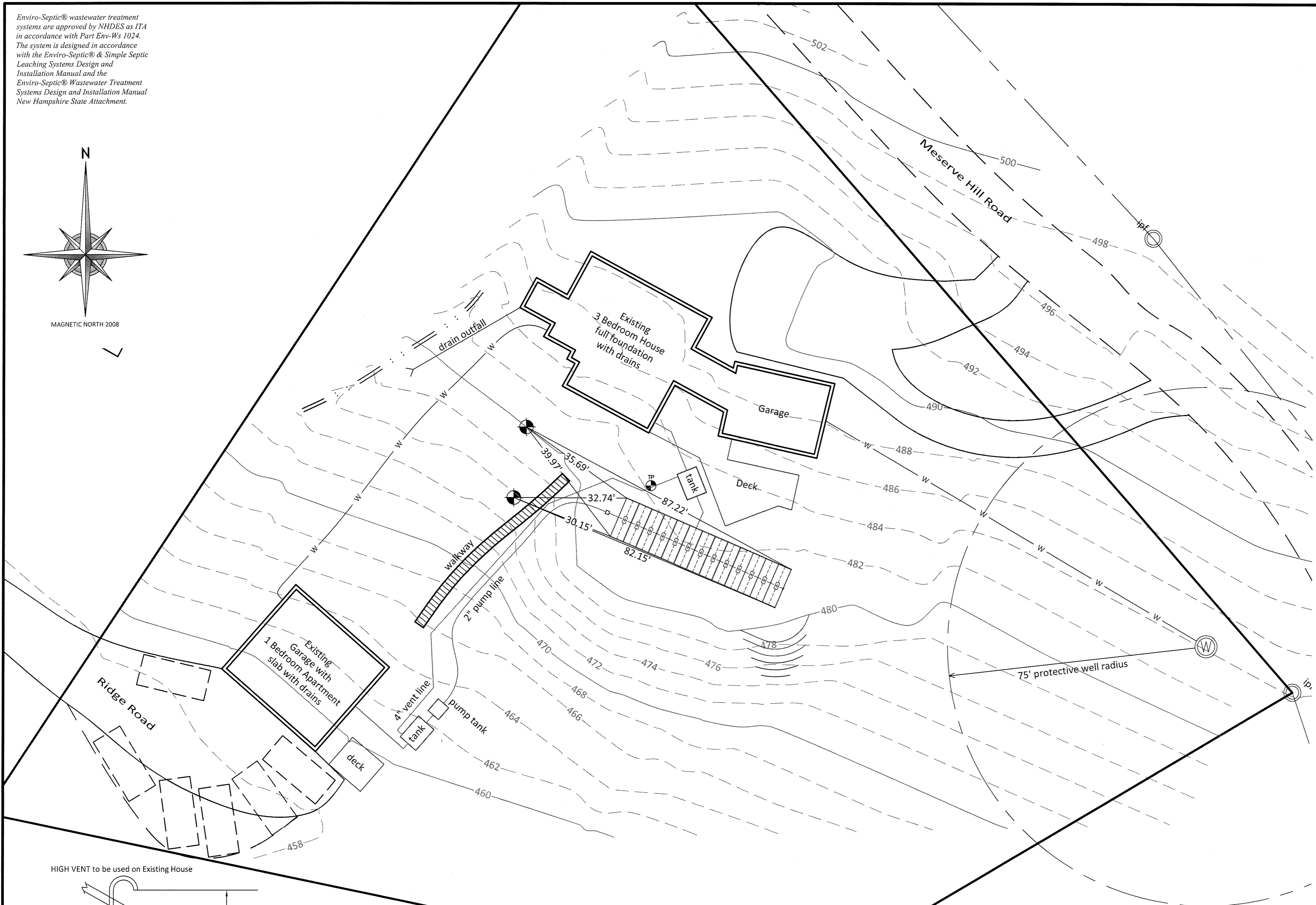
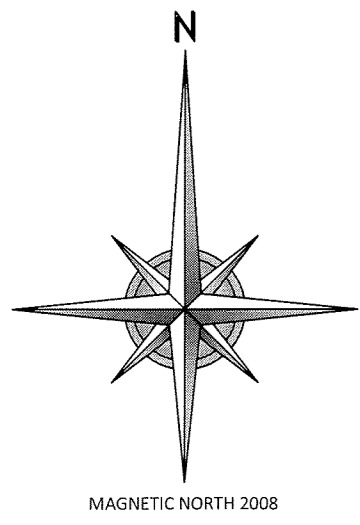


Enviro-Septic® wastewater treatment systems are approved by NHDES as ITA in accordance with Part Env-W's 1024. The system is designed in accordance with the Enviro-Septic® & Simple Septic Leaching Systems Design and Installation Manual and the Enviro-Septic® Wastewater Treatment Systems Design and Installation Manual New Hampshire State Attachment.



**NOTES:**

**DESIGN CRITERIA:**  
AN EXISTING 3 BEDROOM HOUSE (450 GPD) HAVING AN 8 MINUTE PERC. RATE REQUIRES 480 SQ. FT. OF CHAMBERS. A PROPOSED 1 BEDROOM APARTMENT (150 GPD) HAVING AN 8 MINUTE PERC. RATE REQUIRES AND ADDITIONAL 120 SQ. FT. OF CHAMBERS. THERE ARE TO BE 10 EXISTING AND 3 NEW CHAMBERS FOR A TOTAL OF 13.

**DESIGN INTENT:**  
THE BOTTOM OF THE EFFLUENT DISPOSAL SYSTEM (EDS) SHALL BE CONSTRUCTED AT 480.00 ELEVATION FOR ALL ROWS. THIS IS APPROXIMATELY 2.0' BELOW ORIGINAL GROUND ON THE HIGH CONTOUR SIDE OF THE DESIGNED EFFLUENT DISPOSAL SYSTEM.

ZABEL FILTER (MODEL A1800) IS RECOMMENDED. NO FOOD DISPOSAL IS TO BE USED WITH THIS SYSTEM. IF A FOOD DISPOSAL IS TO BE USED, INCREASE THE TANK BY 50% AND PUMP THE TANK MORE FREQUENTLY.

THIS SYSTEM IS TO BE INSTALLED ACCORDING TO SPECIFICATIONS OF THE DESIGN AND INSTALLATION MANUAL FOR ENVIRO-SEPTIC FOR THE STATE OF NEW HAMPSHIRE. ANY CHANGES OR DEVIATIONS FROM THIS PLAN MAY REQUIRE REVISED OR AMENDED PLANS AND A RE-SUBMITTAL TO NHDES FOR REVIEW.

PRIOR TO BACKFILLING THE CONTRACTOR MUST NOTIFY NHDES FOR FINAL INSPECTION.

APPROVAL EXPIRES 4 YEARS FROM THE DATE ISSUED.

- SITE PREPARATION AND FILL NOTES:**
- CHECK DESIGN INTENT AND VERIFY ELEVATION OF EXISTING GROUND, UPSLOPE SIDE, BEFORE DISTURBING THE SITE.
  - REMOVE ALL TREES, BRUSH, BOULDERS, AND DEBRIS FROM THE AREA OF THE FIELD INCLUDING THE EXTENSION AND SLOPE.
  - REMOVE TOPSOIL. LEAVE SUBSOIL IN PLACE. DO NOT COMPACT SUBSOIL WITH MACHINERY. SCARIFY, AS NEEDED BEFORE FILLING. DO NOT ATTEMPT TO PREPARE BASAL AREA WHEN THE SOIL MOISTURE CONTENT IS HIGH.
  - FILL UNDER LEACHING AREA AND FOR SHOULDERS TO BE CLEAN, PERMEABLE FILL, FREE OF ORGANICS, ROOTS, STUMPS AND STONES GREATER THAN 6", THE TOP 6" TO BE MEDIUM TO COARSE TEXTURED SAND. (0.25 - 2.0 MM)
  - FILL FOR BACKFILLING TO BE CLEAN, PERMEABLE FILL, FREE OF ORGANICS, ROOTS, STUMPS AND STONES GREATER THAN 6".
  - PLACE 12" OF FINE SANDY LOAM OR FINER SOIL AS BLANKET ON SIDE SLOPES.
  - ENTIRE DISTURBED AREA SHOULD BE COVERED WITH TOPSOIL AND SEEDED AS SOON AS POSSIBLE AFTER BACKFILLING TO PREVENT EROSION. CROWN OVER SYSTEM SLIGHTLY TO PROMOTE RUNOFF.

**MAINTENANCE NOTES:**  
INSPECT TANK EACH YEAR THE FIRST FEW YEARS TO MONITOR THE BUILD-UP OF SOLIDS TO DETERMINE A PUMPING SCHEDULE. IF INSPECTION PROGRAM IS NOT CARRIED OUT, A PUMP-OUT FREQUENCY OF EVERY 2 YEARS IS REASONABLE. FAILURE TO PUMP-OUT ACCUMULATED SOLIDS WILL EVENTUALLY LEAD TO PROBLEMS WITH SOLIDS DISCHARGE INTO THE EFFLUENT.

MANAGEMENT OF WASTEWATER BY SEGREGATION (NO GARBAGE GRINDER) AND REDUCTION OF TOTAL WASTEWATER FLOW IS RECOMMENDED. CHOICE OF HOUSEHOLD PRODUCTS AND THROUGH LOW VOLUME DEVICES (LOW VOLUME TOILETS 1.5 GAL/FLUSH, SHOWERHEADS, ETC.) WILL MATERIALLY INFLUENCE THE EFFECTIVENESS AND DURABILITY OF THIS WASTEWATER TREATMENT SYSTEM.

DO NOT FLUSH PROBLEM WASTES DOWN THE DRAINS, THEY WILL NOT DEGRADE AND MAY CLOG INLETS, OUTLETS AND DISPOSAL FIELDS.

KEEP THE FOLLOWING ITEMS OUT OF SEPTIC SYSTEM:

- GREASE & COOKING FATS
- COLOR TOILET PAPER
- SANITARY NAPKINS
- DIAPERS
- CIGARETTE BUTTS
- LARGE AMOUNTS OF HOUSEHOLD CHEMICALS
- CHEMICALS (PHOTOGRAPHIC, ENGINE CLEANERS, PAINT SOLVENTS, PESTICIDES, ETC.)
- FACIAL TISSUES
- PAPER TOWELS
- COFFEE GROUNDS
- BONES
- OTHER NON-HOUSEHOLD WASTES

ORDINARY AMOUNTS OF BLEACH, LYES, CAUSTICS, DETERGENTS AND DRAIN CLEANERS WILL NOT HARM THE SYSTEM.

SEPTIC TANK ADDITIVES ARE NOT RECOMMENDED AND CAN CAUSE SLUDGE BULKING AND DECREASE SLUDGE DIGESTION.

USE LOW PHOSPHOROUS DETERGENTS.

MAINTAIN INTERNAL HOUSE PLUMBING.

DO NOT PERMIT HEAVY MACHINERY TO DRIVE OVER SYSTEM.

**RESTRICTIONS:**  
GARBAGE GRINDERS ARE NOT PERMITTED WITH THIS SYSTEM.

**SAND SPECIFICATIONS:**  
A MINIMUM OF 6" OF GRAVELLY COARSE SAND 35% OR LESS OF THE TOTAL SAND MAY BE GRAVEL. NO GRAVEL IS TO EXCEED 3/4" IN DIAMETER. NO GRAVEL TO BE SMALLER THAN 2MM / 0.0787" IN DIAMETER. (IT MUST NOT PASS THROUGH A #10 SIEVE).

40-90% OF THE TOTAL SAND IS TO BE COARSE AND VERY COARSE SAND. NO COARSE SAND IS TO BE SMALLER THAN 0.5MM / 0.0196" IN DIAMETER. (IT MUST NOT PASS THROUGH A #30 SIEVE.)

C-33 (CONCRETE SAND) MEETS THE ABOVE REQUIREMENTS.

**Pump Specifications:**  
Pump to be Myers (MEOS) Submersible Effluent Pump.

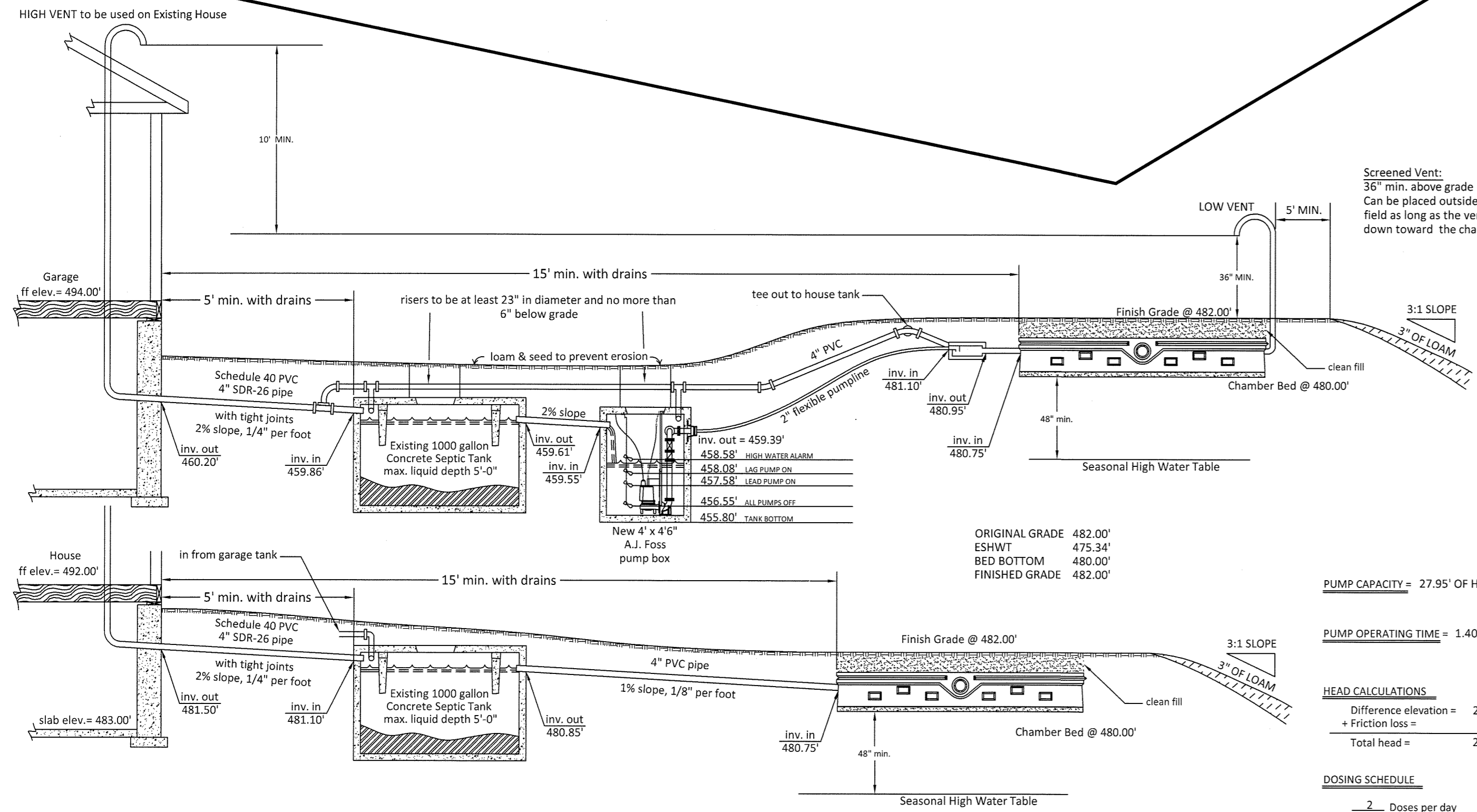
TA 101 High Water Alarm with level switch, or approved equal, to be used.

20 DFD SJ Electro Double Float Switch, or approved equal, to be used.

Campbell disconnect # SPDS8 (2"), or approved equal disconnect recommended.

Separate circuits to be used for the pump and alarm.

**Screened Vent:**  
36" min. above grade  
Can be placed outside the area of the field as long as the vent pipes are pitched down toward the chambers.

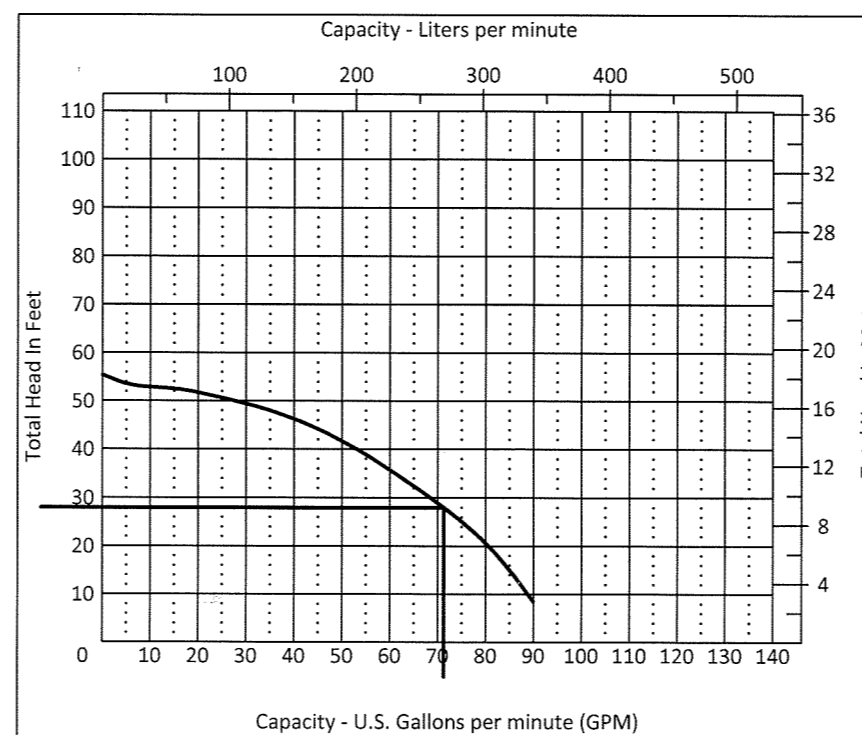


PUMP CAPACITY = 27.95' OF HEAD @ 71.32 GPM

PUMP OPERATING TIME = 1.40 MINUTES

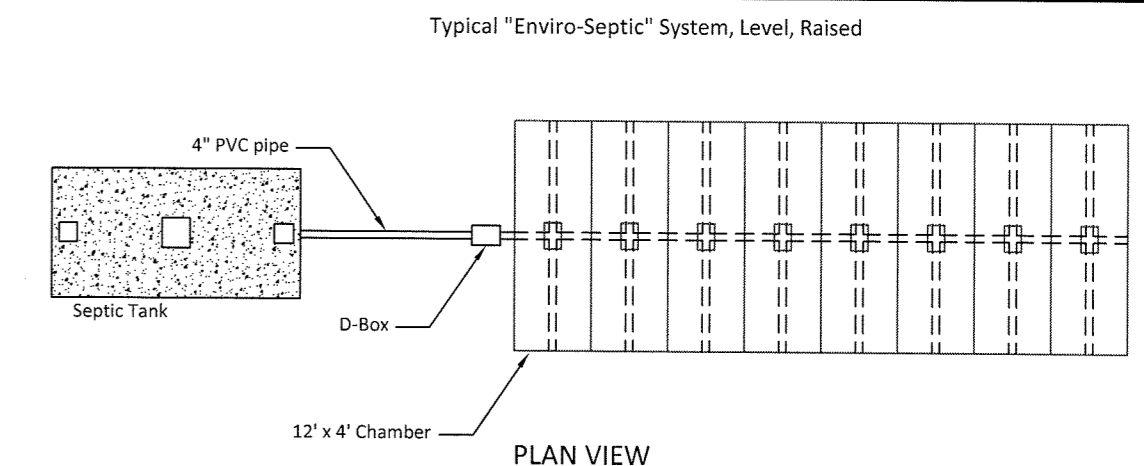
**HEAD CALCULATIONS**  
Difference elevation = 24.55  
+ Friction loss = 3.40  
Total head = 27.95

**DOSING SCHEDULE**  
2 Doses per day  
100.00 Gallons per dose

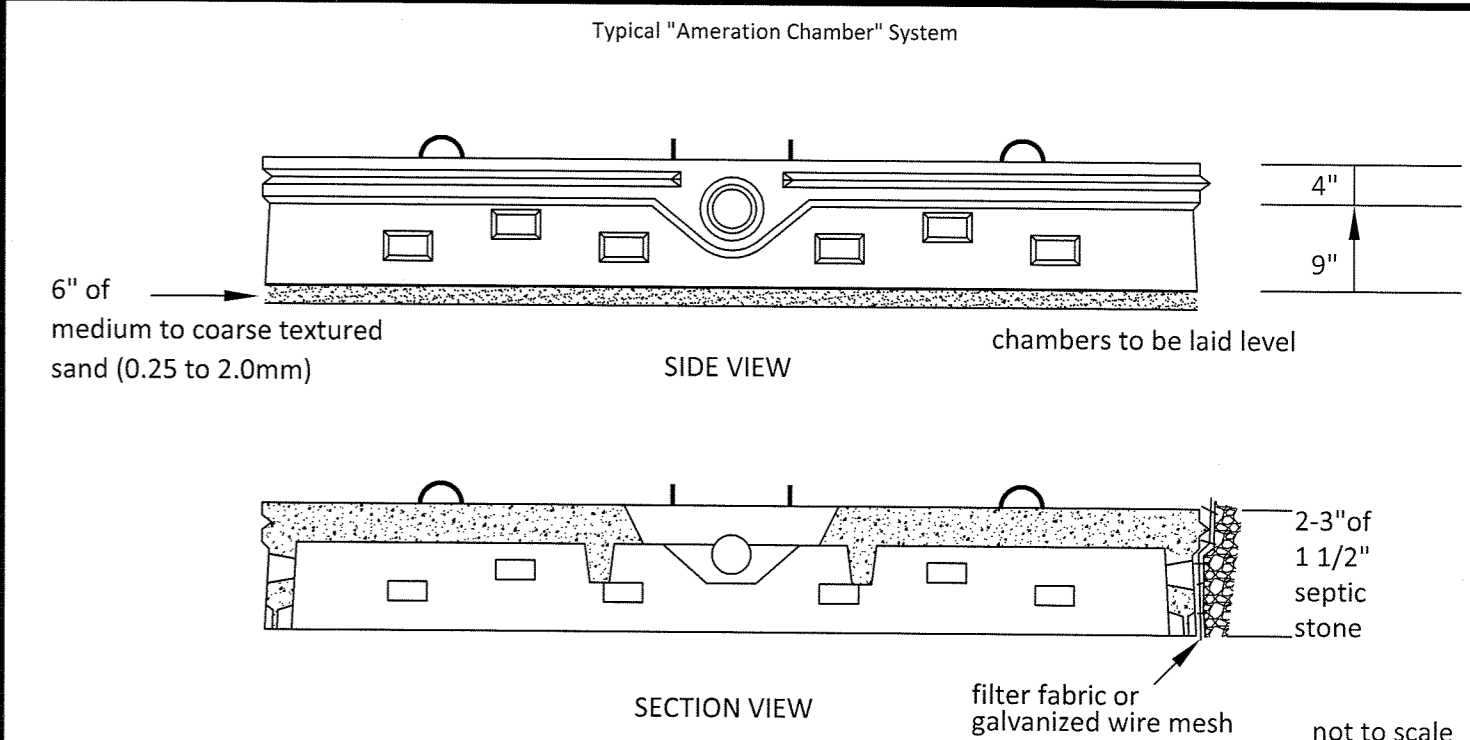


**NOTES:**

- INLET AND OUTLET JOINTS TO SEPTIC TANK ARE TO BE SEALED WITH A NON-SHRINK MORTAR.
- ALL INVERT ELEVATIONS AND GRADES ARE REFERENCED FROM BENCHMARKS SHOWN.
- DESIGNER SHALL BE NOTIFIED OF ANY CONDITIONS CONTRARY TO THOSE DEPICTED ON THIS PLAN.
- THIS SYSTEM IS NOT DESIGNED FOR BACK WASH FROM A WATER SOFTENER
- ORGANIC LOAM LAYER MUST BE REMOVED FROM BED AND SLOPE EXTENSION AREAS PRIOR TO FILL PLACEMENT. SCARIFY SUBSOIL PRIOR TO FILL PLACEMENT.
- FILL MATERIAL SHALL MEET OR EXCEED STATE OF NH CODE REQUIREMENTS. (EN-WS1021.03). ALL FILL MATERIAL SHALL BE CLEAN BANK RUN SAND, FREE OF TOPSOIL OR HUMUS, DREDGINGS OR STONES MORE THAN 6" IN ANY DIMENSION.



not to scale



not to scale

**SEPTIC SYSTEM SPECIFICATIONS**

SEPTIC TANKS TO BE 2 EXISTING 1000 GALLONS LIQUID CAPACITY AS MANUFACTURED BY A.J. FOSS OR AN APPROVED EQUAL.

DISTRIBUTION BOX TO HAVE 3 OUTLETS AS MANUFACTURED BY A.J. FOSS OR AN APPROVED EQUAL. EQUALIZERS, OR APPROVED EQUAL, TO BE USED.

LEACH LINES TO BE SEALED INTO D-BOX AND SEPTIC TANK WITH NON-SHRINK MORTAR, THICK PLASTIC CEMENT OR OTHER SEALANTS WHICH ARE SHRINK-PROOF, WATER-PROOF AND WILL NOT DETERIORATE OVER TIME.

THIS SEPTIC SYSTEM DESIGN IS BASED ON SOIL TESTS CONDUCTED ON 09-02-10. IF SOIL CONDITIONS ARE FOUND TO BE DIFFERENT AT THE TIME OF CONSTRUCTION, NOTIFY THADDEUS THORNE SURVEYS PRIOR TO PROCEEDING WITH CONSTRUCTION.

THERE IS NO SURFACE WATER WITHIN 75' NO WELL WITHIN 75' NO WETLAND WITHIN 75' NO POORLY DRAINED SOIL WITHIN 50' OF THE PROPOSED SYSTEM.

THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY.

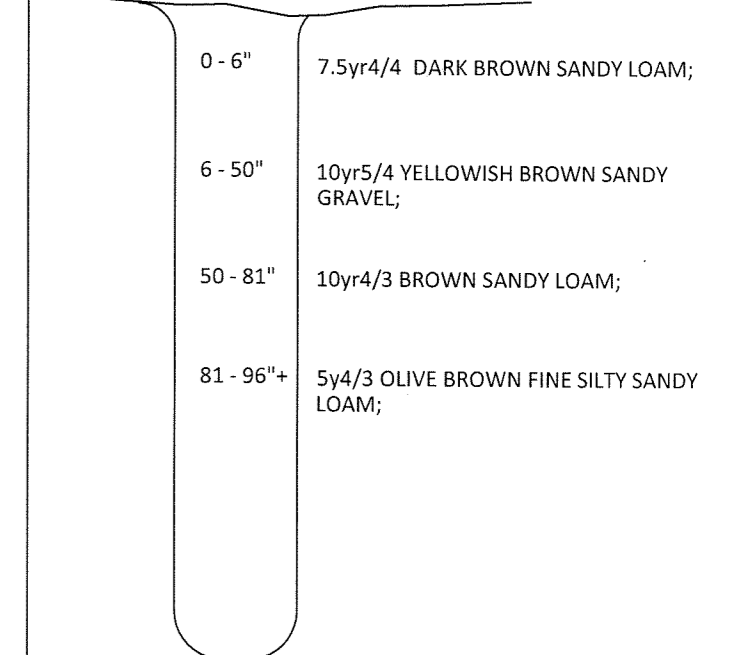
**BED DIMENSIONS:**  
LENGTH: 52' WIDTH: 12' AREA: 624 SQ. FT.

NUMBER OF CHAMBERS: 10 EXISTING & 3 NEW

**REPLACEMENT AREA:**  
 AS SHOWN  
 LEACH BED TO BE DUG UP AND REPLACED IN THE SAME LOCATION IN THE EVENT OF FAILURE.

**TEST PIT DATA**

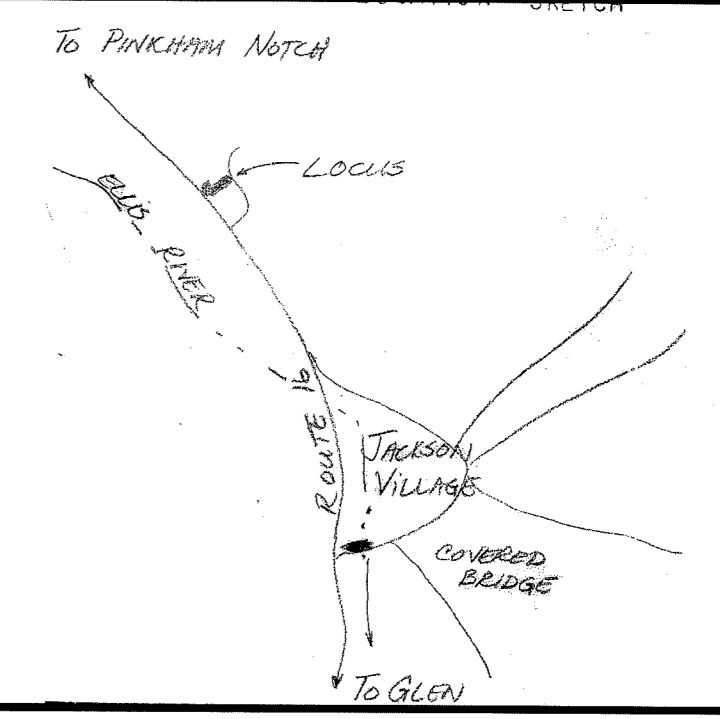
DATE: 09-02-10



NO ROOTS  
NO LEDGE  
NO WATER  
E.S.H.W.T. @ 80"

PERC TEST: 6 MIN./IN. AT 20"  
SOIL TYPE: MeE - Marlow

**Location Sketch**



**Lot Owner**  
Name: Daren & Melanie Levitt  
Address: 25 Meserve Hill Road  
Subdivision Name: Guptill Property  
Approval Number: 17339  
Street: Meserve Hill Road & Ridge Road  
City or Town: Jackson, NH

Lot Number: Map R-12  
Parcel 100B  
S/D Lot B

SURVEYED 09-10-10  
DRAFTED 10-05-10 W. Smith

Revisions  
Previous Construction Approval 98570 & 116212  
Scale: 1" = 20'

**Thaddeus Thorne Surveys, Inc.**  
1164 Brownfield Road  
Center Conway, New Hampshire 03813  
(603) 447-3320 phone  
(206) 339-4351 fax  
email: ttsurvey@ncia.net

DWG: 10-32