Project No. **LYNF-0100**

January 3, 2019

Brian Charville, Chairman
Lynnfield Planning Board
55 Summer Street
Lynnfield, MA 01940

Kristin Esposito McRae, R.S.
Health Director
Lynnfield Board of Health
55 Summer Street
Lynnfield, MA 01940

Subject: Engineering Report – Suitability of Land
Road A – Assessors Map 34 Parcels 2015, 2027, & 2055
333, 339, & 349 Summer Street
Owners: Degiovanni Family Trust
Stephen C. and Laura Singleton Wallace
Jane W. Coonrod

Dear Mr. Charville & Ms. McRae,

In accordance with the Lynnfield Planning Board Rules and Regulations, Section 375-6.6.C. the office of Williams & Sparages LLC hereby submits this engineering report speaking to the suitability of land.

1) I am a registered Professional Engineer in the Commonwealth of Massachusetts, in good standing. I have been practicing as a professional engineer since 1997.

2) I am a DEP Approved Soil Evaluator in the Commonwealth of Massachusetts. I have been practicing as a soil evaluator since 1998.

3) I have a B.S. (1993) and M.S. (1997) in Civil Engineering, having studied at Worcester Polytechnic Institute and Northeastern University.

4) I have been personally and actively involved in civil engineering site design, septic system design, stormwater design, and construction for more than 25 years.

Relative to Section 375-6.6.C of the Planning Board Rules and Regulations, I offer the following:

1) Attached to this report, please find copies of the testhole and percolation testing results for the proposed Definitive Plan for 333, 339, and 349 Summer Street. The on-site soils consist of permeable soils with favorable percolation tests suitable for supporting septic system

designs in accordance with 310 CMR 15.00 and Article V of Chapter 310 Lynnfield Board of Health Regulations.

2) The definitive plans show the proposed leaching facilities that can support a minimum of eight (8) occupants in each home without odor or liquid effluent appearing above ground or in storm drainage facilities; without contamination of any brook, pond, well field, reservoir, or wetland; and without excessive operational problems to the occupant.

3) Based on our extensive testhole program, the average estimated seasonal high groundwater table is approximately 53-inches below the surface of the existing ground.

4) The minimum elevation of the lowest floor in the dwellings to avoid inundation in a fifty-year flood is approximately elevation 72 (NAVD88).

5) Based on our extensive testhole program and regional soils mapping, there are no soil characteristics on site which would preclude a stable foundation.

6) Based on my professional opinion, all proposed lots shown on the Definitive Subdivision plan for 333, 339, and 349 Summer Street are suitable for building dwellings thereon considering all the factors described in Section 375-6.6.C of the Planning Board Rules and Regulations.

If you have any questions, please feel free to contact me directly.

Very truly yours,

Chris Sparages, P.E.
Principal

Enclosures

cc: Lynnfield Planning Board
Degiovanni Family Trust
Stephen C. and Laura Singleton Wallace
Jane W. Coonrod
Brian Hannon, HPI, LLC
Law Offices of Regnante Sterio

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address

Map 34, Lot 2015, 2027, 2055
Map/Lot #

Lynnfield
City

MA
State

01940
Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes: USDA NRCS (Source) 622C/311B (Soil Map Unit)

Paxton/Woodbridge
Soil Name

None
Soil Limitations

Ice-contact outwash
Soil Parent material

Outwash plain
Landform

3. Surficial Geological Report Available? ☒ Yes ☐ No If yes: MassGIS Oliver (Year Published/Source) Till (Map Unit)

Woodbridge fine sandy loam, 0 to 8 percent slopes, very gravely/stony and Paxton coarse-loamy lodgment till
Description of Geologic Map Unit:

4. Flood Rate Insurance Map Within a regulatory floodway? ☐ Yes ☒ No

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No If yes, MassGIS Wetland Data Layer: (Wetland Type)

7. Current Water Resource Conditions (USGS): 5/21/2018 (Month/Day/ Year) Range: ☐ Above Normal ☐ Normal ☒ Below Normal

8. Other references reviewed: USGS Current Water Data

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-600 (Hole #) | 5/14/2018 (Date) | 9:30AM (Time) | Sunny, 65 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland/Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn/edge of woodland (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

Description of Location: _____

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
2-0	O										
0-9	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
9-30	Bw	FSL	7.5YR 6/8				0%	0%	Massive	Friable	
30-106	C	LS	2.5Y 5/2	42"	7.5 YR 5/8	10%	12%	15%	Massive	Friable	

Additional Notes:
ESHGW 42", Roots to 80"

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-601 (Hole #) | 5/14/201 8 | 10:00 (Time) | Sunny, 65 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland/Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn/edge of woodland (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

Description of Location: Edge of wooded area along lawn on 333 Summer St

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
4-0	O										
0-7	A	FSL	10YR 3/2				0%	0%	Granual	Friable	
7-31	Bw	FSL	7.5YR 6/8				0%	0%	Massive	Friable	
31-115	C	gLS	2.5Y 5/2	52"	7.5 YR 5/8	5-10%	15%	10%	Massive	Very Friable	

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Additional Notes:
Deeper B on perc side of hole. Roots to 40". ESHGW 52"

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-600	Obs. Hole #TP-601
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	42" inches	52" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)? Upper boundary: 7" inches Lower boundary: 115" inches

c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Kristin McRae, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

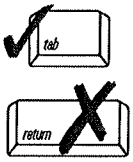
Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

Field Diagrams: Use this area for field diagrams:

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield	MA	01940
City/Town	State	Zip Code

Williams & Sparages, LLC	(978) 539-8088
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	5/14/18 Date	11:00 Time	5/14/18 Date	11:00 Time
Observation Hole #	P-600A		P-600B	
Depth of Perc	26"+18" = 44" (B-layer)		46"+18"=64" (C-layer)	
Start Pre-Soak	11:04		11:08	
End Pre-Soak	11:20		11:23	
Time at 12"	11:20		11:23	
Time at 9"	11:29		11:32	
Time at 6"	11:42		11:46	
Time (9"-6")	13 mins		14 mins	
Rate (Min./Inch)	5 MPI		5 MPI	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Thorsen Akerley, Greg Hochmuth
Test Performed By:

Kristin McRae, R.S.
Board of Health Witness

Comments:

B-layer deeper on perc side which allowed us to perc B

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

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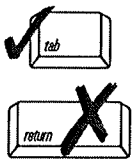


A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield	MA	01940
City/Town	State	Zip Code

Williams & Sparages, LLC	(978) 539-8088
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	5/14/18 Date	1:30 Time	Date	Time
Observation Hole #	P-601A			
Depth of Perc	62"+20" = 82" (C-layer)			
Start Pre-Soak	1:46			
End Pre-Soak	2:01			
Time at 12"	2:01			
Time at 9"	2:13			
Time at 6"	2:31			
Time (9"-6")	18 mins			
Rate (Min./Inch)	6 MPI			
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☐ Test Failed: ☐	

Thorsen Akerley, Greg Hochmuth
Test Performed By:

Kristin McRae, R.S.
Board of Health Witness

Comments:

Had to dig deeper to perc the C as B-layer deeper on perc side of hole. Re-perc'd this hole due to missing 6" mark.

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-602 (Hole #) | 5/14/2018 (Date) | 11:00AM (Time) | Sunny, 70 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland/Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Trees/vines/small plants (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

Description of Location: _____

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
3-0	O										
0-7	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
7-26	Bw	FSL	7.5YR 7/8				0%	0%	Massive	Friable	
26-61	C1	gLS	2.5Y5/2	42"	2.5YR 5/8	5-10%	15%	10%	Massive	Friable	
61-89	C2	gLS	2.5Y 5/2				20%	5%	Single Grain		
89-113	C3	S	2.5Y 6/1								

Additional Notes:
ESHGW 42", Roots to 65" - C1 most restrictive layer

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-603 (Hole #) | 5/14/18 (Date) | 11:30AM (Time) | Sunny, 7 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland (e.g., woodland, agricultural field, vacant lot, etc.) | Trees/vines/small plants (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

Description of Location: Just inside wooded area still on 333 Summer St

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
4-0	O										
0-9	A	FSL	10YR 3/2				0%	0%	Granual	Friable	
9-30	Bw	FSL	10YR 6/8				0%	0%	Massive	Friable	
30-120	C	gLS	2.5Y 5/2	45"	7.5 YR 5/8	10-15%	20%	5%	Single Grain	Very Friable	

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Additional Notes:
Roots to 66". ESGHW 45"

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-602	Obs. Hole #TP-603
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	42" inches	45" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)?	Upper boundary:	7" inches	Lower boundary:	120" inches
c. If no, at what depth was impervious material observed?	Upper boundary:	_____ inches	Lower boundary:	_____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Kristin McRae, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

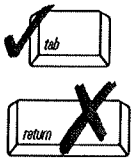
Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

Field Diagrams: Use this area for field diagrams:

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield	MA	01940
City/Town	State	Zip Code

Williams & Sparages, LLC	(978) 539-8088
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	5/14/18 Date / 12:00 Time	5/1418 Date / 12:30 Time
Observation Hole #	P-602A	P-603A
Depth of Perc	43"+18" = 61"	40"+18"
Start Pre-Soak	12:18 (25 gallons, unable to saturate)	12:56 (25 gallons, unable to saturate)
End Pre-Soak	12:28	1:06
Time at 12"	12:28	1:06
Time at 9"	12:29	1:07
Time at 6"	12:32	1:09
Time (9"-6")	3 mins	2 mins
Rate (Min./Inch)	<2 MPI	<2 MPI
	Test Passed: ☒ Test Failed: ☐	Test Passed: ☒ Test Failed: ☐

Greg Hochmuth
Test Performed By:

Kristin McRae, R.S.
Board of Health Witness

Comments:

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-604 (Hole #) | 5/15/2018 (Date) | 8:30AM (Time) | Sunny, 65 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland/Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Trees, vines, small plants (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

Description of Location: _____

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | SH (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
4-0	O										
0-15	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
15-30	Bw	FSL	10YR 6/8				0%	0%	Massive	Friable	
30-122	C	gLS	7.5YR 5/2				20%	10%	Single Grain	Friable	

Additional Notes:
No ESGHW noted. Roots to 75"

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-605 (Hole #) | 5/15/18 (Date) | 9:15 (Time) | Sunny, 65 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland/Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Trees, vines, small plants (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

Description of Location: Wooded area just inside lawn on 333 Summer St

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | SH (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-14	A	FSL	10YR 3/2						Granular	Friable	
14-35	Bw	FSL	10YR 6/8				0%	0%	Massive	Friable	
35-120	C	gLS	7.5 YR 5/2	70"	7.5YR 5/8	10-15%	20%	15%	Single Grain	Friable	

Additional Notes:
Roots to 70". ESGHW 70"

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-604	Obs. Hole #TP-605
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	_____ inches	70" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)? Upper boundary: 14" inches Lower boundary: 122" inches

c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Leo Cormier, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

Field Diagrams: Use this area for field diagrams:

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

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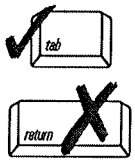

A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield	MA	01940
City/Town	State	Zip Code

Williams & Sparages, LLC	(978) 539-8088
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	5/15/18 Date	9:30 Time	5/15/18 Date	10:00 Time
Observation Hole #	P-604A		P-605A	
Depth of Perc	35"+18"= 53"		46"+18"= 64"	
Start Pre-Soak	9:23 (unable to saturate - 25 gals)		9:49:35 (unable to saturate - 25 gals)	
End Pre-Soak	9:27:47		9:49:35	
Time at 12"	9:27:47		9:56:18	
Time at 9"	9:29:25		9:58:04	
Time at 6"	9:31:44		10:01:14	
Time (9"-6")	2 mins 19 seconds		3 mins 10 seconds	
Rate (Min./Inch)	<2 MPI		<2 MPI	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Greg Hochmuth
Test Performed By:

Leo Cormier, R.S.
Board of Health Witness

Comments:

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-606 (Hole #) | 5/15/2018 (Date) | 10:30AM (Time) | Sunny, 75 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 0-2% (Slope (%))

   Description of Location: _____

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | SH (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-11	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
11-27	Bw	FSL	10YR 6/8				0%	0%	Massive	Friable	
27-87	C1	gSL	10YR 6/1	50"	7.5YR 6/8		15%	5%	Massive	Friable	Firm in place
87-124	C2	gLS	7.5YR 5/2				20%	15%	Single grain	Friable	Loose

Additional Notes:
ESGHW 50". Roots to 84". C1 most restrictive layer

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-607 (Hole #) | 5/15/18 (Date) | 11:00 (Time) | Sunny, 75 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 0-2% (Slope (%))

Description of Location: Lawn area behind outbuilding on lot 339

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | SH (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-10	A	FSL	10YR 3/2						Granular	Friable	
10-25	Bw	FSL	10YR 6/8				0%	0%	Massive	Friable	
25-90	C1	SL	2.5Y 5/2	40"	7.5YR 5/8	10-15%	20%	15%	Massive	Friable	Firm in place
90-124	C2	gLS	2.5Y 4/2						Single Grain		Loose

Additional Notes:
ESHGW 40". Roots to 45". C1 most restrictive layer

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-606	Obs. Hole #TP-607
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	50" inches	40" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)? Upper boundary: 10" inches Lower boundary: 124" inches

c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Leo Cormier, R.S., Kristin McRae, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

Field Diagrams: Use this area for field diagrams:

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

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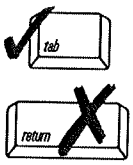

A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield | MA | 01940
City/Town | State | Zip Code

Williams & Sparages, LLC | (978) 539-8088
Contact Person (if different from Owner) | Telephone Number

B. Test Results

	5/15/18 (Date)	11:00 (Time)	5/15/18 (Date)	12:00 (Time)
Observation Hole #	P-606A		P-607A	
Depth of Perc	36"+19"= 55"		33"+18"= 51"	
Start Pre-Soak	10:56:40		11:48	
End Pre-Soak	11:11:40		12:03	
Time at 12"	11:11:40		12:03	
Time at 9"	11:52:50		12:56	
Time at 6"	1:15		2:24	
Time (9"-6")	82 mins 10 seconds		88 minutes	
Rate (Min./Inch)	28 MPI		30 MPI	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Greg Hochmuth
Test Performed By:

Leo Cormier, R.S.
Board of Health Witness

Comments:

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-608 (Hole #) | 5/14/18 (Date) | 1:30PM (Time) | Sunny, 75 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn/grass (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 0-2% (Slope (%))

Description of Location:

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-28	A/Fill	FSL	10YR 3/2				0%	0%	Granular	Friable	
28-39	Bw	FSL	10YR 6/8				0%	0%	Massive	Friable	
39-77	C1	LS	10YR 6/1	77"	7.5YR 5/8	10%	15%	5%	Massive	Friable	
77-127	C2	gLS	7.5YR 5/2	77"	5Y 7/1	5-10%	15%	10%	Massive	Friable	

Additional Notes:
ESHGW 77". B-layer deeper on perc side - top of perc hole in bottom of Bw layer and top of C1 (most restrictive layer).

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-609 (Hole #) | 5/14/18 (Date) | 2:30PM (Time) | Sunny, 75 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn/grass (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 0-2% (Slope (%))

   Description of Location: Wooded area in center of three lots

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 107" Depth Weeping from Pit | 113" Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-19	Fill								Granular	Friable	
19-28	Bw (fill)										
28-39	Ab	FSL	10YR 3/2						Massive	Friable	
39-60	Bwb	FSL	7.5YR 6/8				0%	0%	Massive	Friable	
60-120	C	gLS	7.5YR 5/2	62"	7.5YR 5/8	10%	15%	10%	Single Grain	Friable	
					5Y 7/1	5-10%					

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Additional Notes:
ESHGW 62". Roots to 70"

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-608	Obs. Hole #TP-609
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	77" inches	62" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)? Upper boundary: 19" inches Lower boundary: 127" inches

c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

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Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Leo Cormier, R.S., Kristin McRae, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

Field Diagrams: Use this area for field diagrams:

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

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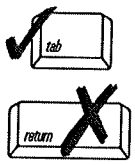

A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield | MA | 01940
City/Town | State | Zip Code

Williams & Sparages, LLC | (978) 539-8088
Contact Person (if different from Owner) | Telephone Number

B. Test Results

	5/15/18 (Date)	2:00 (Time)	5/15/18 (Date)	1:30 (Time)
Observation Hole #	P-608A		P-609A	
Depth of Perc	63"+18"=81" (C1 layer)		52"+23"=75" (C layer)	
Start Pre-Soak	1:42		1:25	
End Pre-Soak	1:57		1:40	
Time at 12"	1:57		1:40	
Time at 9"	2:12		1:56	
Time at 6"	2:35		2:19	
Time (9"-6")	23 mins		23 mins	
Rate (Min./Inch)	8 MPI		8 MPI	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Greg Hochmuth
Test Performed By:

Leo Cormier, R.S.
Board of Health Witness

Comments:

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-610 (Hole #) | 5/16/18 (Date) | 11:00AM (Time) | Sunny, 65 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn/grass mostly (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 0-2% (Slope (%))

   Description of Location: _____

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | SH (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-8	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
8-20	Bw	FSL	7.5YR 5/8				0%	0%	Massive	Friable	
20-50	C1	SL	10YR 4/3	41"	5YR 4/6	10%	10%	0%	Massive	Friable	C1 T.B.R.
50-115	C2	gLS	7.5YR 4/3	41"	5Y 6/1	5-10%	20%	15%	Loose		Stratified

Additional Notes:
ESHGW 41"

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-611 (Hole #) | 5/16/18 (Date) | 11:30AM (Time) | Sunny, 65 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn/grass (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 0-2% (Slope (%))

   Description of Location: Lawn area in front of 349 Summer Street

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | SH (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-11	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
11-30	Bw	FSL	7.5YR 5/8				0%	0%	Massive	Friable	
30-55	C1	SL	10YR 4/3	37"	5Y 6/1	5-10%	10%	5%	Massive	Friable	C1 T.B.R.
55-121	C2	gLS	2.5Y 5/2	37"	5YR 4/6	10%	20%	10%	Loose	Friable	

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Additional Notes:
ESHGW 37". Roots to 33"

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-610	Obs. Hole #TP-611
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	41" inches	37" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)? Upper boundary: 8" inches Lower boundary: 121" inches

c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

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Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Leo Cormier, R.S., Kristin McRae, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

Field Diagrams: Use this area for field diagrams:

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

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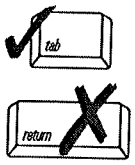

A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield | MA | 01940
City/Town | State | Zip Code

Williams & Sparages, LLC | (978) 539-8088
Contact Person (if different from Owner) | Telephone Number

B. Test Results

	5/16/18 (Date)	11:30 (Time)	5/16/18 (Date)	11:00 (Time)
Observation Hole #	P-610A		P-611A	
Depth of Perc	49"+18"=67" (C2 layer)		50"+18"=68" (C2 layer)	
Start Pre-Soak	11:23		11:00	
End Pre-Soak	11:28 (unable to saturate - 25 gals)		11:07 (unable to saturate - 25 gals)	
Time at 12"	11:28		11:07	
Time at 9"	11:28		11:07	
Time at 6"	11:29		11:08	
Time (9"-6")	1 min		1 min	
Rate (Min./Inch)	<2 MPI		<2 MPI	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Greg Hochmuth
Test Performed By:

Leo Cormier, R.S.
Board of Health Witness

Comments:

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-612 (Hole #) | 5/16/18 (Date) | 9:00AM (Time) | Sunny, 65 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn/grass mostly (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 0-2% (Slope (%))

Description of Location:

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | SH (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-12	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
12-21	Bw	FSL	7.5YR 5/8				0%	0%	Massive	Friable	
21-44	C1	SL	10YR 4/3	42"	5YR 4/6	10%	10%	0%	Massive	Friable	C1 T.B.R.
44-120	C2	gLS	7.5YR 4/3	42"	5Y 6/1	5-10%	20%	15%	Loose		

Additional Notes:
ESHGW 42". Roots to 55"

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-613 (Hole #) | 5/16/18 (Date) | 9:30AM (Time) | Sunny, 65 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Lawn (e.g., woodland, agricultural field, vacant lot, etc.) | Lawn/grass (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 0-2% (Slope (%))

   Description of Location: Lawn area in front of 349 Summer Street

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | SH (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-11	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
11-21	Bw	FSL	7.5YR 5/8				0%	0%	Massive	Friable	
21-45	C1	SL	10YR 4/3	38"	5Y 7/1	5-10%	10%	5%	Massive	Friable	C1 T.B.R.
45-112	C2	gLS	2.5Y 5/2	38"	5YR 4/6	10%	20%	10%	Loose	Friable	

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Additional Notes:
ESHGW 38". Roots to 50"

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-612	Obs. Hole #TP-613
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	42" inches	38" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)? Upper boundary: 11" inches Lower boundary: 120" inches

c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Leo Cormier, R.S., Kristin McRae, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

Field Diagrams: Use this area for field diagrams:

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

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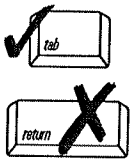

A. Site Information

Brian Hannon
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield | MA | 01940
City/Town | State | Zip Code

Williams & Sparages, LLC | (978) 539-8088
Contact Person (if different from Owner) | Telephone Number

B. Test Results

	5/16/18 (Date)	9:30 (Time)	5/16/18 (Date)	10:30 (Time)
Observation Hole #	P-612A		P-613A	
Depth of Perc	34"+22"= 56" (C2 layer)		33"+18"= 51" (C2 layer)	
Start Pre-Soak	9:33:59		10:18:59	
End Pre-Soak	9:34:20 (unable to saturate - 25 gallons)		10:25:00 (unable to saturate - 25 gals)	
Time at 12"	9:34:20		10:25:00	
Time at 9"	9:35:42		10:28:17	
Time at 6"	9:37:42		10:34:08	
Time (9"-6")	2 mins		5 mins 51 seconds	
Rate (Min./Inch)	<2 MPI		<2 MPI	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Greg Hochmuth
Test Performed By:

Leo Cormier, R.S.
Board of Health Witness

Comments:

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-615 (Hole #) | 5/14/18 (Date) | 3:00PM (Time) | Sunny, 75 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland (e.g., woodland, agricultural field, vacant lot, etc.) | Trees/wooded (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

   Description of Location: _____

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
2-0	O										
0-10	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
10-30	Bw	FSL	7.5YR 6/8				0%	0%	Massive	Friable	
30-120	C	gLS	2.5Y 5/2	50"	7.5YR 5/8	10%	20%	10%	Single Grain	Friable	

Additional Notes:
ESHGW 50". Roots to 60"

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-614 (Hole #) | 5/14/18 (Date) | 3:15PM (Time) | Sunny, 75 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland (e.g., woodland, agricultural field, vacant lot, etc.) | Trees/wooded (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

   Description of Location: Wooded area in center of three lots

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-14	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
14-30	Bw	FSL	7.5YR 6/8				0%	0%	Massive	Friable	
30-105	C	gLS	2.5Y 5/2	55"	7.5YR 5/8	10%	25%	5%	Single Grain	Friable	

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Additional Notes:
ESHGW 55". Roots to 50"

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-614	Obs. Hole #TP-615
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	55" inches	50" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)? Upper boundary: 10" inches Lower boundary: 120" inches

c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Kristin McRae, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

Field Diagrams: Use this area for field diagrams:

Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

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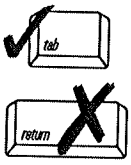

A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield | MA | 01940
City/Town | State | Zip Code

Williams & Sparages, LLC | (978) 539-8088
Contact Person (if different from Owner) | Telephone Number

B. Test Results

	5/14/18 (Date)	3:30 (Time)	5/1418 (Date)	3:30 (Time)
Observation Hole #	P-615A		P-614A	
Depth of Perc	41"+18"= 59"		53"+18+= 71"	
Start Pre-Soak	3:26		3:30	
End Pre-Soak	3:41		3:45	
Time at 12"	3:41		3:45	
Time at 9"	3:43		3:50	
Time at 6"	3:47		3:57	
Time (9"-6")	4 mins		7 mins	
Rate (Min./Inch)	<2 MPI		3 MPI	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Greg Hochmuth, Thor Akerley
Test Performed By:

Kristin McRae, R.S.
Board of Health Witness

Comments:

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-616 (Hole #) | 5/14/18 (Date) | 1:30PM (Time) | Sunny, 75 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland (e.g., woodland, agricultural field, vacant lot, etc.) | Trees/wooded (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

Description of Location: _____

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Property Line >10 feet | Drainage Way >100 feet | Drinking Water Well NA feet | Wetlands >100 feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
2-0	O										
0-12	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
12-33	Bw	FSL	7.5YR 6/8				0%	0%	Massive	Friable	
33-123	C	gLS	2.5Y 5/2	50"	7.5YR 5/6	10%	20%	5%	Single Grain	Friable	

Additional Notes:
ESHGW 50".

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-617 (Hole #) | 5/14/18 (Date) | 2:00PM (Time) | Sunny, 75 (Weather) | 42.53 (Latitude) | -71.04 (Longitude:)

1. Land Use: Woodland (e.g., woodland, agricultural field, vacant lot, etc.) | Trees/wooded (Vegetation) | None (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 5% (Slope (%))

   Description of Location: Wooded area in center of three lots

2. Soil Parent Material: Coarse-loamy lodgment till overlying outwash material | Outwash plain (Landform) | FS (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body NA feet | Drainage Way >100 feet | Wetlands >100 feet | Property Line >10 feet | Drinking Water Well NA feet | Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
3-0	O										
0-10	A	FSL	10YR 3/2				0%	0%	Granular	Friable	
10-38	Bw	FSL	7.5YR 6/8				0%	0%	Massive	Friable	
38-121	C	gLS	2.5Y 5/2	44"	7.5YR 5/6	10%	20%	10%	Single Grain	Friable	

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Additional Notes:
ESHGW 44". Roots to 57"

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP-616	Obs. Hole #TP-617
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	50" inches	44" inches
☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	_____ inches	_____ inches

_____ Index Well Number _____ Reading Date

$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude A and O Horizons)? Upper boundary: 10" Lower boundary: 123" inches

c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of Lynnfield

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

5/21/2018
Date

Thorsen Akerley, R.S. / #14016
Typed or Printed Name of Soil Evaluator / License #

7/1/2019
Expiration Date of License

Kristin McRae, R.S.
Name of Approving Authority Witness

Lynnfield Health Department
Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

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Commonwealth of Massachusetts
City/Town of Lynnfield
Percolation Test
Form 12

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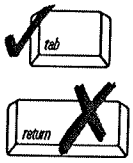

A. Site Information

Degiovanni Family Trust, Single Living Trust, Jane Coonrod
Owner Name

333, 339, 349 Summer Street
Street Address or Lot #

Lynnfield	MA	01940
City/Town	State	Zip Code

Williams & Sparages, LLC	(978) 539-8088
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	5/14/18 Date	2:30 Time	5/1418 Date	2:00 Time
Observation Hole #	P-616A		P-617A	
Depth of Perc	56"+18" = 76"		58"+18" = 74"	
Start Pre-Soak	2:34		2:17	
End Pre-Soak	2:49		2:32	
Time at 12"	2:49		2:32	
Time at 9"	2:58		2:43	
Time at 6"	3:10		2:57	
Time (9"-6")	12 mins		14 mins	
Rate (Min./Inch)	4 MPO		5 MPI	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Greg Hochmuth
Test Performed By:

Kristin McRae, R.S.
Board of Health Witness

Comments:

We missed 9" mark at perc at TP-616 so the reading at 9" there is actually at 8" and the reading at 6" is actually at 5" shown above