



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 4/10/07
Applicant: Lobolly Mill, LLC
Address: 119 Norfolk Ave Roanoke, VA 24011
Owner:
Location:
Subdivision: Loblolly Mill
Roanoke County Health Department
Telephone No: 540-985-6444
Address:
Lot: 1

Soil Information Summary

- 1. Position in landscape satisfactory Yes x No Describe: Sideslope
2. Slope 22 %
3. Depth to rock\impervious strata: Max. > 60" Min. 40" None
4. Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5. Free water present No x Yes range in inches
6. Soil percolation rate estimated Yes x Texture group 3
No Estimated rate 75 Min/inch
7. Percolation test performed Yes Number of percolation test holes
No x Depth of percolation test holes
Average percolation rate

Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 4/10/07

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 1

Hole #	Horizon	Depth	Description	Texture Group
1	Ap	0-3	Dark Yellowish Brown (10YR 4/4) loam	2
	AB	3-10	Yellowish Brown (10YR 5/6) loam	2
	Bt	10-36	Yellowish Red (5YR 5/8) & Strong Brown (7.5YR 5/8) clay loam	3
	BC	36-48	Yellowish Red (5YR 5/8) & Strong Brown (7.5YR 5/8) clay loam; common Gray (10YR 6/1) weathered rock fragments; few Brownish Yellow (10YR 6/8) parent material mottles	3
	C	48-60	Yellowish Red (5YR 5/8) & Strong Brown (7.5YR 5/8) loam; many Gray (10YR 6/1) weathered rock fragments; common Brownish Yellow (10YR 6/8) parent material mottles	2
2	Ap	0-4	Dark Yellowish Brown (10YR 4/4) loam	2
	AB	4-16	Yellowish Brown (10YR 5/6) silt loam	3
	Bt	16-36	Strong Brown (7.5YR 5/6) gravelly silty clay loam; 20% coarse fragments	3
	BC	36-60	Reddish Yellow (7.5YR 6/8) & Yellowish Red (5YR 5/8) clay loam	3
3	Ap	0-5	Dark Yellowish Brown (10YR 4/4) loam	2
	Bt	5-22	Strong Brown (7.5YR 5/8) gravelly silt loam	3
	C	22-40	Strong Brown (7.5YR 5/8) gravelly silt loam; common White (10YR 8/1) weathered rock fragments	3
	AR	40		
4	Ap	0-3	Dark Yellowish Brown (10YR 4/4) loam	2
	Bt1	3-18	Strong Brown (7.5YR 5/8) silty clay loam	3
	Bt2	18-36	Yellowish Red (5YR 5/8) & Reddish Yellow (7.5YR 6/8) clay loam	3
	C	36-46	Strong Brown (7.5YR 5/6) very gravelly silt loam; 35% coarse fragments	3
	AR	46		
5	Ap	0-4	Dark Yellowish Brown (10YR 4/4) loam	2
	AB	4-12	Yellowish Brown (10YR 5/6) loam	2
	Bt	12-36	Yellowish Red (5YR 5/8) & Strong Brown (7.5YR 5/8) clay loam	3
	BC	36-50	Yellowish Red (5YR 5/8) & Strong Brown (7.5YR 5/8) clay loam; common Gray (10YR 6/1) weathered rock fragments; few Brownish Yellow (10YR 6/8) parent material mottles	3
	C	50-60	Yellowish Red (5YR 5/8) & Strong Brown (7.5YR 5/8) loam; many Gray (10YR 6/1) weathered rock fragments; common Brownish Yellow (10YR 6/8) parent material mottles	2

Applicant: **Subdivision:** Loblolly Mill **Lot:** 1

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Conventional Lines		
EPR	75	Reserve Area Required	Yes
Slope %	22	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. of Trench Bottom Required (Reserve DF)	600
Gallons/Day	600	Total Square Ft. of Trench Bottom in Design (Reserve DF)	600
Width of Trench (ft.)	3	# Lines of Reserve	2
Loading Rate (gal/sq. ft.)	0.59	Line Length (ft.)	100
Absorption Area Increase	N/A	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. of Trench Bottom Required (Main DF)	1017	Centers (ft.) (Reserve DF)	11
Total Square Ft. of Trench Bottom in Design (Main DF)	1200	Width Required (ft.) (Reserve DF)	22
Total Square Ft. of Trench Bottom Required per BR	255	Width in Design (ft.) Reserve DF)	22
Total Square Ft. of Trench Bottom per BR in Design	300	Installation Depth (inches into natural soil) (Reserve DF)	20
# Lines Installed	4	Backfilling Recommended	Yes
Length of Line Installed (ft.)	100	Amount of Backfill (inches) (Reserve DF)	4
Installed < 24" from Rock or Other Impervious Strata Centers (ft.)	Yes	11	
Width Required (ft.) (Main DF)	36	Type of Well Recommended	3B
Installation Depth (inches into natural soil) (Main DF)	20	Amount of Casing and Grout (ft.)	50
Backfilling Recommended	Yes		
Amount of Backfill (inches) (Main DF)	4		

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 3/29/07 Roanoke County Health Department
Applicant: Loblolly Mill LLC Telephone No: 985-6444
Address: 119 Norfolk Ave., Roanoke VA. 24011
Owner: Address:
Location:
Subdivision: Loblolly Mill Lot: 2

Soil Information Summary

- 1. Position in landscape satisfactory Yes No Describe: Sideslope
- 2. Slope 28 %
- 3. Depth to rock\impervious strata: Max. 34” Min. 27” None
- 4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
- 5. Free water present No Yes range in inches
- 6. Soil percolation rate estimated Yes Texture group 3
 No Estimated rate 60 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 3/29/07

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 2

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-5	Dark Yellowish Brown (10YR 4/3) loam	2
	Bt	5-20	Yellowish Brown (10YR 5/6) silt loam	3
	C	20-42	Yellowish Brown (10YR 5/6) gravelly loam; 20% coarse fragments	3
	AR	42		
2	A	0-4	Dark Yellowish Brown (10YR 4/3) sandy loam	2
	Bw	4-20	Brownish Yellow (10YR 6/6) sandy loam	2
	BC	20-27	Brownish Yellow (10YR 6/6) loam	2
	C	27-30	Brownish Yellow (10YR 6/6) gravelly sandy loam; 30% coarse fragments	2
	R	30		
3	A	0-3	Dark Yellowish Brown (10YR 4/3) loam	2
	Bw	3-18	Brownish Yellow (10YR 6/6) silt loam	3
	C	18-28	Brownish Yellow (10YR 6/6) gravelly silt loam; 20% coarse fragments	3
	R	28		
4	A	0-3	Dark Yellowish Brown (10YR 4/4) silt loam	3
	Bw1	3-18	Brownish Yellow (10YR 6/8) silt loam	3
	Bw2	18-27	Yellowish Brown (10YR 5/6) gravelly silt loam; 30% coarse fragments	3
	R	27		

Applicant: Subdivision: Loblolly Mill Lot: 2

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	60	Reserve Area Required	Yes
Slope %	28	Type of Reserve	Same
# Bedrooms	3	Total Square Ft. Required (Reserve DF)	1300
Gallons/Day	450	Total Square Ft. in Design (Reserve DF)	1300
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.74	Line Length (ft.)	65
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	2426	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	2600	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	810	Width Required (ft.) (Reserve DF)	20
Total Square Ft. per BR in Design	868	Width in Design (ft.) Reserve DF)	20
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	65	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	40		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

****This system will have to be designed by a professional engineer; see his design concerning items marked**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 3/29/07 and 4/18/08
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 540-985-6444
 Address:
 Lot: 3

Soil Information Summary

- 1. Position in landscape satisfactory Yes No Describe: Sideslope
- 2. Slope 34 %
- 3. Depth to rock\impervious strata: Max. Min. None
- 4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
- 5. Free water present No Yes range in inches
- 6. Soil percolation rate estimated Yes No Texture group 2 Estimated rate 45 Min/inch
- 7. Percolation test performed Yes No Number of percolation test holes Depth of percolation test holes Average percolation rate

Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 3/29/07 and 4/18/08

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 3

Hole #	Horizon	Depth	Description	Texture Group
1	Ap	0-2	Dark Yellowish Brown (10YR 4/3) loam	2
	BA	2-24	Yellowish Brown (10YR 5/8) loam	2
	Bt	24-42	Yellowish Brown (10YR 5/6) sandy clay loam	2
	C	42-60	Strong Brown (7.5YR 5/8) sandy loam	2
2	Ap	0-2	Dark Yellowish Brown (10YR 4/3) loam	2
	BA	2-20	Yellowish Brown (10YR 5/8) loam	2
	Bt	20-40	Strong Brown (7.5YR 5/8) light sandy clay loam	2
	C	40-60	Reddish Yellow (7.5YR 6/6) sandy loam	2
3	Ap	0-2	Dark Yellowish Brown (10YR 4/3) loam	2
	BA	2-24	Strong Brown (7.5YR 5/8) sandy loam	2
	Bt	24-45	Strong Brown (7.5YR 5/6) light sandy clay loam	2
	C	45-60	Reddish Yellow (7.5YR 6/6) and Brownish Yellow (10YR 6/6) sandy loam	2
4	Ap	0-2	Dark Yellowish Brown (10YR 4/3) loam	2
	BA	2-24	Strong Brown (7.5YR 5/8) sandy loam	2
	Bt	24-30	Strong Brown (7.5YR 5/6) light sandy clay loam	2
	C	30-60	Reddish Yellow (7.5YR 6/6) and Brownish Yellow (10YR 6/6) sandy loam	2

Applicant:

Subdivision: Loblolly Mill

Lot: 3

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Gravity		
EPR	45	Reserve Area Required	No
Slope %	34	Type of Reserve	NA
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	NA
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	NA
Width of Trench (ft.)	3	# Lines of Reserve	NA
Loading Rate (gal/sq. ft.)	NA	Line Length (ft.)	NA
Absorption Rate Increase	50%	Absorption Rate Increase	NA
Total Square Ft. of Trench Bottom Required (Main DF)	1376	Installed < 24" from Rock or Other Impervious Strata	NA
Total Square Ft. of Trench Bottom in Design (Main DF)	1440	Centers (ft.) (Reserve DF)	NA
Total Square Ft. of Trench Bottom Required per BR	344	Width Required (ft.) (Reserve DF)	NA
Total Square Ft. of Trench Bottom per BR in Design	360	Width in Design (ft.) Reserve DF)	NA
# Lines Installed	8	Installation Depth (inches into natural soil) (Reserve DF)	NA
Length of Line Installed (ft.)	60	Backfilling Recommended	NA
Installed <24" from Rock or Other Impervious Strata	No	Amount of Backfill (inches) (Reserve DF)	NA
Centers (ft.)	11		
Width Required (ft.) (Main DF)	80		
Installation Depth (inches into natural soil) (Main DF)	33	Type of Well Recommended	3B
Backfilling Recommended	No	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	NA		

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/20/06
Applicant: Loblolly Mill LLC
Address: 119 Norfolk Ave., Roanoke VA. 24011
Owner:
Location:
Subdivision: Loblolly Mill
Roanoke County Health Department
Telephone No: 985-6444
Address:
Lot: 4

Soil Information Summary

- 1. Position in landscape satisfactory Yes x No Describe: Sideslope
2. Slope 18 %
3. Depth to rock\impervious strata: Max. 28" Min. 18" None
4. Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5. Free water present No x Yes range in inches
6. Soil percolation rate estimated Yes x Texture group 2
No Estimated rate 45 Min/inch
7. Percolation test performed Yes Number of percolation test holes
No x Depth of percolation test holes
Average percolation rate

Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/20/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 4

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark yellowish brown (10YR 4\4) sandy loam	2
	BA	2-10	Yellowish brown (10YR 5\4) loam	2
	Bw	10-22	Yellowish brown (10YR 5\8) loam	2
	AR	22	Augar refusal	
2	A	0-2	Dark yellowish brown (10YR 4\4) sandy loam	2
	BA	2-10	Yellowish brown (10YR 5\4) loam	2
	Bw	10-22	Yellowish brown (10YR 5\8) loam	2
	AR	18	Augar refusal	
3	A	0-1	Dark yellowish brown (10YR 4\4) sandy loam	2
	BA	1-10	Yellowish brown (10YR 5\4) loam	2
	Bw	10-20	Yellowish brown (10YR 5\6) loam	2
	C	20-28	Brownish yellow (10YR 6\6) gravelly loam; 15% coarse fragments	2
	AR	28	Augar refusal	

Applicant: Subdivision: Loblolly Mill Lot: 4

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	45	Reserve Area Required	No
Slope %	18	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
Loading Rate (gal/sq. ft.)	0.99	Line Length (ft.)	N/A
Absorption Rate Increase	17%	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. Required (Main DF)	2128	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. in Design (Main DF)	2400	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	532	Width in Design (ft.) Reserve DF)	N/A
Total Square Ft. per BR in Design	600	Installation Depth (inches into natural soil) (Reserve DF)	N/A
# Lines Installed	**	Backfilling Recommended	N/A
Length of Line Installed (ft.)	100	Amount of Backfill (inches) (Reserve DF)	N/A
Installed <24" from Rock or Other Impervious Strata	Yes		
Centers (ft.)	**		
Width Required (ft.) (Main DF)	24	Type of Well Recommended	3B
Installation Depth (inches into natural soil) (Main DF)	2	Amount of Casing and Grout (ft.)	50
Backfilling Recommended	Yes		
Amount of Backfill (inches) (Main DF)	10		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



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111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/20/06
 Applicant: Loblolly Mill LLC
 Address: 119 Norfolk Ave., Roanoke VA 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 985-6444
 Address:
 Lot: 5

Soil Information Summary

- 1. Position in landscape satisfactory Yes x No Describe: Sideslope
- 2. Slope 18 %
- 3. Depth to rock\impervious strata: Max. 36” Min. 21” None
- 4. Depth to seasonal water table (gray mottling or gray color) No x Yes inches
- 5. Free water present No x Yes range in inches
- 6. Soil percolation rate estimated Yes x Texture group 2
 No Estimated rate 45 Min/inch
- 7. Percolation test performed Yes Number of percolation test holes
 No x Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/20/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 5

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark yellowish brown (10YR 4\4) sandy loam	2
	BA	2-14	Yellowish brown (10YR 5\4) sandy loam	2
	Bt	14-21	Yellowish brown (10YR 5\8) loam	2
	AR	21		
2	A	0-2	Dark yellowish brown (10YR 4\4) sandy loam	2
	BA	2-14	Yellowish brown (10YR 5\4) sandy loam	2
	Bt	14-21	Yellowish brown (10YR 5\8) loam	2
	AR	21		
3	A	0-2	Dark yellowish brown (10YR 4\4) sandy loam	2
	BA	2-15	Yellowish brown (10YR 5\6) loam	2
	Bt	15-30	Strong brown (7.5YR 5\8) sandy clay loam	2
	C	30-36	Strong brown (7.5YR 5\8) loam; w/common Yellow (10YR 7\8) weathered parent material mottles	2
	R	36		

Applicant: Subdivision: Loblolly Mill Lot: 5

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	45	Reserve Area Required	No
Slope %	18	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
Loading Rate (gal/sq. ft.)	0.99	Line Length (ft.)	N/A
Absorption Rate Increase	17%	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. Required (Main DF)	2128	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. in Design (Main DF)	2295	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	532	Width in Design (ft.) Reserve DF)	N/A
Total Square Ft. per BR in Design	573	Installation Depth (inches into natural soil) (Reserve DF)	N/A
# Lines Installed	**	Backfilling Recommended	N/A
Length of Line Installed (ft.)	85	Amount of Backfill (inches) (Reserve DF)	N/A
Installed <24" from Rock or Other Impervious Strata	Yes		
Centers (ft.)	**		
Width Required (ft.) (Main DF)	27	Type of Well Recommended	3B
Installation Depth (inches into natural soil) (Main DF)	2	Amount of Casing and Grout (ft.)	50
Backfilling Recommended	Yes		
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/14/06
Applicant: Loblolly Mill LLC
Address: 119 Norfolk Ave., Roanoke VA. 24011
Owner:
Location:
Subdivision: Loblolly Mill

Roanoke County Health Department
Telephone No: 985-6444
Address:
Lot: 6

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 24 %
3. Depth to rock\impervious strata: Max. 28" Min. 19" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3 Estimated rate 50 Min/inch
7. Percolation test performed Yes No Number of percolation test holes Depth of percolation test holes Average percolation rate

Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/14/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 6

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-4	Dark yellowish brown (10YR 4\4) silt loam	2
	Bw	4-27	Yellowish brown (10YR 5\8) silt loam	3
	AR	27		
2	A	0-4	Dark yellowish brown (10YR 4\4) silt loam	2
	Bw	4-19	Yellowish brown (10YR 5\8) silt loam	3
	AR	19		
3	A	0-6	Dark yellowish brown (10YR 4\4) loam	2
	Bw	6-28	10yr5610yr56 gravelly loam; 30% coarse fragments	2
	AR	28		

Applicant:

Subdivision: Loblolly Mill

Lot: 6

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	50	Reserve Area Required	Yes
Slope %	24	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1485
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1485
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	55
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	2690	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	2970	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	672	Width Required (ft.) (Reserve DF)	27
Total Square Ft. per BR in Design	742	Width in Design (ft.) Reserve DF)	27
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	55	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	54		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/14/06 and 4/15/08
 Applicant: Loblolly Mill LLC
 Address: 119 Norfolk Ave., Roanoke VA. 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 985-6444

Address:
 Lot: 7

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 22 %
3. Depth to rock\impervious strata: Max. 36" Min. 26" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 2 Estimated rate 45 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/14/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 7

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-4	Dark yellowish brown (10YR 4/4) loam	2
	BA	4-14	Yellowish brown (10YR 5/6) loam	2
	Bt1	14-36	Strong brown (7.5YR 5/6) clay loam	3
	C	36+	Yellowish red (5YR 5\8) gravelly silty clay loam; 30% coarse fragments	3
2	Ap	0-3	Dark yellowish brown (10YR 4/4) loam	2
	BA	3-14	Yellowish brown (10YR 5/6) gravelly loam; 25% coarse fragments	2
	Bt1	14-20	Strong brown (7.5YR 5/6) very gravelly loam; 35% coarse fragments	2
	Bt2	20-26	Strong brown (7.5YR 5\8) very gravelly loam; 45% coarse fragments	2
3	Ap	0-3	Dark yellowish brown (10YR 4/4) loam	2
	BA	3-14	Yellowish brown (10YR 5/6) gravelly loam; 25% coarse fragments	2
	Bt1	14-20	Strong brown (7.5YR 5/6) very gravelly loam; 35% coarse fragments	2
	Bt2	20-26	Strong brown (7.5YR 5\8) very gravelly loam; 45% coarse fragments	2
4	Ap	0-3	Dark Yellowish Brown (10YR 4/4) gravelly loam	2
	Bw	3-16	Yellowish Brown (10YR 5/4) gravelly loam	2
	C	16-30	Yellowish Red (5YR 5/6) gravelly silt loam	3
	AR	@30		NA

Applicant: **Subdivision:** Loblolly Mill **Lot:** 7

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	45	Reserve Area Required	No
Slope %	22	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
Loading Rate (gal/sq. ft.)	0.99	Line Length (ft.)	N/A
Absorption Rate Increase	33%		
Total Square Ft. Required (Main DF)	2420	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. in Design (Main DF)	3850	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	605	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. per BR in Design	963	Width in Design (ft.) Reserve DF)	N/A
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	N/A
Length of Line Installed (ft.)	55	Backfilling Recommended	N/A
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	N/A
Centers (ft.)	**		
Width Required (ft.) (Main DF)	70		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 11/27/07 & 1/23/08
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 8

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 23 %
3. Depth to rock\impervious strata: Max. 35" Min. 21" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 2 Estimated rate 45 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 11/27/07 & 1/23/08

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 8

Hole #	Horizon	Depth	Description	Texture Group
1	Ap	0-3	Brown (10YR 4/3) loam	2
	Bw	3-20	Yellowish Brown (10YR 5/4) loam; 10% coarse fragments	2
	C	20-32	Yellowish Brown (10YR 5/6) gravelly loam; 20% coarse fragments	2
	R	32		
2	Ap	0-3	Dark Yellowish Brown (10YR 4/4) loam	2
	Bw	3-20	Yellowish Brown (10YR 5/4) loam	2
	BC	20-30	Yellowish Brown (10YR 5/6) gravelly loam; 20% coarse fragments	2
	C	30-35	Yellowish Brown (10YR 5/6) very gravelly loam; 35% coarse fragments	2
R	35			
3	Ap	0-4	Dark Yellowish Brown (10YR 4/4) loam	2
	BA	4-15	Yellowish Brown (10YR 5/6) loam	2
	Bt	15-21	Strong Brown (7.5YR 5/6) loam	2
	AR	21		
4	Ap	0-5	Dark Yellowish Brown (10YR 4/4) loam	2
	BA	5-20	Yellowish Brown (10YR 5/6) gravelly loam; 20% coarse fragments	2
	Bt	20-32	Strong Brown (7.5YR 5/6) loam	2
	R	32		
5	Ap	0-3	Dark Yellowish Brown (10YR 4/4) loam	2
	Bt	3-12	Strong Brown (7.5YR 5/8) loam	2
	C	12-22	Strong Brown (7.5YR 5/8) gravelly loam; 25% coarse fragments	2
	R	22		

Applicant:

Subdivision: Loblolly Mill

Lot: 8

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	45	Reserve Area Required	No
Slope %	23	Type of Reserve	NA
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	NA
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	NA
Width of Trench (ft.)	3	# Lines of Reserve	NA
Loading Rate (gals./ft. ²)	0.99	Line Length (ft.)	NA
Absorption Rate Increase	33%	Absorption Rate Increase	NA
Total Square Ft. Required (Main DF)	2420	Installed < 24" from Rock or Other Impervious Strata	NA
Total Square Ft. in Design (Main DF)	2600	Centers (ft.) (Reserve DF)	NA
Total Square Ft. Required per BR	605	Width Required (ft.) (Reserve DF)	NA
Total Square Ft. per BR in Design	650	Width in Design (ft.) Reserve DF)	NA
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	NA
Length of Lines Installed (ft.)	30, 50	Backfilling Recommended	NA
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	NA
Centers (ft.)	**		
Width Required (ft.) (Main DF)	45, 25		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 11/27/07
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 13

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 31 %
3. Depth to rock\impervious strata: Max. 32" Min. 25" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 2 Estimated rate 45 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 11/27/07

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 13

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Brown (10 YR 5/3) loam	2
	Bw	2-20	Yellowish brown (10YR 5/6) loam; 10% coarse fragments	2
	BC	20-25	Yellowish Brown (10YR 5/6) gravelly loam; 25% coarse fragments	2
	C	30-32	Brownish Yellow (10YR 6/6) very gravelly loam; 35% coarse fragments	2
	R	32		NA
2	A	0-2	Dark yellowish brown (10YR 4/4) sandy loam	2
	Bw	2-20	Yellowish brown (10YR 5/6) gravelly loam; 20% coarse fragments	2
	C	20-25	Yellowish Brown (10YR 5/6) very gravelly loam; 35% coarse fragments	2
	R	25		NA
3	A	0-2	Dark Yellowish Brown (10YR 4/3) sandy loam	2
	Bw	2-18	Yellowish Brown (10YR 5/6) loam; 10% coarse fragments	2
	C	18-28	Yellowish Brown (10YR 5/6) gravelly loam; 30% coarse fragments	2
	R	28		NA
4	A	0-2	Dark Yellowish Brown (10YR 4/3) loam	2
	Bw	2-18	Yellowish Brown (10YR 5/8) loam; 10% coarse fragments	2
	C	18-25	Yellowish Brown (10YR 5/8) gravelly loam; 25% coarse fragments	2
	R	25		NA

Applicant:

Subdivision: Loblolly Mill

Lot: 13

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Secondary Treatment into Drip Irrigation*		
EPR	45	Reserve Area Required	No
Slope %	31	Type of Reserve	NA
# Bedrooms	3	Total Square Ft. Required (Reserve DF)	NA
Gallons/Day	450	Total Square Ft. in Design (Reserve DF)	NA
Width of Trench (ft.)	**	# Lines of Reserve	NA
LPD Rate (ft. ² /Bedroom)	279	Line Length (ft.)	NA
Absorption Rate Increase	50%	Absorption Rate Increase	NA
Total Square Ft. Required (Main DF)	3767	Installed < 24" from Rock or Other Impervious Strata	NA
Total Square Ft. in Design (Main DF)	7200	Centers (ft.) (Reserve DF)	NA
Total Square Ft. Required per BR	1256	Width Required (ft.) (Reserve DF)	NA
Total Square Ft. per BR in Design	2400	Width in Design (ft.) Reserve DF)	NA
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	NA
Length of Line Installed (ft.)	80	Backfilling Recommended	NA
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	NA
Centers (ft.)	**		
Width Required (ft.) (Main DF)	90		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/15/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 540-985-6444
 Address:
 Lot: 14

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 33 %
3. Depth to rock\impervious strata: Max. 27" Min. 22" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 2 Estimated rate 45 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/15/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 14

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Brown (10YR 4\3) sandy loam	2
	Bw	2-18	Yellowish brown (10YR 5\8) loam	2
	C	18-27	Yellowish brown (10YR 5\8) gravelly loam; 30% coarse fragments	2
	R	27		
2	A	0-2	Brown (10YR 4\3) sandy loam	2
	Bw	2-16	Brownish yellow (10YR 6\6) gravelly loam: 15% coarse fragments	2
	C	16-24	Yellowish brown (10YR 5\8) gravelly loam; 30% coarse fragments	2
	R	24		
3	A	0-1	Brown (10YR 4\3) loam	2
	Bw	1-22	Brownish yellow (10YR 6\6) loam	2
	R	22		
4	A	0-2	Brown (10YR 4\3) sandy loam	2
	Bw	2-18	Brownish yellow (10YR 6\6) gravelly loam: 15% coarse fragments	2
	C	18-24	Yellowish brown (10YR 5\8) gravelly loam; 30% coarse fragments	2
	R	24		

Applicant:

Subdivision: Loblolly Mill

Lot: 14

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Secondary Pretreatment into Drip Irrigation*		
EPR	45	Reserve Area Required	No
Slope %	33	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
LPD Rate (gal/sq. ft.)	279	Line Length (ft.)	N/A
Absorption Rate Increase	50%		
Total Square Ft. Required (Main DF)	5022	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. in Design (Main DF)	5100	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	1255	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. per BR in Design	1275	Width in Design (ft.) Reserve DF)	N/A
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	N/A
Length of Line Installed (ft.)	100	Backfilling Recommended	N/A
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	N/A
Centers (ft.)	**		
Width Required (ft.) (Main DF)	51		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/22/06 & 11/29/07
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 540-985-6444

Address:
 Lot: 15

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 32 %
3. Depth to rock\impervious strata: Max. 38” Min. 20” None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/22/06 & 11/29/07

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 15

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark yellowish brown (10YR 4/4) sandy loam	2
	BA	2-10	Brownish yellow (10YR 6/6) silt loam	3
	Bw	10-20	Yellowish brown (10YR 5/6) silt loam	3
	BC	20-30	Strong brown (7.5YR 5/6) silt loam; 10% coarse fragments	3
	C	30-33	Strong brown (7.5YR 5/6) gravelly silt loam; 20% coarse fragments	3
	R	33		
2	A	0-2	Dark yellowish brown (10YR 4/4) sandy loam	2
	BA	2-10	Brownish yellow (10YR 6/6) silt loam	3
	Bw	10-20	Yellowish brown (10YR 5/6) silt loam	3
	BC	20-30	Strong brown (7.5YR 5/6) silt loam; 10% coarse fragments	3
	C	30-32	Strong brown (7.5YR 5/6) gravelly silt loam; 20% coarse fragments	3
	R	32		
3	A	0-3	Dark brown (10YR 3/3) sandy loam	2
	Bw	3-18	Brownish yellow (10YR 6/6) gravelly silt loam; 15% coarse fragments	3
	C	18-38	Yellowish brown (10YR 5/8) gravelly silt loam; 25% coarse fragments	3
	R	38		
4	A	0-2	Dark yellowish brown (10YR 4/4) sandy loam	2
	Bw	2-18	Brownish yellow (10YR 6/6) gravelly loam; 15% coarse fragments	2
	C	18-20	Brownish yellow (10YR 6/6) gravelly loam; 30% coarse fragments	2
	R	20		
5	A	0-2	Dark Yellowish Brown (10YR 4/4) loam	2
	Bw	2-12	Yellowish Brown (10YR 5/6) silt loam	3
	BC	12-27	Yellowish Brown (10YR 5/8) gravelly silt loam; 20% coarse fragments	3
	C	27-38	Yellowish Brown (10YR 5/8) very gravelly loam; 35% coarse fragments	2
	R	38		

Applicant:

Subdivision: Loblolly Mill

Lot: 15

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	50	Reserve Area Required	Yes
Slope %	32	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1540
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1540
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	70
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3080	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	22
Total Square Ft. per BR in Design	770	Width in Design (ft.) Reserve DF)	22
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	70	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	44		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/21/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 16

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 47 %
3. Depth to rock\impervious strata: Max. 27" Min. 23" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/21/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 16

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark yellowish brown (10YR 4\4) loam	2
	Bw	2-16	Yellowish brown (10YR 5\8) silt loam	3
	C	16-27	Yellowish brown (10YR 5\8) gravelly silt loam; 15% coarse fragments	3
	R	27		
2	A	0-2	Dark yellowish brown (10YR 4\4) loam	2
	Bw	2-26	Yellowish brown (10YR 5\6) gravelly loam; 20% coarse fragments	2
	R	26		
3	A	0-1	Dark yellowish brown (10YR 4\4) sandy loam	2
	Bw	1-20	Yellowish brown (10YR 5\8) silt loam; 10% coarse fragments	3
	C	20-23	Yellowish brown (10YR 5\8) gravelly silt loam; 30% coarse fragments	3
	R	23		

Applicant:

Subdivision: Loblolly Mill

Lot: 16

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	50	Reserve Area Required	Yes
Slope %	47	Type of Reserve	Same
# Bedrooms	3	Total Square Ft. Required (Reserve DF)	1300
Gallons/Day	450	Total Square Ft. in Design (Reserve DF)	1300
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	100
Absorption Rate Increase	67%	Absorption Rate Increase	67%
Total Square Ft. Required (Main DF)	2533	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	2600	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	844	Width Required (ft.) (Reserve DF)	13
Total Square Ft. per BR in Design	866	Width in Design (ft.) Reserve DF)	13
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	2
Length of Line Installed (ft.)	100	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	10
Centers (ft.)	**		
Width Required (ft.) (Main DF)	26		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
 111 N. Franklin Street, Christiansburg, VA 24073
 Phone: 540-381-0309

General Information

Date: 6/21/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 17

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes x No Describe: Sideslope
2. Slope 18 %
3. Depth to rock\impervious strata: Max. 36" Min. 21" None
4. Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5. Free water present No x Yes range in inches
6. Soil percolation rate estimated Yes x Texture group 2
 No Estimated rate 45 Min/inch
7. Percolation test performed Yes Number of percolation test holes
 No x Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/21/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 17

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-1	Dark brown (7.5YR 4\4) loam	2
	BA	1-12	Dark brown (7.5YR 4\4) gravelly loam; 15% coarse fragments	2
	Bt AR	12-36 36	Yellowish red (5YR 5\6) loam	2
2	A	0-1	Dark brown (7.5YR 4\4) loam	2
	BA	1-12	Dark brown (7.5YR 4\4) gravelly loam; 15% coarse fragments	2
	Bt AR	12-36 36	Yellowish red (5YR 5\6) loam	2
3	A	0-3	Dark brown (7.5YR 4\4) loam	2
	Bw	3-18	Yellowish brown (10YR 5\8) loam	2
	C	18-21	Brownish yellow (10YR 6\6) gravelly loam; 25% coarse fragments	2
	R	21		

Applicant:

Subdivision: Loblolly Mill

Lot: 17

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	45	Reserve Area Required	No
Slope %	18	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
Loading Rate (gal/sq. ft.)	0.99	Line Length (ft.)	N/A
Absorption Rate Increase	17%		
Total Square Ft. Required (Main DF)	2127	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. in Design (Main DF)	2500	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	531	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. per BR in Design	625	Width in Design (ft.) Reserve DF)	N/A
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	N/A
Length of Line Installed (ft.)	50	Backfilling Recommended	N/A
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	N/A
Centers (ft.)	**		
Width Required (ft.) (Main DF)	50		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/21/06
Applicant: Loblolly Mill, LLC.
Address: 119 Norfolk Ave Roanoke, VA 24011
Owner: Address:
Location:
Subdivision: Loblolly Mill Lot: 18
Roanoke County Health Department
Telephone No: 540-985-6444

Soil Information Summary

- 1. Position in landscape satisfactory Yes No Describe: Sideslope
- 2. Slope 11 %
- 3. Depth to rock\impervious strata: Max. > 50" Min. 48" None
- 4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
- 5. Free water present No Yes range in inches
- 6. Soil percolation rate estimated Yes No Texture group 3 Estimated rate 65 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/21/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 18

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark brown (7.5YR 4\4) loam	2
	AB	2-16	Brown (7.5YR 5\4) loam	2
	Bt	16-40	Yellowish red (5YR 5\8) clay loam; strong medium subangular blocky structure	3
	C	40-50	Yellowish red (5YR 5\8) gravelly clay loam; 25% coarse fragments	3
2	A	0-1	Dark brown (7.5YR 4\4) loam	2
	BA	1-12	Brown (7.5YR 5\4) loam	2
	Bt	12-50	Yellowish red (5YR 5\8) clay loam; 10% coarse fragments; moderate medium subangular blocky structure	3
3	A	0-1	Dark brown (7.5YR 4\4) loam	2
	BA	1-12	Brown (7.5YR 5\4) loam	2
	Bt	12-48	Yellowish red (5YR 5\8) clay loam; 10% coarse fragments; moderate medium subangular blocky structure	3
	R	48		

Applicant:

Subdivision: Loblolly Mill

Lot: 18

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Conventional Lines		
EPR	65	Reserve Area Required	Yes
Slope %	11	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. of Trench Bottom Required (Reserve DF)	450
Gallons/Day	600	Total Square Ft. of Trench Bottom in Design (Reserve DF)	450
Width of Trench (ft.)	3	# Lines of Reserve	3
Loading Rate (gal/sq. ft.)	0.68	Line Length (ft.)	50
Absorption Rate Increase	N/A		
Total Square Ft. of Trench Bottom Required (Main DF)	882	Installed < 24" from Rock or Other Impervious Strata	No
Total Square Ft. of Trench Bottom in Design (Main DF)	900	Centers (ft.) (Reserve DF)	9
Total Square Ft. of Trench Bottom Required per BR	220	Width Required (ft.) (Reserve DF)	27
Total Square Ft. of Trench Bottom per BR in Design	225	Width in Design (ft.) Reserve DF)	27
# Lines Installed	6	Installation Depth (inches into natural soil) (Reserve DF)	24
Length of Line Installed (ft.)	50	Backfilling Recommended	No
Installed <24" from Rock or Other Impervious Strata	No	Amount of Backfill (inches) (Reserve DF)	N/A
Centers (ft.)	9		
Width Required (ft.) (Main DF)	48		
Installation Depth (inches into natural soil) (Main DF)	24	Type of Well Recommended	3B
Backfilling Recommended	No	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	N/A		

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/20/06
Applicant: Loblolly Mill, LLC.
Address: 119 Norfolk Ave Roanoke, VA 24011
Owner:
Location:
Subdivision: Loblolly Mill

Roanoke County Health Department
Telephone No: 540-985-6444
Address:
Lot: 19

Soil Information Summary

- Position in landscape satisfactory Yes No Describe: Sideslope
- Slope 17 %
- Depth to rock\impervious strata: Max. > 50" Min. 36" None
- Depth to seasonal water table (gray mottling or gray color) No Yes inches
- Free water present No Yes range in inches
- Soil percolation rate estimated Yes No Texture group 3 Estimated rate 65 Min/inch
- Percolation test performed Yes Number of percolation test holes
No Depth of percolation test holes
Average percolation rate

Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- Position in landscape subject to flooding or periodic saturation.
- Insufficient depth of suitable soil over hard rock.
- Insufficient depth of suitable soil over water table.
- Rates of absorption too slow.
- Insufficient area of acceptable soil for required drainfield, and/or reserve area
- Proposed system too close to well
- Other Specify:

Profile Description
SOIL EVALUATION REPORT

Date of Evaluation: 6/20/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 19

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-1	Dark brown (7.5YR 4\4) loam	2
	BA	1-18	Brown (7.5YR 5\4) loam	2
	Bt1	18-30	Strong brown (7.5YR 5\8) clay loam; strong medium subangular blocky structure	3
	Bt2	30-50	Yellowish red (5YR 5\8) clay; moderate medium subangular blocky structure	4
2	A	0-1	Dark brown (7.5YR 4\4) loam	2
	BA	1-18	Brown (7.5YR 5\4) loam	2
	Bt1	18-30	Strong brown (7.5YR 5\8) clay loam; strong medium subangular blocky structure	3
	Bt2	30-50	Yellowish red (5YR 5\8) clay; moderate medium subangular blocky structure	4
3	A	0-1	Dark brown (7.5YR 4\4) loam	2
	BA	1-12	Brown (7.5YR 5\4) loam	2
	Bt1	12-24	Strong brown (7.5YR 5\6) clay loam; (light)	3
	Bt2	24-36	Strong brown (7.5YR 5\8) clay loam; w/common Yellow (10YR 7\8) weathered parent material mottles	3
	R	36		

Applicant:

Subdivision: Loblolly Mill

Lot: 19

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Secondary Treatment into Conventional Lines		
EPR	65	Reserve Area Required	Yes
Slope %	17	Type of Reserve	Same
# Bedrooms	3	Total Square Ft. of Trench Bottom Required (Reserve DF)	750
Gallons/Day	450	Total Square Ft. of Trench Bottom in Design (Reserve DF)	900
Width of Trench (ft.)	3	# Lines of Reserve	3
Loading Rate sq. ft./gal	N/A	Line Length (ft.)	100
Absorption Rate Increase	N/A		
Total Square Ft. of Trench Bottom Required (Main DF)	1488	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. of Trench Bottom in Design (Main DF)	1500	Centers (ft.) (Reserve DF)	10
Total Square Ft. of Trench Bottom Required per BR	496	Width Required (ft.) (Reserve DF)	30
Total Square Ft. of Trench Bottom per BR in Design	500	Width in Design (ft.) Reserve DF)	30
# Lines Installed	5	Installation Depth (inches into natural soil) (Reserve DF)	18
Length of Line Installed (ft.)	100	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	10		
Width Required (ft.) (Main DF)	43		
Installation Depth (inches into natural soil) (Main DF)	18	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/20/06 Roanoke County Health Department
Applicant: Lobolly Mill, LLC Telephone No: 540-985-6444
Address: 119 Norfolk Ave Roanoke, VA 24011
Owner: Address:
Location:
Subdivision: Lobolly Mill Lot: 20

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 14 %
3. Depth to rock\impervious strata: Max. > 50'' Min. 30'' None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes Texture group 3
No Estimated rate 65 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/20/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 20

Hole #	Horizon	Depth	Description	Texture Group
1	BA	0-8	Brown (7.5YR 5\4) loam	2
	Bt	8-20	Yellowish red (5YR 5\8) silty clay loam; strong medium subangular blocky structure	3
	BC	20-32	Yellowish red (5YR 5\8) silty clay loam; common Yellow (10YR 7\8) weathered parent material mottles	3
	C	32-36	Yellowish red (5YR 5\8) gravelly silty clay loam; 30% coarse fragments	3
	R	36		
2	Ap	0-1	Dark brown (7.5YR 4\4) loam	2
	BA	1-10	Brown (7.5YR 5\4) loam	2
	Bt	10-27	Yellowish red (5YR 5\8) silty clay loam; strong medium subangular blocky structure	3
	C	27-30	Yellowish red (5YR 5\8) silty clay loam; common Yellow (10YR 7\8) weathered parent material mottles	3
	R	30		
3	BA	0-10	Strong brown (7.5YR 5\6) loam	2
	Bt	10-40	Yellowish red (5YR 5\8) silty clay loam; strong medium subangular blocky structure	3
	BC	40-50	Yellowish red (5YR 5\8) silty clay loam; few Yellow (10YR 7\8) weathered parent material mottles	3

Applicant:

Subdivision: Loblolly Mill

Lot: 20

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Conventional Lines		
EPR	65	Reserve Area Required	Yes
Slope %	14	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. of Trench Bottom Required (Reserve DF)	480
Gallons/Day	600	Total Square Ft. of Trench Bottom in Design (Reserve DF)	480
Width of Trench (ft.)	3	# Lines of Reserve	2
Loading Rate (gal/sq. ft.)	0.68	Line Length (ft.)	80
Absorption Rate Increase	N/A		
Total Square Ft. of Trench Bottom Required (Main DF)	882	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. of Trench Bottom in Design (Main DF)	960	Centers (ft.) (Reserve DF)	10
Total Square Ft. of Trench Bottom Required per BR	221	Width Required (ft.) (Reserve DF)	20
Total Square Ft. of Trench Bottom per BR in Design	240	Width in Design (ft.) Reserve DF)	20
# Lines Installed	4	Installation Depth (inches into natural soil) (Reserve DF)	18
Length of Line Installed (ft.)	80	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	10		
Width Required (ft.) (Main DF)	33		
Installation Depth (inches into natural soil) (Main DF)	18	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/21/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 540-985-6444
 Address:
 Lot: 21

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 34 %
3. Depth to rock\impervious strata: Max. 40" Min. 24" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/21/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 21

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-1	Dark yellowish brown (10YR 4\4) loam	2
	Bw	1-18	Yellowish brown (10YR 5\6) silt loam	3
	BC	18-26	Yellowish brown (10YR 5\6) gravelly silt loam; 15% coarse fragments	3
	C	26-36	Brownish yellow (10YR 6\6) gravelly silt loam; 30% coarse fragments	3
	R	36		
2	A	0-2	Dark yellowish brown (10YR 4\4) loam	2
	BA	2-12	Brownish yellow (10YR 6\6) silt loam	3
	Bw	12-27	Yellowish brown (10YR 5\6) silt loam	3
	C	27-40	Strong brown (7.5YR 5\6) gravelly silt loam; 20% coarse fragments	3
	R	40		
3	A	0-1	Dark yellowish brown (10YR 4\4) loam	2
	Bw	1-18	Yellowish brown (10YR 5\8) silt loam	3
	C	18-24	Yellowish brown (10YR 5\8) gravelly silt loam; 30% coarse fragments	3
	R	24		

Applicant:

Subdivision: Loblolly Mill

Lot: 21

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	* Advanced Secondary Treatment into Drip Irrigation		
EPR	50	Reserve Area Required	Yes
Slope %	34	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1520
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1520
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	95
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3040	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	16
Total Square Ft. per BR in Design	760	Width in Design (ft.) Reserve DF)	16
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	95	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	32		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/21/06 & 11/29/07
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 22

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 30 %
3. Depth to rock\impervious strata: Max. > 50" Min. 27" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3
 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/21/06 & 11/29/07 Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 22

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Brown (10YR 4/3) loam	2
	BA	2-12	Yellowish Brown (10YR 5/4) gravelly silt loam; 15% coarse fragments	3
	Bw	12-24	Yellowish Brown (10YR 5/6) gravelly silt loam; 30% coarse fragments	3
	C	24-30	Yellowish Brown (10YR 5/6) very gravelly silt loam; 40% coarse fragments	3
	R	30		
2	A	0-2	Dark brown (7.5YR 4\4) loam	2
	BA	2-14	Brown (7.5YR 5\4) loam	2
	Bw	14-25	Reddish yellow (7.5YR 6\6) silt loam	3
	C	25-48	Strong brown (7.5YR 5/6) gravelly silt loam; 15% coarse fragments	3
	R	48		
3	A	0-2	Dark brown (7.5YR 4\4) loam	2
	BA	2-12	Reddish yellow (7.5YR 6\6) silt loam	3
	Bw	12-38	Strong brown (7.5YR 5/6) silt loam	3
	C	38-50	Dark brown (7.5YR 4\6) gravelly silt loam; common Yellow (10YR 7\8) parent material mottles; 25% coarse fragments	3
4	A	0-2	Brown (10YR 4/3) loam	2
	BA	2-12	Yellowish Brown (10YR 5/6) silt loam	3
	Bw	12-30	Yellowish Brown (10YR 5/8) silt loam; 10% coarse fragments	3
	C	30-40	Yellowish Brown (10YR 5/8) very gravelly silt loam; 35% coarse fragments	3
	R	40		
5	A	0-2	Dark Yellowish Brown (10YR 4/4) loam	2
	Bw	2-15	Yellowish Brown (10YR 5/6) silt loam; 10% coarse fragments	3
	C	15-27	Yellowish Brown (10YR 5/6) gravelly silt loam; 30% coarse fragments	3
	R	27		

Applicant:

Subdivision: Loblolly Mill

Lot: 22

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Pretreatment into Drip Irrigation*		
EPR	50	Reserve Area Required	Yes
Slope %	30	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1550
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1550
Width of Trench (ft.)	3	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	50
Absorption Rate Increase	50%	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. Required (Main DF)	3034	Centers (ft.) (Reserve DF)	**
Total Square Ft. in Design (Main DF)	3100	Width Required (ft.) (Reserve DF)	31
Total Square Ft. Required per BR	758	Width in Design (ft.) Reserve DF)	31
Total Square Ft. per BR in Design	775	Installation Depth (inches into natural soil) (Reserve DF)	6
# Lines Installed	**	Backfilling Recommended	Yes
Length of Line Installed (ft.)	50	Amount of Backfill (inches) (Reserve DF)	6
Installed <24" from Rock or Other Impervious Strata	Yes		
Centers (ft.)	**		
Width Required (ft.) (Main DF)	62	Type of Well Recommended	3B
Installation Depth (inches into natural soil) (Main DF)	6	Amount of Casing and Grout (ft.)	50
Backfilling Recommended	Yes		
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/21/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 540-985-6444
 Address:
 Lot: 23

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 35 %
3. Depth to rock\impervious strata: Max. 36" Min. 22" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/21/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 23

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark brown (7.5YR 4\4) loam	2
	BA	2-14	Brown (7.5YR 5\4) silt loam	3
	Bt	14-22	Strong brown (7.5YR 5\8) silt loam	3
	C	22-24	Strong brown (7.5YR 5\8) gravelly loam; 25% coarse fragments	2
	R	24		
2	A	0-2	Dark brown (7.5YR 4\4) loam	2
	BA	2-15	Reddish yellow (7.5YR 6\6) silt loam	3
	Bt	15-30	Strong brown (7.5YR 5\6) silt loam	3
	C	30-36	Strong brown (7.5YR 5\6) gravelly silt loam; 25% coarse fragments	3
	R	36		
3	A	0-2	Dark brown (7.5YR 4\4) loam	2
	BA	2-14	Brown (7.5YR 5\4) silt loam	3
	Bt	14-22	Strong brown (7.5YR 5\8) silt loam	3
	C	22-26	Strong brown (7.5YR 5\8) gravelly loam; 25% coarse fragments	2
	R	26		
4	A	0-2	Dark brown (7.5YR 4\4) loam	2
	Bw	2-18	Reddish yellow (7.5YR 6\6) silt loam	3
	C	18-22	Strong brown (7.5YR 5\6) gravelly loam; 25% coarse fragments	2
	R	22		

Applicant:

Subdivision: Loblolly Mill

Lot: 23

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	*Advanced Secondary Treatment into Drip Irrigation		
EPR	50	Reserve Area Required	Yes
Slope %	35	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1550
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1900
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	100
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3100	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	16
Total Square Ft. per BR in Design	775	Width in Design (ft.) Reserve DF)	19
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	4
Length of Line Installed (ft.)	100	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	8
Centers (ft.)	**		
Width Required (ft.) (Main DF)	31		
Installation Depth (inches into natural soil) (Main DF)	4	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	8		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 8/29/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 540-985-6444
 Address:
 Lot: 25

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 36 %
3. Depth to rock\impervious strata: Max. >50" Min. 18" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 8/29/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 25

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark Yellowish Brown (10YR 4/4) silt loam	3
	BA	2-15	Brownish Yellow (10YR 6/6) silt loam	3
	Bt1	15-30	Yellowish Brown (10YR 5/8) silt loam	3
	Bt2	30-50	Strong Brown (7.5YR 5/6) silty clay loam; few Yellow (10YR 7/8) parent material mottles	3
2	A	0-2	Dark Yellowish Brown (10YR 4/4) silt loam	3
	BA	2-12	Brownish Yellow (10YR 6/6) silt loam	3
	Bt1	12-36	Strong Brown (7.5YR 5/6) silt loam	3
	Bt2	36-50	Yellowish Red (5YR 5/8) silty clay loam; few Yellow (10YR 7/8) parent material mottles	3
3	A	0-2	Dark Yellowish Brown (10YR 4/4) loam	2
	Bw	2-16	Yellowish Brown (10YR 5/6) silt loam	3
	C	16-24	Strong Brown (7.5YR 5/6) gravelly silt loam; 20% shale fragments	3
	R	24		
4	A	0-2	Dark Yellowish Brown (10YR 4/4) loam	2
	Bw	2-15	Yellowish Brown (10YR 5/6) loam	2
	C	15-18	Strong Brown (7.5YR 5/6) gravelly loam; 20% coarse fragments	2
	R	18		

Applicant:

Subdivision: Loblolly Mill

Lot: 25

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	*Advanced Secondary Treatment into Drip Irrigation		
EPR	50	Reserve Area Required	Yes
Slope %	36	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1600
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1600
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	100
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3200	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	16
Total Square Ft. per BR in Design	800	Width in Design (ft.) Reserve DF)	16
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	100	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	32		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/13/06
 Applicant: Loblolly Mill, LLC
 Address: 119 Norfolk Ave. Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 26

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 34 %
3. Depth to rock\impervious strata: Max. 53" Min. 25" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3
 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/13/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly **Lot:** 26

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-4	Dark yellowish brown (10YR 4\4) loam	2
	Bt1	4-33	Strong brown (7.5YR 5\8) silt loam	3
	BC	33-45	Reddish yellow (7.5YR 6\8) gravelly silt loam; 30% coarse fragments	3
	C	45-53	Yellowish red (5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	53		
2	A	0-4	Dark yellowish brown (10YR 4\4) loam	2
	Bt	4-33	Strong brown (7.5YR 5\8) silt loam	3
	BC	33-45	Reddish yellow (7.5YR 6\8) gravelly silt loam; 30% coarse fragments	3
	C	45-53	Yellowish red (5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	50		
3	A	0-2	Dark yellowish brown (10YR 4\4) loam	2
	BA	2-12	Strong brown (7.5YR 5\8) silt loam	3
	Bt	12-20	Yellowish red (5YR 5\8) silty clay loam	3
	C	20-25	Strong brown (7.5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	25		

Applicant:

Subdivision: Loblolly Mill

Lot: 26

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	*Advanced Secondary Treatment into Drip Irrigation		
EPR	50	Reserve Area Required	Yes
Slope %	25	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1540
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1540
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	55
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3080	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	28
Total Square Ft. per BR in Design	770	Width in Design (ft.) Reserve DF)	28
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	55	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	56		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/13/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 27

Roanoke County Health Department
 Telephone No: 54-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 36 %
3. Depth to rock\impervious strata: Max. 32" Min. 22" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3
 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/13/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 27

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark yellowish brown (10YR 4\4) silt loam	3
	Bw	2-15	Strong brown (7.5YR 5\8) silt loam	3
	C	15-22	Strong brown (7.5YR 5\8) gravelly silt loam; 45% coarse fragments	3
	R	22		
2	A	0-3	Dark yellowish brown (10YR 4\4) silt loam	3
	Bt1	3-16	Strong brown (7.5YR 5\8) silt loam	3
	Bt2	16-24	Yellowish red (5YR 5\8) gravelly silt loam; 30% coarse fragments	3
	C	24-32	Strong brown (7.5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	32		
3	A	0-2	Dark yellowish brown (10YR 4\4) silt loam	3
	Bt1	2-18	Yellowish red (5YR 5\8) silt loam	3
	Bt2	18-25	Red (2.5YR 5\8) silty clay loam	3
	C	25-30	Red (2.5YR 5\8) very gravelly silt loam; 45% coarse fragments	3

Applicant:

Subdivision: Loblolly Mill

Lot: 27

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	*Advanced Secondary Treatment into Drip Irrigation		
EPR	50	Reserve Area Required	Yes
Slope %	25	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1650
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1650
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	50
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3300	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	759	Width Required (ft.) (Reserve DF)	33
Total Square Ft. per BR in Design	825	Width in Design (ft.) Reserve DF)	33
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	50	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	66		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/13/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 28

Roanoke County Health Department
 Telephone No: 54-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 32 %
3. Depth to rock\impervious strata: Max. 39" Min. 24" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3
 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/13/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 28

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-3	Dark brown (10YR 3\3) silt loam	3
	Bw	3-15	Strong brown (7.5YR 5\8) silt loam	3
	BC	15-33	Strong brown (7.5YR 5\8) gravelly silt loam; 30% coarse fragments	3
	C	33-39	Yellowish red (5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	39		
2	A	0-4	Dark yellowish brown (10YR 4\4) silt loam	3
	Bt	4-18	Strong brown (7.5YR 5\8) silt loam	3
	C	18-24	Strong brown (7.5YR 5\8) very gravelly silt loam; 35% coarse fragments	3
	R	24		
3	A	0-3	Dark yellowish brown (10YR 4\4) silt loam	3
	Bt	3-20	Strong brown (7.5YR 5\8) silt loam	3
	C	20-26	Strong brown (7.5YR 5\8) very gravelly silt loam; 35% coarse fragments	3
	R	26		

Applicant:

Subdivision: Loblolly Mill

Lot: 28

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	50	Reserve Area Required	Yes
Slope %	32	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1540
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1540
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	70
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3080	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	22
Total Square Ft. per BR in Design	770	Width in Design (ft.) Reserve DF)	22
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	70	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	44		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/13/06
 Applicant: Lobolly Mill, LLC
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Lobolly Mill Lot: 29

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 22 %
3. Depth to rock\impervious strata: Max. 43" Min. 25" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3
 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/13/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 29

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-2	Dark brown (10YR 3\3) silt loam	3
	Bt	2-18	Yellowish red (5YR 5\8) silt loam	3
	BC	18-25	Strong brown (7.5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	25		
2	A	0-3	Dark brown (10YR 3\3) silt loam	3
	Bw	3-25	Yellowish brown (10YR 5\8) silt loam	3
	C	25-31	Yellowish brown (10YR 5\8) very gravelly silt loam; 35% coarse fragments	3
	R	31		
3	A	0-3	Dark brown (10YR 3\3) silt loam	3
	BA	3-18	Yellowish brown (10YR 5\6) silt loam	3
	Bt	18-34	Strong brown (7.5YR 5\8) silt loam	3
	Bc	34-43	Red (2.5YR 4\6) silty clay loam	3
	R	43		

Applicant:

Subdivision: Loblolly Mill

Lot: 29

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	50	Reserve Area Required	Yes
Slope %	22	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	2000
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	2000
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	80
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	2690	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	4000	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	672	Width Required (ft.) (Reserve DF)	25
Total Square Ft. per BR in Design	1000	Width in Design (ft.) Reserve DF)	25
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	7
Length of Line Installed (ft.)	80	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	5
Centers (ft.)	**		
Width Required (ft.) (Main DF)	50		
Installation Depth (inches into natural soil) (Main DF)	7	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	5		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/13/06 and 4/15/08
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave, Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 30

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 20 %
3. Depth to rock\impervious strata: Max. >58" Min. 22" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3
 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/13/06 and 4/15/08 Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: **Subdivision:** Loblolly Mill **Lot:** 30

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-3	Dark Yellowish Brown (10YR 4/3) silt loam	3
	Bt	3-20	Yellowish Brown (10YR 5/4) silt loam	3
	C	20-36	Strong Brown (7.5YR 5/6) gravelly silt loam; 20% coarse fragments	3
	AR	@36		NA
2	Ap	0-4	Dark brown (10YR 3\3) silt loam	3
	Bw	4-30	Strong brown (7.5YR 5\8) gravelly silt loam; 20% coarse fragments	3
	C	30-58	Yellowish brown (10YR 5\8) gravelly silt loam; 40% coarse fragments	3
3	Ap	0-3	Dark Yellowish Brown (10YR 4/3) silt loam	3
	Bt	3-24	Yellowish Brown (10YR 5/4) silt loam	3
	C	24-44	Yellowish Brown (10YR 5/8) gravelly silt loam; 20% coarse fragments	3
	AR	@44		NA
4	A	0-3	Dark Yellowish Brown (10YR 4/3) silt loam	3
	Bt	3-15	Yellowish Brown (10YR 5/6) silt loam	3
	C	15-22	Yellowish Brown (10YR 5/6) gravelly silt loam; 25% coarse fragments	3
	AR	@22		NA

Applicant:

Subdivision: Loblolly Mill

Lot: 30

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Conventional Lines		
EPR	50	Reserve Area Required	Yes
Slope %	20	Type of Reserve	Advanced Secondary Treatment into Drip Irrigation
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	341
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1610
Width of Trench (ft.)	3	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	70
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	674	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	840	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	169	Width Required (ft.) (Reserve DF)	23
Total Square Ft. per BR in Design	210	Width in Design (ft.) Reserve DF)	23
# Lines Installed	4	Installation Depth (inches into natural soil) (Reserve DF)	8
Length of Line Installed (ft.)	70	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	4
Centers (ft.)	11		
Width Required (ft.) (Main DF)	36		
Installation Depth (inches into natural soil) (Main DF)	18	Type of Well Recommended	3B
Backfilling Recommended	No	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	NA		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 6/13/06
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave. Roanoke, VA 24011
 Owner: Address:
 Location:
 Subdivision: Loblolly Mill Lot: 31

Roanoke County Health Department
 Telephone No: 540-985-6444

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 24 %
3. Depth to rock\impervious strata: Max. 50" Min. 27" None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3
 Estimated rate 55 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 6/13/06

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: . **Subdivision:** Loblolly **Lot:** 31

Hole #	Horizon	Depth	Description	Texture Group
1	Ap	0-6	Dark yellowish brown (10YR 4\4) silt loam	3
	Bw1	6-20	Yellowish brown (10YR 5/6) silt loam	3
	Bw2	20-40	Yellowish red (5YR 5\8) silt loam	3
	R	40		
2	Ap	0-3	Dark yellowish brown (10YR 4\4) silt loam	3
	Bw	3-19	Yellowish brown (10YR 5/6) silt loam	3
	C	19-28	Yellowish red (5YR 5\8) silt loam	3
	R	28		
3	Ap	0-3	Dark yellowish brown (10YR 4\4) silt loam	3
	Bw	3-18	Yellowish brown (10YR 5/6) silt loam	3
	C	18-27	Yellowish red (5YR 5\8) silt loam	3
	R	27		
4	Ap	0-4	Dark yellowish brown (10YR 4\4) silt loam	3
	Bw1	4-18	Yellowish brown (10YR 5/6) silt loam	3
	Bw2	18-40	Yellowish red (5YR 5\8) silt loam	3
	C	40-50	Strong brown (7.5YR 5\8) gravelly silt loam; 20% coarse fragments	3
	R	50		

Applicant:

Subdivision: Loblolly Mill

Lot: 31

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	Advanced Secondary Treatment into Drip Irrigation*		
EPR	50	Reserve Area Required	Yes
Slope %	24	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1350
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1350
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	75
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	2690	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	2700	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	672	Width Required (ft.) (Reserve DF)	18
Total Square Ft. per BR in Design	675	Width in Design (ft.) Reserve DF)	18
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	8
Length of Line Installed (ft.)	75	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	4
Centers (ft.)	**		
Width Required (ft.) (Main DF)	36		
Installation Depth (inches into natural soil) (Main DF)	8	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	4		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: 540-381-0309

General Information

Date: 3/29/07 and 4/15/08
 Applicant: Loblolly Mill, LLC.
 Address: 119 Norfolk Ave Roanoke, VA 24011
 Owner:
 Location:
 Subdivision: Loblolly Mill

Roanoke County Health Department
 Telephone No: 540-985-6444
 Address:
 Lot: 34

Soil Information Summary

1. Position in landscape satisfactory Yes No Describe: Sideslope
2. Slope 26 %
3. Depth to rock\impervious strata: Max. 45+'' Min. 30'' None
4. Depth to seasonal water table (gray mottling or gray color) No Yes inches
5. Free water present No Yes range in inches
6. Soil percolation rate estimated Yes No Texture group 3 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: Charles Nelson\David Hall\Bill Evans Soil Scientist

Signature:

Department Use

Site Approved: depth at site designated on permit.

Site Disapproved:

Reason for rejection:

- 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 over 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: 3/29/07 and 4/15/08

Roanoke County Health Department
 Identification No.

x See application sketch See construction permit

Applicant: Loblolly Mill, **Subdivision:** Loblolly **Lot:** 34
 LLC.

Hole #	Horizon	Depth	Description	Texture Group
1	A	0-4	Brown (7.5YR 4/4) loam	2
	BA	4-15	Yellowish Brown (10YR 5/4) loam	2
	Bt	15-32	Strong Brown (7.5YR 5/6) clay loam	3
	AR	@32		NA
2	Ap	0-2	Dark Yellowish Brown (10YR 4/4) sandy loam	2
	BA	2-15	Yellowish Brown (10YR 5/4) sandy loam	2
	Bw	15-27	Yellowish Brown (10YR 5/8) loam	2
	C	27-30	Yellowish Brown (10YR 5/8) gravelly loam	2
	AR	@30		NA
3	Ap	0-3	Dark Yellowish Brown (10YR 4/4) loam	2
	BA	3-15	Brownish Yellow (10YR 6/6) loam	2
	Bt	15-45+	Reddish Yellow (5YR 6/8) clay loam	3
4	Ap	0-4	Dark Yellowish Brown (10YR 4/4) loam	2
	BA	4-20	Yellowish Brown (10YR 5/6) loam	2
	Bt	20-32	Strong Brown (7.5YR 5/6) clay loam	3
	AR	@32		NA

Applicant: Loblolly Mill, LLC.

Subdivision: Loblolly Mill

Lot: 34

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Type of system (Main DF)	* Advanced Secondary Treatment into Drip Irrigation		
EPR	50	Reserve Area Required	Yes
Slope %	26	Type of Reserve	Same
# Bedrooms	3	Total Square Ft. of Trench Bottom Required (Reserve DF)	1009
Gallons/Day	450	Total Square Ft. of Trench Bottom in Design (Reserve DF)	1500
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	60
Total Square Ft. of Trench Bottom Required (Main DF)	2017	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. of Trench Bottom in Design (Main DF)	2700	Centers (ft.) (Reserve DF)	**
Total Square Ft. of Trench Bottom Required per BR	672	Width Required (ft.) (Reserve DF)	25
Total Square Ft. of Trench Bottom per BR in Design	900	Width in Design (ft.) Reserve DF)	25
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	60	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	45		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

***This system will have to be designed by a professional engineer; see his design concerning items marked **.**

- 1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.**
- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.**
- 3.) Water softener backwash shall not be discharged into the septic system.**
- 4.) Install the drainfield when the soil is dry.**
- 5.) The drainfield site shall not be graded prior to installation of the system.**
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.**