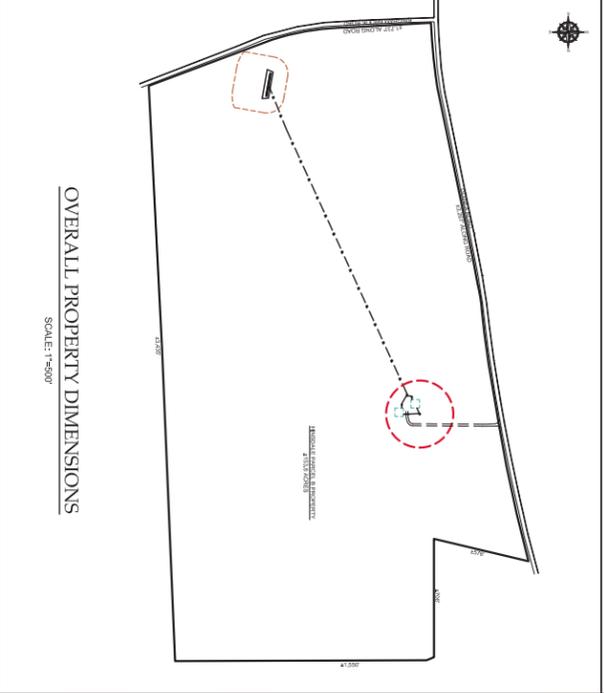


GENERAL LOCATION MAP  
SCALE: 1"=2,000'



- LEGEND**
- 498 --- EXISTING GROUND CONTOUR
  - ML — PROPOSED WATER LINE
  - SL — PROPOSED SANITARY SEWER
  - — EDGE OF PAVEMENT
  - — EDGE OF PROPOSED DRIVE
  - — WELL ISOLATION ZONE
  - — SEPTIC ISOLATION ZONE
  - — EXISTING PROPERTY LINE
  - TP-1 TEST PIT



OVERALL PROPERTY DIMENSIONS  
SCALE: 1"=500'



GRAPHIC SCALE  
(1"=100')

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

I hereby certify that in the exercise of my reasonable professional judgment the design-related content and that the data included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules, and the Vermont Water Supply Rules.  
 Signed: *[Signature]*  
 License: Class B Designer #178  
 Date: 11/2/13



**Testimentary Trust of Clark W. Hinsdale Jr.**  
 Intersection of Guinea Road & Bingham Brook Road  
 Charlotte, Vermont  
**Site Plan with Residential Development Plan**

PROJECT #	13137
DATE	Nov. 11, 2013
SYMBOLS	TAM
SCALE	1



**LEGEND**

---	488	---	EXISTING GROUND CONTOUR
---	WL	---	PROPOSED WATER LINE
---	SL	---	PROPOSED SANITARY SEWER
---		---	EDGE OF PAVEMENT
---		---	EDGE OF PROPOSED DRIVE
---		---	WELL ISOLATION ZONE
---		---	SEPTIC ISOLATION ZONE
---		---	EXISTING PROPERTY LINE
---		---	TEST PIT



THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

"I hereby certify that in the exercise of my reasonable professional judgment the design-related content and that the design included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules, and the Vermont Water Supply Rules."

*[Signature]*  
11/2/13  
DAE

License # 055  
Licensed Class B Designer #178



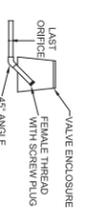
**Testimony of Clark W. Hinsdale Jr.**  
Intersection of Guinea Road & Bingham Brook Road  
Charlotte, Vermont

**Enlarged Plans for Water/Wastewater Systems and Building Areas**

DATE	NOV. 11, 2013
DESIGNED BY	TAM
DRAWN BY	TAM
SCALE	2

**CONSTRUCTION SPECIFICATIONS - MOUND**

1. MOUND CONSTRUCTION PROCEDURES ARE JUST AS IMPORTANT AS THE MOUND DESIGN. GOOD DESIGN WITH POOR CONSTRUCTION WILL RESULT IN THE MOUND OPERATING POORLY AND CAUSING PROBLEMS FOR THE SEPTIC TANK BEING SERVED. THE MOUND DESIGNER AND EVALUATORS WORK BEST WHEN TYPE TRACTORS ARE TOO DIFFICULT TO MANUEVER IN THE FIELD. THE FOLLOWING IS A STEP-BY-STEP PROCEDURE FOR MOUND CONSTRUCTION. THE BASIC PRINCIPLES OF MOUND DESIGN, OPERATION AND CONSTRUCTION ARE NOT VIOLATED.
2. SUBMIT A REPRESENTATIVE SAMPLE ENOUGH TO FILL A 5 GALLON BUCKET OF MOUND SAND FROM THE INTENDED SOURCE FOR TESTING ACCORDING TO ASTM D 422 (NIGHT CONSULTING ENGINEERS PHASE ENGINEERING, OTHER ENGINEERS AND CONTRACTORS MAY USE OTHER TESTING PROCEDURES). SUBMIT A COPY OF THE RESULTS TO THE DESIGNER PRIOR TO INITIATING CONSTRUCTION.
3. STAKE OUT THE MOUND ON THIS SITE SO THAT THE TRENCHES OR BED RUNS PERPENDICULAR TO THE DIRECTION OF THE SLOPE. REFERENCE STAKES ARE RECOMMENDED IN CASE CORNER STAKES ARE DISTURBED. UNDOUBTED GEOLOGY, INC., MUST STAKE OUT OR VERIFY THIS TASK.
4. STAKE OUT CORNERS OF THE BED AND DETERMINE THE BOTTOM ELEVATION OF THE BED, DISTRIBUTION SYSTEM IN THE MOUND.
5. DETERMINE WHERE THE FORCE MAIN FROM THE PUMP CHAMBER CONNECTS TO THE BED.
6. TRENCH AND LAY THE FORCE MAIN FROM THE PUMP CHAMBER TO THE MOUND. LAY THE PIPE BELOW THE GROUND SURFACE FOR PROST PROTECTION. WHERE THERE IS LESS THAN 6" OF COVER, INSULATE WITH 2" OF RIGID POLYSTYRENE INSULATION 4" WIDE (2" EITHER SIDE OF PIPE, PLACED IN TWO 1" LAYERS WITH STAGGERED JOINTS). CUT AND CAP THE PIPE TO PROTECT FROM DAMAGE. THE TRENCH SHOULD BE 18" WIDE TO ALLOW FOR THE PREVENT BACK SEEPAGE OF EFFLUENT ALONG PIPE. THIS STEP MUST BE DONE BEFORE FLOWING TO AVOID COMPACTING AND DISTURBANCE OF SURFACE.
7. INSTALL THE CURTAIN DRAIN IF SHOWN ON PLANS.
8. CHECK THE MOISTURE CONTENT OF THE SOIL AT 2' DEPTH. IF IT IS TOO WET, GRADING AND DRAINAGE SHOULD BE CONSIDERED. IF IT IS TOO DRY, ADD SOIL TO THE SOIL. SOIL MOISTURE CAN BE DETERMINED BY ROLLING A SOIL SAMPLE BETWEEN THE HANDS. IF IT ROLLS INTO A BALLON, THE SITE IS TOO WET TO PREPARE. IF IT CRUMBLES, SOIL PREPARATION CAN PROCEED.
9. CUT TREES TO GROUND LEVEL. REMOVE EXCESS VEGETATION BY MOWING. DO NOT DEEP FERTILIZERS PERPENDICULAR TO THE SLOPE. FERTILIZERS MUST BE APPLIED WITH CHESEL PLOWING MAY BE USED IF A MOUND-BASED FLOW IS NOT AVAILABLE. ROTOTILLING MUST NOT BE DONE ON HEAVY SOILS BUT CAN BE USED ON NONSTRUCTURAL SOILS SUCH AS SANDS AND SILTS. THE TRENCHES SHOULD BE 18" WIDE TO ALLOW FOR THE PREVENT BACK SEEPAGE OF EFFLUENT ALONG PIPE. THIS STEP MUST BE DONE BEFORE FLOWING TO AVOID COMPACTING AND DISTURBANCE OF SURFACE.
10. EXTEND THE EFFLUENT PIPE TO SEVERAL FEET ABOVE THE GROUND SURFACE.
11. PLACE THE APPROVED FILL MATERIAL AROUND THE EDGE OF THE PLOWED AREA. KEEP THE SURFACE OF THE FILL MATERIAL TO THE REQUIRED DEPTH, WHICH IS THE TOP OF THE TRENCHES OR BED. SHAPE SIDES TO THE DESIRED SLOPE. INSPECTION REQUIRED AT THIS POINT.
12. CHECK THE FILL MATERIAL AND PLACE USING A SMALL TRACK TIRE TRACTOR WITH A BLADE. ALWAYS KEEP A MINIMUM OF 6 INCHES OF SAND BENEATH TRACKS TO PREVENT COMPACTATION OF THE NATURAL SOIL.
13. PLACE THE FILL MATERIAL TO THE REQUIRED DEPTH, WHICH IS THE TOP OF THE TRENCHES OR BED. SHAPE SIDES TO THE DESIRED SLOPE. INSPECTION REQUIRED AT THIS POINT.
14. WITH THE BLADE OF THE TRACTOR FROM THE BED OR TRENCHES, HAND LEVEL THE BOTTOM OF THE BED. MAKE SURE BOTTOM IS AT THE SAME ELEVATION AND LEVEL.
15. PLACE THE COARSE AGGREGATE IN THE TRENCHES OR BED. IT SHOULD BE 1% TO 1 1/2% WASHED DUMPABLE AGGREGATE (IE. NOT QUESTONE OR MARBLE). LEVEL AGGREGATE TO THE DESIGN DEPTH.
16. PLACE THE DISTRIBUTION SYSTEM ON THE AGGREGATE. CONNECT THE MAINFOLD TO THE FORCE MAIN FROM THE PUMP CHAMBER OR Siphon CHAMBER. SLOPE MAINFOLD DOWN TO THE DISTRIBUTION SYSTEM. INSPECTION REQUIRED AT THIS POINT TO CHECK PRESSURE AND DISCHARGE RATE AND PRESSURE TESTING.
17. PLACE SHIELDS ON JOINTS AND PROPERLY GROUT ALL COMPONENTS. PLACE 2" OF AGGREGATE OVER THE DISTRIBUTION PIPE.
18. PLACE A SYNTHETIC NONWOVEN FILTER FABRIC OVER EQUIVALENT OVER THE ENTIRE STONE BED. OVERLAP JOINTS BY 12" MINIMUM. PLACE AN X 6" MAT OF RIGID POLYSTYRENE INSULATION, 2" THICK, CENTERED OVER FORCE MAIN RISER. PLACE INSULATION IN TWO LAYERS (1" EACH) AND STAGGER THE JOINT PATTERN.
19. PLACE SOIL ON TOP OF THE BED OR TRENCH TO A DEPTH OF 1" IN CENTER AND 6" AT OUTER EDGE OF BED OR TRENCHES. THIS MAY BE A SUBSOIL OR TOPSOIL.
20. PLACE 6" OF GOOD QUALITY TOPSOIL OVER THE ENTIRE MOUND SURFACE. THIS WILL RAISE THE ELEVATION AT THE CENTER OF THE MOUND TO A MINIMUM OF 1.5' AND THE OUTSIDE EDGES OF BED OR TRENCHES 1'. INSPECTION REQUIRED AT THIS POINT.
21. LANDSCAPE THE MOUND BY PLANTING GRASS, USING THE BEST VEGETATION ADAPTABLE TO THE AREA. A MINIMUM OF 90% BIRDSFOOT TREFLE AND ONE TIGHTLY MAINTAINED TREE SHOULD BE PLANTED AROUND THE MOUND. THE TREE SHOULD BE PLANTED WITH A DESIRED VEGETATIVE COVER. SHRUBS CAN BE PLANTED AROUND THE BASE AND UP THE SLOPE OF BED OR TRENCHES. 30% CREeping RED RESCUE AND 10% ANNUAL PRE GRASS MAY BE THE MOUND MAY BE SOMEWHAT MOST DURING WARMER TIMES OF THE YEAR. KEEP ALL TREES AND SHRUBS AWAY FROM THE TOP OF THE MOUND AS ROOT SYSTEMS CAN DESTROY THE DISTRIBUTION NETWORK.
22. MOUND MAINTENANCE INVOLVES PUMPING THE SEPTIC TANK AND PUMP CHAMBER EVERY 11 TO 13 YEARS TO AVOID CARRYOVER OF SOLIDS INTO THE MOUND. A GOOD WATER OVERFLOW, AVOID EXCESS TRAFFIC ON THE MOUND AREA, WINTER TRAFFIC ON MOUND SHOULD BE AVOIDED TO MINIMIZE FROST PENETRATION. INSPECT PUMP CHAMBER AND FORCE MAIN EACH YEAR TO DETERMINE THE LEVEL OF SLOPE ACCUMULATION. MOW TWICE A YEAR.
23. UTILITIES INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM AVAILABLE SOURCES. THE DESIGNER HAS CONDUCTED VISUAL SURVEYS OF THE MOUND. CONTRACTORS SHALL VERIFY EXACT LOCATION OF EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, SHOWN OR NOT SHOWN ON THIS PLAN.
24. ALL FILL AROUND THE STRUCTURES SHALL BE PLACED IN 12" LIFTS AND THOROUGHLY COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
25. THIS DESIGN MUST BE INSPECTED BY LINCOLN APPLIED GEO. LOG. INC., LINCOLN, VERMONT TO ENSURE COMPLIANCE WITH THESE PLANS. LINCOLN APPLIED GEOLOGY, INC., WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT ARISE FROM THIS DESIGN. CONTRACTORS SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE MOUND AND FROM FAILURE TO HAVE BEEN NOTIFIED BY THE CONTRACTOR FOR INSPECTIONS.



**FLUSHING VALVE DETAIL**  
NOT TO SCALE

**SEPTIC TANK OPERATION & MAINTENANCE RECOMMENDATIONS**

1. THE SEPTIC TANK'S PURPOSE IS TO SETTLE OUT SOLIDS, CONTAIN THE SOLID AND PASS TREATED EFFLUENT. FACTORS WITHIN THE SEPTIC TANK HELP BECOME THE SOLIDS. SHOULD ANY SOLIDS PASS THROUGH THE SEPTIC TANK INTO THE SYSTEM, IT BECAUSE OF THE TRENCHES OR BED RUNS PERPENDICULAR TO THE DIRECTION OF THE SLOPE. REFERENCE STAKES ARE RECOMMENDED IN CASE CORNER STAKES ARE DISTURBED. UNDOUBTED GEOLOGY, INC., MUST STAKE OUT OR VERIFY THIS TASK.
2. THE STATE FLOW FIGURES OF 140 GPD/BERROW ARE BASED ON SHORT TERM TESTS. ACTUAL FLOW FIGURES SHOULD BE DETERMINED BY A PROFESSIONAL ENGINEER. ACTUAL FLOW SHOULD BE DETERMINED BY A PROFESSIONAL ENGINEER. ACTUAL FLOW SHOULD BE DETERMINED BY A PROFESSIONAL ENGINEER.
3. ONCE PER YEAR, THE DEPTH OF SCUM AND SLUDGE IN THE SEPTIC TANK SHOULD BE MEASURED AND THE TANK SHOULD BE PUMPED IF:

  - A. THE SLUDGE LEVEL IS WITHIN 12 INCHES OF THE BOTTOM OF THE OUTLET.
  - B. THE SCUM LAYER IS WITHIN 3 INCHES OF THE TOP OF THE OUTLET.
  - C. IF A OR B IS ANTICIPATED TO OCCUR PRIOR TO THE NEXT INSPECTION.
  - D. IN ANY CASE, THE TANK SHALL BE PUMPED AT A MAXIMUM 5 YEAR INTERVAL.

4. ONCE A YEAR, THE DISTRIBUTION BOX AND/OR PUMP STATION SHOULD BE INSPECTED AND ANY SETTED SOLIDS REMOVED.
5. THE EFFLUENT FILTER SHOULD BE INSPECTED AND CLEANED ANNUALLY.
6. ABOVE ITEMS 1-4 ARE INTENDED TO PROLONG THE LIFE OF THE SYSTEM, NOT GUARANTEE IT.

**SEWAGE DESIGN INFORMATION**

1. THE SEWAGE DISPOSAL SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE TOWN REGULATIONS AND THE VERMONT ENVIRONMENTAL PROTECTION RULES.
2. THE FOLLOWING MINIMUM ISOLATION DISTANCES SHALL BE MAINTAINED FROM THE DISPOSAL AREA TO:
  - PROPERTY LINE: 25 FEET
  - BUILDING WITH FOOTING DRAIN UP/SLOPE OR SIDE/SLOPE: 35 FEET
  - BUILDING WITH FOOTING DRAIN DOWNSLOPE: 35 FEET
  - TREES: 10 FEET
3. BASIS OF DESIGN:
  - 48000 Residences & 24000 Apartment
  - 770 gpd
  - 1.0 GPD/SQ FT (6 STONES)
4. SEPTIC TANK:
  - A. A 1000 GALLON PRECAST CONCRETE SEPTIC TANK, CAMP PRECAST OR APPROVED EQUAL SHALL BE USED WITH THREE ACCESS COVERS, 4000 PSI CONCRETE OR APPROVED EQUAL SHALL BE USED WITH THREE ACCESS COVERS. 4000 PSI CONCRETE OR APPROVED EQUAL SHALL BE USED WITH THREE ACCESS COVERS. 4000 PSI CONCRETE OR APPROVED EQUAL SHALL BE USED WITH THREE ACCESS COVERS. 4000 PSI CONCRETE OR APPROVED EQUAL SHALL BE USED WITH THREE ACCESS COVERS.
  - B. THE USE OF GARBAGE DISPOSALS IS NOT RECOMMENDED.
5. MISC.:
  - A. IF A WATER TREATMENT SYSTEM IS GOING TO BE USED, THE BACKWASH WATER MAY NOT BE DISCHARGED INTO THE DISPOSAL SYSTEM.

**STATE OF VERMONT MOUND SAND SPECIFICATIONS**

Fill Material: The fill material from the original soil exposed surface to the top of the trench or bed shall be sand washed with one of the following sieve analyses:

Sieve Number	Quantity (mm)	Percent Passing, by Weight
30	1.500	65 - 100
40	0.420	25 - 75
60	0.250	0 - 30
100	0.150	0 - 10
200	0.075	0 - 5

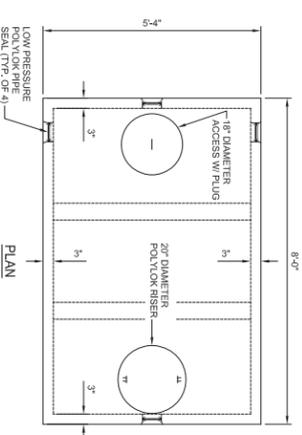
  

Sieve Number	Quantity (mm)	Percent Passing, by Weight
4	4.750	95 - 100
6	2.500	50 - 100
10	1.500	25 - 60
30	0.500	10 - 30
50	0.297	2 - 10
100	0.150	0 - 5

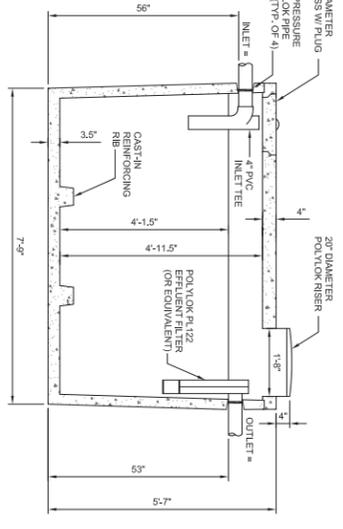
  

Sieve Number	Quantity (mm)	Percent Passing, by Weight
30	1.500	65 - 100
40	0.420	20 - 40
200	0.075	0 - 10

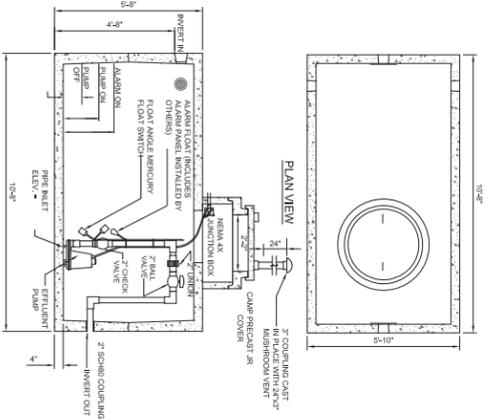
The material that meet specifications 1, 2, or 3. Interpretation of analyses is not permitted. Fill material 2 is ASTM Specification D-53 and is intended for manufacturer material.



**1000 GALLON PRECAST CONCRETE SEPTIC TANK**  
SECTION  
NOT TO SCALE

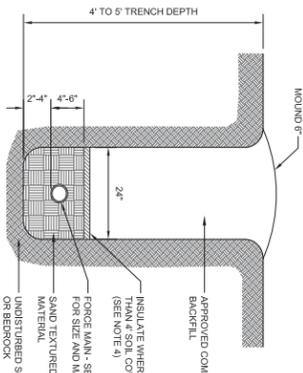


- 1,000 GALLON SEPTIC TANK NOTES:**
1. INLET, OUTLET SEAM AND CASTING HOLES TO BE SEALED.
  2. TANK TO BE SET LEVEL.
  3. DIMENSIONS MAY VARY AMONG DIFFERENT MANUFACTURERS.



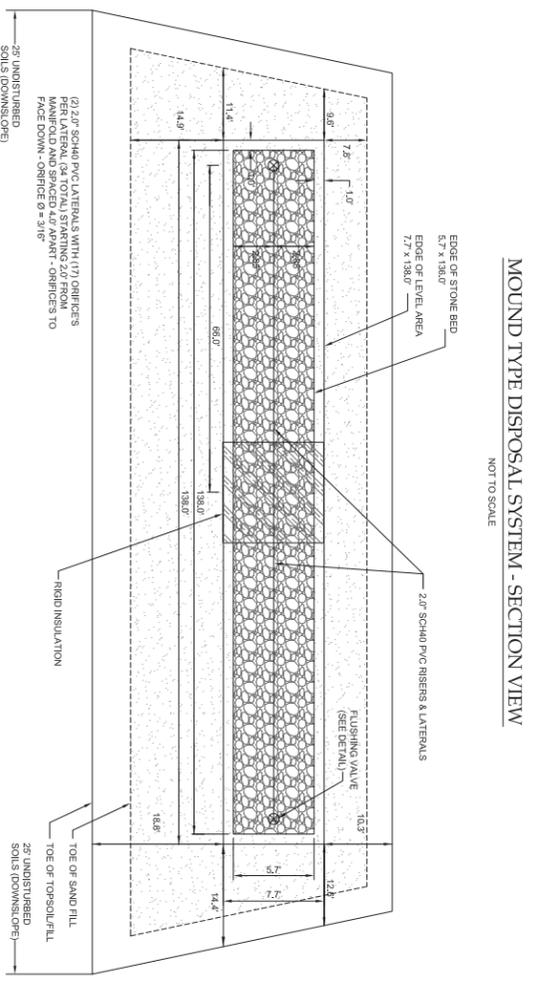
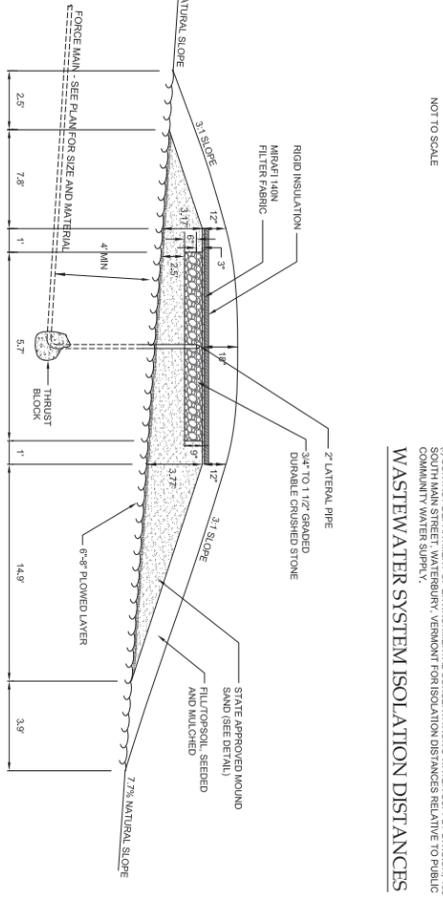
**1500 GALLON PRECAST CONCRETE PUMP STATION**  
SECTION VIEW  
NOT TO SCALE

- DESIGN NOTES:**
1. 1500 PPI CONCRETE, 28 DAY STRENGTH.
  2. LOW PRESSURE SEALS DESIGNED TO ACCEPT 4" CI OR PVC PIPE.
  3. REQUIRES EFFLUENT PUMP CAPABLE OF PUMPING A MINIMUM OF 24.4 GPM.
  4. IT SHOULD BE NOTED THAT ANY DEVIATION IN THE LOCATION OR ELEVATION OF DESIGNED LOCATION MAY REQUIRE A DIFFERENT SECTION.



**MOUND TYPE DISPOSAL SYSTEM - SECTION VIEW**  
NOT TO SCALE

**FORCE MAIN TRENCH DETAIL**  
NOT TO SCALE



**MOUND TYPE DISPOSAL SYSTEM - PLAN VIEW**  
NOT TO SCALE

ITEM	LEACHFIELD	SEPTIC TANK	SEWER
DRILLED WELL	(0)	50	50
GRAVEL PACK WELL SHALLOW WELL OR SPRING	(0)	75	75
LAKES, PONDS AND IMPOUNDMENTS	50	25	25
RIVER, STREAM	50	25	10
DRAINAGE SWALES, ROADWAY DITCHES	25	-	-
MAN OR MUNICIPAL WATER LINES	50	50	(4)
SEWER SERVICE LINES	25	25	(6)
ROADWAYS, DRIVEWAYS, PARKING LOTS	10	5	(6)
TOP OF EMBANKMENT OR SLOPE > 30%	25	10	-
PROPERTY LINE	10	10	10
TREES	10	10	10
OTHER DISPOSAL FIELD OR REPLACEMENT AREA	10 <sup>2</sup>	-	-
FOUNDATION, FOOTING DRAINS, CURTAIN DRAINS	35 <sup>3</sup>	(0)	(0)
PUBLIC COMMUNITY WATER SUPPLY (6)	50	(0)	(0)
SECTION WATER LINE	100	50	50

**WASTEWATER SYSTEM ISOLATION DISTANCES**

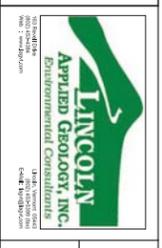
- THESE DISTANCES MAY BE REDUCED WHEN EVIDENT THAT THE DISTANCE IN PROTECTION TO PROTECT ANY ITEM OR INCREASED IF NECESSARY TO PROVIDE ADEQUATE PROTECTION.
- (a) ISOLATION DISTANCES APPLY REGARDLESS OF PROPERTY LINE AND OWNERSHIP.
  - (b) DETERMINED BY METHODS IN THE VERMONT WATER AND SUPPLY RULES APPENDIX 21-A, PART (b) SERVERS UNDER ROADS, DRIVEWAYS OR PARKING LOTS MAY REQUIRE PROTECTIVE CONDUITS OR SLEEVES.
  - (c) ISOLATION DISTANCES FOR PRESSURE WATER LINES CONSIDERED AS SERVICE CONNECTIONS AND SHALL BE DETERMINED BY THE VERMONT WATER AND SUPPLY RULES APPENDIX 21-A, PART (b) SERVERS UNDER ROADS, DRIVEWAYS OR PARKING LOTS MAY REQUIRE PROTECTIVE CONDUITS OR SLEEVES.
  - (d) THE VERMONT WATER AND SUPPLY RULES CONSIDERED AS SERVICE CONNECTIONS AND SHALL BE DETERMINED BY THE VERMONT WATER AND SUPPLY RULES APPENDIX 21-A, PART (b) SERVERS UNDER ROADS, DRIVEWAYS OR PARKING LOTS MAY REQUIRE PROTECTIVE CONDUITS OR SLEEVES.
  - (e) THIS REFERS TO PUBLIC COMMUNITY WATER SYSTEMS AS DEFINED IN THE VERMONT WATER SUPPLY RULES APPENDIX 21-A, PART (b) SERVERS UNDER ROADS, DRIVEWAYS OR PARKING LOTS MAY REQUIRE PROTECTIVE CONDUITS OR SLEEVES.
  - (f) THIS REFERS TO PUBLIC COMMUNITY WATER SYSTEMS AS DEFINED IN THE VERMONT WATER SUPPLY RULES APPENDIX 21-A, PART (b) SERVERS UNDER ROADS, DRIVEWAYS OR PARKING LOTS MAY REQUIRE PROTECTIVE CONDUITS OR SLEEVES.

**NOT TO SCALE**

THE CONTRACTOR SHALL NOTIFY "DISSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

I hereby certify that in the exercise of my reasonable professional judgment the design presented herein and that the seal included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules, and the Vermont Water Supply Rules.

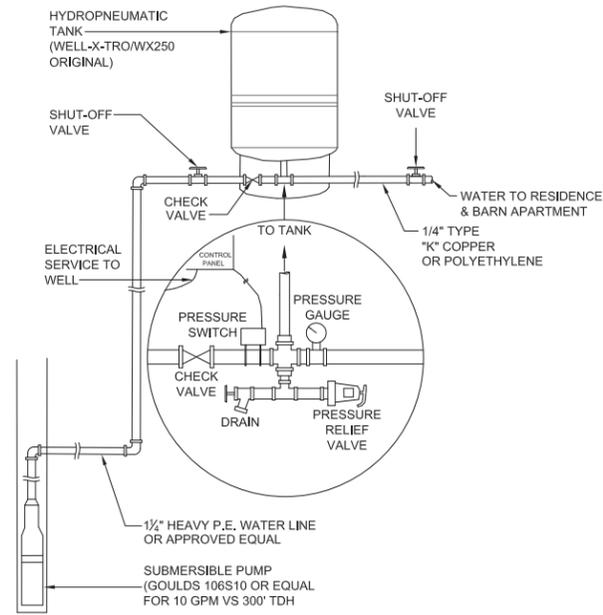
Lincoln Applied Geology, Inc.  
Licensed Class B Designer #178



**Testimony of Clark W. Hinsdale Jr.**  
Intersection of Guinea Road & Bingham Brook Road  
Charlotte, Vermont

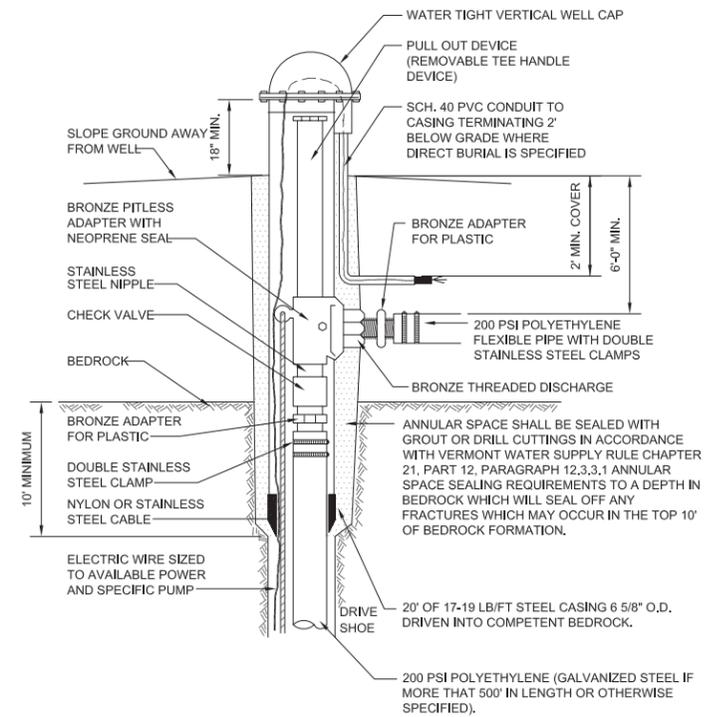
**Wastewater System Design Details**

DATE	Nov. 11, 2013
DESIGNED BY	CLARK W. HINSDALE JR.
DRAWN BY	CLARK W. HINSDALE JR.
SCALE	AS SHOWN
TITLE	WASTEWATER SYSTEM DESIGN DETAILS
PROJECT #	3



**TYPICAL SHARED WATER SYSTEM**

NOT TO SCALE

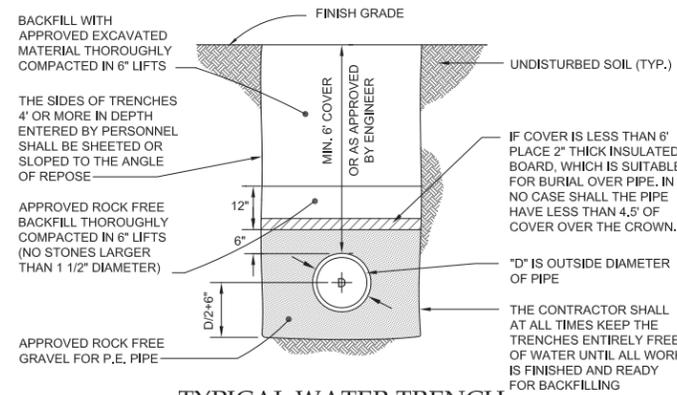


**TYPICAL RESIDENTIAL DRILLED WELL**

NOT TO SCALE

**INDIVIDUAL DRILLED WELL NOTE:**

1. THE SUBMERSIBLE PUMP MODEL AND DEPTH OF SETTING TO BE SPECIFIED BY THE ENGINEER AFTER THE WELL IS DRILLED AND YIELD TESTED (PIPE AND ADAPTOR SIZE TO SUIT ALSO).



**TYPICAL WATER TRENCH**

NOT TO SCALE

**INDIVIDUAL DRILLED WELL DESIGN DATA**

1. THE DRILLED WELL(S) CONSTRUCTION, LOCATION, DISINFECTION, AND TESTING SHALL BE IN ACCORDANCE WITH THE STATE OF VERMONT - WATER SUPPLY RULES.
2. THE BASIS OF DESIGN FOR EACH DRILLED WELL IS:
  - A. AVERAGE DAY DEMAND: 140 GPD X 7 OCCUPANTS = 770 GPD.
  - B. MAXIMUM DAILY DEMAND: (140 GPD X 7 OCCUPANTS)/720 MIN/DAY = 1.07 GPM (7 OCCUPANTS)
  - C. OPERATING PRESSURE RANGE: 40-60 PSI AT PRESSURE SWITCH
  - D. INSTANTANEOUS PEAK DEMAND = 10 GPM.

**DRILLED WELL ISOLATION DISTANCES**

- a. See Table a11-2.
- b. Increased to 50' when adjacent to agricultural cropland.
- c. Applies to rights-of-way (ROW) where herbicides have been applied in the past 12 months or may be applied in the future. This distance may be increased to 200' depending on the active ingredient in the herbicide according to Vermont Regulations for Control of Pesticides.
- d. For Public water sources, see appendix A, Part 3, Subpart 3.4.
- e. Water sources shall not be located in a flood way.
- f. If a water source is potentially downgradient of a source of contamination, then the Secretary shall apply criteria in Appendix A Subpart 11.4.2.2.

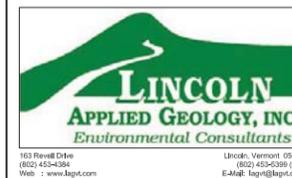
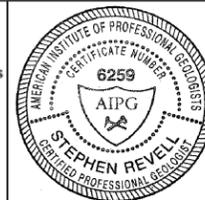
POTENTIAL SOURCE OF CONTAMINATION AND OTHER SITING LIMITATIONS	SEPARATION DISTANCE
Roadway, Parking Lot (outer edge of shoulder)	25 Feet
Driveway (Fewer than 3 residences)	15 Feet
Sewage System Disposal Fields	(See a.)
Subsurface Wastewater Piping and Related Tanks	50 Feet
Property Line	10 Feet (See b.)
Limit of Herbicide Application on utility R.O.W.	100 Feet (See c.)
Surface Water	10 Feet (See d.)
Buildings	10 Feet
Concentrated Livestock Holding Areas and Manure Storage Systems	200 Feet
Hazardous or Solid Waste Disposal Site	(See f.)
Non-sewage Wastewater Disposal Fields	(See f.)

NOT TO SCALE

"I hereby certify that in the exercise of my reasonable professional judgment the design-related information submitted with this application is true and correct, and that the design included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules and the Vermont Water Supply Rules."

*Stephen Revell*  
 Stephen Revell, CPG  
 Licensed Class B Designer #178

11/12/13  
 Date



**Testimentary Trust of Clark W. Hinsdale Jr.**  
 Intersection of Guinea Road & Bingham Brook Road  
 Charlotte, Vermont

**Water System Design Details**

LAG PROJECT # 13137  
 DATE: Nov. 11, 2013  
 SURVEYORS: TAM/JH  
 DRAWN BY: TAM  
 FIGURE #: 4