



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
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General Information

Date: 5/31/2024 Patrick County Health Department
 Applicant: Phone #:
 Address:
 Directions to the Property: US-58 W, R on VA-8 N (10.2 mi), R on VA-40 E (4.4 mi), L on Rte 710/Woods Gap Rd (0.6 mi), R on Rte 716/Short Cut Dr, +/- 0.4 miles to property on right
 Subdivision: Short Cut Dr Lot: 4
 Tax Map ID: 4918-41-A (37.693 acre portion)

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 19 %
3. Depth to rock/impervious strata: Max. 48" Min. None
4. Depth to seasonal water table (gray mottling or gray color) No Yes
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes Texture group 3
 No Estimated rate 50 Min/inch
7. Percolation test performed Yes Number of percolation test holes
 No Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: David Hall PSS/AOSE

Signature:

X Site Approved: Absorption trenches dispersing septic tank effluent to be placed at 24" depth at site designated. Site provides a total of 1200 square feet of absorption area for the primary drainfield and 600 square feet for reserve.

Site Disapproved:

Reason for rejection: (check all that apply)

- 1 Position in landscape subject to flooding or periodic saturation.
- 2 Insufficient depth of suitable soil over hard rock.
- 3 Insufficient depth of suitable soil to seasonal water table.
- 4 Rates of absorption too slow.
- 5 Insufficient area of acceptable soil for required drainfield, and/or reserve area
- 6 Proposed system too close to well
- 7 Other (Specify)

**PROFILE DESCRIPTION
SOIL EVALUATION REPORT**

Date of Evaluation: 5/16/2024

Patrick County Health Department

x See application sketch

See construction permit

Subdivision: Short Cut Dr **Lot:** 4**TM#:** 4918-41-A (37.693 acre portion on Short Cut Dr)

| Hole # | Horizon | Depth (in) | Description | Texture Group |
|--------|---------|------------|--|---------------|
| Pit 1 | Oa | 0-3 | Dark Yellowish Brown (10YR 4/4) | - |
| | A | 3-12 | Strong Brown (7.5YR 5/6) Loam | 2 |
| | Bt | 12-20 | Yellowish Red (5YR 5/8) Clay Loam | 3 |
| | BC | 20-48 | Yellowish Red (5YR 5/8) Gravelly Clay Loam; 20% Coarse Fragments | 3 |
| Pit 2 | Oa | 0-3 | Brown (10YR 4/3) | - |
| | A | 3-8 | Dark Yellowish Brown (10YR 4/4) Loam | 2 |
| | BA | 8-14 | Strong Brown (7.5YR 5/8) Loam | 2 |
| | Bt1 | 14-33 | Strong Brown (7.5YR 5/6) Clay Loam w/ many mica flakes | 3 |
| | Bt2 | 33-48 | Yellowish Red (5YR 5/8) Clay Loam | 3 |
| Pit 3 | Oa | 0-3 | Dark Yellowish Brown (10YR 4/4) | - |
| | A | 3-12 | Strong Brown (7.5YR 5/6) Loam | 2 |
| | Bt | 12-24 | Strong Brown (7.5YR 4/6) Loam | 2 |
| | BC | 24-48 | Yellowish Red (5YR 5/8) Gravelly Loam; 20% Coarse Fragments | 2 |

DRAINFIELD RECOMMENDATIONS, DESIGN BASIS, & AREA CALCULATIONS**Subdivision:** Short Cut Dr **Lot:** 4**TM#:** 4918-41-A (37.693 acre portion on Short Cut Dr)

| Main DF | | Reserve DF | |
|---|---------|---|---------|
| Type of system | Gravity | Reserve Area Required | Yes |
| EPR | 50 | Type of Reserve | Gravity |
| Slope % | 19 | EPR | 50 |
| # Bedrooms | 3 | Slope % | 19 |
| Gallons/Day | 450 | Gallons/Day | 225 |
| Width of Trench (ft.) | 3 | Width of Trench (ft.) | 3 |
| Total Square Ft. of Trench Bottom Required per BR | 376 | Total Square Ft. of Trench Bottom Required | 564 |
| Total Square Ft. of Trench Bottom per BR in Design | 400 | Total Square Ft. of Trench Bottom in Design | 600 |
| Total Square Ft. of Trench Bottom Required | 1128 | # Lines of Reserve | 2 |
| Total Square Ft. of Trench Bottom in Design | 1200 | Line Length (ft.) | 100 |
| # Lines Installed | 4 | Installed <24" from Rock or Other Impervious Strata | No |
| Length of Line Installed (ft.) | 100 | Centers (ft.) | 10 |
| Installed <24" from Rock or Other Impervious Strata | No | Width Required (ft.) | 20 |
| Centers (ft.) | 10 | Width in Design (ft.) | 20 |
| Width Required (ft.) | 33 | Installation Depth (inches into natural soil) | 24 |
| Installation Depth (inches into natural soil) | 24 | Amount of Backfill Required (inches) | N/A |
| Amount of Backfill Required (inches) | N/A | Type of Well Recommended | 3C |
| | | Amount of Casing & Grout (ft.) | 20' min |

