

* Select Fill Placement and System Installation

Pg. 38


 Connecticut Department of Public Health
 Keeping Connecticut Healthy

* Leaching System: Select Fill

*When necessary, leaching systems may utilize select septic fill comprised of clean sand and gravel meeting the gradation specifications in the Technical Standards (page 38) unless otherwise approved by design engineer.

SIEVE SIZE	PERCENT PASSING	
	WET SIEVE	DRY SIEVE
#4	100	100
#10	70 - 100	70 - 100
#40	10 - 50 *	10 - 75
#100	0 - 20	0 - 5
#200	0 - 5	0 - 2.5

2

* Leaching System: Select Fill

Sieve Testing




3

* Leaching System: Select Fill

- Select fill: Select fill not in compliance with the noted gradation standards can only be approved by the design engineer if the material passing the #200 sieve doesn't exceed 6.0% based on wet sieve. PE accepting select fill that doesn't meet the gradation criteria must be design engineer.





4

* Leaching System: Select Fill

- *Bottom of leaching system to be installed at least 48' above ledge rock
- *Bottom of leaching system to be installed at least 18" above maximum groundwater
 - *24" separation for systems with design flows 2000 GPD or greater, systems that are tidally influenced and soils with a faster than 1 minute per inch percolation rate.

5

* Leaching System: Select Fill

- * On-site sieve testing of select fill required for large systems (2000 GPD or greater)
- * On-site sieve testing for small systems (< 2000 GPD) is discretionary by local health department
- * Dry sieve tests can be used for screening purposes but wet sieve results trump those of a dry sieve test

6

DPH * **Select Fill Placement**

- * Licensed installer responsible for preparing the site with select fill
 - * Remove topsoil (strip)
 - * Scarify or rough/fluff up the soil interface
 - * Place fill using a tracked machine
- * Local health department typically conducts a strip and fill inspection

7

DPH * **Staking Inspection**

- * Some local health departments require a staking inspection
- * Stakes are placed around the perimeter of the proposed leaching system
- * System elevations may be labeled on the stakes
- * Limits of strip are reviewed and approved by the locals prior to stripping

8

DPH * **Strip Inspection**

- * Prior to select fill placement
 - * Measure striped area
 - * Verify scarification
 - * Look for signs of compaction or over excavation
 - * Photo document (if needed)
 - * Utilize form #3 (Final Inspection Report)
 - * Review approved plan with installer

9

DPH * **Compacted Strip Area**

- * Identify damages
 - * Percolation tests can be conducted to evaluate the system area when compaction is suspected
 - * System may need to be relocated
 - * Contact PE, if applicable

10

DPH * **Fill Placement Inspection**

- * Examine select fill
 - * May require sieve analysis
 - * 2000 GPD system requires on-site sieve
 - * Fill being properly installed in 12" lifts
- * No use of tire equipment in strip area.
 - * Tracked equipment properly cleaned
 - * No chunks of top soil in the track
- * Verify elevations
- * Use form #3 (pg. 56)

11

DPH

*** Strip, scarification and fill placement video.**

* The following pictures were taken by Peter Andrews and Joe Perry and are provided by Andrews Perry Construction



Additional photographs can be found on their website.
<http://www.andrewsperryconstruction.com>

13



 **Leaching System: Select Fill**

- * The select fill package extends 5 feet around the leaching system perimeter. The installer is responsible for placement of the select fill
- * It is the installer's responsibility to properly compact select fill material to facilitate construction and to avoid settling
- * Manufactured Fill: Annual submittals for all active quarries are due July 1st of each year for DPH approval

17





19

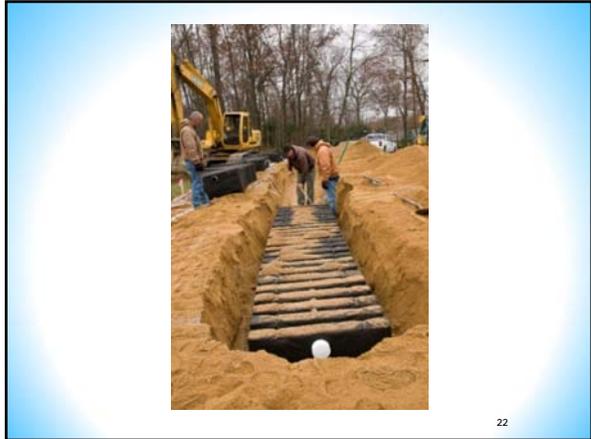
DPH * **System Inspection**

- *Some local health departments require a mid-install system inspection
 - * Tank placement
 - * Leaching structures
 - * Sewer line, pitch and length
 - * Foundation drain outlet
 - * Check stone
 - * Elevation verification

20



21



22



23



24

