

Minimum Isolation Distances

(Contact Engineer for any Clarifications or conflicts)

| | Horizontal Distance (ft.) | | |
|--|---------------------------|-------------|-------|
| | Edge of System | Septic Tank | Sewer |
| Drilled well serving 1 home - up slope of system | 100 | 50 | 50 |
| Drilled well serving 1 home - down slope of system | 200 | 50 | 50 |
| Lake and pond impoundment - standing water | 50 | 25 | 25 |
| River, streams | 50 | 25 | 10 |
| Drainage swales, roadway ditches | 25 | - | - |
| Main or municipal water lines | 50 | 50 | 10 |
| Service water lines | 25 | 25 | 10 |
| Roadways, driveways, parking lots | 10 (25 downslope) | 5 | - |
| Top of embankment or slope > 30% | 25 | 10 | - |
| Property line | 10 | 10 | 10 |
| Trees | 10 | - | - |
| Other disposal field or replacement area | 10 | - | - |
| Foundation, footing drains, curtain drains | 35 (75 downslope) | 10 | - |
| Suction water line | 100 | 50 | 50 |

Notes:
These distances may be reduced when evident that the distance is unnecessary to protect an item or increased if necessary to provide adequate protection.

Mound Elevation Information

| | Existing Ground | Bottom Stone | Pipe Inverts | Finish Grade |
|-------------|-----------------|--------------|--------------|--------------|
| Replacement | 114.5' | 116.5' | 117.17' | 118.50' |

Basis of Design for Replacement Mound Style Wastewater Disposal System

Design Flow:

- For a existing 4 bedroom residence
 - Design Flow = 3 bedrooms * 140 gals/day/bedroom + 1 bedroom * 70 gals/day = 490 gals/day
 +
 Total Design Flow = 490 gpd

Application Rate:

- For mound system
 - Application rate = $Q = 1.0 \text{ gals/s.f./day}$
 - For filtrate effluent disposal system
 Application rate = $2 * Q = 2 * 1.0 = 2.0 \text{ gals/s.f./day}$

Required Leach Area:

FOR PRIMARY & REPLACEMENT SYSTEMS:
 - Area required = $\frac{490 \text{ GPD}}{2.0} = 245 \text{ s.f.}$
 - Use 8' wide Bed
 - Required system length = $\frac{245 \text{ s.f.}}{5 \text{ ft.}} = 49 \text{ ft.}$

-Use 1, 50' long x 5' wide Bed style mound for the New System

Basal Area Calculations

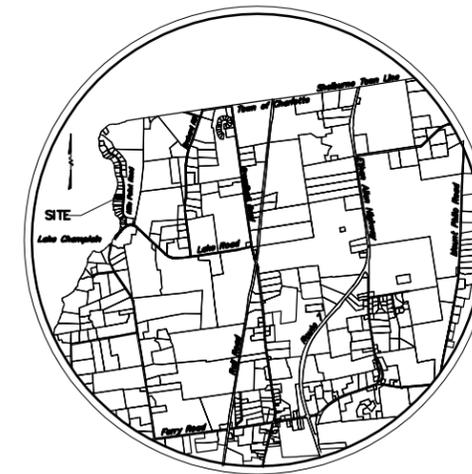
For Percolation rate of 0-60 minutes per inch,
 Required effective basal area = $490 \text{ GPD} / 0.74 \text{ GPD/SF} = 662 \text{ SF}$
 Replacement effective basal area provided = 2151 SF

Percolation Tests

| Test # | Percolation Rate |
|--------|------------------|
| 1 | 19 min./inch |
| 2 | 55 min./inch |

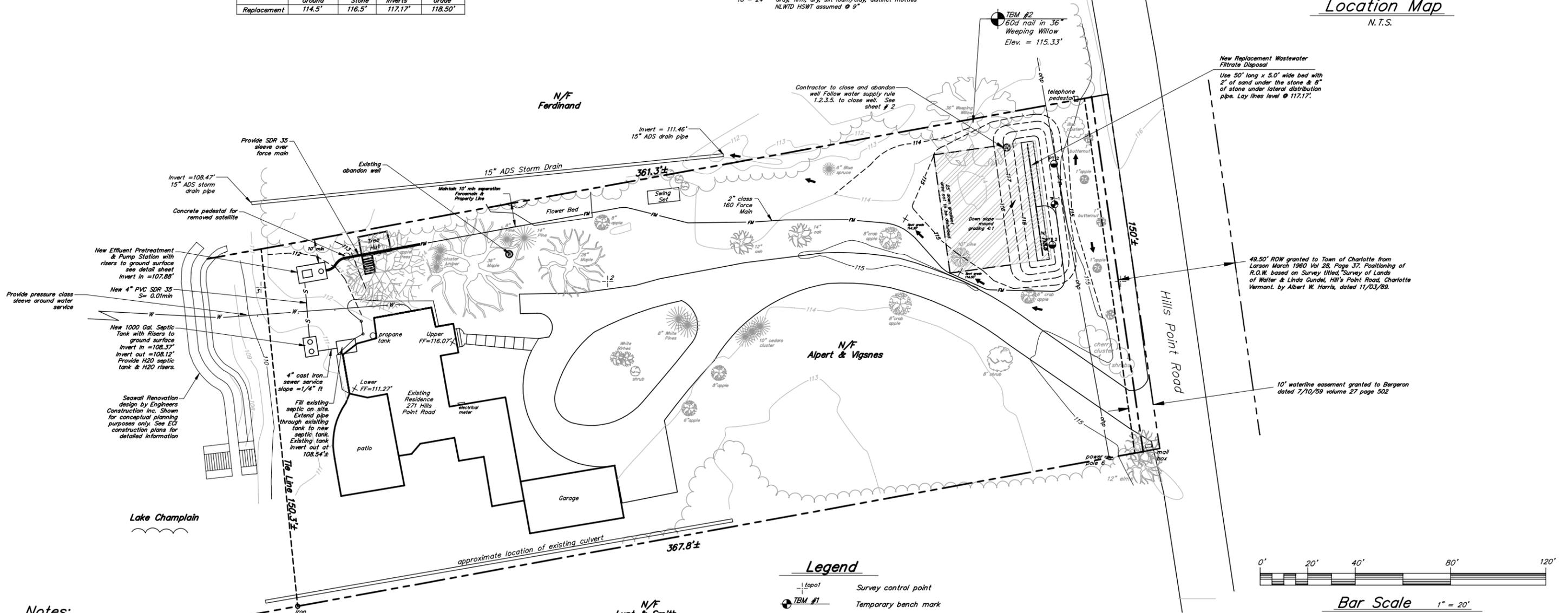
Soil Test Pit

TP-1
 0 - 6" Dark brown loam, dry, possible fill
 6 - 18" Gray, firm, dry, silt loam, faint to distinct mottles
 18 - 24" Gray, firm, dry, silt loam/clay, distinct mottles
 NLWD HSWT assumed @ 9"



Location Map

N.T.S.



New Replacement Wastewater Filtrate Disposal
 Use 50' long x 5.0' wide bed with 2' of sand under the stone & 8" of stone under lateral distribution pipe. Lay lines level @ 117.17'.

49.50' ROW granted to Town of Charlotte from Larson March 1960 Vol. 28, Page 37. Positioning of R.O.W. based on Survey titled, "Survey of Lands of Walter & Linda Gundel, Hill's Point Road, Charlotte Vermont, by Albert W. Harris, dated 11/03/89.

10' waterline easement granted to Bergeron dated 7/10/59 volume 27 page 502

Legend

- Survey control point
- Temporary bench mark
- Test hole
- Percolation test
- Iron pipe found
- Approximate property line / right of way
- Existing Contour interval
- Finish Contour interval
- Final stormwater runoff direction
- Finish Grade
- Basal Area



Bar Scale 1" = 20'

Notes:
 1. This plan is not intended to be a boundary survey. Property lines are based on map titled, "Hills Point Development" dated 1959, filed in Town of Charlotte land records. The plan is also based on physical evidence found on the ground and information abstracted from deeds and other pertinent records.
 2. This plan depicts a "best fix" solution for a relocated primary wastewater system. This wastewater design is non-complying with current Environmental Protection Rules. Krebs and Lansing does not warrant the service life of this relocated primary wastewater system.
 3. The topographical survey was completed by Krebs & Lansing Consulting Engineers, Inc. Horizontal coordinates were assumed and vertical datum was scaled from 2004 low level LIDAR provided by the Vermont Mapping Program.



For Permit Review

| Date revised | Description | Checked | Date |
|--------------|----------------------------|---------|------|
| Design | WHN | | |
| Drawn | JAR | | |
| Checked | WHN | | |
| Scale | 1" = 20' | | |
| Date | May 21, 2007 | | |
| Project | 07143 271 Hills Point Road | | |

Site Plan

Alpert Property

| | |
|--|---|
| KREBS & LANSING Consulting Engineers, Inc. 164 Main Street, Colchester, Vermont 05446 | 1 |
|--|---|