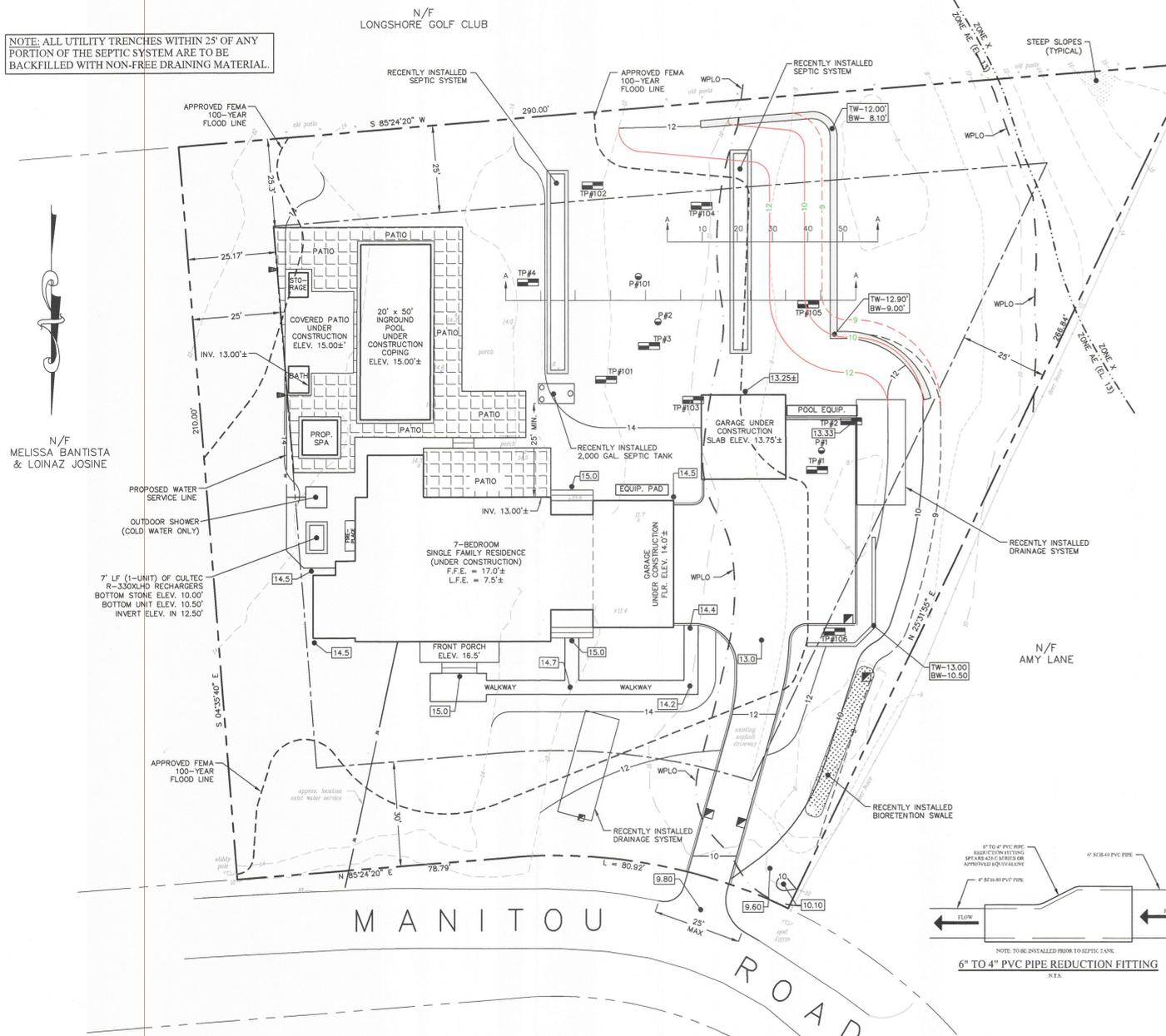


NOTE: ALL UTILITY TRENCHES WITHIN 25' OF ANY PORTION OF THE SEPTIC SYSTEM ARE TO BE BACKFILLED WITH NON-FREE DRAINING MATERIAL.



PERCOLATION TEST DATA:
 P#11
 PERFORMED BY: KOUSIDIS ENGINEERING, LLC
 DATE: July 7, 2017
 DIAMETER: 8" SANTARIAN, N/A
 DEPTH: 30" PRE-SOAK TIME: 11:00am

TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
12:10	2.50"		
12:20 10.0 MIN.	8.00"	5.50"	1.81
12:30 10.0 MIN.	11.50"	3.50"	2.86
12:40 10.0 MIN.	14.50"	3.00"	3.33
12:50 10.0 MIN.	16.50"	2.00"	5.00
13:00 10.0 MIN.	18.50"	2.00"	5.00
13:10 10.0 MIN.	20.50"	2.00"	5.00

P#2
 PERFORMED BY: KOUSIDIS ENGINEERING, LLC
 DATE: March 14, 2018
 DIAMETER: 8" SANTARIAN, Jeff Andrews
 DEPTH: 24" PRE-SOAK TIME: Saturated

TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
12:12	4.50"		
12:22 10.0 MIN.	10.00"	5.50"	1.82
12:32 10.0 MIN.	13.50"	3.50"	2.86
12:42 10.0 MIN.	16.00"	2.50"	4.00
12:52 10.0 MIN.	18.00"	2.00"	5.00
13:02 10.0 MIN.	20.00"	2.00"	5.00
13:12 10.0 MIN.	22.00"	2.00"	5.00

PERCOLATION TEST DATA:
 P#101
 PERFORMED BY: KOUSIDIS ENGINEERING, LLC
 DATE: March 14, 2018
 DIAMETER: 8" SANTARIAN, Jeff Andrews
 DEPTH: 24" PRE-SOAK TIME: Saturated

TIME INCREMENT	DEPTH TO WATER	DROP IN INCHES	PERC. RATE (MIN./INCH.)
13:23	5.00"		
13:33 10.0 MIN.	10.00"	5.00"	2.00
13:43 10.0 MIN.	11.25"	1.25"	5.71
13:53 10.0 MIN.	12.25"	1.00"	6.67
14:03 10.0 MIN.	14.50"	2.25"	8.00
14:13 10.0 MIN.	15.75"	1.25"	8.00
14:23 10.0 MIN.	17.00"	1.25"	8.00
14:33 10.0 MIN.	18.25"	1.25"	8.00

DEEP TEST PIT LOG
 CONDUCTED BY: KOUSIDIS ENGINEERING, LLC
 DATE CONDUCTED: JULY 7, 2017

TEST PIT #1
 00-13" TOPSOIL
 13-32" ORANGE BROWN SANDY LOAM WITH GRAVEL
 32-54" BROWN MEDIUM SAND WITH GRAVEL
 54-72" TAN COARSE SAND WITH SMALL GRAVEL
 *NO MOTTLES
 *GROUND WATER @60"
 *NO LEDGE
 *ROOTS TO 52"

TEST PIT #2
 00-13" TOPSOIL
 13-36" ORANGE BROWN SANDY LOAM WITH GRAVEL
 36-80" TAN COARSE SAND WITH SMALL GRAVEL
 *NO MOTTLES
 *GROUND WATER @64"
 *NO LEDGE
 *ROOTS TO 44"

TEST PIT #3
 12-36" ORANGE BROWN SANDY LOAM W/ GRAVEL
 36-72" TAN COARSE SAND WITH SMALL GRAVEL
 *NO MOTTLES
 *NO GROUND WATER
 *NO LEDGE
 *ROOTS TO 38"

TEST PIT #4
 00-09" TOPSOIL
 09-30" ORANGE BROWN SANDY LOAM W/ GRAVEL
 30-42" TAN COARSE SAND WITH GRAVEL
 42-54" TAN COARSE SAND WITH GRAVEL
 *NO MOTTLES
 *NO GROUND WATER
 *NO LEDGE
 *ROOTS TO 42"

DEEP TEST PIT LOG
 CONDUCTED BY: KOUSIDIS ENGINEERING, LLC
 DATE CONDUCTED: MARCH 14, 2018

TEST PIT #101
 00-09" TOPSOIL
 09-32" ORANGE BROWN SANDY LOAM WITH GRAVEL
 32-54" BROWN MEDIUM SAND WITH GRAVEL
 54-80" TAN COARSE SAND WITH GRAVEL AND COBBLES
 *NO MOTTLES @60"
 *GROUND WATER @92"
 *NO LEDGE
 *ROOTS TO 54"

TEST PIT #102
 00-09" TOPSOIL
 09-32" ORANGE BROWN SANDY LOAM WITH GRAVEL
 32-54" BROWN MEDIUM SAND WITH GRAVEL
 54-80" TAN COARSE SAND WITH GRAVEL
 *NO MOTTLES @64"
 *GROUND WATER @92"
 *NO LEDGE
 *ROOTS TO 42"

TEST PIT #103
 00-09" TOPSOIL
 09-32" BROWN MEDIUM SAND WITH GRAVEL
 32-48" TAN COARSE SAND AND GRAVEL
 *MOTTLES @ 52"
 *GROUND WATER @52"
 *NO LEDGE
 *ROOTS TO 37"

TEST PIT #104
 00-09" TOPSOIL
 09-32" RED BROWN SILTY LOAM
 32-48" TAN COARSE SAND WITH PEA GRAVEL
 *MOTTLES @48"
 *GROUND WATER @48"
 *NO LEDGE
 *ROOTS TO 40"

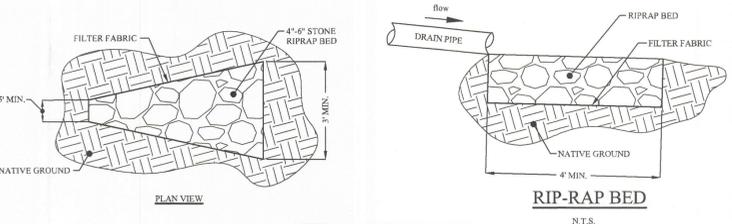
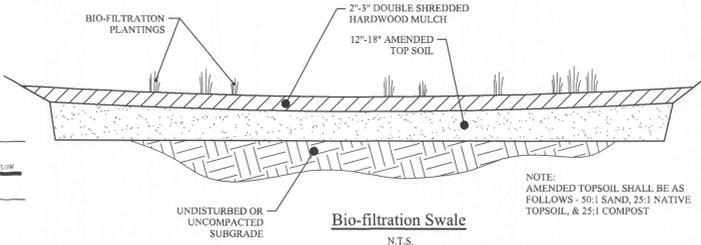
TEST PIT #105
 00-14" TOPSOIL
 14-38" RED BROWN SILTY LOAM
 38-72" TAN COARSE SAND WITH PEA GRAVEL
 *GROUND WATER @38"
 *NO LEDGE
 *ROOTS TO 38"

TEST PIT #106
 00-09" TOPSOIL
 09-18" CLEAN GRAVELLY FILL
 18-30" ORIGINAL TOPSOIL
 30-40" RED BROWN SILTY LOAM
 40-48" BROWN FINE SAND AND SILT
 *MOTTLES @40"
 *GROUND WATER @40"
 *NO LEDGE
 *ROOTS TO 30"

- GENERAL NOTES:**
- ALL SURVEY DATA, BOUNDARY LINES AND TOPOGRAPHY, ARE FROM A "PLAT PLAN" PREPARED FOR SANDY WILDER OF 16 MANITOU ROAD, WESTPORT, CT, PREPARED BY LEONARD SURVEYS, LLC, DATED MAY 23, 2017, LAST REVISED JULY 6, 2017.
 - ALL CONSTRUCTION SHALL COMPLY WITH THE TOWN OF WESTPORT REQUIREMENTS, THE STATE OF CONNECTICUT BASIC BUILDING CODE AND THE CONNECTICUT GUIDELINES FOR SOIL AND EROSION AND SEDIMENT CONTROL.
 - ALL WORK WITHIN THE TOWN OF WESTPORT RIGHT-OF-WAY SHALL BE CONSTRUCTED TO TOWN OF WESTPORT REQUIREMENTS, THE STATE OF CONNECTICUT BASIC BUILDING CODE AND THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL.
 - TREES WITHIN THE TOWN OF WESTPORT RIGHT-OF-WAY TO BE REMOVED SHALL BE POSTED IN ACCORDANCE WITH THE TREE ORDINANCE.
 - A FINAL LOCATION PLAN WILL BE REQUIRED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
 - GRANITE BLOCK OR ANY OTHER DECORATIVE STONE OR BRICK, DEPRESSED CURB, DRIVEWAY APRON AND CURBING WITHIN THE TOWN OF WESTPORT RIGHT-OF-WAY SHALL REQUIRE A WATER FROM THE TOWN OF WESTPORT PUBLIC WORKS DEPARTMENT.
 - INFORMATION OF EXISTING UTILITIES HAS BEEN COMPILED FROM VARIOUS SOURCES INCLUDING UTILITY COMPANY RECORDS, MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES.
 - THE PROPERTY IS CONNECTED TO MUNICIPAL WATER AND WILL BE SERVICED BY AN ON-SITE SUBSURFACE SEWAGE DISPOSAL SYSTEM. NO KNOWN WELLS WITHIN 75' OF SEPTIC SYSTEM. NO KNOWN NEIGHBORING DRAINAGE OR SEPTIC SYSTEM WITHIN 50' OF PROPOSED SEPTIC AND DRAINAGE SYSTEMS.
 - PRIOR TO ANY EXCAVATION THE CONTRACTOR AND/OR APPLICANT, IN ACCORDANCE WITH PUBLIC ACT 77-350, SHALL BE REQUIRED TO CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 FOR MARK-OUT OF UNDERGROUND UTILITIES. DIG TEST PITS AT UTILITY CROSSING(S) TO CHECK ACTUAL CLEARANCES WITH NEW UTILITIES PRIOR TO CONSTRUCTION.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY EXCAVATION SAFEGUARDS, NECESSARY BARRICADES, FLAGMEN, ETC., FOR TRAFFIC CONTROL AND SITE SAFETY. ALL WORK SHALL BE DONE IN ACCORDANCE WITH OSHA REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH OSHA REQUIREMENTS.
 - REMOVE STUMPS AND BRUSH FROM SITE, OR CHIP AND USE DURING LANDSCAPING. DO NOT BURY STUMPS ON SITE.
 - THE ENGINEERING DEPARTMENT OF THE DEPARTMENT OF PUBLIC WORKS AND THE INSPECTING ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR THREE (3) DAYS PRIOR TO THE COMMENCEMENT OF EACH PHASE OF CONSTRUCTION.
 - THE WORK SHALL BE DONE IN CONFORMANCE WITH THE PLANS UNLESS CHANGES HAVE BEEN APPROVED IN WRITING BY THE DESIGN ENGINEER PRIOR TO THE WORK BEING DONE.
 - AREAS OF ASPHALT PAVEMENT THAT ARE DISTURBED BY THE CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED IN ACCORDANCE WITH THE ASPHALT TRENCH REPAIR DETAIL. THE FINISHED GRADE OF ASPHALT PAVING SHALL BLEND TO EXISTING GRADE AND THE EDGE OF THE CONCRETE PAVEMENT SMOOTHLY WITH NO SLOPES EXCEEDING 4%.
- EARTHWORK & GRADING:**
- GRADE AWAY FROM BUILDING WALLS AT 2% MINIMUM (TYPICAL).
 - EARTH SLOPES SHALL BE NO STEEPER THAN 4:1 (HORIZ. :VERT.), UNLESS OTHERWISE DEPICTED ON SITE PLAN.
 - GENERAL FILL BEYOND PAVED AREAS SHALL BE FREE OF BRUSH, RUBBISH, STUMPS, FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" IN THICKNESS. THE DRY DENSITY AFTER COMPACTION SHALL NOT BE LESS THAN 95% OF THE STANDARD PROCTOR TEST AND DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D998. AFTER COMPACTION, THE FILL SHALL BE 4" BELOW THE REQUIRED GRADE AS SHOWN ON THE PLAN.
 - AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE SHALL BE LOOSENEED BY SCARIFYING TO A DEPTH OF AT LEAST 2" TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.
 - FILL OR TOPSOIL SHALL NOT BE PLACED NOR COMPACTED WHILE IN A FROZEN OR MUDDY CONDITION OR WHILE SUBGRADE IS FROZEN.
 - ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
 - 5" OF CRUSHED STONE TO BE INSTALLED UNDER ALL NEW DECKS.
- STORM SEWER SYSTEMS:**
- ALL PIPE SHALL BE INSTALLED STRAIGHT AND AT THE VERTICAL AND HORIZONTAL ALIGNMENT SHOWN.
 - MINIMUM COVER ON ALL PIPES SHALL BE TWO FEET (2') UNLESS OTHERWISE NOTED.
 - ALL POLY VINYL CHLORIDE PIPE (PVC) SHALL BE SDR 35 WITH RUBBER JOINTS AND MEET THE REQUIREMENTS ASTM D3 AND D321.
 - ALL AREA DRAINS SHALL HAVE A 2' SUMP.
 - CONTACT THE DESIGN ENGINEER THREE DAYS PRIOR TO EXCAVATING FOR THE INFILTRATION SYSTEM. DURING THE EXCAVATION, THE DESIGN ENGINEER MAY REVISE THE ELEVATIONS OF THE SYSTEM IF FIELD CONDITIONS DICTATE.
 - THE TOWN OF WESTPORT ENGINEERING DEPARTMENT MAY REQUIRE TO WITNESS THE INSTALLATION OF THE DRAINAGE SYSTEM PRIOR TO BACKFILLING. DIRECT THE DRIVEWAY CATCH BASIN AND THE ROOF AREA TO THE SUBSURFACE DRAINAGE SYSTEM.
- SEWAGE DISPOSAL SYSTEM NOTES:**
- THE PROPOSED SEWAGE DISPOSAL SYSTEMS SHALL CONFORM TO SECTIONS 19-13-B103A TO 19-13-B103F OF THE CONNECTICUT STATE HEALTH CODE.
 - THE PROPOSED SOIL LINES SHALL BE AS DEPICTED ON THE PLAN.
 - THE PROPOSED SEPTIC TANK SHALL BE A TWO-COMPARTMENT TANK. THE TANK SHALL BE WATERTIGHT AND BE SO CERTIFIED BY THE MANUFACTURER. THE SEPTIC TANK SHALL BE AS MANUFACTURED BY EASTERN PRECAST, OR EQUIVALENT AS APPROVED BY THE ENGINEER.
 - TO PREVENT LEAKAGE, THE CONTRACTOR SHALL MORTAR ALL INLET AND OUTLET PIPES FROM THE SEPTIC TANK AND DISTRIBUTION BOXES ONCE PIPES HAVE BEEN INSTALLED.
 - ALL SOLID EFFLUENT DISTRIBUTION PIPES SHALL BE 4" PVC PLASTIC PIPE (ASTM D3034) SDR-35 WITH RUBBER GASKET, BELL AND SPIGOT.
 - ALL PERFORATED EFFLUENT DISTRIBUTION PIPES SHALL BE 4" PERFORATED PVC PLASTIC PIPE (ASTM D2729) WITH BELL AND SPIGOT, NO GASKET.
 - ALL DISTRIBUTION BOXES SHALL BE AS MANUFACTURED BY EASTERN PRECAST OR AN APPROVED EQUIVALENT.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL STAKE THE AREA OF THE PROPOSED SEWAGE DISPOSAL SYSTEM AND THE ADJACENT PROPERTY LINES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE WESTPORT-WESTON HEALTH DISTRICT WHEN STAKING HAS BEEN COMPLETED SO THAT AN INSPECTION OF THE STAKING CAN BE MADE.
 - AFTER THE SEWAGE DISPOSAL SYSTEM HAS BEEN INSTALLED ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION OR GRADE AS SHOWN ON THE PLAN, TOPSOILED, FINE RAKED AND SEEDED.
 - THIS DESIGN CONFORMS TO APPLICABLE CODES AND ACCEPTED PRACTICE. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED.
 - THE SEPTIC DESIGN DOES NOT ACCOUNT FOR LARGE TUBS WITH CAPACITY OVER 99 GALLONS.
 - THE RECORD ENGINEER MUST PREPARE THE "SEPTIC AS-BUILT PLAN", THIS THE ENGINEER MUST BE NOTIFIED TO INSPECT ALL ASPECTS OF THE NEW SEPTIC SYSTEM PREPARATION AND INSTALLATION.

PROPOSED PLANT LIST:

Quantity	Symbol	Botanical Name	Common Name	Size	Cond.
18	Ig	<i>Ilex Glabra</i> "Shamrock"	Inkberry	3 Gal.	CONT.
52	cs	<i>Carex stricta</i>	Tussock Sedge	1 Gal.	CONT.



MAXIMUM LOT AREA COVERAGE CALCULATION FOR - #16 MANITOU ROAD (AAA ZONE)

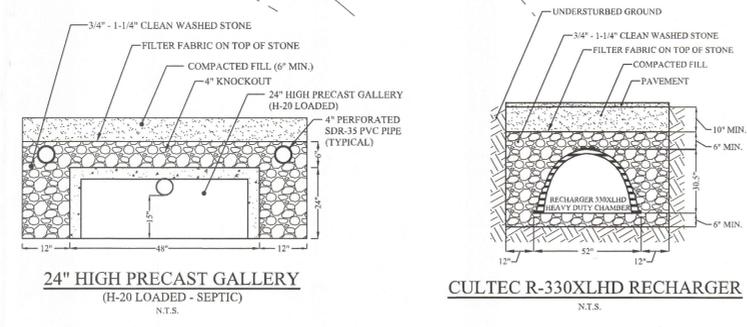
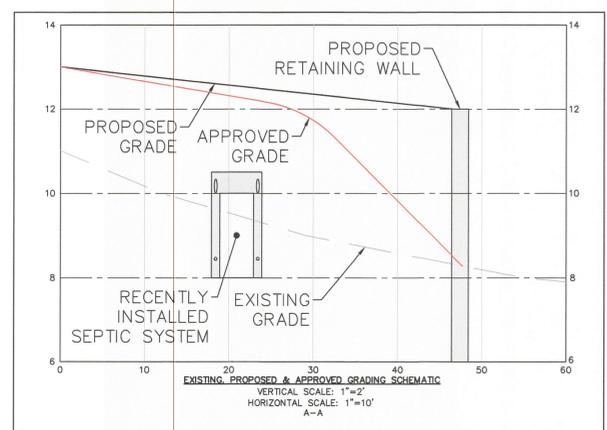
Gross Lot Area:	48,750 sq. ft.
Easements:	00 sq. ft.
Wetlands:	00 sq. ft.
Steep Slopes:	76 sq. ft.
Base Lot Area:	48,689 sq. ft.

PROPOSED LOT COVERAGE:
 Residence: 4,150 sq. ft.
 Garage: 600 sq. ft.
 Cabana: 600 sq. ft.
 TOTAL Bldg: 5,350 sq. ft. (11.0%)
 Driveway: 3,800 sq. ft.
 Pool & Spa: 1,100 sq. ft.
 TOTAL: 10,250 sq. ft. (21.1%)
 TOTAL Coverage ALLOWED = (48,689 x 25%) = 12,172 sq. ft.)

EXCAVATION & FILL CALCULATIONS [32-8.2.1(a)]
EXCAV. & FILL AMOUNT ALLOWED:
 Lot Area * 50% Coverage = 10/2777cy
 (48,750 * 25%) * 0.50 * 1.09/27 = 2,257cy
 Actual Estimated Exc. & Fill = 1,795cy < 2,257cy Allowed

NOTE: A BENCHMARK TO BE SET BY A CONNECTICUT LICENSED SURVEYOR IN THE PROXIMITY OF THE PROPOSED SEPTIC SYSTEM, PRIOR TO THE INSTALLATION OF SUCH SEPTIC SYSTEM.

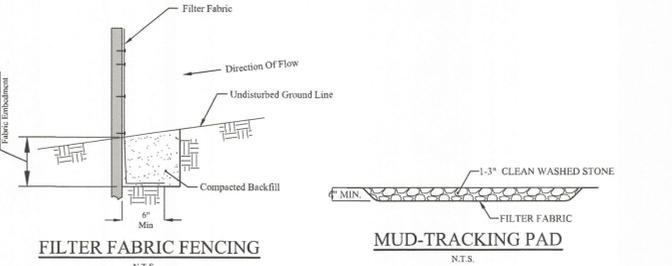
---	EXISTING GRADE
---	PROPOSED GRADE
---	APPROVED GRADE



SEPTIC DESIGN NOTES (24" Precast Conc. Gall. w/ perf. pipe on top)

Proposed # of Bedrooms: 7
 Percolation Rate: 1710 min. (Design Rate)
 Effective Leaching Area Required: 825 Sq. Ft.
 Effective Leaching Area Provided: (112LF)(7.45F/LF)=828.8 Sq.Ft

RESTRICITIVE LAYER:
 [(TP#101)-(TP#102)-(TP#103)-(TP#104)/(4)-(TP#5)/2]
 RESTRICTIVE LAYER: [(68"+58"+52"+48")+(4+38")/2]-47.25'
 SLOPE = 2.1-3.0%
 HYDRAULIC FACTOR: 28
 PERCOLATION FACTOR: 1.0 (1710MIN)
 FLOW FACTOR: 2.50 (7-BEDROOM DESIGN)
 M.L.S.S: 28x2.50x1.0 = 70LF
 M.L.S.S PROVIDED: 112LF



SITE DEVELOPMENT PLAN

16 MANITOU ROAD
 WESTPORT, CT

Prepared for
ALANA FUSCALDO

RECEIVED
 OCT 06 2020
 TOWN OF WESTPORT
 CONSERVATION DEPARTMENT

SCALE: 0 20 40
 1" = 20'

DATED: 03/12/2020
 JOB NO.: AF17-1
 SHEET NO. 1 of 1

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