

Notice of Intent Application

January 30, 2023

Subject Property Blueberry Hill Estates Lot 3 Berry Farms Road 20 Fiske Hill Road and 30 Main Street-Portion Parcel IDs 280-03534-020 and 415-03914-030-Portion Southbridge, Massachusetts

> <u>Applicant</u> Justin Stelmok 557 Southwest Cutoff Worcester, MA 01607

Property Owner Fiske Hill Realty Trust/Fiske Hill East Realty Trust 97 Arnold Road Fiskdale, MA 01518

RINDGE, NH

LEC Environmental Consultants, Inc.

12 Resnik Road, Suite 1 Plymouth, MA 02360 508-746-9491 508-746-9492 fax

www.lecenvironmental.com





January 30, 2023

Email/Hand Delivery

Sturbridge Conservation Commission 301 Main Street Sturbridge, MA 01566

Re: Notice of Intent Application Blueberry Hill Estates - Lot 3 Berry Farms Road 20 Fiske Hill Road/Parcel ID: 280-03534-020-Portion 30 Main Street/Parcel ID: 415-03914-030-Portion Sturbridge, Massachusetts

[LEC File #: MCEI\20-002.04]

Dear Members of the Commission:

On behalf of the Applicant, Justin Stelmok, LEC Environmental Consultants, Inc., (LEC) is submitting a Notice of Intent (NOI) Application for Blueberry Hill Estates, a 55+ Housing Community ("Manufactured Housing Community") on the above-referenced site. The 55+ Housing Community involves the construction of a subdivision roadway network extending from Berry Farms Road (under construction); 68 dwelling units with decks, driveways, and attached garages; a community clubhouse and parking; and associated stormwater management measures, utilities, regrading, lawn/landscaping, and revegetation. Proposed work activities occur within the 100-foot Buffer Zone to Bordering Vegetated Wetlands (BVW)/Freshwater Wetlands and the 200-foot Buffer Zone to Vernal Pools protected under the *Massachusetts Wetlands Protection Act* ("WPA", M.G.L., c. 131, s. 40), its implementing *Regulations* (310 CMR 10.00; the "WPA Regulations"), and/or the *Town of Sturbridge Wetlands Bylaw* (Chapter 286) and its implementing *Wetlands Regulations* (*Bylaw Regulations*). The project is depicted on the *Special Permit and Site Plan, Blueberry Hill Estates*, 55+ Manufactured Housing Community, Lot 3 Berry Farms Road, Sturbridge, MA, prepared by McClure Engineering, Inc., last revised on November 10, 2022.

Thank you for your consideration of this Application. We look forward to discussing the project at the February 16, 2023 Public Hearing. If you have any questions or require additional information, please do not hesitate to contact me at 508-746-9491 or bmadden@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

ud Mar

Brian T. Madden Senior Wildlife/Wetland Scientist

cc: DEP CERO; Stelmok; McClure Engineering, Inc.

LEC Environmental Consultants, Inc.

12 Resnik Road Suite 1 Plymouth, MA 02360 508.746.9491

380 Lowell Street Suite 101 Wakefield, MA 01880 781.245.2500 100 Grove Street Suite 302 Worcester, MA 01605 508.753.3077 P.O. Box 590 Rindge, NH 03461 603.899.6726 www.lecenvironmental.com

680 Warren Avenue Suite 3 East Providence, RI 02914 401.685.3109

PLYMOUTH, MA

WAKEFIELD, MA

WORCESTER, MA

RINDGE, NH

EAST PROVIDENCE, RI



---- Components of a Complete NOI Application -----

¥

Town of Sturbridge Conservation Commission Notice of Intent Application Coversheet/Checklist

Δ			Date	1/30/2023		
Fill all white cells completely 🖉	Parcel Address Assessors Map/Plat Book & Page Owner name Address Email Phone	Portion 20 Fiske Hill Parcel ID 280-03534- Portion 30 Main Stree Parcel ID 415-03914- Book 61992, Page 32 Fiske Hill East Realty 97 Arnold Road Fiskedale, MA 0151 msosik@bankesb.cor 508-450-0713	-020 et -030 <u>1</u> y Trust 8	Applicant name Address Email Phone Representative Address Email Phone	Justin Stelmok 557 Southwest Cuttoff Worcester, MA 01607 stelmok.j@gmail.com 508-868-3996 Brian Madden LEC Environmental Con 12 Resnik Road, Suite 1 Plymouth, MA 02360 bmadden@lecenvironme 508-746-9491	
Fi	Wetland type Wetland type Wetland type	BVW Vernal Pool	sf/cf affected sf/cf affected sf/cf affected	d 0	Relevant Perf. Standards Relevant Perf. Standards Relevant Perf. Standards	10. <u>365-1.3</u> 10. <u>365-1.4</u> 10.

State Form: NOI Form 3	Included? 🖾 Yes 🛛 No		
Engineered Plan	Included? 🖾 Yes 🛛 No		
Proof of Mailing to DEP	Included? 🖾 Yes 🗖 No Forwarded		
Narrative	Included? 🖾 Yes 🛛 No		
Proof that all relevant perf. standards are met	Included? 🖾 Yes 🛛 No		
TOPO Map identifying locus with scale	Included? 🛛 Yes 🛛 No		
FIRM Map identifying locus with scale	Included? 🖾 Yes 🛛 No		
Natural Heritage Map with WH, PH, & VP data	Included? 🖾 Yes 🛛 No		
Delineation lines (backup material)	Included? 🖾 Yes 🛛 No		
Tax Form	Included? 🖾 Yes 🛛 No		
Fees ★ DEP Fee Transmittal form ★ Town portion of state filing fee ★ Sturbridge local filing fee _\$ ★ Approved delineation by the Commission within 3 years? \$	Included? I Yes I No Included? I Yes INO Previously paid. New fees requested to Included? I Yes INO be waived. INO If no provide # ftX \$.10=		
 Abutter Information ★ Certified abutters list (within 200') ★ Abutter notification form ★ Affidavit & proof bring to hearing 	Included? ⊠ Yes □ No Included? ⊠ Yes □ No Present them at the hearing		
Other Attachments, e.g.			
Confirmation of submission to NHESP	Included? 🛛 Yes 🖾 No 🖾 Not Applicable		
Planting Plan	Included? 🛛 Yes 🛛 No 🖾 Not Applicable		
Floodplain analysis	Included? 🛛 Yes 🛛 No 🖾 Not Applicable		
Stormwater analysis	Included? 🖾 Yes 🛛 No 🖵 Not Applicable		



- i. WPA Form 3 Notice of Intent
- ii. Wetland Fee Transmittal Form
- iii. Affidavit of Service
- iv. Letter to Abutters
- v. Abutter Notification Form
- vi. List of Abutters
- vii. Tax Status Form

Wetland Resource Area Analysis and Report

1.	Introduction	1
2.	General Site Description	1
2.1	Floodplain Designation	2
2.2	Natural Heritage and Endangered Species Program Designation	3
3.	Wetland Resource Area Descriptions	3
3.1	Bordering Vegetated Wetlands	3
3.2	Vernal Pools	4
4.	Proposed Project	6
5.	Proposed Mitigation	8
5.1	Habitat Corridor/Crossing Structure	8
5.2	Open Space	11
6.	No Significant Adverse Impact Analysis	11
7.	Summary	14
	Literature Referenced	

Appendices

Appendix A

Locus Maps Figure 1: USGS Topographic Map Figure 2: Aerial Orthophoto Figure 3: FEMA Flood Insurance Rate Map Figure 4: NHESP Map

Appendix B

Sewer Allocation

Appendix C

Representative Amphibian Crossing Wildlife Culvert Details

Appendix D

Open Space Plan, Prepared by McClure Engineering, Inc., Dated September 8, 2022

Appendix E

Stormwater Report, Prepared by McClure Engineering, Inc., Revised November 9, 2022

Appendix F

Special Permit and Site Plan, Blueberry Hill Estates, 55+ Manufactured Housing Community, Lot 3 Berry Farms Road, Sturbridge, MA, prepared by McClure Engineering, Inc., Revised November 10, 2022



Massachusetts Department of Environmental Protection Pr

Project Location (Note: electronic filers will click on button to locate project site):

Bureau of Resource Protection - Wetlands

A. General Information

12 Resnik Road, Suite 1

d. Street Address Plymouth

508-746-9491

h. Phone Number

e. City/Town

\$5,250.00

a. Total Fee Paid

(Previously Paid)

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 *Sturbridge Wetlands Bylaw* (Chapter 286) Provided by MassDEP:

MassDEP File Number

Document Transaction Number Sturbridge City/Town



1

Important:

Note: Before completing this form consult your local

Conservation Commission regarding any municipal bylaw or ordinance.

	Lot 3 Berry Farms Road (20 Fiske Hil		Sturbridge	01566			
	a. Street Address	<u> </u>	b. City/Town	c. Zip Code			
			42° 5'18.19"N	72° 3'19.29"W			
	Latitude and Longitude:		d. Latitude	e. Longitude			
	Parcel ID 280-03534-020 and		Parcel ID 415-03914-030				
	f. Assessors Map/Plat Number		g. Parcel /Lot Number				
2.	Applicant:						
			Chalmal				
	Justin a. First Name		Stelmok b. Last Name				
	a. First Name		D. Last Name				
	c. Organization						
	557 Southwest Cutoff						
	d. Street Address						
	Worcester	MA		01607			
	e. City/Town	f. Sta	te	g. Zip Code			
	508-868-3996	steln	stelmok.j@gmail.com				
	h. Phone Number i. Fax Number		ail Address				
3.	Property owner (required if different	from applicant):	Check if mor	re than one owner			
	Matthew		Sosik				
	a. First Name		b. Last Name				
	Fiske Hill Realty Trust/Fiske Hill Eas	t Realty Trust					
	c. Organization						
	97 Arnold Road						
	d. Street Address						
	Fiskdale	MA		01518			
	e. City/Town	f. Sta	te	g. Zip Code			
	508-450-0713	mso	sik@bankesb.com				
	h. Phone Number i. Fax Number	j. Em	ail address				
4.	Representative (if any):						
	Brian		Madden				
	a. First Name		b. Last Name				
	LEC Environmental Consultants, Inc	-					
	c. Company						

bmadden@lecenvironmental.com

MA

be waived)

508-746-9491

i. Fax Number

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

f. State

j. Email address

c. City/TOWITTEET alu	
(New fees are requested	to
waived)	

02360

g. Zip Code

be

9. \bigtriangleup Other (55+ housing community) 7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)? If yes, describe which limited project applies to this project. (See 310 CMR 1. 🗌 Yes 🖂 No 10.24 and 10.53 for a complete list and description of limited project types) 2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Worcester	
a. County	 b. Certificate # (if registered land)
61992	321
c. Book	d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

- 1. 🛛 Buffer Zone Only Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- 2. Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



Provided by MassDEP: Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Sturbridge Wetlands Bylaw (Chapter 286)

A. General Information (continued)

6. General Project Description:

55+ housing community, including a network of private roadways, 68 dwellings and appurtenances; community clubhouse, parking, and amenities, stormwater management measures, utilities, regrading, lawn/landscaping, and revegetation within the Buffer Zone to BVW and Vernal Pools

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1.	Single Family Home	2. Residential Subdivision
3.	Commercial/Industrial	4. Dock/Pier
5.	Utilities	6. 🗌 Coastal engineering Structure
7.	Agriculture (e.g., cranberries, forestry)	8. Transportation
~		

Page 2 of 9

MassDEP File Number

Document Transaction Number Sturbridge City/Town



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Sturbridge Wetlands Bylaw (Chapter 286)

MassDEP File Number

Document Transaction Number Sturbridge City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

	<u>Resour</u>	<u>ce Area</u>	Size of Proposed Alteration	Proposed Replacement (if any)
For all projects	a. 🗌	Bank	1. linear feet	2. linear feet
affecting other Resource Areas, please attach a	b. 🔛	Bordering Vegetated Wetland	1. square feet	2. square feet
narrative explaining how the resource	c. 🗌	Land Under Waterbodies and	1. square feet	2. square feet
area was delineated.		Waterways	3. cubic yards dredged	
	<u>Resour</u>	<u>ce Area</u>	Size of Proposed Alteration	Proposed Replacement (if any)
	d. 🗌	Bordering Land Subject to Flooding	1. square feet	2. square feet
	e. 🗌	Isolated Land	3. cubic feet of flood storage lost	4. cubic feet replaced
	е. 🛄	Subject to Flooding	1. square feet	
			2. cubic feet of flood storage lost	3. cubic feet replaced
	f. 🗌	Riverfront Area	1. Name of Waterway (if available) - spec	ify coastal or inland
	2.	Width of Riverfront Area (check one):	
		25 ft Designated De	nsely Developed Areas only	
		100 ft New agricultu	ral projects only	
		200 ft All other proje	ects	
	3.	Total area of Riverfront Area	a on the site of the proposed project	t: square feet
	4.	Proposed alteration of the R	iverfront Area:	
	a. t	otal square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
	5. 	Has an alternatives analysis	been done and is it attached to this	s NOI?
	6. \	Nas the lot where the activit	ty is proposed created prior to Augu	ust 1, 1996? 🗌 Yes 🗌 No
3.	🗌 Coa	astal Resource Areas: (See	310 CMR 10.25-10.35)	
	Note:	for coastal riverfront areas,	please complete Section B.2.f. abo	ove.



Provided by MassDEP: Massachusetts Department of Environmental Protection

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Bureau of Resource Protection - Wetlands

Sturbridge Wetlands Bylaw (Chapter 286)

WPA Form 3 – Notice of Intent

MassDEP File Number

Document Transaction Number Sturbridge City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document		<u>Resou</u>	rce Area	Size of Proposed	Alteration	Proposed Replacement (if any)
transaction number		a. 🗌	Designated Port Areas	Indicate size und	er Land Under	the Ocean, below
(provided on your receipt page) with all		b. 🗌	Land Under the Ocean	1. square feet		
supplementary information you submit to the				2. cubic yards dredged	1	
Department.		c. 🗌	Barrier Beach	Indicate size unde	r Coastal Beac	ches and/or Coastal Dunes below
		d. 🗌	Coastal Beaches	1. square feet		2. cubic yards beach nourishment
		e. 🗌	Coastal Dunes	1. square feet		2. cubic yards dune nourishment
				Size of Proposed	Alteration	Proposed Replacement (if any)
		f. 🗌	Coastal Banks	1. linear feet		
		g. 🗌	Rocky Intertidal Shores	1. square feet	<u> </u>	
		h. 🗌	Salt Marshes	1. square feet		2. sq ft restoration, rehab., creation
		i. 🗌	Land Under Salt Ponds	1. square feet		
				2. cubic yards dredged	1	
		j. 🗌	Land Containing Shellfish	1. square feet		
		k. 🗌	Fish Runs			s, inland Bank, Land Under the rWaterbodies and Waterways,
		. —	Lond Onbiant to	1. cubic yards dredged	1	
		I. [_]	Land Subject to Coastal Storm Flowage	1. square feet		
	4.	If the p	footage that has been enter			esource area in addition to the ve, please enter the additional
		a. square	e feet of BVW		b. square feet o	f Salt Marsh
	5.	🗌 Pro	pject Involves Stream Cross	sings		
		a. numbe	er of new stream crossings		b. number of rep	placement stream crossings



Massachusetts Department of Environmental Protection Provided by MassDEP:

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Sturbridge Wetlands Bylaw (Chapter 286) MassDEP File Number

Document Transaction Number Sturbridge City/Town

C. Other Applicable Standards and Requirements

This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

 Is any portion of the proposed project located in Estimated Habitat of Rare Wildlife as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the Massachusetts Natural Heritage Atlas or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. 🗌 Yes	\boxtimes	No	If yes, include proof of mailing or hand delivery of NOI to:
			Natural Heritage and Endangered Species Program
			Division of Fisheries and Wildlife
8/1/21			1 Rabbit Hill Road Westborough, MA 01581
b. Date of map			WESIDOLOUGH, WA OLOOL

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

c. Submit Supplemental Information for Endangered Species Review*

1. Dercentage/acreage of property to be altered:

(a) within wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

- 2. Assessor's Map or right-of-way plan of site
- 2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **
 - (a) Project description (including description of impacts outside of wetland resource area & buffer zone)
 - (b) Photographs representative of the site

^{*} Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <u>https://www.mass.gov/ma-</u> endangered-species-act-mesa-regulatory-review).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

^{**} MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



Massachusetts Department of Environmental Protection Provided by MassDEP:

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

MassDEP File Number

Document Transaction Number Sturbridge City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 *Sturbridge Wetlands Bylaw* (Chapter 286)

C. Other Applicable Standards and Requirements (cont'd)

(c) MESA filing fee (fee information available at <u>https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review</u>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and *mail to NHESP* at above address

Projects altering 10 or more acres of land, also submit:

- (d) Vegetation cover type map of site
- (e) Project plans showing Priority & Estimated Habitat boundaries
- (f) OR Check One of the Following
- 1. Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <u>https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat</u>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. 🗌	Separate MESA review apaging		
2. 🗀	Separate MESA review ongoing.	a. NHESP Tracking #	b. Date submitted to NHESP

- 3. Separate MESA review completed. Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.
- 3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. \boxtimes Not applicable – project is in inland resource area only	b. 🗌 Yes	🗌 No
---	----------	------

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the North Shore - Hull to New Hampshire border: Cape & Islands:

Division of Marine Fisheries -Southeast Marine Fisheries Station Attn: Environmental Reviewer 836 South Rodney French Blvd. New Bedford, MA 02744 Email: <u>dmf.envreview-south@mass.gov</u> Division of Marine Fisheries -North Shore Office Attn: Environmental Reviewer 30 Emerson Avenue Gloucester, MA 01930 Email: <u>dmf.envreview-north@mass.gov</u>

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

C.	Is this a	an ao	uaculture	proi	ect?
υ.	13 1113	anay	uaculture	pior	001:

Ь	Yes	No
u.	162	110

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

		ssachusetts Department of Environmental Protection reau of Resource Protection - Wetlands	Provided by MassDEP:					
			MassDEP File Number					
	WPA Form 3 – Notice of Intent							
		ssachusetts Wetlands Protection Act M.G.L. c. 131, §40	Sturbridge					
	Sturbridge Wetlands Bylaw (Chapter 286)							
	C.	Other Applicable Standards and Requirements	(cont'd)					
	4.	Is any portion of the proposed project within an Area of Critical Environ	mental Concern (ACEC)?					
Online Users: Include your document		a. Yes No If yes, provide name of ACEC (see instruction: Website for ACEC locations). Note: electronic						
transaction number		b. ACEC						
(provided on your receipt page) with all	5.	Is any portion of the proposed project within an area designated as an (ORW) as designated in the Massachusetts Surface Water Quality Sta						
supplementary information you		a. 🗌 Yes 🛛 No						
submit to the Department.	6.	. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?						
		a. 🗌 Yes 🖾 No						
	7.	Is this project subject to provisions of the MassDEP Stormwater Manag	gement Standards?					
		 a. Yes. Attach a copy of the Stormwater Report as required by th Standards per 310 CMR 10.05(6)(k)-(q) and check if: (on file) 1. Applying for Low Impact Development (LID) site design cross Stormwater Management Handbook Vol. 2, Chapter 3) 	-					
		2. A portion of the site constitutes redevelopment						
		3. Proprietary BMPs are included in the Stormwater Manage	ment System.					
		b. No. Check why the project is exempt:						
		1. Single-family house						
		2. Emergency road repair						
		3. Small Residential Subdivision (less than or equal to 4 sing or equal to 4 units in multi-family housing project) with no o						
	D.	Additional Information						
		This is a proposal for an Ecological Restoration Limited Project. Skip S Appendix A: Ecological Restoration Notice of Intent – Minimum Requir 10.12).						

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

- 1. 🛛 USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
- 2. 🖂 Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

Online Users:	



Massachusetts Department of Environmental Protection Provided by MassDEP:

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

MassDEP File Number

Document Transaction Number Sturbridge City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Sturbridge Wetlands Bylaw (Chapter 286)

D. Additional Information (cont'd)

- 3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
- 4. A List the titles and dates for all plans and other materials submitted with this NOI.

Special Permit and Site Plan, Blueberry Hill Estates, 55+ Manufactured Housing Community, Lot 3 Berry Farms Road, Sturbridge, MA a. Plan Title

McClure Engineering, Inc.	Peter Engle	
b. Prepared By	c. Signed and Stamped by	
11/10/22	1:40	
d. Final Revision Date	e. Scale	

f. Additional Plan or Document Title

g. Date

- 5. If there is more than one property owner, please attach a list of these property owners not listed on this form.
- 6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
- 7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
- 8. Attach NOI Wetland Fee Transmittal Form
- 9. Attach Stormwater Report, if needed.

E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number

4. State Check Number

3. Check date

5. Check date

6. Payor name on check: First Name

*FEES PREVIOUSLY PAID and any new fees are requested to be waived.

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection Provided by MassDEP:

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 *Sturbridge Wetlands Bylaw* (Chapter 286)

MassDEP File Number
Document Transaction Number
Sturbridge
City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

Atto-	10/28/2022
1. Signature of Applicant	2. Date
VVSt	10/28/2022
B. Skonature of Propert Owner (if different)	4. Date
Bus Madding	1/30/2023
5. Signature of Representative (if any)	6. Date

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands **NOI Wetland Fee Transmittal Form**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



A. Applicant Information

1. Location of Project:					
Lot 3 Berry Farms Road (20 Fiske Hill Rd/30 M	lain St) Sturbridge	Sturbridge			
a. Street Address	b. City/Town				
N/A (\$3,162.50 Previously Paid)	*New fee requested	*New fee requested to be waived			
c. Check number	d. Fee amount				
2. Applicant Mailing Address:					
Justin	Stelmok				
a. First Name	b. Last Name	b. Last Name			
c. Organization					
557 Southwest Cutoff					
d. Mailing Address					
Worcester	МА	01607			
e. City/Town	f. State	g. Zip Code			
508-868-3996	stelmok.j@gmail.cc	stelmok.j@gmail.com			
h. Phone Number i. Fax Number	j. Email Address				
3. Property Owner (if different):					
Matthew	Sosik				
a. First Name	b. Last Name				
Fiske Hill Realty Trust/Fiske Hill East Realty	Trust				
c. Organization					
97 Arnold Road					
d. Mailing Address					
Fiskdale	МА	01518			
e. City/Town	f. State	g. Zip Code			
508-450-0713	msosik@bankesb.c	om			

3

Property Owner (if	different):		
Matthew		Sosik	
a. First Name		b. Last Name	
Fiske Hill Realty Tr	ust/Fiske Hill East Realty Trust		
c. Organization			
97 Arnold Road			
d. Mailing Address			
Fiskdale		MA	01518
e. City/Town		f. State	g. Zip Code
508-450-0713		msosik@bankesb.c	com
h. Phone Number	i. Fax Number	j. Email Address	

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

B. Fees

Fee should be calculated using the following process & worksheet. Please see Instructions before filling out worksheet.

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Cat 3.b.	5	\$1,050.00	\$5,250.00
Fees Previously Paid			
	Step 5/Te	otal Project Fee:	\$5,250.00
	Step 6/	Fee Payments:	
	Total	Project Fee:	\$5,250.00 a. Total Fee from Step 5
	State share	of filing Fee:	\$2,612.50*(Previously Paid) b. 1/2 Total Fee less \$12.50
	City/Town share	e of filling Fee:	\$2,637.50*(Previously Paid) c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection Box 4062 Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)



Town of Sturbridge

Conservation Commission

STURBRIDGE CONSERVATION COMMISSION AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act and the Town of Sturbridge Wetland Bylaws

I, <u>Theresa M. Sarkissian</u>, hereby certify under the pains and penalties of perjury that on (date) <u>February 1, 2023</u>, I gave notification to abutters in compliance with the second paragraph of the Massachusetts General Laws Chapter 131, § 40, and the DEP Guide to Abutter Notification as well as the Town of Sturbridge Wetland Bylaws, in connection with the following matter:

A Notice of Intent OR

____ A Request for Determination OR

An Abbreviated Notice of Resource Area Delineation

that was filed under the Massachusetts Wetlands Protection Act and the Town of Sturbridge Bylaws, by <u>Justin Stelmok</u> with the Sturbridge Conservation Commission on (date) January 31, 2023 for the property located at

Lot 3 Berry Farms Road (Portions 280-0534-020 & 415-03914-030)

The form of the Notification and a list of abutters to whom it was given and their addresses are included in the application file.

(signature of applicant) (date)

February 1, 2023

Theresa M. Sarkissian/LEC Environmental Consultants, Inc. (name of applicant-printed or typed)

February 1, 2023

CERTIFIED MAIL

«Name» «Name2» «Address» «City», «State» «Zip»

Re: Notice of Intent Application Blueberry Hill Estates - Lot 3 Berry Farms Road 20 Fiske Hill Road/Parcel ID: 280-03534-020-Portion 30 Main Street/Parcel ID: 415-03914-030-Portion Sturbridge, Massachusetts

[LEC File #: MCEI\20-002.04]

Dear Abutter:

On behalf of the Applicant, Justin Stelmok, LEC Environmental Consultants, Inc., (LEC) is submitting a new Notice of Intent (NOI) Application for Blueberry Hill Estates, a 55+ Housing Community ("Manufactured Housing Community"), on the above-referenced site. The 55+ Housing Community involves the construction of a private roadway network extending from Berry Farms Road (under construction); 68 dwellings with appurtenances; a community clubhouse, parking, and amenities; and associated stormwater management measures, utilities, regrading, lawn/landscaping, and revegetation. Proposed work activities occur within the 100-foot Buffer Zone to Bordering Vegetated Wetlands (BVW)/Freshwater Wetlands and the 200-foot Buffer Zone to BVW/Vernal Pools protected under the *Massachusetts Wetlands Protection Act* (M.G.L., c. 131, s. 40), its implementing *Regulations* (310 CMR 10.00) and/or the *Town of Sturbridge Wetlands Bylaw* (Chapter 286) and *Wetlands Regulations* (Chapter 365). The project has been under Conservation Commission review since April 2022. The Applicant is refiling the NOI Application for the same project, as revised, with a reduced dwelling count, based on Commissioner and peer review comment to date.

The NOI Application and accompanying site plans are available for review by the public at the Sturbridge Conservation Department, 301 Main Street or online at <u>https://www.sturbridge.gov/conservation-commission/pages/meeting-calendar-and-documents</u>. A public hearing has been scheduled for February 16, 2023, with the Sturbridge Conservation Commission. Updated meeting information, including remote participation, can be found on the Town's website: https://www.sturbridge.gov/. Further information regarding the public hearing will appear in the *Telegram and Gazette* at least five (5) days prior to the hearing date.

Please do not hesitate to review the materials at the Conservation Commission office, attend the public hearing(s), and/or contact LEC should you have any questions or concerns.

Sincerely,

LEC Environmental Consultants, Inc.

Brian T. Madden Wildlife Scientist



Town of Sturbridge

Conservation Commission

Notification to Abutters

under the MA Wetlands Protection Act and the Town of Sturbridge Wetland Bylaw Regulations (certificates of mailing, certified mail, or hand-delivery with abutter signature required as proof of notification)

In accordance with the second paragraph of Massachusetts General Laws, Chapter 131, § 40, as well as the Town of Sturbridge Wetland Bylaws, you are hereby notified of the following permit application for work within a wetland resource area and/or within the 200-foot buffer zone to a resource area:

- A. The name of the applicant is: Justin Stelmok
- B. The address of the lot(s) where the activity is proposed is: Lot 3 Berry Farms Road (Portion 30 Main St. & 20 Fiske Hill Rd.)
- C. The nature of the activity proposed includes: <u>55+ Housing Community</u>
- D. The applicant has filed the following in accordance with the Wetlands Protection Act (MGL c. 131, § 40), and/or the Town of Sturbridge Wetland Bylaws.
 - Notice of Intent seeking permission to conduct work within a wetland, water body or resource area (Buffer Zone)
 - Request for Determination seeking permission to conduct work within a buffer zone to a wetland, waterbody or resource area
 - □ Abbreviated Notice of Resource Area Delineation seeking to confirm the wetland resource area boundaries.
 - □ Request to amend an existing Order of Conditions for DEP File #300-_____
- E. Copies of the application may be examined at the Sturbridge Conservation Department, 301 Main Street, Sturbridge, MA. Times are available by appointment. Please call (508) 347-2506 for availability.

The Public Hearing for this application will be held in the Center Office Building, 301 Main Street, 2nd Floor on February 16, 2023 at pm.

Please note that while an option for remote attendance and/or participation is being provided to the public, the meeting/hearing will not be suspended or terminated if technological problems interrupt the virtual broadcast, unless otherwise required by law. Members of the public with particular interest in any specific item on this agend characterizate and or watch the meeting may do a watch the

technological problems interrupt the virtual broadcast, unless otherwise required by law. Members of the public with particular interest in any specific item on this agenda should make plans for in-person vs. virtual attendance accordingly. Members of the public who wish to participate remotely may listen and or watch the meeting may do so either online via the Town's on demand video broadcast, on cable television on channel 191, or dial into the meeting at 774-304-1455, enter 1428# for the meeting number and 12345 for the access code. (This phone number is only active for the public during public meetings). Specific information and the general guidelines for remote participation can be found on the Town's website at:

https://www.sturbridge.gov/town-administrator/pages/how-access-virtual-meeting.

PLEASE NOTE: Notice of this Public Hearing will be published as follows:

- In a local newspaper at least five days in advance of the hearing
- In the Town Hall at the Town Clerks office, not less than 48 hours in advance of the hearing
- On the Town's Meeting Calendar not less than 48 hours in advance of the hearing (www.town.sturbridge.gov)
- On the Conservation Commission webpage not less than 48 hours in advance of the hearing

You may contact the Sturbridge Conservation Commission Office (508) 347-2506 or the Department of Environmental Protection Central Regional Office at 508-792-7650 with questions in regards to the Notice of Intent application process or the Wetlands Protection Act.

Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address
280-03543-023	BOUHANNA JACK C	23 FISKE HILL ROAD	STURBRIDGE	MA	01566	23 FISKE HILL ROAD
280-03553-015	BROGAN JOHN J	15 FISKE HILL ROAD	STURBRIDGE	MA	01566	15 FISKE HILL ROAD
280-03543-019	CHOINIERE SHIRLEY	19 FISKE HILL ROAD	STURBRIDGE	MA	01566	19 FISKE HILL ROAD
432-03056-036	COMMONWEALTH OF MASS	1 RABBIT HILL ROAD	WESTBORO	MA	01581	36 MCGILPIN ROAD
280-03553-013	CROKE DAVID W	13 FISKE HILL ROAD	STURBRIDGE	MA	01566	13 FISKE HILL ROAD
280-03553-013A	CROKE DAVID W	13 FISKE HILL ROAD	STURBRIDGE	MA	01566	13A FISKE HILL ROAD
280-03553-018	DEMARCO JOHN	18 FISKE HILL ROAD	STURBRIDGE	MA	01566	18 FISKE HILL ROAD
280-03553-016	DEMARTINO-OSOWSKI LAURIE	16 FISKE HILL ROAD	STURBRIDGE	MA	01566	16 FISKE HILL ROAD
280-03543-026	DEMAURO BRUCE	26 FISKE HILL ROAD	STURBRIDGE	MA	01566	26 FISKE HILL ROAD
280-03513-060	ENGELL ROBERT J	60 FISKE HILL ROAD	STURBRIDGE	MA	01566	60 FISKE HILL ROAD
280-03543-021	ERICKSON KRYSTINA L	21 FISKE HILL ROAD	STURBRIDGE	MA	01566	21 FISKE HILL ROAD
415-03914-030	FLYNN DANIEL TRUSTEE	97 ARNOLD ROAD	FISKDALE	MA	01518	30 MAIN STREET
538-35E15-038	FLYNN DANIEL TRUSTEE OF	97 ARNOLD ROAD	FISKDALE	MA	01518	38 RIDGE HILL ROAD
280-03553-011	GANORZ CAMILLE R	11 FISKE HILL ROAD	STURBRIDGE	MA	01566	11 FISKE HILL ROAD
280-03553-017	HERRERA RACHAEL ALEXI	17 FISKE HILL ROAD	STURBRIDGE	MA	01566	17 FISKE HILL ROAD
338-39E16-066	LAMOTHE LEONARD	79 IDLEWOOD STREET	SOUTHBRIDGE	MA	01550	66 HILLCREST STREET
280-03523-50A	LEBOW MARGARET A TRUSTEE	52 FISKE HILL ROAD	STURBRIDGE	MA	01566	50A FISKE HILL ROAD
280-03543-022	MANGOLD WILFRED & KATHLEEN	22A FISKE HILL ROAD	STURBRIDGE	MA	01566	22A FISKE HILL ROAD
275-03533-004	MATHIEU GEORGE A TR	4 FIELDCREST ROAD	STURBRIDGE	MA	01566	4 FIELDCREST ROAD
280-03553-014	MURPHY PAUL J	12 FISKE HILL ROAD	STURBRIDGE	MA	01566	14 FISKE HILL ROAD
280-03553-012	MURPHY PAUL L	12 FISKE HILL ROAD	STURBRIDGE	MA	01566	12 FISKE HILL ROAD
415-03914-016	PIERCE RONALD A	16 MAIN STREET	STURBRIDGE	MA	01566	16 MAIN STREET
280-03522-054	SILVERBERG MARY E	78 SPRUCE STREET	FRAMINGHAM	MA	01701	54 FISKE HILL ROAD
690-03533-014	SPENCER KEVIN F	12 WILLIAMS ROAD	STURBRIDGE	MA	01566	14 WILLIAMS ROAD
690-03533-015	ST LAURENT GERARD	15 WILLIAMS ROAD	STURBRIDGE	MA	01566	15 WILLIAMS ROAD
280-03535-022	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	22 FISKE HILL ROAD
114-39E16-001	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	1 ALTO STREET
538-39E15-036	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	36 RIDGE HILL ROAD

and the second secon

538-39E15-024	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	24 RIDGE HILL ROAD
280-03543-024	WESTWELL JOSEPH JR	28 CHARTIER LANE	SOUTHBRIDGE	MA	01550	24 FISKE HILL ROAD
280-03543-24A	WESTWELL JOSEPH JR	28 CHARTIER LANE	SOUTHBRIDGE	MA	01550	24A FISKE HILL ROAD
	BOARD OF ASSESSORS					
Above persons li	sted are record owners as they appea	ar on the most recent ap	olicable tax list.			
Assessors are no	t responsible for errors or omissions.	RE: M.G.L Chapter 404	A, Section 11			
Abutters List -	Conservation Commission - 200'					
RE: 20 FISKE HIL	L ROAD					
Certified Copy						
Assessor:	an P MPhaulky					
				_		
Date:	1-24-2023					

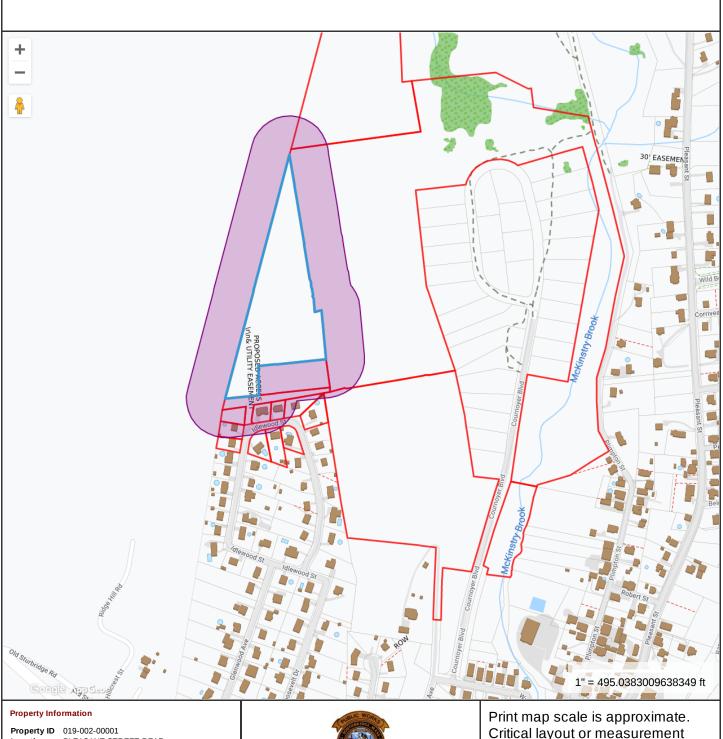
man:

Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address
415-03914-022	AUDET ROBERT H TRUSTEE	800 WISCONSIN ST	EAU CLAIRE	WI	54703	22 MAIN STREET
478-03553-018	BISSON BRIAN A	18 OLD FISKE HILL ROAD	STURBRIDGE	MA		18 OLD FISKE HILL ROAD
415-03913-029	BSE PROPERTIES LLC	174 LAKE ROAD	FISKDALE	MA	01518	29 MAIN STREET
415-03923-027	CENTER OF HOPE FOUNDATION INC	100 FOSTER STREET	SOUTHBRIDGE	MA	01550	27 MAIN STREET
	DEMARCO JOHN	18 FISKE HILL ROAD	STURBRIDGE	MA	01566	18 FISKE HILL ROAD
280-03553-016	DEMARTINO-OSOWSKI LAURIE	16 FISKE HILL ROAD	STURBRIDGE	MA	01566	16 FISKE HILL ROAD
280-03534-020	FLYNN DANIEL TRUSTEE	97 ARNOLD ROAD	FISKDALE	MA	01518	20 FISKE HILL ROAD
538-35E15-038	FLYNN DANIEL TRUSTEE OF	97 ARNOLD ROAD	FISKDALE	MA	01518	38 RIDGE HILL ROAD
415-03913-039	GAGNON TIMOTHY	161 LANE TWO	EAST BROOKFIELD	MA	01515	39 MAIN STREET
415-03913-028	KURR EDWARD J	28 MAIN STREET	STURBRIDGE	MA	01566	28 MAIN STREET
415-03913-035	LEBLANC J D ELECTRIC INC	P O BOX 431	SOUTHBRIDGE	MA	01550	35 MAIN STREET
280-03543-022	MANGOLD WILFRED & KATHLEEN	22A FISKE HILL ROAD	STURBRIDGE	MA		22A FISKE HILL ROAD
280-03553-014	MURPHY PAUL J	12 FISKE HILL ROAD	STURBRIDGE	MA		14 FISKE HILL ROAD
280-03553-012	MURPHY PAUL L	12 FISKE HILL ROAD	STURBRIDGE	MA	01566	12 FISKE HILL ROAD
415-03914-016	PIERCE RONALD A	16 MAIN STREET	STURBRIDGE	MA	01566	16 MAIN STREET
415-03914-018	RICH STEPHEN	20 MAIN STREET	STURBRIDGE	MA	01566	18 MAIN STREET
415-03914-020	RICH STEPHEN	20 MAIN STREET	STURBRIDGE	MA	01566	20 MAIN STREET
478-03553-016	SEAGRAVE ROBIN M	16 OLD FISKE HILL ROAD	STURBRIDGE	MA	01566	16 OLD FISKE HILL ROAD
415-03913-031	SIGNOVONGSA KHAMPAO	31A MAIN STREET	STURBRIDGE	MA	01566	31 MAIN STREET
280-03553-008	SQUIER ANTONIA	8 FISKE HILL ROAD	STURBRIDGE	MA	01566	8 FISKE HILL ROAD
415-03913-033	STURBRIDGE AUTO SALES INC	PO BOX 822	STURBRIDGE	MA	01566	33 MAIN STREET
415-03913-041	THORNE ERIN M	41 MAIN STREET	STURBRIDGE	MA		41 MAIN STREET
478-03533-014	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	14 OLD FISKE HILL ROAD
415-03913-042	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	42 MAIN STREET
538-39E15-036	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	36 RIDGE HILL ROAD
538-39E15-024	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA		24 RIDGE HILL ROAD
478-03913-010	WAHIB EDY	333 EAST MAIN STREET	SOUTHBRIDGE	MA	01550	10 OLD FISKE HILL ROAD
415-03913-040	WAHIB EDY	333 EAST MAIN STREET	SOUTHBRIDGE	MA		40 MAIN STREET
415-03913-044	WAHIB EDY	333 EAST MAIN STREET	SOUTHBRIDGE	MA	01550	44 MAIN STREET
415-03913-037	WEDGE-ALBRECHT SHERRIE L	37 MAIN STREET	STURBRIDGE	MA	01566	37 MAIN STREET
415-03913-026	WUJING	43 PRESIDENTIAL DRIVE	SOUTHBOROUGH	MA	01772	26 MAIN STREET

	BOARD OF ASSESSORS			 	
Above persons I	isted are record owners as they appear	ar on the most recent a	pplicable tax list.		
Assessors are no	ot responsible for errors or omissions.	RE: M.G.L Chapter 40	A, Section 11		
Abutters List -	Conservation Commission - 200'				
RE: 30 MAIN ST	REET				
Certified Copy					
Assessor:	This Muth				
ASSESSOL.	1 Adam f 1101 and for				
Date:	1-25-2023				
					·····
		······································			

.

Property ID	Site Address	Owner	Owner 2	Owner Address	Owner Addre	s Owner City	Owner St	Owner Zipcode
018-021-00001	PLIMPTON STREET	SOUTHBRIDGE TOWN OF		41 ELM ST		SOUTHBRIDGE	MA	01550-2645
019-001-00001	CRESTWOOD DRIVE REAF	SOUTHBRIDGE TOWN OF		41 ELM STREET		SOUTHBRIDGE	MA	01550-2148
019-002-A-0000	1 CRESTWOOD DRIVE REAF	SOUTHBRIDGE TOWN OF		41 ELM ST		SOUTHBRIDGE	MA	01550-2645
019-048-00001	COURNOYER BOULEVARD	SCKD REALTY TRUST		ATTN DONALD COURNOYER JF	R 384 MAIN ST	SOUTHBRIDGE	MA	01550-3713
032-057-00001	PROULX AVENUE	THEODOSS CONSTANCE M		69 PROULX AVE		SOUTHBRIDGE	MA	01550-1128
032-073-00001	51 CRESTWOOD DRIVE	OBUCHOWSKI DALE H	TAMMY L OBUCHOWSKI	51 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1111
032-074-00001	75 CRESTWOOD DRIVE	RAMOS DOMINGO	JUDITH RAMOS	75 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1111
032-075-00001	93 CRESTWOOD DRIVE	FULLEN MICHAEL J JR		93 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1111
032-090-00001	85 IDLEWOOD STREET	SAHN ZOGONMIA		85 IDLEWOOD ST		SOUTHBRIDGE	MA	01550-1140
032-091-00001	91 IDLEWOOD STREET	MUNROE KENNETH J	YVETTE MUNROE	91 IDLEWOOD ST		SOUTHBRIDGE	MA	01550-1140
032-092-00001	IDLEWOOD STREET	TREPANIER LISA G		76 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-093-00001	76 CRESTWOOD DRIVE	TREPANIER LISA G		76 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-094-00001	70 CRESTWOOD DRIVE	ZWIRBLIA JON E		70 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-095-00001	64 CRESTWOOD DRIVE	RODRIGUEZ JOSE H	VILMA M RODRIGUEZ	64 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-096-00001	58 CRESTWOOD DRIVE	RODRIGUEZ RUBEN	MARILYN RODRIGUEZ	58 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112



Location Owner

PLEASANT STREET REAR FISKE HILL EAST REALTY TRUST



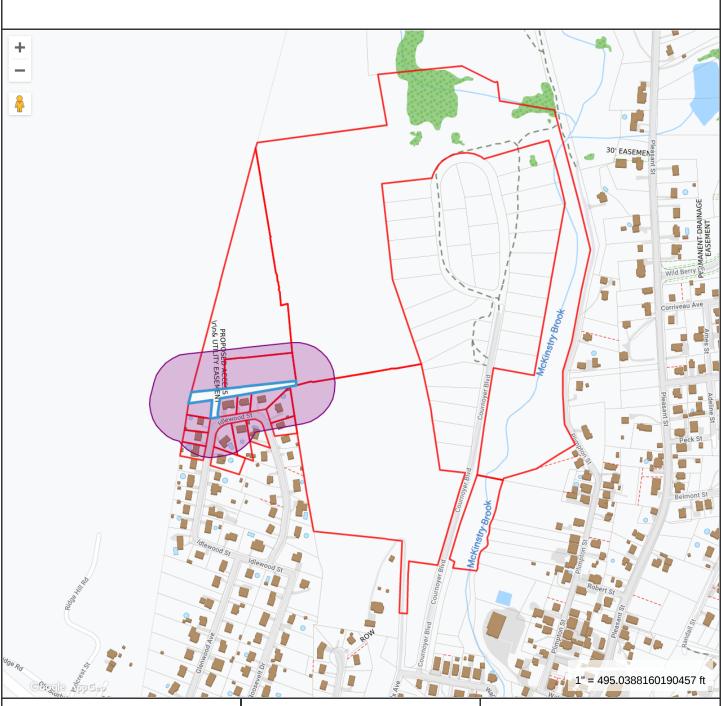
MAP FOR REFERENCE ONLY NOT A LEGAL DOCUMENT

Town of Southbridge, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 8/25/2021 Data updated on a daily basis

Critical layout or measurement activities should not be done using this resource.

Property ID	Site Address	Owner	Owner 2	Owner Address	Owner Addre	e Owner City	Owne	r Owner Zipcode
019-002-00001	PLEASANT STREET REAR	FISKE HILL EAST REALTY TRUST	C/O DANIEL FLYNN TRUSTEE	97 ARNOLD RD		FISKDALE	MA	01518-1182
019-002-A-00001	CRESTWOOD DRIVE REAR	SOUTHBRIDGE TOWN OF		41 ELM ST		SOUTHBRIDGE	MA	01550-2645
019-048-00001	COURNOYER BOULEVARD	SCKD REALTY TRUST		ATTN DONALD COURNOYER JR	384 MAIN ST	SOUTHBRIDGE	MA	01550-3713
032-057-00001	PROULX AVENUE	THEODOSS CONSTANCE M		69 PROULX AVE		SOUTHBRIDGE	MA	01550-1128
032-073-00001	51 CRESTWOOD DRIVE	OBUCHOWSKI DALE H	TAMMY L OBUCHOWSKI	51 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1111
032-074-00001	75 CRESTWOOD DRIVE	RAMOS DOMINGO	JUDITH RAMOS	75 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1111
032-075-00001	93 CRESTWOOD DRIVE	FULLEN MICHAEL J JR		93 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1111
032-076-00001	78 IDLEWOOD STREET	BORRELLI RICHARD A ETAL		78 IDLEWOOD ST		SOUTHBRIDGE	MA	01550-1141
032-089-00001	79 IDLEWOOD STREET	LAMOTHE LEONARD M ETAL	ATTN LEONARD R & BEVERLY A L	79 IDLEWOOD ST		SOUTHBRIDGE	MA	01550-1140
032-090-00001	85 IDLEWOOD STREET	SAHN ZOGONMIA		85 IDLEWOOD ST		SOUTHBRIDGE	MA	01550-1140
032-091-00001	91 IDLEWOOD STREET	MUNROE KENNETH J	YVETTE MUNROE	91 IDLEWOOD ST		SOUTHBRIDGE	MA	01550-1140
032-092-00001	IDLEWOOD STREET	TREPANIER LISA G		76 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-093-00001	76 CRESTWOOD DRIVE	TREPANIER LISA G		76 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-094-00001	70 CRESTWOOD DRIVE	ZWIRBLIA JON E		70 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-095-00001	64 CRESTWOOD DRIVE	RODRIGUEZ JOSE H	VILMA M RODRIGUEZ	64 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-096-00001	58 CRESTWOOD DRIVE	RODRIGUEZ RUBEN	MARILYN RODRIGUEZ	58 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112
032-097-00001	52 CRESTWOOD DRIVE	LAGRANT SUSAN E		52 CRESTWOOD DR		SOUTHBRIDGE	MA	01550-1112



Property Information

Property ID	019-001-00001
Location	CRESTWOOD DRIVE REAR
Owner	SOUTHBRIDGE TOWN OF



MAP FOR REFERENCE ONLY NOT A LEGAL DOCUMENT

Town of Southbridge, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 8/25/2021 Data updated on a daily basis Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.



<u>Town of Sturbridge</u>

Barbara A. Barry, Finance Director

Department/Board/Committee: Conservation Commission

Please verify outstanding tax/fee status for the following property owner:

Property Owner: Fiske Hill Realty Trust

Property Location: _20 Fiske Hill Road (280-03534-020) & 30 Main St (portion-415-03914-030)

The license/permit may be released.

 \Box The license/permit may not be released.

iner hussia

1/30/23

Finance Director

Date

1. Introduction

On behalf of the Applicant, Justin Stelmok, LEC Environmental Consultants, Inc., (LEC) is submitting this Notice of Intent (NOI) Application for Blueberry Hill Estates, a 55+ Housing Community ("Manufactured Housing Community," involving the construction of a subdivision roadway network extending from Berry Farms Road, under construction; 68 dwelling units with decks, driveways, and attached garages; a community clubhouse and parking; and associated stormwater management measures, utilities, regrading, lawn/landscaping, and revegetation. Proposed work activities occur within the 100-foot Buffer Zone to Bordering Vegetated Wetlands (BVW)/Freshwater Wetlands and the 200foot Buffer Zone to Vernal Pools protected under the Massachusetts Wetlands Protection Act ("WPA", M.G.L., c. 131, s. 40), its implementing Regulations (310 CMR 10.00; the "WPA Regulations"), and/or the Town of Sturbridge Wetlands Bylaw (Chapter 286) and its implementing Wetlands Regulations (Bylaw Regulations).

The project incorporates Commission, staff, and peer review (Oxbow Associates and Pare Corporation) comments received since the original NOI project submission on April 5, 2022. Project details are depicted on the Special Permit and Site Plan, Blueberry Hill Estates, 55+ Manufactured Housing Community, Lot 3 Berry Farms Road, Sturbridge, MA, prepared by McClure Engineering, Inc., last revised on November 10, 2022 (Appendix F). The Stormwater Report, prepared by McClure Engineering, Inc., last revised on November 10, 2022 (Appendix E).

The following NOI Application provides a description of the existing site conditions, Wetland Resource Areas, and proposed project designed to protect the interests and values of the Wetland Resource Areas outlined within the above-referenced regulations. The Applicant is proposing significant mitigation to ensure the protection of wetland interests and values, including creation of an undisturbed habitat corridor and crossing structure, in addition to permanent land protection (Open Space). The Open Space Plan prepared by McClure Engineering, dated September 7, 2022 is included herein as Attachment D.

2. **General Site Description**

The 41.4± acre Site is Lot 3 Berry Farms Road, containing subdivided portions of Parcel ID #280-03534-020 (20 Fiske Hill Road) and Parcel ID #415-03914-030 (30 Main Street) (Site). The Sturbridge Conservation Commission issued an Order of Conditions (DEP



File #300-1086) on August 18, 2021, approving the construction of Berry Farms Road and associated stormwater management measures. Associated work activities commenced in spring 2022.

Lot 3 occurs to the northeast of Berry Farms Road's cul-de-sac, and contains rolling topography generally ascending to the east towards the easterly property line/Southbridge town boundary. The Site is dominated by previously logged forested upland and a myriad of logging roads. The remaining forested upland contains a partially to moderately open canopy primarily containing northern red oak (Quercus rubra) and eastern white pine (Pinus strobus), along with scattered individuals of white oak (Quercus alba), American beech (Fagus grandifolia), yellow birch (Betula alleghaniensis), black birch (Betula lenta), paper birch (Betula papyrifera), sassafras (Sassafras albidium), hemlock (Tsuga canadensis), and red maple (Acer rubrum). The understory includes saplings from the canopy, black raspberry (*Rubus alleghaniensis*), mountain laurel (Kalmia latifolia), hawthorn (Cratageus sp.), American hornbeam (Carpinus caroliniana), witch hazel (Hamamelis virginiana), multiflora rose (Rosa multiflora), with individuals of sapling hickory (Carya sp.) and hazelnut (Corylus sp.). The ground cover includes patches of hay scented fern (Dennstaedtia punctilobula), lowbush blueberry (Vaccinium angustifolium), Christmas fern (Polystichum acrostichoides), bracken fern (Pteridium aquilinum), partridge berry (Mitchella repens), Pennsylvania sedge (*Carex pensylvanica*) and seedlings from the canopy and understory.

BVW (A-series) associated with an intermittent stream occurs along the westerly property line or just off-site to the west on Lot 4. A finger-like projection of BVW associated with a separate intermittent stream extends onto the northerly portion of the Site, contiguous with the A-series BVW. The A-series contains Vernal Pools (see below). A separate BVW (E-series) and Vernal Pool are located within the southeastern portion of the Site. BVW and Vernal Pool boundaries have been approved by an Order of Resource Area Delineation (ORAD, DEP File #300-1113) issued by the Commission on January 13, 2022.

2.1 Floodplain Designation

According to the July 4, 2011 *Federal Emergency Management Agency Flood Insurance Rate Maps* for Worcester County, Massachusetts (Map Numbers: 25027C0933E and 25027C0931E), the site is located within Zone X [unshaded]: *Areas determined to be outside the 0.2% annual chance floodplain* (Attachment, Figure 3). No portion of the project is therefore located within the 100-year floodplain.



2.2 Natural Heritage and Endangered Species Program Designation

According to the 15th Edition of the Massachusetts *Natural Heritage Atlas* (effective August 1, 2021) published by the Natural Heritage & Endangered Species Program (NHESP), the site is not located within an Estimated Habitat of Rare Wildlife or Priority Habitat of Rare Wildlife (Appendix A, Figure 4).

3. Wetland Resource Area Descriptions

Wetland Resource Areas located on-site include Bordering Vegetated Wetlands (BVW)/Freshwater Wetlands associated with intermittent streams and Vernal Pools, as described below. The intermittent streams (not separately delineated) also contain protectable Bank and Land Under Water. As previously mentioned, the BVW and Vernal Pool boundaries were approved under the January 13, 2022 ORAD (DEP File #300-1113).

3.1 Bordering Vegetated Wetlands

Bordering Vegetated Wetlands (BVW) are defined in 310 CMR 10.55(2) as *freshwater* wetlands which border on creeks, rivers, streams, ponds, and lakes. In these areas soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The boundary of BVW is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.

According to the Bylaw Regulations (Chapter 2), Freshwater Wetlands are defined as *wet* meadows, marshes, swamps, bogs, fens, and vernal pools. Areas where groundwater, flowing or standing surface water or ice provide a significant part of the supporting substrate for a plant community for at least five months of the year; emergent and submergent plant communities in inland waters; Freshwater wetlands can be bordering or isolated. If delineated must have evidence of hydrology, and vegetation (hydric soils are also considered an indicator of hydrology).

The A-series BVW is characterized as a forested wetland occurring within a low-lying valley extending along the westerly property line or just off-site to the west on Lot 4. A Vernal Pool is located within the southerly portion of the A-series BVW.

An intermittent stream begins to form proximate/downgradient of wetland flag A35, flowing via a braided network of channels in a northerly direction as topography mildly to moderately descends (variable). The stream channels generally vary from one to seven



feet wide and are contained within a 6-12-inch Bank. Streams bottoms vary from cobble lined to mucky with overhanging vegetation

Additional Vernal Pool habitat is present downgradient of wetland flags A47-A56, in association with the intermittent stream that meanders amongst vegetated hummocks, rocks, and overturned trees with exposed root systems. In general, the stream is loosely defined in sections with a very mild topographic gradient, resulting in broader, inundated conditions expanding beyond the main flow channel. In spring 2021, LEC observed variable standing water between 0-12 inches deep. The deepest sections were typically associated with the overturned trees with exposed root systems.

Wetland flags A56-A88 define a finger-like projection of BVW associated with an intermittent stream flowing downhill to the north/northwest, discharging to the aforementioned intermittent stream.

The E-series BVW occurs within the southeastern portion of the site and is characterized as a forested, scrub-shrub and marsh/open water wetland. The majority of the wetland occurs off site. The interior of the E-series wetland has been identified as a Vernal Pool. Off-site, an intermittent stream flows southwesterly out of the marsh through a man-made channel. Evidence of beaver activity has been noted along the perimeter of the Vernal Pool.

Vegetation within the A-series and E-series forested wetland includes a canopy occupied by red maple and eastern hemlock (*Tsuga canadensis*) with individuals of ash (*Fraxinus* sp.), yellow birch, tupelo (*Nyssa sylvatica*), and American elm (*Ulmus americana*). The understory contains patches of saplings from the canopy, with patches of spicebush (*Lindera benzoin*), scattered patches of winterberry holly (*Ilex verticillata*), and individuals of highbush blueberry (*Vaccinium corymbosum*). Buttonbush (*Cephalanthus occidentalis*) is present within the interior of the E-series Vernal Pool. The groundcover includes patches of seedlings from the canopy, sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), and sphagnum moss (*Sphagnum* sp.).

3.2 Vernal Pools

Vernal Pool Habitat is defined under 310 CMR 10.04 as *confined basin depressions* which, at least in most years, hold water for a minimum of two continuous months during the spring and/or summer, and which are free of adult fish populations, as well as the area within 100 feet of the mean annual boundaries of such depressions, to the extent that such habitat is within an Area Subject to Protection under M.G.L. c. 131, § 40 as

Page 4 of 14



specified in 310 CMR 10.02(1). These areas are essential breeding habitat, and provide other extremely important wildlife habitat functions during non breeding season as well, for a variety of amphibian species such as wood frog (Rana sylvatica) and the spotted salamander (Ambystoma macultum), and are important habitat for other wildlife species.

A Vernal Pool is defined under the Bylaw as a confined basin depression which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, and which is free of adult fish populations, regardless of whether the site has been certified by the Massachusetts Division of Fisheries and Wildlife.

The Bylaw Regulations further clarify that the term "vernal pool" shall include, in addition to that already defined under the Wetlands Protection Act, MGL c. 131, § 40, and Regulations, 310 CMR 10.00, any confined basin or depression not occurring in existing lawns, gardens, landscaped areas or driveways. Vernal pools hold water for a minimum of two continuous months during the spring and/or summer. An isolated wetland may be determined to be a vernal pool even though it has less than 200 cubic feet of water, is free of adult predatory fish populations and provides essential breeding and rearing habitat functions for amphibian, reptile or other vernal pool community species, regardless of whether the site has been certified by the Massachusetts Division of Wildlife and Fisheries, Natural Heritage and Endangered Species Program.

The Vernal Pool within the southerly portion of the A-series BVW, defined by Mean High Water (MHW) flags 1-36, was documented by LEC in the spring 2021 to contain Obligate Fairy Shrimp (*Eubranchipus vernalis*). Five (5) Spotted Salamander (*Ambystoma maculatum*) egg masses were also observed within the deepest (central) section of the depression. LEC has submitted the Vernal Pool Certification to NHESP.

In spring 2021, LEC documented 23 Spotted Salamander masses scattered throughout the northerly Vernal Pool within the A-series BVW, downgradient of wetland flags A47-A56, and defined by MHW flags 1-17 where 18 egg masses were located, and MHW flags 18-25 where five egg masses were documented. Vernal Pool habitat is hydrologically connected via subsurface of the intermittent stream.

The Vernal Pool associated with the E-series BVW (MHW flags 1-15) minimally extends onto the site and primarily occurs off-site to the south. Spotted Salamander and Wood Frog breeding activity was documented on-site during spring 2021. An eastern newt (*Notophthalmus viridescens*) and a painted turtle (*Chrysemys picta picta*) were also observed within the E-series Vernal Pool.

Page 5 of 14

The on-site northerly A-series and E-series Vernal Pools are proposed to be certified as a condition of the Order of Conditions.

4. Proposed Project

The Applicant is proposing 55+ Housing Community ("Manufactured Housing Community") with 68 dwelling units, accessed via a private roadway network extending from the under-construction Berry Farms Road. Details of the proposed project are depicted on the *Special Permit and Site Plan, Blueberry Hill Estates, 55+ Manufactured Housing Community, Lot 3 Berry Farms Road, Sturbridge, MA*, prepared by McClure Engineering, Inc., last revised on November 10, 2022 ("*Site Plans*", Appendix F).

The private roadway network contains a main roadway (Proposed Drive A) and three culde-sacs (Proposed Drives B, C, and D). The paved roadways will maintain a 20-foot width. A four-foot wide sidewalk will be installed on one side. An emergency access drive will extend out to Crestwood Drive in Southbridge. A proposed community clubhouse with parking and associated amenities are centrally located off Proposed Drive A.

The prefabricated dwelling units will be situated on concrete slab foundations. As depicted on the *Site Plans*, individual dwellings will have the option for a garage (stick-built) on slab and/or wooden or composite deck. Minimal lawn/landscaping is afforded around the structures. Each dwelling will be fueled by propane and serviced by municipal sewer and water. Confirmation of sewer allocation is provided herein (Appendix B).

The Applicant is proposing a reduced salt application along roadways during the winter following snowfall and/or ice accumulation. Additional information will be forthcoming.

Stormwater management has been designed in accordance with MA Stormwater regulations. The stormwater management system for the Site consists of country style drainage, including swales and rain gardens in between and behind dwellings. The rain gardens will provide for peak flow attenuation, water quality treatment, and groundwater recharge. A single infiltration basin is proposed within an existing natural depression south of the clubhouse. The infiltration basin and all rain gardens will be maintained by a landscaping company in compliance with an Operations and Maintenance Plan. Additional detail is included within the Stormwater Report, prepared by McClure Engineering, Inc., last revised on November 10, 2022 (Appendix E), including responses to DEP's original NOI comments: *Sedimentation basins should not be located within*



areas where infiltration structures are proposed. Soil testing confirming the depth to seasonal high groundwater and bedrock should be provided in all areas where infiltration is proposed. Rain gardens are not typically used to control peak runoff (Stormwater Standard 2) and may not meet Stormwater Standard 4 if stormwater is able to bypass the full depth of the rain garden via orifices in the outlet structure. The proposed 1'-2' ponding depths within the rain gardens may make it difficult to sustain vegetation within these area.

The Applicant is proposing to revegetate proposed regraded side slopes within the 200foot Buffer Zone to BVW along Lots 20 and 21, Lot 53, and Lots 55-66, in addition to Proposed Drive A's extension off Berry Farms Road. During construction, the top of the slope will be protected by a wood chips/mulch from cut trees on-site, to create a berm to dissipate and disperse any runoff. The downgradient slopes will be loamed and seeded with a native seed mix (e.g., New England Wetland Plants Roadside Upland Matrix Seed Mix or Conservation-approved similar) containing native grasses, wildflowers, and shrub species to facilitate the slopes revegetating into forested upland. The seed mix will be applied via hydroseed with tackifier for slope stabilization. Biodegradable erosion control blankets or similar stability measures may be installed, if necessary, for supplemental stabilization. The downgradient erosion control barriers will be maintained throughout construction and until the slopes are fully stable and vegetated.

Erosion control barriers will be installed around the Limit of Work and will be actively maintained to protect the downgradient Resource Areas during construction. The Applicant will implement a comprehensive Stormwater Pollution Prevention Plan (SWPPP) to manage stormwater during construction including specifications for temporary and permanent stabilization measures, grading, material stockpiling, temporary controls, erosion and sediment control inspection and maintenance procedures, spill prevention and control, and other parameters for control of runoff during construction.

Since the original submission in April 2022, and as depicted on the previously submitted original *Site Plans (Special Permit and Site Plan, 55+ Housing Community,* prepared by McClure Engineering, Inc., dated April 1, 2022), the Applicant has made several project revisions to address Commission, staff, and peer review comments. The proposed revisions have been designed to avoid and minimize disturbance within the 200-foot Vernal Pool Buffer Zone and provide a habitat corridor/connection between the southerly A-series Vernal Pool and E-series Vernal Pool. Primary revisions include:

Page 7 of 14



- Eliminating a total of three (3) lots (Lots 5, 67, & 68).
- Eliminating proposed disturbance within the 200-foot Vernal Pool Buffer Zone on Lots 3, 4, & 5 to the E-series Vernal Pool and Lot 71 to the southerly A-series Vernal Pool.
- Consolidating proposed disturbance on Lot 6 to create an undisturbed habitat corridor.
- Reducing proposed disturbance within the 200-foot Vernal Pool Buffer Zone on Lots 69 and 70 through reduction/shifting/reconfiguration of dwelling footprints and grading; enabling expansion of the undisturbed habitat corridor.
- Reducing proposed disturbance within the 200-foot Vernal Pool Buffer Zone on Lots 55-57 (to the northerly A-series Vernal Pool) by integrating a retaining wall/armored slope to minimize site disturbance and regrading.
- Stormwater management (rain gardens) updates.
- Incorporating and then expanding the habitat corridor and increasing the size of the crossing structure to provide connectivity between the southerly A-series Vernal Pool and E-series Vernal Pool (see below).
- Providing and expanded Open Space (see below).

5. Proposed Mitigation

The Applicant is proposing significant mitigation to ensure the protection of wetland interests and values, including creation of an undisturbed habitat corridor and crossing structure, in addition to permanent land protection (Open Space), as described below. Furthermore, the Applicant is developing a multi-year Vernal Pool Monitoring Plan to document the biological and water quality conditions of the on-site Vernal Pools preconstruction, during construction, and post (phased)-construction.

5.1 Habitat Corridor / Crossing Structure

A habitat corridor has been provided to provide connectivity between the southerly Aseries Vernal Pool and E-series Vernal Pool. Three lots were eliminated and immediately surrounding lots were reconfigured to avoid and minimize disturbance within the 200foot Vernal Pool Buffer Zone, while promoting greater habitat protection/undisturbed areas. Regrading has been modified to provide greater undisturbed habitat. Adjacent regraded sides slopes (i.e., south of Lot 66) will be revegetated with a native seed mix (e.g., New England Wetland Plants Roadside Upland Matrix Seed Mix or Conservationapproved similar), as described above (hydroseed with tackifier), and biodegradable erosion control blankets (or similar) may be installed as necessary to ensure slope

RINDGE, NH

Page 8 of 14



stability. The downgradient erosion control barriers will be maintained throughout construction and until the slopes are fully stable and vegetated.

A $140\pm$ foot wide vegetated corridor will be maintained between Lots 66 and 69 within the outer portion of the 200-foot Buffer Zone to the southerly A-series Vernal Pool. Proposed Drive A essentially extends up to the 200-foot Buffer Zone to the southerly Aseries Vernal Pool. A $110\pm$ foot wide vegetated corridor will be maintained between Lots 4 and 6 east of Proposed Drive A, outside of the 200-foot Buffer Zone to the Eseries Vernal Pool and BVW.

The Applicant is proposing a grated crossing structure under Proposed Drive A to provide wildlife passage/connectivity between the southerly A-series Vernal Pool and Eseries Vernal Pool. Crossing structure details are depicted on Sheet C30 of the *Site Plans*. A four-sided box culvert is proposed to be installed that is six feet wide by four feet tall. A four-sided box culvert has been selected to allow utilities to be installed below the structure. Six inches of natural substrate (soil/leaf litter) will be distributed within the bottom of the culvert. Therefore, the crossing structure will provide 3.5 feet of clearance for wildlife passage. The six inches of natural substrate within the bottom of the crossing structure will be maintained post-construction through an Operations and Maintenance Plan. Post-installation, the crossing structure will not receive significant runoff that may otherwise scour or erode the six inches of natural substrate. Minimal regrading is proposed on either side of the crossing structure to match grades and create a consistent (flat) elevation. Undesirable soil material within the regraded entrances will be replaced with clean sandy material to promote natural infiltration. Interceptor trenches are proposed upgradient at the adjacent northeasterly and southeasterly Limits of Work (Lots 6 and 4, respectively) to receive surface flow/runoff and redirect away from the crossing structure. Regraded areas on either side of the crossing structure will be revegetated with the New England Wetland Plants Roadside Upland Matrix Seed Mix or Conservation-approved similar).

As depicted on Sheet C30 of the *Site Plans*, three (3) 24-inch by 24-inch grates are proposed on the top of the crossing structure to allow for adequate sunlight and moisture. The crossing structure is specifically composed of 7.5-foot-long sections. The grates have been strategically located within the roadway travel surface to maximize sunlight and moisture, while avoiding the above retaining walls, guardrails, curbing, gutter, and/or sidewalk (for ADA reasons). The roadway will be pitched to direct runoff to the side gutters, away from the grates. The crossing structure itself is only 30 feet wide and additional sunlight penetration will come from both sides (openings).



As previously requested by the Commission, side retaining walls abutting the Lots surrounding the habitat corridor, specifically Lots 4, 6, 66, and 69-71, were eliminated in lieu of regraded side slopes to be revegetated and left to naturalize. Retaining walls are still proposed along the west and east sides of the roadway (Proposed Drive A). At the highest point, a portion of the westerly retaining wall is four feet tall. The retaining walls taper to the north and south (one-foot min.). Per the peer reviewer's (Oxbow Associates) suggestion, end wing walls are proposed to help direct migrating wildlife towards the crossing structure. The flared end wing walls will be 5-10-foot-long extensions of the retaining walls (one-foot tall min.) at the north and south ends, on both sides of the roadway.

Through the Operations and Maintenance Plan, the retaining walls will be kept free of vegetation within one to two feet of the toe and inspected on an annual basis. The Operations and Maintenance Plan will also provide provisions to ensure the crossing structure and grates are kept free of debris, in addition to maintaining six inches of natural substrate on the bottom.

The habitat corridor and crossing structure have been designed to specifically promote the migration of Vernal Pool amphibian species (Spotted Salamander) documented breeding in both the southerly A-series Vernal Pool and E-series Vernal Pool, in addition to wildlife in general. To reiterate, in addition to Spotted Salamander, Fairy Shrimp (*Eubranchipus vernalis*) have been identified within the southerly A-series Vernal Pool and E-series Vernal Pool. Wood Frog (*Lithobates sylvaticus*) breeding activity has been more extensively documented within the E-series Vernal Pool. The Vernal Pools also provide general wildlife habitat (food, shelter, breeding, migratory, and/or overwintering areas) for various wildlife, including invertebrates, amphibians, reptiles, mammals, and birds. The crossing structure will also facilitate the migration/movement of small mammals, reptiles, amphibians, and invertebrates. Larger mammals (e.g., white tailed deer) will be able to easily cross over the roadway and side retaining walls.

The crossing structure dimensions exceed that of a recent NHESP-approved design to promote the migration of state-listed rare Marbled Salamander (*Ambystoma opacum*) and Eastern Box Turtle (*Terrapene carolina*); refer to the approved detail plans of record for a MESA Conservation and Management Permit (CMP #017-308.DFW) (Attachment C).

5.2 **Open Space**

The Applicant is proposing to permanently protect approximately 24.2± acres of Open Space, including 11.02± acres within the 200-foot Vernal Pool Buffer Zone as conceptually depicted on the *Open Space Plan* prepared by McClure Engineering, dated

September 7, 2022 (Attachment D). The $24.2\pm$ acre Open Space area will connect to the larger proposed Open Space within the northerly portion of Lot 4, as depicted on the *Open Space Plan*. The Applicant and Property Owner have been in communication with state officials on the land transfer and protection of the cumulative Open Space. Specific land protection details will be forthcoming.

6. No Significant Adverse Impact Analysis

Section §365-1.3 A. of the *Bylaw Regulations* states:

An applicant is required to demonstrate that any work, including proposed mitigation measures, will have no significant adverse impacts on the resource area. The Commission requires a twenty-five-foot undisturbed vegetated corridor ("no disturb" buffer) around all resource area boundaries; with the exception of certified or identified vernal pools, which will require a minimum of a 100-foot undisturbed buffer. This buffer may range up to 200 feet depending on the characteristics and species present. The term "identified vernal pool" refers to a vernal pool for which sufficient evidence to certify the vernal pool is present and is identified by the Commission or a representative of the Commission.

Section §365-5.6 E. (Vernal Pools) further states:

General performance standards. Any work with in the 200-foot buffer zone to a vernal pool shall not cause a significant adverse impact to any function of a vernal pool. It shall not result in a measurable decrease in extant wildlife populations or biological community composition, structure and species richness of the site or in the vicinity, exclusive of the present or future state of adjacent or nearby property, or impair, damage or reduce in value for wildlife purposes identified specific habitat features. The Commission shall take into account indirect effects, including but not limited to effects of nearby human activities, on a case-by-case basis.

The proposed project has been designed to have no significant adverse impacts on the downgradient Resource Areas. Only five dwelling units, garages, or decks occur within the 100-foot Buffer Zone to BVW. No structures occur within the 50-foot Buffer Zone. No work is proposed within 25-foot Buffer Zone to BVW or the 100-foot Vernal Pool Buffer Zone. Work activities are proposed within the 200-foot Buffer Zone to BVW and Vernal Pools.

The proposed revisions have been designed to avoid and minimize disturbance within the 200-foot Vernal Pool Buffer Zone and provide a habitat corridor/connection between the

Page 11 of 14

southerly A-series Vernal Pool and E-series Vernal Pool. Proposed Drive A has been situated to maximize the setbacks in between the 200-foot Vernal Pool Buffer Zones; the southerly A-series Vernal Pool to the west and E-series Vernal Pool to the east. The roadway itself is outside of the 200-foot Buffer Zone. Proposed Drive A extending easterly from the Berry Farms Road cul-de-sac has been sited to maximize setbacks to the BVW and Vernal Pool against the southerly property line. Proposed Drive A and the abutting lots are located slightly closer to the A-series BVW and Vernal Pool as this footprint occurs within a moderately logged forested upland containing logging roads and successional to patchy forested upland canopy conditions. More intact and contiguous forested upland canopy occurs within closer proximity to the E-series BVW and Vernal Pool, and have been avoided or minimized to retain the forested buffer. The E-series BVW/Vernal Pool also appear to offer greater wildlife habitat value in comparison to the southerly A-series Vernal Pool, as indicated by the diversity of documented wildlife and Vernal Pool breeding species.

Low impact development (LID) stormwater measures (rain gardens) have been specifically proposed to treat/manage stormwater, promote natural recharge, and minimize site disturbances, specifically within the 200-foot Buffer Zones. No Vernal Pools will be receiving less runoff volume post-development in comparison to predevelopment. The smaller, scattered rain gardens are proposed in lieu of large basins that would result in significant land clearing and regrading. This alternative (large stormwater basins) was dismissed early in the design phase. The rain gardens are not proposed to hold standing water for long periods of time, and are designed to drain within a few hours following storm events. As such, the rain gardens will not function as potential Vernal Pool breeding habitat.

As proposed, critical terrestrial habitat will be retained surrounding the on-site Vernal Pools. Previously logged, forested upland areas and associated logging roads outside of the Limit of Work will be allowed to naturally revegetate and provide improved overwintering habitat for Vernal Pool breeding amphibians. Ample migratory corridors will be maintained around the on-site Vernal Pools, including the connection between the southerly A-series and E-series Vernal Pools. The proposed project has been designed to maximize setbacks and minimize potential migratory impacts. As proposed, the project will not result in a cumulative significant adverse impact on the Resource Areas, including the on-site Vernal Pools.



The following table provides the cumulative total square footage and percentage of proposed impervious structures, driveways, road, rain gardens, and lawn within the 200-foot Vernal Pool Buffer in comparison to that protected in the Open Space:

Vernal Pool	Total Proposed 100-200 Foot VP Buffer Disturbance	Total Proposed Impervious Structure, Driveway, Road, Rain Garden, Lawn	Proposed Revegetation (SF)	Total VP Buffer Protected (SF)
A-series Vernal Pool (south)	(SF) 19,800	(SF) 12,200 (9.3%)*	7,600	130,761
A-series Vernal Pool (north)	11,325	5,705 (2.5%)*	5,620	225,968
E-series Vernal Pool	11,700	8,065 (6.5%)*	3,635	123,252
TOTAL	42,825	25,970 (5.4%)*	16,855	479,981 (11.02± acres)

*Proposed Impervious Structure, Driveway, Road, Rain Garden, Lawn /Total VP Buffer Protected.

The project will cumulatively protect $11.02\pm$ acres within the 200-foot Vernal Pool Buffer. The project proposes to permanently disturb, including impervious structures, driveways, roadways, rain gardens, and lawn/landscaped area, a total of 5.4% of the 200foot Vernal Pool Buffer in comparison to that protected in the Open Space. The Proposed Revegetation along the regraded side slopes represents a temporary disturbance that will be revegetated and allowed to naturalize as wildlife habitat.

The proposed 5.4% permanent disturbance will not result in a significant adverse impact to the on-site Vernal Pools and will not substantially reduce or impair the Vernal Pools or 200-foot Vernal Pool Buffer Zone's capacity to provide important wildlife habitat functions. The Applicant has taken comprehensive measures to minimize disturbance within the 200-foot Vernal Pool Buffer Zone and expand the habitat corridor/connection between the southerly A-series Vernal Pool and E-series Vernal Pool. The project, as currently proposed, is not anticipated to result in a measurable decrease in extant wildlife populations, including Spotted Salamanders, Fairy Shrimp, or general wildlife species; or negatively impact biological community composition, structure and species richness of the Site or in the vicinity; or impair, damage or reduce in wildlife habitat value or functions/values. The $24.2\pm$ acre Open Space, including the $11.02\pm$ acres within the 200foot Vernal Pool Buffer, will permanently protect important wildlife habitat in perpetuity. The project, therefore, complies with the performance standards outlined within the *Town*

Page 13 of 14

of Sturbridge Wetlands Bylaw (Bylaw, Chapter 286) and Wetlands Regulations (Bylaw Regulations).

7. Summary

LEC is submitting this NOI Application for Blueberry Hill Estates, a 55+ Housing Community ("Manufactured Housing Community"), proposed within the 100-foot and 200-foot Buffer Zones to BVW/Freshwater Wetlands and the 200-foot Buffer Zone to Vernal Pools protected under the WPA/WPA Regulations and/or *Bylaw/Bylaw Regulations*. The Applicant is proposing significant mitigation to ensure the protection of wetland interests and values, including creation of an undisturbed habitat corridor and crossing structure, permanent land protection (Open Space), and a multi-year Vernal Pool Monitoring Plan. Proposed work within the 200-foot Buffer Zone has been minimized and the proposed project has been designed to protect the interests and values associated with the on-site BVWs and Vernal Pools to have no significant adverse impacts on these Resource Areas. The project complies with the wetland regulatory performance standards and setback requirements for issuance of an Order of Conditions.

Page 14 of 14



Federal Emergency Management Agency Flood Insurance Rate Map for Worcester County (Map Numbers 25027C0933E and 25027C0931E), July 4, 2011

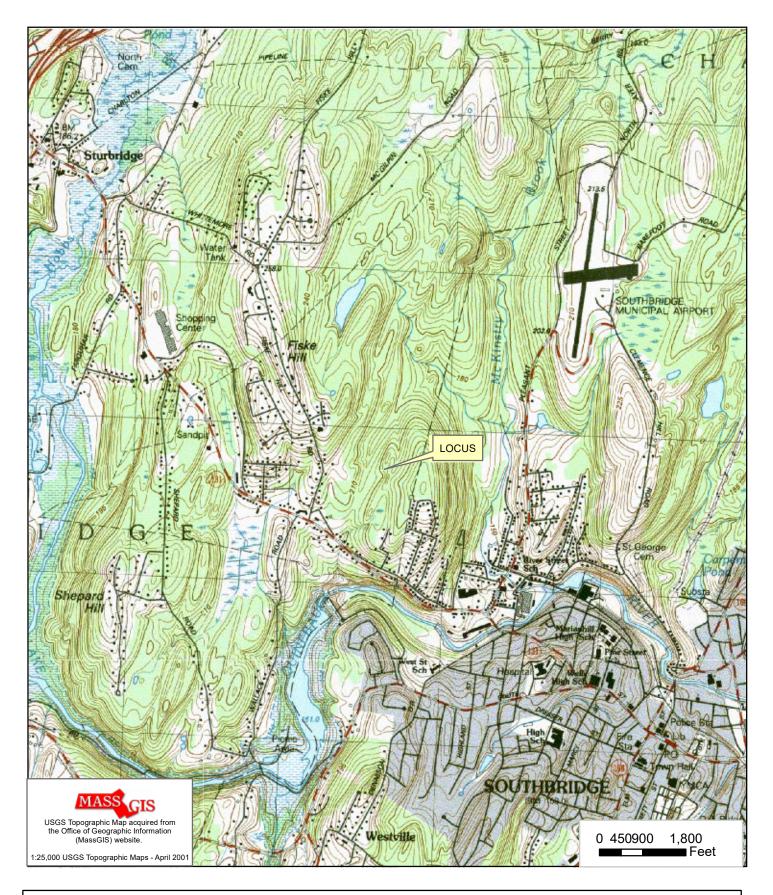
Massachusetts Natural Heritage Atlas, 15th Edition. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries and Wildlife, Route 135, Westborough, MA 01581, <u>http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.</u>.

Massachusetts Wetlands Protection Act (M.G.L. c. 131, §. 40) and its implementing *Regulations* (310 CMR 10.00), <u>www.state.ma.us/dep</u>.

Town of Sturbridge Wetlands Bylaw (Chapter 286) and Wetlands Regulations (Bylaw Regulations

Appendix A

Locus Maps Figure 1: USGS Topographic Map Figure 2: Aerial Orthophoto Figure 3: FEMA Flood Insurance Rate Map Figure 4: NHESP Map



LEC Environmental Consultants, Inc. Plymouth, MA 508.746.9491 www.lecenvironmental.com

Figure 1: USGS Topographic Map



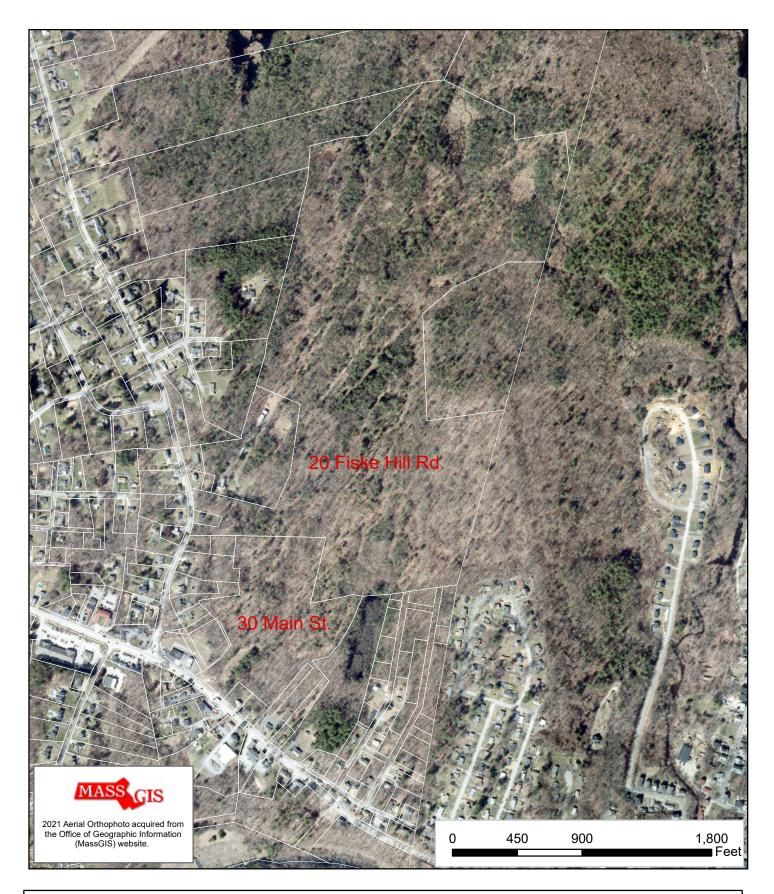
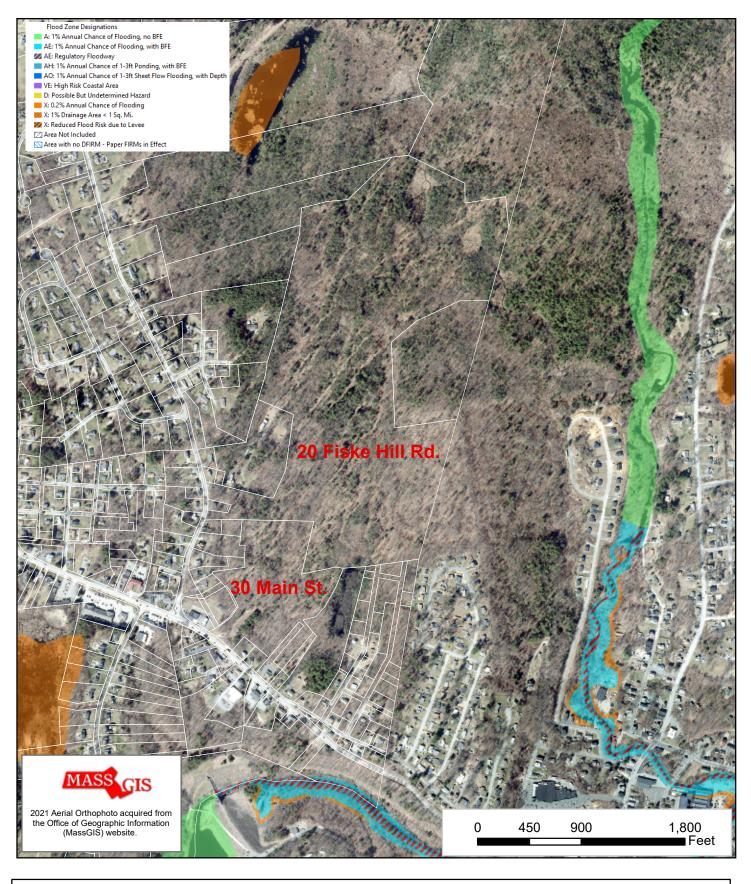




Figure 2: Aerial Orthophoto Map





LEC Environmental Consultants, Inc. Plymouth, MA

Plymouth, MA 508.746.9491 www.lecenvironmental.com

Figure 3: FEMA Flood Insurance Rate Map







Figure 4: NHESP Map



Appendix B

Sewer Allocation



Sewer Allocation

Heather Blakeley <hblakeley@sturbridge.gov> To: Justin Stelmok <stelmok.j@gmail.com> Cc: Jean Bubon <jbubon@sturbridge.gov> Fri, Oct 14, 2022 at 3:20 PM

Good afternoon Justin,

I have attached information regarding overall sewer allocation for the Town of Sturbridge. Based on review of this information and the information on the vote you provided. I agree that the lot associated with your proposed development has allocated sewer flow.

Your lot is shown in area 1 (existing service area at time of report) and would have had previously agreed upon flow based on the vote see footnote 2 in the table. To me this is saying you have allocated flow (my opinion)

These are referred to in the sewer Bylaw:

https://ecode360.com/36892138?highlight=allocated,allocating,allocation,sewer& searchId=25832804354162253#36892138

https://ecode360.com/attachment/ST4024/ST4024-345a%20Allocation%20of%20Sewer%20Flow%20Regulation.pdf

I would be happy to discuss with you more if needed.

[Quoted text hidden]

20221014113008219.pdf 700K

Ċ

ļ

1.0000

 TABLE 6-6

 Sturbridge Existing and Future Annual Average Flow Projection

Study Area	Existin Developm	-	Existing Flows by Type (gpd)	Existing Flows (gpd) 721,700	20-Year Incease in Development ²	20-Year Future Development ²		by Type ³ (gpd)	20-Year Future Flows (gpd)	Ultimate Increase in Development ⁴	Ultimate Development ²	~	Ultimate Buildout Flow Increse by Type (gpd)	Ultimate Buildout Flows (gpd)	
esidential esidential - apartments	1,687 454	units units	308,126 86,604	121,100	197	1,884 454	units units	132,000 32,800	970,000	1,838	3,525	units	305,800	1,276,000	entinta Alexandra Maria
ommercial/industrial ow to southbridge nflow/infiltration	3,192,937 191	sq. ft. units	239,470 31,700		420,363	3,613,300	sq. ft.	31,500		1,755,585	454 4,948,522	units sq. ft.	131,700		
ontingency			55,800 0					19,600 32,400					43,800 72,200		
				1,600					12,000				in an	가 같은 방법 방법을 가지? 같은 방법 방법을 가지?	
esidential	8	units	1,300		47	55	units	7,800	12,000	435	4.40			94,000	
esidential - apartments		units	0			Ó		1,000		430	443	units	72,400		
ommercial/industrial		∫sq. ft.	0		0	0	sq. ft.	0	:	0	0 0	00 H	0		
oflow/infiltration			100					800		v	0	sq. ft,	0		
ontingency			200		÷			1,300					7,200 11,900		
				35,000					36,000						
esidential	166	units	27,600		3	169	units	500	00,000	29	195			42,000	
esidential - apartments		units	0			0				23	0	units	4,800		
ommercial/industrial		sq. ft.	0		0	0	sq. ft.	0		0	0	00 ft	0		
flow/infiltration			2,800				·	100		0	0	sq. ft.	0		
ontingency			4,600					100					500 800		
				2,300					7,000						
esidential	11	units	1,800		21	32	units	3,500	1,000	195	206	units	12 400	44,000	
esidential - apartments		units	0			0				155	200	umus	32,400		
ommercial/industrial flow/infiltration		sq. ft.	0		1,248	1,248	sg. ft.	100		5,210		sq. ft.	400		.
			200	· · ·				400			0,210	ъц. п.	3,300		e e fante
ontingency			300					600					5,400		
sidential				18,700					21,000					34,000	
sidential - apartments	84	units	14,000		8	92	units	1,300		73	157	units	12,100	34,000	
ommercial/industrial	3	units	500			3					3	units	12,100		
low/infiltration	. 4,072	sq. ft.	300		0	4,072	sq. ft.	0		0		sq. ft.	0		
entingency			1,500					100	-			54.10	1,200	-	
nungonoy			2,400					200					2,000		
sidential			0	0	·				1,000					2,000	
sidential - apartments		units units	0	-	0	0	units	0		0	0	units	0	2,000	
ommercial/industrial		sq. ft.	0		3,709	0	6	000	1		0				
flow/infiltration			õ		3,709	3,709	sq. ft.	300		15,492	15,492	şq. ft.	1,200		
ontingency		-	õ					0					100		
			-					0					200		
				6,300					9,000					28.000	
sidential	28	units	4,700		· 11	39	units	1,800	0,000	99	127	unito	16 500	28,000	
sidential - apartments	2	units	300			2				53	2	ynits	16,500		
mmercial/industrial		sq. ft.	0		0		sq. ft.	0.		0		10 H	0		
low/infiltration			500				,	200		0	U	sq. ft.	1,700		
ontingency			800	•				300					2,700		

Tighe&Bond

l

R

 TABLE 6-6

 Sturbridge Existing and Future Annual Average Flow Projection

Study Area	Existing Development ¹	Existing Flows by Type (gpd)		20-Year Incease in Development ²	20-Year Futur Development		20-Year Future Flow Increase by Type ³ (gpd)	20-Year Future Flows (gpd)	Ultimate Increase in Development ⁴	Ultimate Development ²	· ·	Ultimate Buildout Flow Increse by Type (gpd)	Ultimate Buildout Flows (gpd)
residential residential - apartments commercial/industrial	30 uni 2 uni	ts 300	0,100	. 6	36 2	units	1,100	9,000	60	90	units	10,000	20,000
inflow/infiltration ~ contingency 9	sq.	ft. 0 500 900		0	0	sq. ft.	0 100 200		0	2 0	sq. ft.	0 1,000 1,700	·
residential residential - apartments commercial/industrial	63 unil Unil	is O	13,300	12	75 0	units	2,000	16,000	110	173	units	18,300	37,000
inflow/infiltration contingency 10	sq. :	ft. 0 1,100 1,700		0	0	sq. ft.	0 200 300		0	0 0	sq. ft.	0 1,800 3,000	
residential residential - apartments commercial/industrial	14 unit unit sq. f	s O	2,900	22	36 0	units	3,700	24,000	205	219 0	units	34,100	113,000
inflow/infiltration contingency 11		200 400		167,609	167,609	sq. ft.	12,600 1,600 2,700		699,993	699,993	sq. ft.	52,500 8,700 14,300	
residential residential - apartments commercial/industrial	56 units 6 units	900	12,900	7	63 6	units	1,100	15,000	61	117 6	units	10,200	26,000
inflow/infiltration contingency	sq. ft	. 0 1,000 1,700		0	0	sq. ft.	0 100 200	•	0		sq. ft.	0 1,000 1,700	
12 residential residential - apartments commercial/industrial	3 units	0	800	2	5 0	units	200	2,000	14	17	units	2,300	7,000
inflow/infiltration contingency	880 sq. ft.	100 100 100		6,611	7,491	sq. ft.	500 100 100		27,611	0 28,491	sq. ft.	2,100 400 700	
13 residential residential - apartments commercial/industrial	53 units 2 units ⁷ 4,250 sq. ft.	8,800 300	11,800	32	85 2	units	5,400	21,000	301		units	50,100	83,000
inflow/infiltration contingency	⁻ 4,250 sq. ft.	300 900 1,500		17,894	22,144	sq. ft.	1,300 700 1,100		74,731	2 78,981	sq. ft.	5,600 5,600 9,200	
14 residential residential - apartments commercial/industrial	18 units 2 units 1,868 sq. ft.	3,000 300	4,300	23	41 2	units	3,900	10,000	216	234 2	units	35,900	50,000
inflow/infiltration contingency	1,868 sq. ft.	100 300 600		0	1,868	sq. ft.	0 400 600		0		sq. ft.	0 3,600 5,900	

Tighe&Bond

Sturbridge Existing and Future Ann	Existing Development	Existing Flows b		20-Year Incease in Development ²	20-Year Future Development ²		20-Year Future Flow Increase by Type ³ (gpd)	20-Year Future Flows (gpd)	Ultimate Increase in Development⁴	Ultimate Development ²		Ultimate Buildout Flow Increse by Type (gpd)	Ultimate Buildout Flow (gpd)
5	Development		0					0		4	units	200	1,000
esidential	l ui	nits 0		0	0	units	0		1.	1	umus	200	
esidential - apartments	u	nits 0			0				0	0 0	sq. ft.	0	
commercial/industrial	sc	ı. ft. 👘 0		0	0	sq. ft.	0		0	0	эч. п.	0	•
nflow/infiltration		. 0					0					0	
contingency		0	-				0					U	
								13,000					37,000
6			10,100				0.000	13,000	128	169	units	21,300	
esidential	41 UI	nits 6,800		14	55	units	2,300		120	8		2.,000	
esidential - apartments	8 u	nits 1,200			8		0'		0	õ	sq. ft.	0	
commercial/industrial	so	q.ft. 0		0	0	sq. ft.	0 [.] 200		U U	0		2,100	
nflow/infiltration		800					400					3,500	
contingency		1,300					400					•	
								34,000	4				123,000
17			23,000		455	units	8,500	04,000	474	578	units	78,900	
esidential		nits 17,300		51	155	unus	0,000			6			
esidential - apartments		nits 900			6 0	sq. ft.	0		0	0	sq. ft.	0	
commercial/industrial	SC	q. ft. 0		0	U	sq. it.	900					7,900	
nflow/infiltration		1,800					1,400					13,000	
contingency		3,000					1,100						
			700					2,000	-				10,000
18			700		7	units	700	,	41	44	units	6,800	
residential		nits 500		4	0	unito	100			0			
residential - apartments		nits 0		0	0	sq. ft	0		0	0	sq. ft	. 0	
commercial/industrial	S(q.ft. 0		0			100		-, *			700	
inflow/infiltration		100					100					1,100	
contingency		100											005.00
			104,500					148,000					305,00
19	70	nits 12,100		20	93	units	3,300		183	107	units		
residential	ł	inits 32,900		0	219				0	.219		0	
modular/retirement homes		inits 35,900		0	399				0	399		0	
campsites		q. ft. 1,700		406,479	428,878	sq. fi	. 30,500		1,697,601	1,720,000	sq. f		
commercial/industrial inflow/infiltration	22,000 3	9,10, 8,300		100,110		•	3,400					15,800	
contingency		13,60					5,600					26,000	
conangency		10,00	•										143,00
20			4,100					22,000	500	676	unit	s 93,700	1.10,00
residential	12 u	units 2,000		60	72	unite	; 10,000		563	575	UTAL	5 30,100	
residential - apartments		units 300			2				000 754	2 220,207	sq. 1	ft. 15,500	
commercial/industrial		q. ft. 1,000		49,505	62,961	sq. f	t. 3,700		206,751	220,207	sy.	10,900	
inflow/infiltration		300		· ·			1,400	-				18,000	
contingency		500					2,300					10,000	
~ ·								44.000					178,0
21			24,500					44,000	646	758	uni	ts 107,500	
residential	112 (units 18,60	D	69	181	unit	s 11,500		040	, 50	ain.	· ·	
residential - apartments		units 800		ŧ	5				176,181	176,181	sq.	ft. 13,200	
commercial/industrial	s	sq.ft. 0		42,185	42,185	sq. f			110,101		~ ~ .	12,100	
inflow/infiltration		1,900)				1,500					19,900	
contingency	ļ	3,200				-	2,400		1				

TABLE 6-6

Sturbridge Draft CWMP/DEIR

Tighe&Bond

. . . .

TABLE 6-6

U

ļ

Ą

ų

Sturbridge Existing and Future Annual Average Flow Projection

Study Area	Exist Develop		Existing Flows by Type (gpd)	Existing Flows (gpd) 1,600	20-Year Incease in Development ²	20-Year Future Development ²		20-Year Future Flow Increase by Type ³ (gpd)	Flows (gpd)	Ultimate Increase in Development ⁴	Ultimate Development ²		Ultimate Buildout Flow Increse by Type (gpd)	Ultimate Buildout Flows (gpd)
residential residential .	8	units units	1,300 0	1,600	27	35 0	units	4,500	8,000	- 255	263	units	42,400	56,000
commercial/industrial		sq. ft.	0		0	0	sq. ft.	0		0	0 0	sq. ft.	. 0	
inflow/infiltration contingency			100 200					500 800				·	4,200 7,000	
23				18,100					19,000					20,000
residential residential - apartments commercial/industrial	86	units units	14,300 0		1	87 0	units	100		7	93 0	units	1,200	201000
nflow/infiltration		sq. ft.	0 1,400		0	0	sq. ft.	0		· 0	0	sq. ft.	0	
contingency	• 、		2,400					0					100 200	
24				28,100					32,000					42,000
residential residential - apartments commercial/industrial	24,000	units units	0 0		0	0 0	units	0		0	0 0	units	0.	12,000
nflow/infiltration	34,663	sq. ft.	22,200 2,200		34,942	69,605	sq. ft.	2,600 300		145,931	180,594	sq. ft.	10,900	
ontingency			3,700					400				•	1,100 1,800	
25				19,400					27,000					87,000
esidential esidential - apartments	86	units	14,300		34	120	units	5,700		318	404	units	52,900	07,000
ommercial/industrial	14,760	units sq. ft.	0 1,100		0	0		0			0	_		
nflow/infiltration	1,700	5 9 . it.	1,500	_	0	14,760	sq. ft.	0 600	· _ ·	0	14,760	sq. ft.	0 5,300	
ontingency			2,500					900					8,700	
26				11,400					16,000					47,000
esidential esidential - apartments	52 2	units	8,700		18	70	units	3,000		169	221	units	28,100	
ommercial/industrial		units sq. ft.	300 0		0	2	sq. ft.	0		0	2 0	- <i>4</i>	0	
nflow/infiltration	• •		900		0	0	зц. п.	300		. 0	0	sq. ft.	0 2,800	
ontingency			1,500					500					4,600	
7				7,000					11,000					20.000
esidential	32	units	5,300 +		16	48	units	2,600	14,000	148	180	units	24,600	39,000
esidential - apartments ommercial/industrial	1	units	200			1					1			
flow/infiltration		sq. ft.	0 600	-	0	0	sq. ft.	0		0	0	sq. ft.	0	-
ontingency			900	-				300 400					2,500 4,100	
3				200					0.000					
esidential	1	units	200	200	4	5	units	700	2,000	37	38	units	6,200	8,000
sidential - apartments mmercial/industrial		units	0			· 0				01	0	anno	0,200	
low/infiltration		sq. ft.	0		0	0	sq. ft.	0		0	0	sq. ft.	0	
ontingency			0 0					100					600	
			v	1				100					1,000	

Line in

Tighe&Bond

TABLE 6-6

Sturbridge Existing and Future Annual Average Flow Projection

Study Area	Exis Develoj	-	Existing Flows by Type (gpd)	Existing Flows (gpd)	20-Year Incease in Development ²	20-Year Future Development ²		20-Year Future Flow Increase by Type ³ (gpd)	20-Year Future Flows (gpd)	Ultimate Increase in Development ⁴	Ultimate Development ²		Ultimate Buildout Flow Increse by Type (gpd)	Ultimate Buildout Flows (gpd)
residential residential - apartments	75	units units	12,500 0	16,900	33	108	units	5,400	24,000	304	379	units	50,600	81,000
commercial/industrial inflow/infiltration contingency	11,879	sq. ft.	900 1,300 2,200		0	0 11,879	sq. ft.	0 500 900		0	0 11,879	sq. ft.	0 5,100 8,400	
30 residential	20			7,100					14,000					71,000
residential - apartments commercial/industrial	32 3,560	units units	5,300 0		32	64 0	units	5,400		300	332 0	units	49,900	71,000
inflow/infiltration contingency	3,300	sq. ft.	300 600 900		0	3,560	sq. ft.	0 500 900		. 0	3,560	sq. ft.	0 5,000 8,200	
31				17,300					26,000					00.000
residential residential - apartments commercial/industrial	79 3	units units	13,100 500		40	119 3	units	6,700		373	452 3	units	62,100	96,000
inflow/infiltration contingency		sq. ft.	0 1,400 2,300		0	0	sq. ft.	0 700 1,100		0	0	sq. ft.	0 - 6,200 10,200	
32 residential				24,000					26,000					20,000
residential - apartments commercial/industrial	114	units units	19,000 0		8	122 0	units	1,200	·	70	184 0	units	11,600	39,000
inflow/infiltration contingency		sq. ft.	0 1,900 3,100	-	0	0	sq. ft.	0 . 100 200		0	0	sq. ft.	- 1,200	
33				15,900					20,000				1,900	
residential residential - apartments	71 2	units units	11,800 300	10,000	20	91 2	units	3,300	20,000	184	255 2	units	30,600	55,000
commercial/industrial inflow/infiltration contingency	5,400	sq. ft.	400 1,300 2,100		0	5,400	sq. ft.	0 300 500		0		sq. ft.	0 3,100 5,100	
34				0					9,000				01100	
residential residential - apartments commercial/industrial		units units	0 0		41	41 0	units	6,900	3,000	385	385 0	units	64,100	82,000
inflow/infiltration contingency		sq. ft.	0 0 0		0	0	sq. ft.	0 700 1,100		0		sq. ft,	0 6,400 10,600	
35				1,700				-	7.000				10,000	
residential residential - apartments commercial/industrial	5 4	units units	800 600		25	30 4	units	4,200	7,000	235	240 4	units	39,100	52,000
inflow/infiltration contingency		sq. ft.	0 100 200		0	0	sq. ft.	0 400 700		0	•	sq. ft.	0 3,900 6,500	

Tighe&Bond

\\SRV\Projects\S\S1520\MEPA\DEIR\Future Conditions\2012 flow projection summary.xlsx:Build Out Flow Summary

TABLE 6-6

Sturbridge Existing and Future Annu Study Area	Existin	g	Existing Flows by	Existing Flows (gpd)	20-Year Incease in Development ²	20-Year Future Development ²		20-Year Future Flow Increase by Type ³ (gpd)	20-Year Future Flows (gpd)	Ultimate Increase in Development ⁴	Ultimate Development ²		Ultimate Buildout Flow Increse by Type (gpd)	Ultimate Buildout Flows (gpd)
36	<u> </u>			200	· · · · · · · · · · · · · · · · · · ·				5,000					40,000
residential	1_	units	200		20	21	units	3,400		188	189	units	31,300	
residential - apartments		units	0			0					0			
commercial/industrial		sq. ft.	0		0	0	sq. ft.	0		0	0	sq. ft.	0	
inflow/infiltration			0					300					3,100	
contingencý			0					600					5,200	
37				9,900					15,000					54,000
residential		units	0	-,	22	22	units	3,700		208	208	units	34,600	
residential - apartments		units	7,300			0					0			
commercial/industrial	6,642	sq. ft.	500		0	6,642	sq. ft.	0		0	6,642	sq. ft.	0	
inflow/infiltration		•	800					400					3,500	
contingency			1,300					600					5,700	
				1,184,000					1,677,000					3,522,000
TOTAL	0.700	units	665 020	1,104,000	970.9	4,696.9		293,900	1,011,000	9,058	12,635		1,507,200	0,022,000
residential	3,726 219	units	665,030		0.0	4,000.0		233,300		0,000	12,000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
modular/retirement homes	399				0.0									
campsites	3,316,766	sa ft	268,370		1,318,155	4,634,921		98,900		5,505,079	8,821,845		412,900	
commercial/industrial	3,310,700	sq. ft.	92,600		1,010,100	1,004,021		39,500		_,,	.,		192,200	
inflow/infiltration contingency			60,600		1			64,600				÷	316,700	

'Existing development statistics were compiled from the Town of Sturbridge's 2006 Assessors Database.

²20-year future development is based on the assumption that 18% of ultimate buildout will be reached in twenty years.

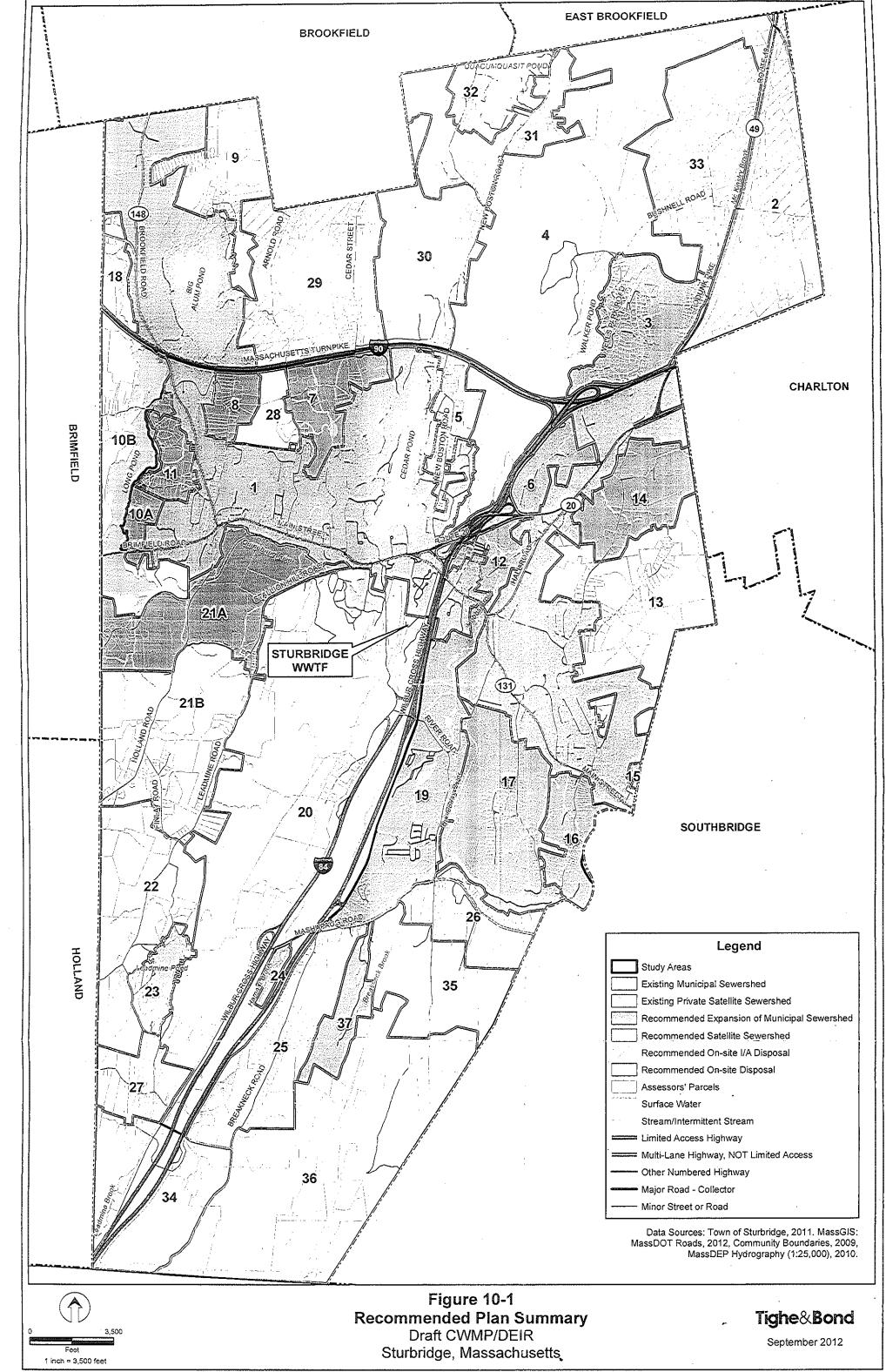
³20-year future flows within the existing sewershed accounts for flows already committed by the Town to property owners.

⁴Ultimate buildout is based on a parcel-by-parcel analysis of the development/redevelopment potential using the 2006 Town's Assessors Database.

⁵Study Area 1 existing flow is based on WWTF flow and flow to Southbridge

Flow Factors:	Existing	Future
single family residential:	166 gpd/unit	166 gpd/unit
multi-family/modular residential:	150 gpd/unit	150 gpd/unit
campsite:	90 gpd/campsite	90 gpd/campsite
commercial/industrial:	75 gpd/1000 sf	75 gpd/1000 sf
inflow/infiltration:	10% of residential + c	commercial/industrial flow
contingency:	15% of residential + of	commercial/industrial flow + infiltration/inflow

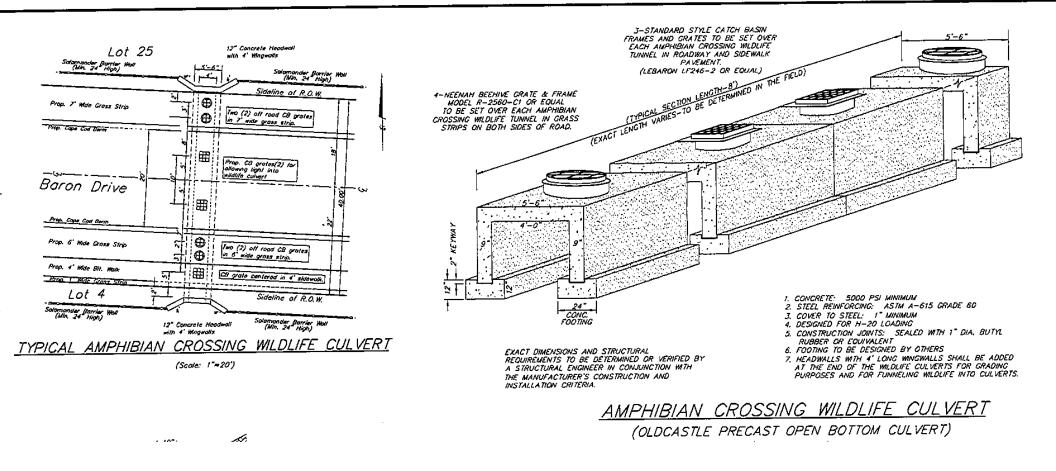
Tighe&Bond



Document Path: V:\Projects\S\S1520\CWMP_2012\Report Figures\RecommendedPlanSummary.mxd

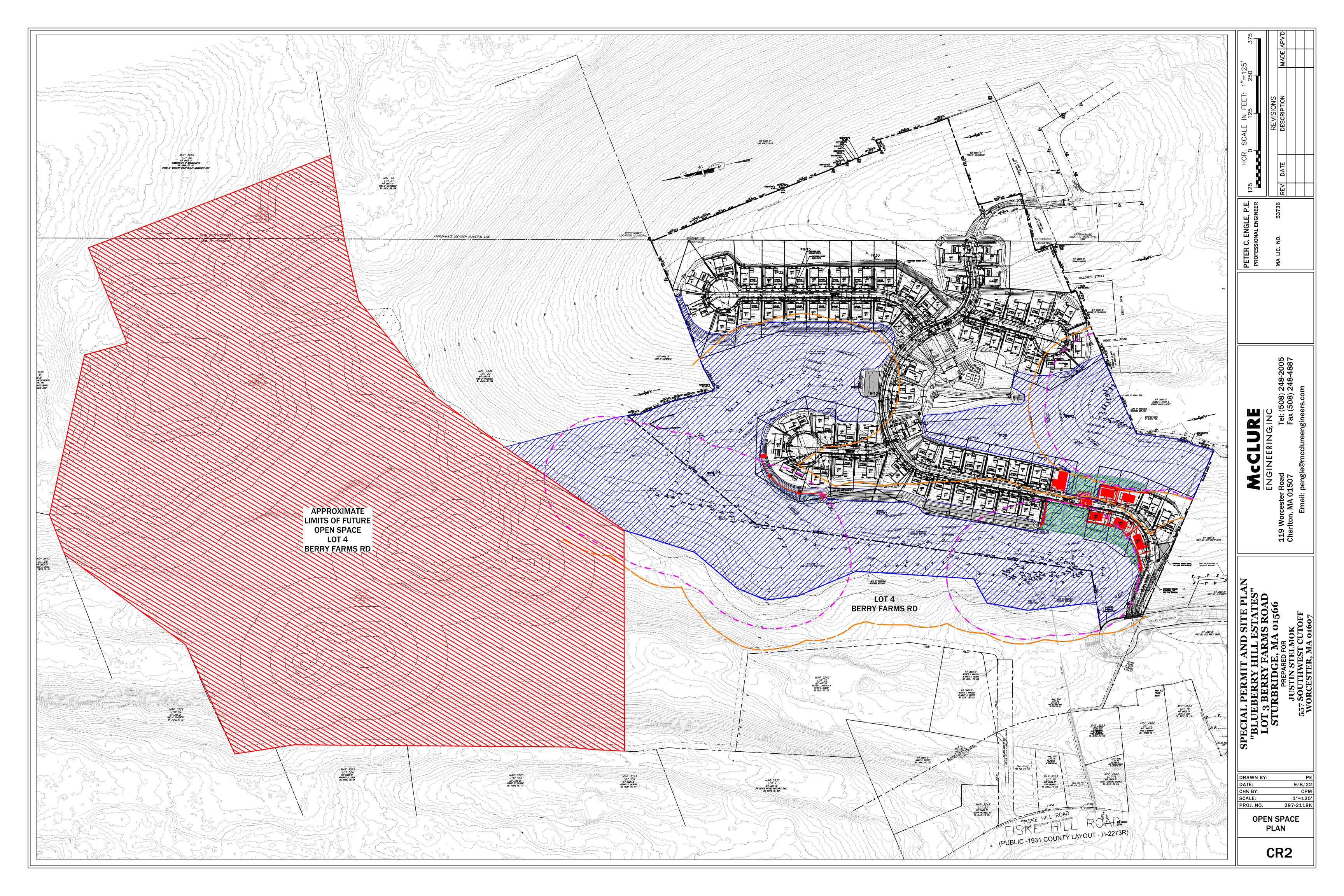
Appendix C

Representative Amphibian Crossing Wildlife Culvert Details



Appendix D

Open Space Plan, Prepared by McClure Engineering, Inc., Dated September 8, 2022



Appendix E

Stormwater Report, Prepared by McClure Engineering, Inc., Last Revised November 9, 2022

(Hard copy on file with Conservation Commission/electronic copy included herein.)

Appendix F

Special Permit and Site Plan, Blueberry Hill Estates, 55+ Manufactured Housing Community, Lot 3 Berry Farms Road, Sturbridge, MA, Prepared by McClure Engineering, Inc., Revised November 10, 2022

(Hard copy on file with Conservation Commission/electronic copy included herein.)