	7. C	6.	5.	∓ ⊅	4. T	ω ω	വര	S	0	5	1.	Ü.		חוכ	(A)	(J)	olm	A. F
Other references reviewed:	Current Water Resource Conditions (USGS):	Within a Mapped Wetland Area?	Within a velocity zone?	Above the 500-year flood boundary? $\ \ \ \ \ \ \ \ \ \ \ \ \ $	Flood Rate Insurance Map	Surficial Geological Report Available? 🔲 Yes	GLACIAL TILL Geologic/Parent Materia	Soil Name	CANTON FINE SANDY LOAM	Soil Survey Available?	1. (Check one)	B. Site Information	Ş	BYFIELD	Street Address	55 PEARSON DR	SMITH JEFFRY J, MCLAUGHLIN MICHEAL S Owner Name	A. Facility Information
reviewed:	source Condition	Wetland Area?	one?	ar flood boundary?	ince Map	il Report Available	<u>a</u> .		ANDY LOAM	able?	New Construction ■	ation				,~	, MCLAUGHLIN	rmation
	is (USGS):	☐ Yes	☐ Yes	⊠ Yes		? ☐ Yes				⊠ Yes	struction						MICHEAL S	
	Month/Year	⊠ No	⊠ No	□ No		⊠ No				□ No	☐ Upgrade							
	Range: Above Normal	MassGIS Wetland Data Layer:		Within the 100-year flood boundary?		If yes: Year Published/Source	MORAIN	Soil Limitations	NONE	If yes: NRCS	☐ Repair		Care	MA				
	Normal Below	Wetland Type		y?		Publication Scale							0000	01922	Map/Lot#	R-20/75		
	Below Normal			⊠ No		Map Unit			Soil Map Unit	422D								



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Groundwater C	If Yes:	Parent Materia		Distances from				Land Use	Description of I	Ground Elevati	Location	Deep Observa	C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)
	Disturbed Soil		Property		Vegetation	WOODED	(e.g., woodland,	WOODLAND	Location:	on at Surface		tion Hole Nur	eview (min
☐ Yes		T TILL	y Line	later Body			agricultural fiel		TOP OF H	of Hole:			imum of tv
⊠ No	ill Material	G	35	>400 feet			d, vacant lot, et			71		TP1	vo holes re
	☐ Imperviou		Drinki	Draina	Landform	MORAIN	(c.)					11/02/201 Date	equired at e
If yes:	us Layer(s)	Unsuitable	ng Water We	age Way			SL	S		Latitude			very prop
N/A		Teet e Materials F		0			ırface Stones (OME STON		e/Longitude:		0:30 AM me	osed prim
is a final part of the part of	eathered/Fra	resent:	Otl	We	Position on La	SEE PLAN	e.g., cobbles,	ES, BOULI				SU We	ary and re
N/A	ctured Rock	☐ Yes	ner	etlands	ndscape (SU, S		stones, boulders	ERS		1		NNY/ 70 ather	serve disp
	☐ Bedrock	⊠ ē		140	H, BS, FS, TS)		s, etc.) Slope (%)	20					osal area)
	Groundwater Observed: Yes X No If yes: N/A	If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured F Groundwater Observed: ☐ Yes ☐ No ☐ If yes: N/A Fight Weating from Bit	Parent Material: GLACIAL TILL Unsuitable Materials Present: If Yes: Disturbed Soil Fill Material Impervious Layer(s) If yes: N/A Groundwater Observed: Yes N/A Teet Unsuitable Materials Present: If yes: N/A Repth Westing from Bit	Property Line 35 Drinking Water Well >100 Other Parent Material: GLACIAL TILL Unsuitable Materials Present: If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured F Groundwater Observed: Yes No If yes: N/A	Distances from: Open Water Body Feet Property Line Parent Material: Open Water Body Feet Property Line GLACIAL TILL If Yes: Disturbed Soil Fill Material No Drainage Way Feet Drinking Water Well No Other Feet Unsuitable Materials Present: Weathered/Fractured Fill Material Open Water Body Feet Feet N/A Property Line Stances from: Property Line Stances from: Stances from: N/A Property Line Stances from:	Distances from: Open Water Body 2400 Drainage Way 2100 Wetlands Wetlands Feet Property Line 35 Drinking Water Well 2100 Other Feet Parent Material: GLACIAL TILL GLACIAL TILL Unsuitable Materials Present: If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Figure 1 Other Othe	WOODED Vegetation Vegetation Distances from: Open Water Body Property Line Parent Material: If Yes: Croundwater Observed: Open Water Body Vegetation Ad00 Drainage Way Property Line Feet Parent Material: Open Water Body Ad00 Drainage Way Property Line Feet Property Line Feet Open Water Body Feet Property Line Ad00 Drainage Way Feet Feet Open Water Well Feet Feet Feet Open Water Well Feet Feet Feet Open Water Well Feet Feet Open Water Well Feet Feet Feet Feet Open Water St. St. Action on Landscape (SU, SH, BS, FS, TS) Feet Feet Feet Feet Feet Open Water Body Feet Feet Feet Open Water Body Feet Feet Feet Open Water Well Feet Feet Feet Open Water Well Feet Feet Feet Open Water Well Feet Feet Feet Feet Open Water Well Feet Feet Feet Feet Open Water Well Feet Feet Feet Feet Feet Feet Feet F	Ceg., woodland, agricultural field, vacant lot, etc.) WOODED WOODED MORAIN SEE PLAN	Land Use WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) WOODED WOODED Vegetation Distances from: Open Water Body Property Line Parent Material: Open Water Soil Fill Material Open Waterial: Open Water Soil Fill Material Open Waterial: Open Water Soil Fill Material Open Waterial: Open Water Body Feet Open Water Well Insuitable Materials Present: Open Water Body Open Water Well Insuitable Materials Present: Open Water Body Open Water Body Open Water Well Open Water Well Open Water Well Open Water Well Open Water Body Open Water Well Open Water Well Open Water Well Open Water Body Open Water Well Open Water Body Open Water Well Open Water Well Open Water Well Open Water Soll Open Water So	Description of Location: Composition Co	Ground Elevation at Surface of Hole: Top OF HILL Top OF HILL	Ground Elevation at Surface of Hole: Top OF HILL	Deep Observation Hole Number:



C. On-Site Review (continued)

Deep Observation Hole Number: 뒫

7	Soil Horizon/	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	ures	Soil Texture	Coarse Fragmen % by Volume	Coarse Fragments % by Volume		Soil
Debui (iii.)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Gravel & Stones	es Soil Structure Consistence (Moist)	Consisten (Moist)
-2-0	<u>O</u> .									
9-0	Þ	10yr 3/2				SL				
6-26	B₩	10yr 4/6				SL				
26-110	С	5yr 5/4	48	10 YR 5/8	>15	LS				
Additio	Additional Notes:									



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Groundwater Observed: Estimated Depth to High	If Yes:	Parent Material:		Distances from:				Land Use	Ground Elevat	Location	Deep Observa	On-Site R
Groundwater Observed: Yes Estimated Depth to High Groundwater.	☐ Disturbed Soil	I: GLACIAL TILL	Property Line	ı: Open Water Body	Vegetation		(e.g., woodland, agricu	WOODLAND	Ground Elevation at Surface of Hole:		Deep Observation Hole Number:	C. On-Site Review (continued)
ater: 48 inches	☐ Fill Material	-	35 feet	Body >400 feet			(e.g., woodland, agricultural field, vacant lot, etc.)		le: 72.5 feet		TP2	ed)
If yes: 68.5' elevation	☐ Impervious Layer(s)	Unst	Drinking Water Well	Drainage Way	Landform		9		Latituc		11/02/2015 Date	
s: N/A Depth Weeping from Pit		Unsuitable Materials Present:	er Well >100	130 feet			Surface Stones (e.g.	SOME STONES	Latitude/Longitude:		10:30 Time	
		sent:	Other	Wetlands	Position on Lands	SEE PLAN	Surface Stones (e.g., cobbles, stones, boulders, etc.)		/		SUNNY/ 70 Weather	
N/A Depth Standing Water in Hole	Bedrock		feet	130 feet	Position on Landscape (SU, SH, BS, FS,		ers, etc.) Slope (%)	20%				



C. On-Site Review (continued)

Deep Observation Hole Number: TP2

Denth (in)	Soil Horizon/	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	tures	Soil Texture	Coarse F	Coarse Fragments % by Volume		Soil	
	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure Consistence (Moist)	Consistence (Moist)	Other
2-0	<u>O</u>										
0-6	Α	10yr 3/2				SL					
6-26	Bw	10yr 4/6				SL					
26-110	C	2.5y 5/4	48	10 YR 5/8	×15	LS					



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	Form 11 - Soil Suitability Assessment for On-S	
	On-S	

o O	Þ	o)	<u>, </u>	Ē						1:	<u></u>		_			Ċ
	 If yes, at what depth was it observed? 	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?	Depth of Naturally Occurring Pervious Material	Depth of Pervious Material	Obs. Hole # S _c S _r	Obs. Hole # Sc Sr	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$	Index Well Number Reading Date	 Depth to adjusted seasonal high groundwater (S_h) (USGS methodology) 		Depth to soil redoximorphic features (mottles)		□ Depth weeping from side of observation hole	☐ Depth observed standing water in observation hole	Method Used:	D. Determination of righ Groundwater Elevation
	Upper boundary:	ial exist in all areas			OW ₀	OW			inches	inches	48	inches		inches	Obs. Hole # <u>TP1</u>	TION
inches	თ	observed throughc			OW _{max}	OW _{max}									P1	
	Lower boundary:	out the area propos			OW _r	OW _r			inches	inches	48	inches			Obs. Hole #TP2	
inches	110	ed for the soil			S _h	S _h										



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

Board	
of	
Health	
Witness	

Name of Board of Health Witness DEBORAH ROGERS Board of Health NEWBURY

G. Soil Evaluator Certification

are accurate and in accordance with 310 CMR 15.100 through 15.107. 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, I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil

BENJAMIN C. OSGOOD, JR. #1818 Typed or Printed Name of Soil Evaluator / License # Signature of Soil Evaluator Expiration Date of License 6/30/2018 11/02/2017

to the designer and the property owner with Percolation Test Form 12. 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



Field Diagrams

Use this sheet for field diagrams:



Information FRY J , MCLAUGHLIN MICHEAL S DN DR.		B. Site 1. (Check 2. Soil Su CANTO Soil Nam GLACI. Geologio 3. Surficia 3. Surficia 4. Flood F Above t If Yes, cc 5. Within a							B. Site 1. (Check 2. Soil St	B. Site	B. Site		City	BYFIELD	Street Address	55 PE/	SMITH JEI	A. Faci	
☐ Upgrade	Geologic/Parent Material Surficial Geological Report Available? Yes Flood Rate Insurance Map Above the 500-year flood boundary? Yes If Yes, continue to #5. Within a velocity zone? Yes Within a Mapped Wetland Area? Yes Current Water Resource Conditions (USGS):	Parent Material Geological Report Availe (ate Insurance Map (ate Insurance Map (ate Insurance Map (b) (c) (d) (d) (d) (e) (e) (e) (e) (e) (f) (f) (f) (f) (f) (f) (f) (f) (f) (f	Parent Material Geological Report Availi ate Insurance Map ate 500-year flood bounds ntinue to #5. velocity zone?	Parent Material Geological Report Availi ate Insurance Map ate 500-year flood boundantinue to #5.	Parent Material Geological Report Availi	Parent Material Geological Report Avail	Derent Material	U TIII	CANTON FINE SANDY LOAM	Soil Survey Available?		B. Site Information		-D	idress	RSON DR.	JEFFRY J, MCLAUGH	ity Information	
	?			☐ Yes	ary? ⊠ Yes		able? ☐ Yes			⊠ Yes	onstruction						ILIN MICHEAL S		
R-20. MA Map/L If yes: NRCS Source NONE Soil Limitations MORAIN Landform If yes: Year Published/Source Within the 100-year flood boundary?		Month/Year	⊠ No		No		N _o			□ No	☐ Upgrade								
			MassGIS Wetland Data Layer:		Within the 100-year flood boundary		∄	Soil Limitations MORAIN			Repair		State	MA					
		Below Normal			⊠ No		Map Unit		Soil Map Unit	422D									



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	Estimated Depth to High Groundwater:		Groundwater Observed:	If Yes: Disturbed Soil	Parent Material: GLA		Prop		Distances from: Oper	veget	WOODED	(e.g., woodis	Land Use WOODLAND	בפאכו ביוסוד טו בטכמווטוו.		Ground Elevation at Surface of Hole:	Location		Deep Observation Hole Number:	C. On-Site Review (minimum of two holes required at every proposed primary as
			☐ Yes		GLACIAL TILL		Property Line		Open Water Body			and, agricultural ne	ND	LOT OF HILL		ce of Hole:			Number:	ninimum of ı
inches	48		⊠ No	Fill Material		feet	75	feet	>400			(e.g., woodiand, agricultural field, vacant lot, etc.)			leer Ieer	72			TP3	wo holes re
elevation	68		If yes:	☐ Impervious Layer(s)	Unsuitak		Drinking Water Well		Drainage Way	Landform	MORAIN					Latitu		Date	11/02/2015	quired at every pro
		Depth Weeping from Pit	N/A	☐ Weather	Unsuitable Materials Present:	feet		feet	>120	Position	SEE	Surface Stones (e.g., col	SOME STONES			Latitude/Longitude:		Time	11:00 AM	osed primary a
			N/A	Weathered/Fractured Rock	nt: Yes		Other		Wetlands	n on Landscape (SU, SH, BS, FS, TS)	SEE PLAN	obbles, stones, boulders, etc.)				1		Weather	SUNNY/ 70	ınd reserve disposal area)
	(Depth Standing Water in Hole		Bedrock	⊠ No	feet	į	feet	120	l, BS, FS, TS)		etc.) Slope (%)	20							osal area)



C. On-Site Review (continued)

Deep Observation Hole Number:

TP3

Denth (in)	Soil Horizon/	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	ures	Soil Texture	Coarse Fragments % by Volume	ragments olume		Soil	
(iii)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure Consistence 198 (Moist)	Consistence (Moist)	Other
2-0	<u>O</u> .										
0-6	>	10yr 3/2				SE					
6-28	Bw	10yr 4/6				SL					
28-76	С	2.5yr 5/4	48	10YR 5/8	> 15	LS					



Ċı		4.		ω		Ņ		. `		C
Groundwater Observed: Estimated Depth to High	lf Yes: □	Parent Material:		Distances from:		Land Use	Ground Eleva	Location	Deep Observ	. On-Site R
Groundwater Observed: Yes Estimated Depth to High Groundwater:	☐ Disturbed Soil	al: GLACIAL TILL	Property Line	n: Open Water Body	(e.g., woodland, agricultural field, vacant lot, etc.) WOODED	WOODLAND	Ground Elevation at Surface of Hole:		Deep Observation Hole Number:	C. On-Site Review (continued)
		II.	ine	er Body	icultural fie				1	nued)
No No Inches	Fill Material	Teet	70	>400	ld, vacant lot, etc		71.5 feet		TP4	
If yes: 67.5' elevation	☐ Impervious Layer(s)	Uns	Drinking Water Well	Landform Drainage Way	MORAIN		Latitu		11/02/2015 Date	
on s:	er(s)	feet Unsuitable Materials Present:	ater Well >100		Surface Sto	SOME STONES	Latitude/Longitude:		11:00 Time	
N/A Depth Weeping from Pit] Weather	als Preser	00	40	nes (e.g., co	ONES				
	Weathered/Fractured Rock	nt:	Other	Position on Landscape (SU, SH, BS, FS, Wetlands 140	Surface Stones (e.g., cobbles, stones, boulders, etc.) SEE PLAN				SUNNY/ 70 Weather	
oth Standing \			, ř	scape (SU, S	lers, etc.)					
N/A Depth Standing Water in Hole	Bedrock	eet No	feet	SH, BS, FS, 140	Slope (%)					



C. On-Site Review (continued)

Deep Observation Hole Number:

TP4

Denth (in)	Soil Horizon/	Denth (in) Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	tures	Soil Texture	Coarse Fragments % by Volume			Soil	
	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	SS	Soil Structure Consistence (Moist)	Consistence (Moist)	Other
3-0	<u>O</u> .			2							
0-7	A	10yr 3/2				SL					
7-27	Bw	10yr 4/6				SL					
27-106	С	2.5y 5/4	48	10YR 5/8	>15	LS					



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D. Determination of High Groundwater Elevation	
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, ,	If yes	⊠ Yes	Does at least four fe absorption system?	th of	pth	Obs. Hole #	Obs. Hole#	ıı Ş		(USC	Dept	Dept		Dept	Dept	Method Used:	
ă ă	at \	'es	at le	Natu	약	Hole	Hole	လ ၂	5	(USGS methodology)	to h	to	•	:h we	h ob	Jsed	
nato	what		east f า sys	rally	Per	#	#	S _r ×	idex V	etho	adjus	soil r		epin	serve	• •	9
epin	depth		our fe	Осс	Vio.		1	MO)	Index Well Number	golog	ted s	edoxi		g fror	ed sta		
Was	ı was	No	et of	ırring	Isn			î	mber	S	easo	morp		n sid	ndin		:
impe	it ob		natu	Perv	Wat	လွ	လွ	Wmax			nal h	hic fe		e of c	g wat		ď
noi	If yes, at what depth was it observed?		rally	Depth of Naturally Occurring Pervious Material	Depth of Pervious Material		Ĭ	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$			igh g	eatur		bser	er in		9
s mai	.5 P		occu	Mate	=		ļ	2	ĺ		round	es (r		vation	obse		2
II flo, at what depth was Impervious material observed?			rring	<u>ria</u>		လွ	လု		Re		Depth to adjusted seasonal high groundwater (Sh)	Depth to soil redoximorphic features (mottles)		Depth weeping from side of observation hole	Depth observed standing water in observation hole		23000
obse	-		pervi			1			Reading Date		er (Sh	(S		(D	on ho		5
rved.			n suc			1			Date		_				o		_
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Upp	Upp		al ex			oW _o	oW _c										
er bo	er bo		ist in							inches	inches	48	inches	inches		Obs	_
Upper boundary:	Upper boundary:		all ar			l	I			S	Ø		Ś	Ü		Obs. Hole #TP3	
Ž.	ΪŢ		eas c			0	0									e # 丁	
inc	ق ا ا		bser			OW _{max}	OW _{max}									3	
inches	6 inches		ved t			× 	×										
			hrou														
5	5		ghout				_			L			J				
)Wer I	wer		the			OW	OW,			inches	inches	48	inches	inches		Obs	
Lower boundary:	Lower boundary:		area							o,	()		S	G		Hole	
dary:	dary:		Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?			I										Obs. Hole #TP4	
1	-1-1		sed .			Š	Š									4	
inches	76 inches		or th														
			soil				1				3						
										- 1			į.				



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

F. Board of Health Witness

Name of Board of Health Witness DEBORAH ROGERS Board of Health NEWBURY

G. Soil Evaluator Certification

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

Typed or Printed Name of Soil Evaluator / License # BENJAMIN C. OSGOOD, JR. Signature of Soil Evaluator #1818 Expiration Date of License 6/30/2018 11/02/2017

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 sheet for field diagrams:



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Other references reviewed:	Current Water Resource Conditions (USGS):	Within a Mapped Wetland Area?	Within a velocity zone?	Above the 500-year flood boundary? $\ \ \ \ \ \ \ \ \ \ \ \ \ $	Flood Rate Insurance Map	Surficial Geological Report Available? Yes	GLACIAL TILL	CANTON FINE SANDY LOAM	Soil Survey Available?	1. (Check one)	B. Site Information	City	BYFIELD	55 PEARSON DR Street Address	SMITH JEFFRY J, MCLAUGHLIN MICHEAL S Owner Name	A. Facility Information
eviewed:	source Condition	Netland Area?	ine?	r flood boundary?	nce Map	l Report Available	3.	ANDY LOAM	able?	New Construction ■ Property	tion			,~	J, MCLAUGHLIN	rmation
	s (USGS):	☐ Yes	Yes	⊠ Yes		? 🗌 Yes			⊠ Yes	struction					MICHEAL S	
מוסוונות ו פמו	Month (Voca	⊠ No	⊠ No	No		No No			□ No	☐ Upgrade						
	Range: Above Normal	MassGIS Wetland Data Layer:		Within the 100-year flood boundary?		If yes: Year Published/Source	Soil Limitations MORAIN	NONE	If yes: NRCS	☐ Repair		State	MA			
	Normal Below	Motord Top		y? ☐ Yes		Publication Scale						Zip Code	01922	R-20/75		
	Below Normal			No		Map Unit		Soil Map Unit	422D							



0	On-Site Review	(minimum of t	wo holes req	uired at every prop	C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)	serve disposal area)
	Deep Observation Hole Number:	le Number:	TP5	11/02/2015	11:10 AM SUN	SUNNY/70
				Date	Time Weather	ther
. `	Location					
	Ground Elevation at Surface of Hole:	urface of Hole:	67	Latitud	Latitude/Longitude:	
	Description of Location:	n: SIDEOF HILL	HILL			
i,	Land Use WOOI	WOODLAND		(0	SOME STONES	17
	(e.g., w	(e.g., woodland, agricultural field, vacant lot, etc.)	eld, vacant lot, etc.)	8	Surface Stones (e.g., cobbles, stones, boulders, etc.)	l
	WOODED	DED		MORAIN	SEE PLAN	
)	Veget	ion		Landform	Position on Lan	on Landscape (SU, SH, BS, FS, TS)
ĊΩ	Distances from: C	Open Water Body	>400 feet	Drainage Way	>70 Wet	Wetlands 70
	T	Property Line	80	Drinking Water Well		
			feet		feet	feet
4.	Parent Material:	GLACIAL TILL		Unsuitabl	Unsuitable Materials Present:	☐ Yes ⊠ No
	If Yes: Disturbed Soil		Fill Material	☐ Impervious Layer(s)		tured Rock Bedrock
9	Groundwater Observed:	∃ Yes	□ 8	If yes:	N/A	N/A
	Estimated Depth to High Groundwater:		48	63	Depth vveeping from Pit	Depth Standing Water in Hole
			inches	elevation		



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

C. On-Site Review (continued)

Deep Observation Hole Number:

TP5

Depth (in.)	Soil Horizon/	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	ures	Soil Texture	Coarse Fragments % by Volume) 	Soil	
,	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	es	Soil Structure Consistence (Moist)	Consistence (Moist)	Other
3-0	<u>O</u> .										
0-6	А	10yr 3/2				SF					
6-26	Bw	10yr 4/6				SF					
26-56	C1	2.5yr 5/4	48	10YR 5/8	>15	LS					
56-72	C2	5y 4/3				г					



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Estimated Dep	Groundwater Observed:	If Yes:	Parent Material:		Distances from:				Land Use	Ground Elevat	Location	Deep Observ	On-Site R
Estimated Depth to High Groundwater:		☐ Disturbed Soil	al: GLACIAL TILL	Property Line		Vegetation	WOODED	(e.g., woodland, agricultural field, vacant lot, etc.)	WOODLAND	Ground Elevation at Surface of Hole:		Deep Observation Hole Number:	C. On-Site Review (continued)
	☐ Yes		_ TILL	Line	Open Water Body			gricultural field		f Hole: 58		7	tinued)
20 inches	□ No	Fill Material		135 feet	>400 feet			i, vacant lot, etc				TP6	
		☐ Impervious Layer(s)		Drinkin	Draina	Landform	MORAIN	Ü				11/02/2015 Date	
56.33' elevation	If yes:	s Layer(s)	Unsuitable	Drinking Water Well	Drainage Way			Su	S	Latitude/Longitude:			
Depth Weeping from Pit	N/A	□ W ₆	Unsuitable Materials Present:	>100 feet	100 feet			rface Stones (e	SOME BOULDERS	ngitude:		11:30 Time	
ing from Pit] Weathered/Fractured Rock	resent:	Other	Wet	Posit	SEE	e.g., cobbles, si	DERS	_		SUNN	
Depth	N/A	tured Rock	☐ Yes	9"	Wetlands	Position on Landscape (SU, SH, BS, FS,	SEE PLAN	Surface Stones (e.g., cobbles, stones, boulders, etc.)				SUNNY/ 70 Weather	
Depth Standing Water in Hole		☐ Bedrock	⊠ No	feet	feet 80	pe (SU, SH, B							
er in Hole		홋	б			S. FS.	,	Slope (%)	42				



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

C. On-Site Review (continued)

Deep Observation Hole Number: TP6

Depth (in.)	Soil Horizon/	Depth (in.) Soil Horizon/ Soil Matrix: Color-		Redoximorphic Features	tures	Soil Texture	Coarse F	Coarse Fragments % by Volume		Soil
	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure Consistence (Moist)	Consistence (Moist)
1-0	<u>o</u>									
0-6	Α	10yr 2/2				SL				
6-20	Bw	10yr 4/4				SL				
20-110	C	5y 4/4	20	10YR 5/8	× 15	_				



Form 11 - Soil Suitability Assessment for On-Site oosal

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It no	If ye	⊠ Yes	Doe abso	Ť Q	pth	Obs	Obs	S ^L		(US	J	Dep	I	Dep		Dep	thod	ler
at	s, at	Yes	s at orptic	Nat	of	Obs. Hole #	Obs. Hole#	S		GS r		th to	1	χ̈́		Š O	Method Used:	3
what	wha		least	urall	Pe	le #	e #	Š	Index	neth		soil		eepi		bser	ä	nat
dept	t dep	П	Does at least four fe absorption system?	y Oc	₹.	,	1	× (0	Well	Depth to adjusted sea (USGS methodology)		redo		ng fr		/ed s		on
:h We	oth w	∪ No	feet	curri	Sno			% 	Index Well Number	l sea		ximo		s mo		stand		9
is im	asit	U	of na	ng P	Z		3	WO	<u>a</u>	sona		orphi		ide c		ing v		OIT OIT
pervi	If yes, at what depth was it observed?		atura	Depth of Naturally Occurring Pervious Material	Depth of Pervious Material	လွ	လွ	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$		ıl hig		c fea		Depth weeping from side of observation hole		vater) U
sno	ervec		lly o	N sn	rial			J.WC		h gro		tures		serva		i. D		dro
mate	.5		courr	later		I	1		J	und		(m		tion		bser		un (
If no, at what depth was impervious material observed?			ing p	<u>a</u>		လု	ဂ်		Rea	Depth to adjusted seasonal high groundwater (S _h) (USGS methodology)		Depth to soil redoximorphic features (mottles)		hole		Depth observed standing water in observation hole		D. Determination of High Groundwater Elevation
bser			ervic						Reading Date	ر (S _H)		<u>u</u>				n hol		iter
vedî			n snc			1			Date	_						ወ		П
~			nater															eva
Цþ	Пþ		<u>ia</u> e			OW _c	OW _c											tio
Upper boundary:	Upper boundary:		ist ii							inches	inches	48	inches		inches		O _D	ے
ouno	ouno		a a							es	les		les		les		s. H	
dary:	dary:		areas														Obs. Hole #TP5	
			s obs			OW _{max}	OW _{max}										TP5	
inches	7 inches		serve			max_	max_											
S	S		d thr															
	Į		gugh			l.											i e	
Lov	Lov		out			0	0			=:1	=:1	N.)	1		1			
Lower boundary:	Lower boundary:		he a			OW,	ow _r			inches	inches	20	inches		inches		Obs.	
ounc	ounc		rea p														Hole	
lary:	lary:		эгорс			1	Ţ									1	Obs. Hole #TP6	
221			sed			လှု	လှု										<u>ത്</u>	
inches	106 inches		for th															
0,	,		Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?															
1	1		=-		[1					



City/Town of BYFIELD

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

F. Board of Health Witness

DEBORAH ROGERS Name of Board of Health Witness	
NEWBURY Board of Health	

G. Soil Evaluator Certification

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. I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil

BENJAMIN C. OSGOOD, JR. #1818 Signature of Soft Evaluator Typed or Printed Name of Soil Evaluator / License # Expiration Date of License 6/30/2018 11/02/2017

to the designer and the property owner with Percolation Test Form 12. 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



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

Field Diagrams

Use this sheet for field diagrams:





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

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Estimated Depth t	Groundwater Observed:	If Yes: Di	Parent Material:		Distances from:	< > < 6	Land Use V	Description of Location:	Ground Elevation	Location		Deep Observation Hole Number:	. On-Site Rev
Estimated Depth to High Groundwater:	erved: Yes	☐ Disturbed Soil ☐	GLACIAL TILL	Property Line	Open Water Body	WOODS Vegetation	WOODLAND	ation: FLATLAND	Ground Elevation at Surface of Hole:			n Hole Number:	iew (minimum
r: 36 inches	⊠ No	☐ Fill Material		120	dy >400	al Tield, vacant lot, etc		AND	60.5			TP7	of two holes re
57.5 elevation	If yes:	☐ Impervious Layer(s)	Unsi	Drinking Water Well	Drainage Way	ř					Date	11/02/2015	equired at every
Depth Weeping from Pit			Unsuitable Materials Present:		120	Surface Stones (e	SOME BOULDERS		Latitude/Longitude:		Time	11:40 AM	proposed prima
	N/A	Weathered/Fractured Rock	resent:	Other	Position on Landscape (SU, SH, BS, FS, TS) Wetlands 90	Surface Stones (e.g., cobbles, stones, boulders, etc.) SEE PLAN	DERS		1		Weather	SUNNY/ 70	C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)
Depth Standing Water in Hole		Bedrock	⊠ feet No	reet	SH, BS, FS, TS)	ers, etc.) Slope (%)	_						sposal area)



City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number:

TP7

Depth (in.)	Soil Horizon/	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	ures		Coarse Fragments % by Volume	ragments olume		Soil	
	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure Consistence (Moist)	Consistence (Moist)	Other
1-0	<u>O</u>										
0-6	A	10yr 2/2				SL					
6-36	Bw	10yr 4/4				SF					
36-84	21	2.5y 4/4	36	10YR 5/8	> 15	S					
84-110	62	5y 4/4				г					
Addition	Additional Notae										



Ò	4.	က	5	- (n
If Yes: Disturbed Groundwater Observed: Estimated Depth to High	Parent Material:	Distances from:	Ground Elevation Land Use	Deep Observa Location	On-Site R
If Yes: Disturbed Soil Croundwater Observed: Yes Estimated Depth to High Groundwater:		and the second second	Ground Elevation at Surface of Hole: Land Use WOODLAND (e.g., woodland, agriculture)	Deep Observation Hole Number: Location	C On-Site Review (continued)
Fill Material Yes No	TILL feet	≱r Body >400 feet ne 160	n at Surface of Hole: 61 WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.)	er: TP8	1104)
Il Impervious Layer(s) Io If yes: 58' elevation		MO	ot, etc.)	11/02/2015 Date	
If yes: 58' elevation	Unsuitable	RAIN from Drainage Way Drinking Water Well	Latitude/Longitude: SOME BO Surface Sto		
Weathered/FN/A Depth Weeping from Pit	a	130 feet	ongitude: SOME BOULDERS	11:45 Time	
ractured F	nt: Yes	SEE PLAN Position on Landscape (SI 130 Wetlands feet Vell >100 Other	John stone hould	SUNNY/ 70 Weather	
Rock ☐ Bedrock N/A Depth Standing Water in Hole	feet No	SEE PLAN Position on Landscape (SU, SH, BS, FS, Wetlands Wetlands feet Other			



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

C. On-Site Review (continued)

Deep Observation Hole Number:

TP8

Depth (in.)	Soil Horizon/	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	ures	Soil Texture	Coarse Fragmer		Soil	
	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Soil Structure Consistence (Moist)	Consistence (Moist)	Other
1-0	<u>O</u> .									
0-6	≻	10yr 2/2				<u>N</u>				
6-30	B₩	10yr 4/4				SL				
30-90	O	5y 4/4	36	10YR 5/8	> 15	Г				
A										



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

			חשקטשמו	
D. Determination of High Groundwater Elevation	ם ב			
b. Determination of high Groundwater Elevat	ion			
1. Method Used:	Obs. Hole #TP7	# <u>TP7</u>	Obs. Hole #TP8	8
Depth observed standing water in observation hole				
☐ Depth weeping from side of observation hole	inches		inches	
□ Depth to soil redoximorphic features (mottles)	inches		inches	
			C	
☐ Depth to adjusted seasonal high groundwater (S _h)	inches		inches	
(USGS methodology)	inches		inches	
Index Well Number Reading Date				
$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$				
Obs. Hole # S _c S _r (ΟW ₀	OW _{max}	OWr	လှု
Obs. Hole # S _c S _r (OWc	OW _{max}	OW _r	<u>လှ</u>

E. Depth of Pervious Material

- Depth of Naturally Occurring Pervious Material
- 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	

0 If yes, at what depth was it observed?

ဂ္ဂ

If no, at what depth was impervious material observed?

Upper boundary:

Upper boundary:

inches

inches တ

Lower boundary: inches

110

Lower boundary: inches



City/Town of BYFIELD Commonwealth of Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sew

DEBORAH ROGERS	F. Board of Health Witness	- Some of Sangaring Assessment for On-Site Sewage Dispos
 NEWBURY		Tor OII-Site Sewage Dispos

G. Soil Evaluator Certification

Name of Board of Health Witness

Board of Health

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

Typed or Printed Name of Soil Evaluator / License # BENJAMIN C. OSGOOD, JR #1818 Signature of Soil Evaluated Expiration Date of License 6/30/2018 11/02/2017

to the designer and the property owner with Percolation Test Form 12. 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



Field Diagrams

Use this sheet for field diagrams:



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Other references reviewed:		Current Water Resource Conditions (USGS):	Within a Mapped Wetland Area?	Within a velocity zone?	Above the 500-year flood boundary? If Yes, continue to #5.	Flood Rate Insurance Map	Surficial Geological Report Available? 🔲 Yes	Geologic/Parent Material	Soil Name	CANTON FINE SANDY LOAM	Soil Survey Available?	(Check one) New Construction	Site Information	City	BYFIELD	Street Address	55 PEARSON DR.	SMITH JEFFRY J, MCLAUGHLIN MICHEAL S	A. Facility Information
		ons (USGS):	☐ Yes	☐ Yes	? 🛛 Yes		le?				⊠ Yes	struction						MICHEAL S	
	Month/Year		No No	No.	□ No		No.				No	☐ Upgrade							
1		Range: Above Normal 1	en:		Within the 100-year flood boundary?		If yes: Year Published/Source	Landform	MORAIN	NONE	If yes: NRCS Source	Repair			N/A State				
		Normal Below	Wetland Type		? L Yes	1	Publication Scale								Zip Code	01922	R-20/75		
		Below Normal			N O	3	Map Unit				422D Soil Map Unit								



Ċ		4.	ώ	'n		:		50
Groundwater Observed: Yes Estimated Depth to High Groundwater:	Soil	Property Line Parent Material: GLACIAL TILL	Vegetation Distances from: Open Water Body	Land Use WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) WOODED	Ground Elevation at Surface of Hole: Description of Location: DEPF	Location	Deep Observation Hole Number:	C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)
ter: 28 inches	Fill v	175 feet	ody >400 feet	ıral field, vacant lot, etc.	Hole: 59.5 feet DEPRESSION		TP9	of two holes req
57.17 elevation	☐ Impervious Layer(s)	Drinking Water Well Unsuitable	Landform Drainage Way	MORAIN	Latitude	Date	2/2015	uired at every propo
Depth Weeping from Pit	☐ Weathered/Fractured Rock	Water Well >100 Other feet Unsuitable Materials Present:	Position 170 feet	SOME BOULDERS Surface Stones (e.g., cobbles, stones, boulders, etc.) SEE PLAN	Latitude/Longitude:/	id vydania	AM	sed primary and reser
Depth Standing Water in Hole	red Rock Bedrock	☐ Yes ⊠ No	on Landscape (SU, SH, BS, FS, TS) Wetlands feet	es, boulders, etc.)			(170	ve disposal area)



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

C. On-Site Review (continued)

Deep Observation Hole Number:

TP9

	eail Harizon/	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	ures	Soil Texture	Coarse Fragments % by Volume	oarse Fragments % by Volume		Soil	O+her
Depth (in.)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	es (Moist)	(Moist)	9
1-0	<u>O</u> i										
0-6	A	10yr 2/2				SL					
6-18	Bw	10yr 4/4				SL					
18-77	C	2.5y 5/4	28	10YR 5/8	> 15	_					



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Estimated Depth	Groundwater Observed:	lf Yes: □ D	Parent Material:		Distances from:	< -	< 1		land lise V	Ground Elevation	Location	Deep Observation Hole Number:	C. On-Site Review (continued)
Estimated Depth to High Groundwater:	served: 🔲 Yes	☐ Disturbed Soil	GLACIAL TILL	Property Line	Open Water Body	Vegetation	WOODED	(e.g., woodland, agricultural field, vacant lot, etc.)	WOODLAND	Ground Elevation at Surface of Hole:		n Hole Number:	iew (continued
er: 30 inches	⊠ No	Fill Material		160 feet	ody >400 feet			ral field, vacant lot, etc.		60 feet		TP10	3)
57.5' elevation	If yes:	☐ Impervious Layer(s)	Uns	Drinking Water Well	Drainage Way	Landform	MORAIN			Latituo		11/02/2015 Date	
ön	S: N/A	_	Unsuitable Materials Present:	ter Well >100	ay >100 feet			Surface Stones (e.g.,	SOME BOULDERS	Latitude/Longitude:		1:45 Time	
			ent: Yes	Other	Wetlands	Position on Landscape (SU, SH, BS, FS,	SEE PLAN	Surface Stones (e.g., cobbles, stones, boulders, etc.)	S			SUNNY/ 70 Weather	
ú	N/A Depth Standing Water in Hole	☐ Bedrock	⊠ No	feet	60 feet	SU, SH, BS, FS,		c.) Slope (%)					



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

C. On-Site Review (continued)

Deep Observation Hole Number: **TP10**

	Soil Horizon/	Soil Horizon/ Soil Matrix: Color-		Redoximorphic Features	tures	Soil Texture	Coarse F	Coarse Fragments % by Volume		Soil	
Depth (in.)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	(Moist)	(Moist)	Other
2-0	<u>O</u>										
0-8	>	10yr 2/2				SL					
8-20	Bw	10yr 4/4		10		SL					
20-70	2	10yr 5/4	30	10YR 5/8	> 15	FS					
70-74	C2	2.5y 5/4				L					

Additional Notes.



D	. Determination of High Groundwater Elevation	on			
	Method Used:	Obs. Hole #TP9	9	Obs. Hole #TP10	0
	☐ Depth observed standing water in observation hole	inches		inches	
	☐ Depth weeping from side of observation hole	inches		inches	
	$oxed{\boxtimes}$ Depth to soil redoximorphic features (mottles)	28 inches		30 inches	
	$\hfill \square$ 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 # S _c S _r (οω _c ο	OW _{max}	OW _r	\(\text{S} \)
	Obs. Hole # Sc Sr (ΟW _c C	OW _{max}	OW _r	S _h
ml	E. Depth of Pervious Material				
<u>.</u>	Dep				
	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?	al exist in all areas c	bserved througho	out the area propos	sed for the soil
	b. If yes, at what depth was it observed?	Upper boundary:	6 inches	Lower boundary:	77 inches
	c. If no, at what depth was impervious material observed?	Upper boundary:	in Chap	Lower boundary:	inches



Commonwealth of Massachusetts

City/Town of BYFIELD

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

F. Board of Health Witness

Name of Board of Health Witness **DEBORAH ROGERS**

> Board of Health NEWBURY

G. Soil Evaluator Certification

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. I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil

BENJAMIN C. OSGOOD, JR. #1818 Signature of Soil Evaluator Typed or Printed Name of Soil Evaluator / License # 6/30/2018

11/02/2017

Expiration Date of License

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 sheet for field diagrams:



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Other references reviewed:	Current Water R	Within a Mapped Wetland Area?	Within a velocity zone?	Above the 500-ye. If Yes, continue to #5	Flood Rate Insurance Map	Geologic/Parent Materia Surficial Geological F	GLACIAL HEL	Soil Name	CANTON FINE SANDY LOAM	Soil Survey Available?	(Check one)	B. Site Information	City	BYFIELD	Street Address	55 PEARSON DR	SMITH JEFFRY	A. Facility Information	
s reviewed:	Current Water Resource Conditions (USGS):	d Wetland Area?	zone?	Above the 500-year flood boundary? If Yes, continue to #5.	rance Map	Geologic Parent Material Surficial Geological Report Available? Yes			SANDY LOAM	lable?	New Construction ■	ation				70	SMITH JEFFRY J, MCLAUGHLIN MICHEAL S	rmation	200
	ns (USGS):	☐ Yes	☐ Yes	? 🛚 Yes		e? 🗌 Yes				⊠ Yes	struction	2					MICHEAL S		
	Month/Year	No	⊠ No	N N		No				□ No	☐ Upgrade								
	Range: Above Normal	MassGIS Wetland Data Layer:		Within the 100-year flood boundary?		If yes: Year Published/Source	andform	Soil Limitations	NONE	If yes: NRCS Source	☐ Repair		Control	MA					
	Normal Below Normal	Wetland Type		y? ☐ Yes		Publication Scale								Zip Code	Map/Lot #	R-20/75			
	v Normal			⊠ No		Map Unit				422D Soil Map Unit									



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Estimated Dep	Groundwater Observed:	If Yes: □	Parent Material:		Distances from:			1	Land Use	Description of Location:	Ground Elevati	Location	Deep Observa	On-Site Re
Estimated Depth to High Groundwater:)bserved: Yes	☐ Disturbed Soil	I: GLACIAL TILL	Property Line		Vegetation	WOODED	(e.g., woodland, agricultural field, vacant lot, etc.)	WOODLAND	_ocation:	Ground Elevation at Surface of Hole:		Deep Observation Hole Number:	C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)
	Yes			ne	er Body			cultural fie			ole:			ım of tv
30 inches	⊠ No	Fill Material		65 feet	>400 feet			ld, vacant lot, etc			feet		TP11	vo holes red
<u>e</u> 0:	If	☐ Impervious Layer(s)		Drinking Water Well	Drainage Way	Landform	MORAIN	.)					11/02/2015 Date	quired at every
61.5 elevation	If yes:	yer(s)	nsuitable l	/ater Well	Vay			Surfa	ВОІ		Latitude/Longitude:		1:50 Time	/ propos
	N/A Depth Weeping from Pit	□ We	Unsuitable Materials Preser	>100 feet	>120 feet	-	60	Surface Stones (e.g., cobbles, stones, boulders, etc.)	BOULDERS		.ongitude:		1:50 PM Time	ed prima
	ing from Pit	eathered/Fr	resent:	0	>	osition on L	SEE PLAN	.g., cobbles,					SL	ry and re
		Weathered/Fractured Rock	☐ Yes	Other	Wetlands	Position on Landscape (SU, SH, BS, FS, TS)		stones, bou				-	SUNNY/ 70 Weather	serve d
	N/A Depth Standir		es			U, SH, BS, I		lders, etc.)						isposal :
	N/A Depth Standing Water in Hole	Bedrock	N _o	feet	115 feet	FS, TS)		Slope (%)	30		1			area)



C. On-Site Review (continued)

Deep Observation Hole Number: **TP11**

	25.22					-
	24-72	8-24	0-8	2-0	Depth (in.)	
	C	Bw	Α	<u>O</u> .	Layer	Soil Horizon/
	2.5y 5/4	10yr 4/4	10yr 2/2		Moist (Munsell)	Soil Horizon/Soil Matrix: Color-
	30				Depth	
	10YR 5/8				Color	Redoximorphic Features
	>15				Percent	ures
	_	SL	SL		(USDA)	Soil Texture
					Gravel	Coarse Fragments % by Volume
					Cobbles & Stones	ragments olume
					es (Moist)	Soil Structure
					(Moist)	Soil Consistence
						Other

Additional Notes:



Ċ	4.		က	Ŋ	0	. `		0
Groundwater Observed: Estimated Depth to High	Farent Material: If Yes:		Distances from:	Land Use	Ground Elevati	Location	Deep Observa	C. On-Site Review (continued)
Gro	☐ Disturbed Soil			WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) WOODED	Ground Elevation at Surface of Hole:		Deep Observation Hole Number:	eview (conti
Yes Yendwater:		Line	iter Body	gricultural fi			oer:	nued)
No No inches	Fill Material	110 feet	>400 feet	eld, vacant lot, etc	69.5 feet		TP12	
If yes 65.5 elevat	☐ Impervious Layer(s)	Drinking Water Well	Landform Drainage Way	MORAIN	Latit	Date	11/02/2015	
on 97	yer(s)	/ater Well	Way	Surfa	Latitude/Longitude:	Time	2:0	
N/A Depth Weeping from Pit	Layer(s)	>100 feet	>70 feet	Surface Stones (e.g., cobbles, stones, boulders, etc.) SEE PLAN	tude:	Ф	2:00 PM	
	/Fractur	Other	Position on Landscape (SU, SH, BS, FS, Wetlands 70	bbles, stones, boul	1	vveatner	SUNNY/ 70	
N/A Depth Standing			dscape (SU,	lders, etc.)				
N/A Depth Standing Water in Hole	Bedrock	feet	SH, BS, FS, 70 feet	Slope (%)	30			



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

C. On-Site Review (continued)

Deep Observation Hole Number:

TP12

	Soil Horizon/	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	tures	Soil Texture	Coarse Fragments % by Volume	ragments /olume		Soil	5
Depth (in.)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	soil structure Consistence (Moist)	(Moist)	0
1-0	<u>O</u> .										
0-8	≻	10yr 3/2				SL					
8-30	B₩	10yr 4/6		ā		SL					
30-66	2	2.5y 5/4	48	10YR 5/8	>15	SL					
66-84	C2	5y 4/4				_					

Additional Notes:



b. If y∈	\boxtimes		a. Doe abs	1. Depth o	E. Depth	Obs	Obs	S _h =		Der (US	⊠ Dep	☐ Dep	☐ Dep	1. Method Used:	D. Deter
If yes, at what depth was it observed:		Yes □ No	Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?	Depth of Naturally Occurring Pervious Material	Depth of Pervious Material	Obs. Hole # S _c	Obs. Hole # S _c	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$	Index Well Number	Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	Depth to soil redoximorphic features (mottles)	Depth weeping from side of observation hole	Depth observed standing water in observation hole	Used:	Determination of High Groundwater Elevation
			rring pervious mater	rial		Sr	<u>o</u>		Reading Date	dwater (S _h)	nottles)	1 hole	rvation hole		dwater Elevat
20 60	Upper boundary:		ial exist in all areas			ΟW _c	ΟW _c			inches	30 inches	inches	inches	Obs. Hole # <u>TP11</u>	ion
inches	Φ		observed througho			OW _{max}	OW _{max}							P11	
	Lower boundary:		ut the area propos			ΟW _Γ	OW _r			inches	48 inches	inches	inches	Obs. Hole # <u>TP12</u>	
	66 inches		ed for the soil			S _h	S _h							2	



Commonwealth of Massachusetts

City/Town of BYFIELD

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

: Board of Health Witness	
DEBORAH ROGERS	NEWBURY
Name of Board of Health Witness	Board of Health

G. Soil Evaluator Certification

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. evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil

Typed or Printed Name of Soil Evaluator / License #	BENJAMIN C. OSGOOD, JR #1818	Signature of Soil Evaluator	Ra col
Expiration Date of License	6/30/2018	Date	11/02/2017

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 <u>Percolation Test Form 12</u>.



Field Diagrams

Use this sheet for field diagrams:



œ	7.	<u></u>	Ċι		4.	ώ					'n		Ü							P	
Other references reviewed:	Current Water Resource Conditions (USGS):	Within a Mapped Wetland Area?	Within a velocity zone?	Above the 500-year flood boundary? If Yes, continue to #5.	Flood Rate Insurance Map	Surficial Geological Report Available? 🔲 Yes	Geologic/Parent Material	GLACIAL TILL	Soil Name	CANTON FINE SANDY LOAM	Soil Survey Available?	(Check one)	Site Information	City	BYFIELD	Street Address	55 PEARSON DR.	Owner Name	SMITH JEFFRY J , MCLAUGHLIN MICHEAL S	A. Facility Information	
eviewed:	source Conditions (ne?		nce Мар	Report Available? L	<u>a</u>			NDY LOAM		New Construction	tion						MCLAUGHLIN MI	mation	
	USGS):	☐ Yes	☐ Yes	⊠ Yes		Yes	1				⊠ Yes	ction							CHEAL S		
	Month/Year	⊠ No	⊠ No	□ No		No.	:				□ No	☐ Upgrade									
	Range: Above Normal	MassGIS Wetland Data Layer:		Within the 100-year flood boundary?		Tyes: Year Pu	Landform	MORAIN	Soil Limitations	NONE	If yes: NRCS	☐ Repair		Ciairo	MA						
	ve Normal	ıd Data Layer:		ar flood bounda		Year Published/Source						ĬŤ									
	Normal Below Normal	Wetland Type		y? 🗌 Yes		Publication Scale								1	Zin Code	Map/Lot #	R-20/75				
	Normal	2		⊠ No		Map Unit				_	422D Soil Map Unit										



	Ò		4.		ώ				5					0
Estimated Depth to High Groundwater:	Groundwater Observed:	If Yes: □	Parent Material:		Distances from:				Land Use	Description of Location:	Ground Elevation at Surface of Hole:	Location	Deep Observation Hole Number:	C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)
pth to High G	Observed:	☐ Disturbed Soil		Prop		Vegetation	WOODED	(e.g., woodla	WOODLAND	f Location:	ition at Surfac		ation Hole N	Review (n
iroundwater:	☐ Yes	oi	GLACIAL TILL	Property Line	Open Water Body			ınd, agricultural f	ND		ce of Hole:		lumber:	inimum of
48	⊠ No	Fill Material	Teet	125	>400 feet			(e.g., woodland, agricultural field, vacant lot, etc.)			69 feet		TP13	two holes re
		☐ Imperviou		Drinkir	Draina	Landform	HILL	lc.)					11/02/2015 Date	equired at e
65	If yes:	Impervious Layer(s)	Unsuitable	Drinking Water Well	Drainage Way			Suri	ВО		Latitude/			very propos
	N/A Depth Weeping from Pit	□ Wea	Unsuitable Materials Present:		>100	Po	S	face Stones (e.ç	BOULDERS		Latitude/Longitude:		1:50 PM Time	sed primar
	g from Pit] Weathered/Fractured Rock	esent: [Other	Wetlands	Position on Landscape (SU, SH, BS, FS, TS)	SEE PLAN	Surface Stones (e.g., cobbles, stones, boulders, etc.)			/		SUNNY/ 70 Weather	y and reser
	N/A Depth Stand	ed Rock	☐ Yes		ds	ape (SU, SH, BS		s, boulders, etc.					7/70	ve disposa
	N/A Depth Standing Water in Hole	Bedrock	⊠ en		100 feet	3, FS, TS)) Slope (%)	7					l area)



C. On-Site Review (continued)

Deep Observation Hole Number:

TP13

:	Soil Horizon	Soil Horizon/ Soil Matrix: Color-	Red	Redoximorphic Features	ures	Soil Texture	% by Volume			Soil
epth (in.)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	soll structure (consistence (Moist)	(Moi
1-0	<u>O</u>				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
0-8	A	10yr 3/2				JS				
8-30	Bw	10yr 4/6				JS				
30-110	C	2.5y 5/4	48	10YR 5/8	>15	SL				



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Groundwater Observed: Estimated Depth to High	Parent Material: If Yes:	Distances from:		Ground Eleva	Location	C. On-Site Review (continued) Deep Observation Hole Number:
Gro	Disturt		(e.g., woodland WOODED Vegetation	Ground Elevation at Surface of Hole: Land Use WOODLAND		On-Site Review (continue) Deep Observation Hole Number:
	GLACIAL TILL ped Soil	Open Water Body Property Line	agricultural field	of Hole: 61.5 feet		
No No inches	Fill Material	>400 feet 6 feet	(e.g., woodland, agricultural field, vacant lot, etc.) WOODED Vegetation	f .55		TP14
e 5 =	Unsuita	Drainage Way Drinking Wate	MORAIN Landform	Lat	Date	11/03/2015
If yes: N/A Dept 59.17' elevation	Unsuitable Materials Present: Layer(s) ☐ Weatherec	r Well	Surface	Latitude/Longitude: SOME BO	Time	10:00 AM
N/A Depth Weeping from Pit	iterials Prese ☐ Weathe	>75 feet >100 feet	Stones (e.g., co	ongitude:		AM
m Pit	//Fractured	Wetlands Other	Surface Stones (e.g., cobbles, stones, boulders, etc.) SEE PLAN Position on Landscape (S		Weather	SUNNY/ 70
N/A Depth Standing	П		les, stones, boulders, etc.) SEE PLAN Position on Landscape (SU, SH, BS, FS,			O
N/A Depth Standing Water in Hole	Bedrock	75 feet feet	Slope (%) SH, BS, FS,	7		



C. On-Site Review (continued)

Deep Observation Hole Number:

TP14

800	Soil Horizon/	Soil Horizon/Soil Matrix: Color-		Redoximorphic Features	ures	Soil Texture	Coarse F	Coarse Fragments % by Volume		Soil	
Depth (in.)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	es (Moist)	(Moist)	CIE
1-0	<u>O</u>										
0-6	Þ	10yr 2/2				JS					
6-28	Bw	10yr 4/4				SL					
28-72	C	2.5y 5/4	28	10YR 5/8	> 15	Г					

Additional Notes:



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

D. Determination of High Groundwater Elevation	on	
1. Method Used:	Obs. Hole #TP13	Obs. Hole #TP14
Depth observed standing water in observation hole		
	inches	inches
Depth weeping from side of observation hole		
	inches	inches
□ Depth to soil redoximorphic features (mottles)	48	28
	inches	inches
☐ Depth to adjusted seasonal high groundwater (S _h)		
(Daga memodology)	Inches	inches
Index Well Number Reading Date		
$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$		
Obs. Hole # S _c S _r O	OW _c OW _{max}	OWrSh
Obs. Hole # S _c S _r O	OW _c OW _{max}	OWrSh
E. Depth of Pervious Material		

- . Depth of Naturally Occurring Pervious Material
- Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

	Ç.	ь	
	If no, at what depth	If yes, at what depth was it observed	⊠ Yes □
	c. If no, at what depth was impervious material observed?	n was it observed?	No
	Upper boundary:	Upper boundary:	
inches		8 inches	
	Lower boundary:	Lower boundary:	

inches

110 inches



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

F. Board of Health Witness

DEBORAH ROGERS Name of Board of Health Witness NEWBURY Board of Health

G. Soil Evaluator Certification

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

Signature of Soil Evaluator BENJAMIN C. OSGOOD, JR. Typed or Printed Name of Soil Evaluator / License # #1818 6/30/2018 11/02/2017 **Expiration Date of License**

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 <u>Percolation Test Form 12</u>.



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

Field Diagrams

Use this sheet for field diagrams:



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	Other references reviewed:	Current Water Resource Conditions (USGS):	Within a Mapped Wetland Area?	Within a velocity zone?	Above the 500-year flood boundary? If Yes, continue to #5.	Flood Rate Insurance Map	Surficial Geological Report Available? 🔲 Yes	Geologic/Parent Material	GLACIAL TILL	Soil Name	CANTON FINE SANDY LOAM	Soil Survey Available?	(Check one) New Construction	. Site Information	City	BYFIELD	Street Address	55 PEARSON DR.	Owner Name	SMITH JEFFRY J, MCLAUGHLIN MICHEAL S	A. Facility Information
		ions (USGS):	? Yes	☐ Yes	ry? 🛚 Yes		ble? Yes					⊠ Yes	nstruction							IN MICHEAL S	
		Month/Year	⊠ No	No No	□ 8		N _O					□ No	☐ Upgrade								
		Range: Above Normal	MassGIS Wetland Data Layer:		Within the 100-year flood boundary?		If yes: Year Published/Source	Landform	MORAINE	Soil Limitations	NONE	If yes: NRCS	☐ Repair			State					
		Normal Below	Wetland Type		/? ☐ Yes		Publication Scale								1	Zin Code	Map/Lot #	R-20/75			
		Below Normal			No		Map Unit				Con was	422D									



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Estimated De	Groundwater Observed:	If Yes: □	Parent Material:		Distances from:				Land Use	Description of Location:	Ground Elevat	Location	Deep Observa	C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)
Estimated Depth to High Groundwater:		☐ Disturbed Soil	al: GLACIAL TILL	Property Line		Vegetation	WOODED	(e.g., woodland, agricultural field, vacant lot, etc.)	WOODLAND	Location:	Ground Elevation at Surface of Hole:		Deep Observation Hole Number:	eview (min
	☐ Yes		Y TILL	y Line	Open Water Body			agricultural fie		STORMW	of Hole:			imum of tv
18"	⊠ No	Fill Material		15 feet	>400 feet			ld, vacant lot, et		STORMWATER AREA	54 feet		TP15	vo holes re
		☐ Impervious Layer(s)		Drinking	Drainage Way	Landform	DEPRESSION	c.)					11/03/2015 Date	quired at eve
52.5 elevation	If yes:	Layer(s)	Unsuitable Materials Preser	Drinking Water Well	e Way		ON.	Surfa	ВОС		Latitude/Longitude:		11:0 Time	ery propose
	N/A Depth Weeping from Pit	☐ Weat	/laterials Pre	>100 feet	>90 feet	Pos	SE	ce Stones (e.g.	BOULDERS		ongitude:		11:00 AM Time	ed primary
	from Pit		sent: [Other	Wetlands	Position on Landsca	SEE PLAN	Surface Stones (e.g., cobbles, stones, boulders, etc.)			_		SUNNY/ 70 Weather	and resen
	N/A Depth Stand	id Rock □	☐ Yes		ds	on Landscape (SU, SH, BS, FS, TS)		s, boulders, etc.)					/70	e disposal
	N/A Depth Standing Water in Hole	Bedrock	⊠ No	feet	90 feet	, FS, TS)		Slope (%)	1					area)



C. On-Site Review (continued)

Deep Observation Hole Number: **TP15**

T	12				<u></u>	,
		16-37	6-16	0-6	epun (m.)	
		C	B	A	Layer	Soil Horizon/
		2.5y 5/4	10yr 4/4	10yr 3/2	Moist (Munsell)	Soil Horizon/ Soil Matrix: Color-
		18"			Depth	
		10YR 5/8			Color	Redoximorphic Features
		>15			Percent	ures
		٢	SL	SL	(USDA)	Soil Texture
					Gravel	Coarse Fragments % by Volume
					Cobbles & Stones	oarse Fragments % by Volume
					or a crain	ts Soil Structure Consistence
					(Moist)	Soil
						Other

Additional Notes:



	5		4		ώ				Ņ		. `		0
Estimated De	Groundwater Observed:	If Yes:	Parent Material:		Distances from:				Land Use	Ground Eleva	Location	Deep Obser	C. On-Site Review (continued)
Estimated Depth to High Groundwater:	Observed:	☐ Disturbed Soil	74	Prope		Vegetation	WOODS	(e.g., woodlar	WOODLAND	Ground Elevation at Surface of Hole:		Deep Observation Hole Number:	Review (c
	Yes		GLACIAL TILL	Property Line	Open Water Body			(e.g., woodland, agricultural field, vacant lot, etc.)	Đ	e of Hole: 53			ontinued)
24" inches	⊠ No	Fill Material	5	120	>400 feet			ld, vacant lot, etc		et 3		TP16	
51 elevation	If yes:	☐ Impervious Layer(s)	Unsuita	Drinking Water Well	Drainage Way	Landform	MORAIN			Latitude/		11/03/2015 Date	
	N/A Depth Weeping from Pit	☐ Weather	Unsuitable Materials Present:	Well >100	>40 feet			Surface Stones (e.g., cobbles, stones, boulders, etc.)	SOME BOULDERS	Latitude/Longitude:		11:00 AM Time	
		ed/Fractured Rock	: Yes	Other	Wetlands	Position on Landsca	SEE PLAN	bles, stones, boulders		/		SUNNY/ 70 Weather	
	N/A Depth Standing Water in Hole	Bedrock	⊠ No	feet	40 feet	Position on Landscape (SU, SH, BS, FS,		, etc.) Slope (%)	15				



C. On-Site Review (continued)

Deep Observation Hole Number:

TP16

	Soil Horizon/	Soil Horizon/Soil Matrix: Color-	Red	Redoximorphic Features	ures	Soil Texture	Coarse Fragmer % by Volume			Soil	2
Depth (in.)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	es (Moist)	(Moist)	0
2-0	<u>O</u>										
0-6	>	10yr 3/2				SL					
6-24	Bw	10yr 4/4				SL					
24-72	C	2.5y 5/4	24	10 YR/5/8	> 15	г					
					8						

Additional Notes:



П	Form 11 - Soil Suitability Assessment for On-Site Sewage	or On-Site Sev	vage Disposal	
	D. Determination of High Groundwater Elevation	tion		
	Method Used:	Obs. Hole # <u>TP15</u>	Obs. Hole # <u>TP16</u>	
	☐ Depth observed standing water in observation hole	inches	inches	
	Depth weeping from side of observation hole			
		inches	inches	
	□ Depth to soil redoximorphic features (mottles)	18	24	
		inches	inches	
	(USGS methodology)	inches	inches	- 3
	Index Well Number Reading Date			
	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$			
	Obs. Hole # S _c S _r	OW _c OW _{max}	/max OWr S _h	J.

E. Depth of Pervious Material

Obs. Hole #

င္ဂ

လှ

OW_c

OW_{max}

OWr

Š

- Depth of Naturally Occurring Pervious Material
- Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

	f no, at what depth was impervious material observed? Upp		f yes, at what depth was it observed?	≥ Yes □ No
,	Upper boundary:		Upper boundary:	
inches		inches	ග	
	Lower boundary:		Lower boundary:	
inches		inches	72	

0

0



City/Town of BYFIELD

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

F. Board of Health Witness

Name of Board of Health Witness **DEBORAH ROGERS** NEWBURY Board of Health

G. Soil Evaluator Certification

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. I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil

	11/02/2017
Signature of Soil Evaluator	Date
BENJAMIN C. OSGOOD, JR. #1818	6/30/2018
Typed or Printed Name of Soil Evaluator / License #	Expiration Date of License

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 sheet for field diagrams:



		œ	.7	က	Ċı		4.	္ပယ					'n	. `	, W						P
		Other references reviewed:	Current Water Re	Within a Mapped Wetland Area?	Within a velocity zone?	Above the 500-years If Yes, continue to #5	Flood Rate Insurance Map	Surficial Geologic	Geologic/Parent Material	GLACIAL TILL	Soil Name	MAYBID SILT LOAM	Soil Survey Available?	1. (Check one)	B. Site Information	City	BYFIELD	Street Address	Owner Name 55 PEARSON DR	SMITH JEFFRY	Facility Information
Ī		reviewed:	Current Water Resource Conditions (USGS):	Wetland Area?	one?	Above the 500-year flood boundary? $\ \ \ \ \ \ \ \ \ \ \ \ \ $	ance Map	Surficial Geological Report Available? 📋 Yes	erial			DAM	able?	New Construction ■	ation				<i>ى</i> ڊ	SMITH JEFFRY J, MCLAUGHLIN MICHEAL S	rmation
	60.		s (USGS):	☐ Yes	☐ Yes	⊠ Yes		? Yes]				⊠ Yes	ruction						MICHEAL S	
			Month/Year	No	⊠ No	□ No		Z O					N _o	☐ Upgrade							
The state of the s			Range: Above Normal	MassGIS Wetland Data Layer:		Within the 100-year flood boundary?		If yes: Year Published/Source	Landform	MORAIN	Soil Limitations	NONE	If yes: NRCS Source	Repair		Ciare	MA				
			Normal Belov	Wetland Type		/? Yes		Publication Scale								0000	Zin Code	Map/Lot #	R-20/75		
			Below Normal			⊠ No		Map Unit				8	12A Soil Map Unit								



		Ò		4		Ċ				Ŋ			. `		0
	Estimated Denth to High Groundwater.	Groundwater Observed:	If Yes: Disturbed Soil	Parent Material: GLACIAL TILL	Property Line	Distances from: Open Water Body	Vegeta	WOODS	(e.g., woodland, agricultural field, vacant lot, etc.)	Land Use WOODLAND	Description of Location: STOF	Ground Elevation at Surface of Hole:	Location	Deep Observation Hole Number:	C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)
	18	⊠ No	☐ Fill Material		feet				ral field, vacant lot, etc		STORMWATER AREA	58 feet		TP17	of two holes re
elevation	56 5	If yes:	☐ Impervious Layer(s)	Unsuitabl	Drinking Water Well	Drainage way	Landform	DEPRESSION		В		Latitude		11/03/2015 1: Date Ti	quired at every propo
		N/A Depth Weeping from	☐ Weathere	Unsuitable Materials Present:	feet		Position		ırface Stones (e.g., cob	BOULDERS		Latitude/Longitude:		11:00 AM Time	sed primary an
		Pit] Weathered/Fractured Rock	Yes	Other	VVEIGILOS	on Landscape (SU, SH, BS, FS, TS)	LAN	Surface Stones (e.g., cobbles, stones, boulders, etc.)			_		SUNNY/ 70 Weather	d reserve dispos
		N/A Depth Standing Water in Hole	☐ Bedrock	⊠ No	feet	feet	BS, FS, TS)		tc.) Slope (%)	6					al area)



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

C. On-Site Review (continued)

Deep Observation Hole Number:

TP17

- 1	Soil Horizon/	Soil Horizon/Soil Matrix: Color-	Red	Redoximorphic Features	ures	Soil Texture	Coarse Fragments % by Volume	ragments olume	2	Soil	2
Depth (in.)	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	es (Moist)	(Moist)	C E
2-0	<u>O</u>										
0-8	≻	10yr 2/2				ST					
8-18	Bw	10yr 4/4	18	10YR 5/8	> 15	LS					
18-50	C1	2.5yr 5/4	_			S					
50-72	C2	2.5Y 5/4				L					

Additional Notes:



	51		4.		ယ			<u>N</u>		. `		0
Estimated Dept	Groundwater Observed:	lf Yes: □	Parent Material:		Distances from:			Land Use	Ground Elevation	Location	Deep Observat	On-Site Re
Estimated Depth to High Groundwater:	bserved: Yes	☐ Disturbed Soil		Property Line	Open Water Body	Vegetation	(e.g., woodland, agricultural field, vacant lot, etc.)		Ground Elevation at Surface of Hole:		Deep Observation Hole Number:	C. On-Site Review (continued)
/ater:	es	☐ Fiii Ma					ultural field, va	-	ile:			ed)
S	No O	Fill Material		feet	feet		cant lot, etc.)					
] Impervious Layer(s)		Drinking	Drainage Way	Landform			<u>.</u>		Date	
elevation	If yes:	Layer(s)	Unsuitable Materials Present:	Drinking Water Well	e Way		Suna		Latitude/Longitude:		Time	
	Depth Weeping from Pit	☐ Wea	Materials Pro	feet	feet		ace Stones (e.g	2	itude:		ю 	
	g from Pit		esent:	Other	Wetlands	Positio	SEE PLAN		/		Weather	
	Depth S	red Rock	☐ Yes		nds	Position on Landscape (SU, SH, BS, FS,	Surface Stones (e.g., copples, stones, boulders, etc.) SEE PLAN	F			ST .	
	Depth Standing Water in Hole	☐ Bedrock	□ No	feet	feet	e (SU, SH, BS		1				
	in Hole	×	0			FS	Slope (%)	10/1				



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

C. On-Site Review (continued)

	Soil Horizon/	Soil Matrix: Color-		Redoximorphic Features	tures	Soil Texture	Coarse Fragments % by Volume		o contraction	Soil
Depth (in.)	Layer	Depth (in.) Layer Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	(Moist)	(Moist
Additio	Additional Notes:									



Site Sewage Disposal

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	ity
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				-	!"										
Ċ	Ö		ю	Dep	De				¥		\boxtimes			Meti	De
If no, at what	If yes, at what depth was it observed?	⊠ Yes	Does at least four for absorption system?	Depth of Naturally Occurring Pervious Material	Depth of Pervious Material	Obs. Hole#	Obs. Hole #	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_f]$	Index \	Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)	Depth to soil redoximorphic features (mottles)	Depth weeping from side of observation hole	Depth observed standing water in observation hole	Method Used:	termination
depth was i	t depth was	□ No	four feet of stem?	Occurring	rvious N			(OW _c – OV	Index Well Number	sted season dology)	edoximorph	g from side	ed standing		on of Hi
mpervious ma	it observed?		naturally occi	Pervious Mat	aterial	S _c	ွ လ	$V_{\sf max})/{\sf OW_r}]$		al high groun	ic features (ı	of observatio	water in obse		gh Groun
If no, at what depth was impervious material observed?			urring pervious ma	erial		S _r	<u>ν</u>		Reading Date	dwater (S _h)	mottles)	n hole	ervation hole		Determination of High Groundwater Elevation
Upper boundary:	Upper boundary:		Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?			ΟW _c	OW _c			inches	18	inches	inches	Obs. Hole # <u>TP17</u>	ation
inches	inches		s observed through			OW _{max}	OW _{max}							TP17	
Lower boundary:	Lower boundary:		nout the area propo			OW _r	OW _r			inches	inches	inches	inches	Obs. Hole #	
inches	72 inches		osed for the soil			S _h	S _h								



Commonwealth of Massachusetts

City/Town of BYFIELD

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

F. Board of Health Witness

DEBORAH ROGERS

Name of Board of Health Witness

NEWBURY Board of Health

G. Soil Evaluator Certification

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. I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil

Signature of Soil Evaluator / #1818

Typed or Printed Name of Soil Evaluator / License #

11/02/2017

Date
6/30/2018

Expiration Date of License

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 sheet for field diagrams:



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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Site Information				
SMITH JEFFRY J , MCLAUGHLII	N MICHEAL S			
55 PEARSON DR.				
Street Address or Lot #				
BYFIELD		MA	01922	
City/Town		State	Zip Code	е
KEVIN GOODWIN		978-360-2231		
Contact Person (if different from Owner)		Telephone Number		
. Test Results				
	11/02/2015	11:53	11/02/2015	12:10
	Date	Time	Date	Time
Observation Hole #	PT3 @ TP6		PT4 @ TP7	
Depth of Perc	14/20		16/24	
Start Pre-Soak	11:53		12:10	
End Pre-Soak	12:08		12:25	· · · · · · · · · · · · · · · · · · ·
Time at 12"	12:08		12:25	
Time at 9"	12:30		12:29	
Time at 6"	1:25		12:40	4-12-12-1
Time (9"-6")	55 MIN.		11 MIN.	
Rate (Min./Inch)	20		4	
PEN 0 00000D	Test Passed: Test Failed:		Test Passed: Test Failed:	
BEN C. OSGOOD Test Performed By:				
DEBORAH ROGERS				
Witnessed By:				
Comments:				



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Site Information				
SMITH JEFFRY J , MCLAUGHLII Owner Name 55 PEARSON DR.	N MICHEAL S			
Street Address or Lot #			04000	
BYFIELD City/Town		MA State	01922 Zip Code	
KEVIN GOODWIN		978-360-2231	p	
Contact Person (if different from Owner)		Telephone Number		
Test Results				
	11/02/2015	10:49	11/02/2015	11:07
	Date	Time	Date	Time
Observation Hole #	PT1 @ TP2		PT2 @ TP3	
Observation Flore #	20112		00/40	
Depth of Perc	32/16		28/16	
Start Pre-Soak	10:49		11:07	
	11:04		11:22	
End Pre-Soak				
Time at 12"	11:04		11:22	
Time at 9"	11:07		11:37	
	11:10		12:01	
Time at 6"				
Time (9"-6")	3 MIN		24	44.146
Rate (Min./Inch)	<2		8	
	Test Passed: Test Failed:	\boxtimes	Test Passed: Test Failed:	
BEN C. OSGOOD				
Test Performed By:				
DEBORAH ROGERS Witnessed By:			The state of the s	
Comments:				
PT1 BETWEEN TP1 AND TP2 PT2 AT TP3				



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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11/02/2015 Date PT5 @ TP8	MA State 978-360-2231 Telephone Number	01922 Zip Code 11/02/2015 Date PT6 @TP9	1:30 Time
Date PT5 @ TP8	State 978-360-2231 Telephone Number	11/02/2015 Date PT6 @TP9	1:30
Date PT5 @ TP8	State 978-360-2231 Telephone Number	11/02/2015 Date PT6 @TP9	1:30
Date PT5 @ TP8	State 978-360-2231 Telephone Number	11/02/2015 Date PT6 @TP9	1:30
Date PT5 @ TP8	978-360-2231 Telephone Number	11/02/2015 Date PT6 @TP9	1:30
Date PT5 @ TP8	Telephone Number	Date PT6 @TP9	
Date PT5 @ TP8	12:57	Date PT6 @TP9	
Date PT5 @ TP8		Date PT6 @TP9	
Date PT5 @ TP8		Date PT6 @TP9	
Date PT5 @ TP8		Date PT6 @TP9	Time
24/18		20/20	
		20/20	
12:57		1:30	
1:12		1:45	
1:12		1:45	
1:20		2:15	
1:40		3:08	
20 MIN.		53 MIN.	
7		20	
Test Passed: Test Failed:		Test Passed: Test Failed:	\square
	1:12 1:12 1:20 1:40 20 MIN. 7	1:12 1:12 1:20 1:40 20 MIN. 7 Test Passed:	1:12 1:45 1:12 1:45 1:20 2:15 1:40 3:08 20 MIN. 53 MIN. 7 20 Test Passed: ☒ Test Passed: ☒



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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.

A. Site Information				
SMITH JEFFRY J , MCLAUG	HLIN MICHEAL S			
Owner Name				
55 PEARSON DR.			9000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000	
Street Address or Lot #			0.1000	
BYFIELD		MA State	01922 Zip Cod	
City/Town KEVIN GOODWIN			Zip Coo	ie
Contact Person (if different from Own	er)	978-360-2231 Telephone Number	r	
	or)	Telephone Humber		
B. Test Results				
	11/02/2015	1:47	11/02/2015	1:54
	Date	Time	Date	Time
Observation Halo#	PT7 @ TP10		PT8 @TP11	
Observation Hole #				
Depth of Perc	20/18		24/18	M = = ne net sate to -tay-to-
Start Pre-Soak	1:47		1:54	
End Pre-Soak	2:02	and the state of the state of	2:09	
Time at 12"	2:02		2:09	
Time at 9"	2:07	· · · · · · · · · · · · · · · · · · ·	2:35	
Time at 6"	2:12		3:30	
	5 MIN.		55 MIN.	
Time (9"-6")	O WIII 4.		33 WIII4.	
Rate (Min./Inch)	<2		20	
	Test Passed: Test Failed:		Test Passed: Test Failed:	
BEN C. OSGOOD				
Test Performed By:				
DEBORAH ROGERS				iii aa gaadhawa ii aa
Witnessed By:				
Comments:				
	£			



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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. Site Information				
SMITH JEFFRY J , MCLAUGH	LIN MICHEAL S			
Owner Name				
55 PEARSON DR. Street Address or Lot #				
BYFIELD				
City/Town		MA State	0192	
KEVIN GOODWIN		978-360-2231	Zip Co	ode
Contact Person (if different from Owner))	Telephone Numbe	r	
. Test Results		- Copheno Hambe		
	11/03/2015	8:58		
	Date	Time	Date	Time
Observation Hole #	PT9 @ TP12			VVVVII 18493008
Depth of Perc	24/18		-	
Start Pre-Soak	8:58			
End Pre-Soak	9:13			
Time at 12"	9:13			
Time at 9"	9:57			
Time at 6"	11:15			
Time (9"-6")	78 MIN.			-
Rate (Min./Inch)	26			
	Test Passed: Test Failed:		Test Passed: Test Failed:	
BEN C. OSGOOD			. oot i anoa.	الما
Test Performed By: DEBORAH ROGERS				
Witnessed By:				
The contraction of the contracti				
Comments:				