# Southwest Soils, Inc.

On-site wastewater consulting

P.O. Box 90 Woodlawn, VA 24381 Office Fax (276) 733-5682 (276) 728-4200

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May 14, 2014

The Helen M. and Henry A. Ross Revocable Trust

RE: Roanoke County, Tract #3, 20.480 acres, portion of Tax Parcel 111.00-02-09.00-0000

This letter is to summarize the soil suitability findings for the above referenced property. The soils were evaluated with a hand auger in three locations. An area suitable for a (4)Four-bedroom TL-2 Treatment/Trenches onsite sewage disposal system (OSDS) was found in the area evaluated. The drainfield area is staked with 36' stakes and pink flagging.

This is a letter of professional opinion (inclusive to supporting documentation) and noway constitutes and/or guarantees an approved OSDS through the Roanoke County Health Department. The purchaser and/or agent thereof should contact the Roanoke County Health Department or Southwest Soils, Inc. once he/she elects to obtain a Sewage Disposal Permit.

If you have any questions please contact Stephen Dalton at (276) 733-5682.

Thank You.

Stephen Dalton

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Appendix I

### Commonwealth of Virginia

## Application for a Sewage Disposal and/or Water Supply Permit

| ,   | He  | ealth Department l  | ID#                                 | (VDH Use)   |
|---|---|---|-------------------------------------|---|
| Owner <u>The Helen M. ar</u>  | nd Henry A. Revoca                            | ble Trust A   | Address                             |   |
| Phone   |   | 1   | :                                   |   |
| Agent SW Soils, Inc.  | Address                                       | P.O. Box 90   | P                                   | hone (276) 733-5682   |
|   | V   | Voodlawn, VA 24   | 381                                 |   |
| Directions to Property: <u>Rt</u><br>Road to property on left.  | e. 221 South to Ben                           | t Mtn. left on Fort   | unes Ric                            | lge, right on Slingsgap   |
| Subdivision   |   | PhaseN  | <u>/A</u> Lo                        | ot  |
| Other Property Identificati<br>Map Roference <u>Tax n</u>   | on  |   | :                                   |   |
| <b></b>   |   |   |                                     |   |
| Dimension/size of Lot/Pro   | perty <u>20.480 acres</u>                     |   |                                     |   |
| Residential Use   | <u>x</u> Yes                                  | Quantitative description of the second page of the | _No                                 |   |
| Termite Treatment   | <u>x</u> Yes                                  | <b>©</b> E-Childrenne   | No :                                |   |
|   | <u>x</u> Single Far                           | nily  | Multi-                              | -family   |
| Nun   | mber of bedrooms                              | 4 Nurr  | iber of U                           | nits  |
| Basement  | <u>x</u> Undetern                             | nined   | ]                                   | No  |
| Fixtures in Basement  | Yeş   | Bironi-reconstructures  | No                                  |   |
| Proposed Sewage Disposal  | l Method:                                     |   |                                     |   |
| Onsite Sewage Disposal S  | ystem: <u>x</u> Treatm                        | nent Level 2/ Trei  | nches                               |   |
| Water Supply:   | Public  | New   | •                                   | Existing  |
|   | <u>x</u> Private                              | <u>x</u> New  | ;                                   | Existing  |
| Describe: Class III-B   | <u>well</u>                                   |   |                                     |   |
|   | <u>-</u>                                      |   | •                                   |   |
| The property lines, buildin property is sufficiently visioner onto the property desquality assurance checks approved. | ible to see the topog<br>cribed for the purpo | raphy. I give perm<br>see of processing the<br>sewage disposal s  | ission to<br>his applic<br>system h | the Department to<br>cation and to perform<br>as been constructed and |
| Signature of Owner/Agent  | - XWV   | Y L   | ·                                   | Date 5/14/14  |

Appendix 6 Abbreviated Design Form

For use with gravity and pump drainfields, enhanced flow systems and low pressure distribution systems when applying for a certification letter or subdivision approval.

| Design Basis   | :                     |
|--|-----------------------|
| A. Estimated Percolation Rate                        | 45 mpi                |
| B. Trench Bottom based on table 4.6                  | _258                  |
| C. Number of bedrooms                                | 4                     |
| Area calculations                                    | !                     |
| D. Length of trench 50 ft. Length of availab         | le area <u>50 ft.</u> |
| E. Width of trench 3 ft.                             |                       |
| F. Number of trenches7                               | :                     |
| G. Center-to-center spacing 10 ft.                   | •                     |
| H. Width required 63 ft. Width of availab G(F-1) + E | ele area 63 ft.       |
| I. Total square footage required (B *C)              | 032                   |
| J. Square footage in design (D*E*F)                  | 1050                  |
| V Is a reserve area required?                        | No                    |

#### Appendix 3

Evaluation Date: 5/14/14 Evaluator: Stephen Dalton

| DRAINFIELD<br>#1 |         |       |          |  |    |  |
|------------------|---------|-------|----------|--|----|--|
|                  | A       | 0-8   | Ha       | Dark Yellowish Brown (10YR 4/4), SANDY LOAM, common fine roots, friable, granular, many fine roots |    |  |
|                  | B       | 8-38  | Пь       | Strong Brown (7.5YR 4/6), SANDY CLAY LOAM,, few fine roots   | ,  |  |
|                  | С       | 38-50 | IIa      | Strong Brown (7.5YR 5/6), SANDY LOAM, few fine roots, Weathered parent material, auger refusal     |    |  |
|                  | #2      |       |          | ,  |    |  |
|                  | A       | 0-8   | Ha       | Dark Yellowish Brown (10YR 4/4), SANDY LOAM, common fine roots, friable, granular, many fine roots |    |  |
|                  | В       | 8-26  | IIb      | Strong Brown (7.5 YR 4/6), SANDY CLAY LOAM,, few fine roots,                                       | ļ. |  |
|                  | C       | 26-60 | Па       | Yellowish Brown (10YR 5/8), SANDY LOAM, few fine roots, Weathered parent material,                 |    |  |
|                  | #3<br>^ | 0-8   | II.a     | Dark Vellousish Drover (10VP 4/4) SANDY I GANG   |    |  |
|                  | A       | U-6   | IIa<br>· | Dark Yellowish Brown (10YR 4/4), SANDY LOAM, common fine roots, friable, granular, many fine roots |    |  |
| 1                | В       | 8-26  | ΙΙЪ      | Strong Brown (7.5YR 4/6), SANDY CLAY LOAM,, few fine roots,  |    |  |
| (                | С       | 26-32 | IIa      | Brown (10YR 4/3), SANDY LOAM, few fine roots, Weathered parent material, auger refusal at 32"      |    |  |

Appendix 2

### Soil Summary Report GENERAL INFORMATION

| Date 5/14/14 Submitted to Roanoke County Health Department                           |  |  |  |  |  |
|--|--|--|--|--|--|
| Applicant The Helen M. and Henry A. Ross Revocable Trust Telephone No.               |  |  |  |  |  |
| Address  |  |  |  |  |  |
| Owner Address  |  |  |  |  |  |
| Location: Slingsgap Road.  |  |  |  |  |  |
| Tax Map111.00-02-09.00-0000  |  |  |  |  |  |
| Subdivision Maplewood Phase N/A Lot  |  |  |  |  |  |
| SOIL INFORMATION SUMMARY   |  |  |  |  |  |
| 1. Position in landscape satisfactory Yes x No                                       |  |  |  |  |  |
| Describe sideslope Physiographic Province Ridge and Valley                           |  |  |  |  |  |
| 2. Slope12%  |  |  |  |  |  |
| 3. Depth to rock or impervious strata: Max. 60 Min. 30 in. None                      |  |  |  |  |  |
| 4. Depth to seasonal water table (gray mottling or gray color) No x Yesinches        |  |  |  |  |  |
| 5. Free water present No x Yes range in inches                                       |  |  |  |  |  |
| 6. Soil percolation rate estimated Yes <u>x</u> Texture group I IIA IIB III IV       |  |  |  |  |  |
| No Estimated rate 45min/inch   |  |  |  |  |  |
| 7. Permeability test performed Yes   |  |  |  |  |  |
| No x Recommended Installation Depth 18 in.   |  |  |  |  |  |
| If yes, note type of test performed and attach                                       |  |  |  |  |  |
| Site Approved: Drainfield to be placed atdepth at site designated on permit.         |  |  |  |  |  |
| Site Disapproved:  |  |  |  |  |  |
| Reasons for rejection:   |  |  |  |  |  |
| 1Position 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 Reverse Area. |  |  |  |  |  |
| 6 Proposed system too dose to well.  |  |  |  |  |  |
| 7Other Specify   |  |  |  |  |  |