

# Revised Solid Waste Assessment Summary Report

## Breakneck Hill Farm Dumping Site

**Breakneck Hill Road  
Southborough, Massachusetts**

October 2022 (Revised February 2023)

**Prepared For:**

Town of Southborough  
Conservation Commission  
17 Common Street  
Southborough, Massachusetts 01772

**Prepared By:**

TRC Environmental Corporation  
650 Suffolk Street  
Lowell, Massachusetts 01854  
(978) 970-5600



**DISCLAIMER:** This document has not been reviewed by  
the Massachusetts Department of Environmental Protection (MassDEP)

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## 1.0 Introduction

On behalf of the Town of Southborough (the “Town”), TRC Environmental Corporation (TRC) has prepared this *Revised Solid Waste Assessment Summary Report* to summarize solid waste assessment activities completed in September 2022 for the portion of the Breakneck Hill Farm Dumping Site (the “Site”) owned by the Town.

Previous assessment activities performed at the Site identified evidence of surficial solid waste and debris throughout the western portion of Map 29, Lot 28A (owned by the Town of Southborough and identified further as Breakneck Hill Road) and a portion of Map 29, Lot 36 (a residential property owned by Alexis Fallon and identified further as 60 Breakneck Hill Road), comprising approximately one acre. Between February 2022 and January 2023, the Town engaged the abutting residential property owner in access negotiations; however, the Town and the abutting residential property owner were unable to execute a mutually agreeable access agreement. As a result, solid waste assessment activities were only performed on Map 29, Lot 28A and did not extend onto Map 29, Lot 36. This *Revised Solid Waste Assessment Summary Report* has been prepared for the portion of the Site located on Town-owned property only.

Solid waste assessment activities were performed in accordance with the May 2022 *Final Assessment Plan*, which was approved by MassDEP via email on June 8, 2022. A *Revised Final Assessment Plan* was submitted to MassDEP in February 2023. TRC’s September 2022 assessment program included installing test pits, documenting lithology and types of solid waste and debris encountered, evaluating for the presence of contamination by screening soil samples with a photoionization detector (PID) and recording visual and olfactory observations, and completing a limited asbestos containing materials (ACM) inspection. The primary goal of the solid waste assessment was to further evaluate the nature and extent of surficial and buried solid waste at the town-owned portion of the Site. In addition, assessment activities were performed to determine if oil and/or hazardous materials (OHM) including ACM exist at the Site.

## **2.0 Site Description & Background**

The following sections describe conditions of the Site and general surrounding area. In addition, Site history and background information is summarized below.

### **2.1 Site Location & Description**

The Site is located to the east/southeast of 48 Breakneck Hill Road in Southborough, Massachusetts. The general location of the Site is depicted on **Figure 1**. The Site is heavily vegetated and comprises approximately one acre. The Site is located on two separate tax parcels, Map 29, Lot 28A and Lot 36. Existing conditions of the Site are displayed on **Figure 2**.

The Town acquired Map 29, Lot 28A from Raymond Davis on June 20, 1980, which reportedly comprises approximately 87.66 acres and currently consists of conservation land. The area of surficial waste and debris is located on the western-central portion of Map 29, Lot 28A and extends onto 60 Breakneck Hill Road, a western adjoining property that currently is utilized for residential purposes. Solid waste and debris at the Site have been documented to include (but not limited to) old tires, machine parts, rusted 55-gallon drums, asphalt shingles, appliances, heavy equipment, broken ceramics, plastic objects, and general trash.

### **2.2 Site History & Background**

Prior to the Town's acquisition, Davco Farm occupied Map 29, Lot 28A. Mr. Davis, President of Davis Tractor Company, operated the Davco Farm. The farm was home to an apple and peach orchard, an apiary and bee supply business, and a Belted Galloway cattle herd. Between approximately 1966 and 1980, the Site appears to have been used as dumping ground associated with the Davco Farm.

### **2.3 Adjoining Properties & General Surrounding Area**

The Site is situated in a mixed-use area predominantly consisting of residential and commercial properties. The Site is bordered to the north by conservation land followed by a commercial complex and Route 9 (Turnpike Road); to the east by conservation land followed by residential properties and Woodland Road; to the south by conservation land followed by residential properties, Breakneck Hill Road, Woodland Road, and the Massachusetts Turnpike (Interstate 90); and to the west by residential properties (48 Breakneck Hill Road and 60 Breakneck Hill Road) and an unnamed pond followed by Breakneck Hill Road.

## **3.0 Previous Assessment Activities**

The following sections summarize previous assessment activities performed at the Site prior to September 2022.

### **3.1 Wetland Delineation & Aerial Photograph Review**

In 2020, the Town of Southborough retained Lucas Environmental, LLC (LE) to perform a detailed wetland investigation in the vicinity of the Site. The detailed wetland investigation included reviewing aerial photographs to assess potential impacts to wetland areas from dumping. LE concluded that the dumping area is partially located on Town-owned conservation land and extends onto the abutting 60 Breakneck Hill Road property. The solid waste was documented to be located immediately adjacent to wetland resource areas. Due to the proximity of wetland resource areas to the solid waste, LE indicated that state, local, and/or federal wetland permits would be required to facilitate remedial actions. The memorandum prepared by LE that summarizes the wetland delineation and aerial photograph review is provided as **Appendix A**.

### **3.2 Draft Site Assessment Report**

The October 20, 2020 *Draft Site Assessment Report* (email) was prepared by Mr. Paul Pisinski, part-time Public Health Director and Board of Health Agent for the Town. According to the email, Mr. Pisinski visited the Site on September 29, 2020. Following the Site visit, Mr. Pisinski estimated that the solid waste was distributed throughout an approximately 400 feet by 800 feet oval-shaped area located on Town-owned property and the western abutting 60 Breakneck Hill Road property; however, Mr. Pisinski indicated that a survey would need to be conducted to provide an accurate estimate and identify pertinent property lines. Mr. Pisinski stated that the Site was overgrown with brambles, vines, trees, shrubs and weeds, and several void spaces were observed throughout the Site.

The email also references a Site visit performed in 2005 or 2006 by Mr. Pisinski and Mr. Philip Mauch, a former Board of Health Chairman. In the approximately 15-year period between Site visits, the Site reportedly became significantly more overgrown with vegetation. Solid waste at the Site was documented to consist of “old tires, abandoned cars, trucks, farm vehicles and farm equipment, broken metal and plastic pails, broken metal parts, metal and wooden cases, broken glass windows and broken glass bottles, ceramics, demolition debris, discarded furniture, bookcases, desks, and all manner of household trash”.

According to the email, the Conservation Commission hired consultants to document conditions at the Site. Mr. Pisinski indicated that an LSP previously collected surface “leachate” samples at the Site. According to Mr. Pisinski, the work performed by the hired consultants “did not detect any or toxic public health harm”. Leachate analysis by others did not reveal a public health threat at the time samples were collected; however, Mr.

Pisinski acknowledged that the partially buried and exposed solid waste at the Site is a public safety concern.

To address the dumping ground, Mr. Pisinski recommended the following actions to the Town: hire a Massachusetts Registered Land Surveyor to perform a survey; hire a tree and brush removal company to clear vegetation from the Site; hire a company to remove the solid waste and restore the Site to the satisfaction of the Conservation Commission and MassDEP. The October 20, 2020 *Draft Site Assessment Report* (email) prepared by Mr. Paul Pisinski is provided as **Appendix B**.

### 3.3 Land Survey

In June 2021, land surveying activities were conducted at the Site to outline the extent of visually apparent surface waste/debris; document local topography and existing conditions; and overlay the extent of surficial waste/debris on an aerial photograph. Prior to the existing conditions survey, TRC performed a site reconnaissance to stake out the extent of the visually apparent surficial waste/debris, identify the general area of focus for the surveyors, and conduct a photographic survey.

TRC retained Land Planning, Inc. (Land Planning) of Hanson, Massachusetts to survey the wetland flags (previously placed by others), perimeter of surficial waste/debris, and the northern and northeastern bank of the pond. In addition, Land Planning collected ground surface elevations to prepare localized topography in 1-foot contours. Based on the Site reconnaissance and survey, the area of visually apparent surficial waste and debris was documented to cover approximately one acre. Existing conditions of the Site are depicted on **Figure 2**.

## 4.0 Regulatory Background & Notification

The Site is currently not identified in the Environmental Protection Agency (EPA) Inventory of Open Dumps or the MassDEP list of Inactive/Closed Landfills and Dumping Grounds. In addition, the Site is not currently listed in MassDEP's Waste Site and Reportable Releases database.

Dumping grounds, open dumps, and illegal disposal of solid waste are prohibited by the Commonwealth of Massachusetts under 310 CMR 19.014: Prohibition on Open Dumps and Dumping Grounds and Illegal Disposal of Solid Waste, which states that "*No person shall establish, construct, operate or maintain a dumping ground or operate or maintain a landfill in Massachusetts in such manner as to constitute an open dump.*" Accordingly, the Site is considered to be an illegal dumping ground, and on September 28, 2021, the Town formerly notified the MassDEP Central Regional Office's Solid Waste Management Division via email that a dumping ground was located on a portion of Town-owned property.

Following notification, the Town entered into a mutually negotiated Administrative Consent Order (ACO) with MassDEP, and a work plan was developed to outline proposed solid waste assessment activities to be performed at the Site. On June 8, 2022, MassDEP approved the May 2022 *Final Assessment Plan* via email.

Between February 2022 and January 2023, the Town engaged the abutting residential property owner in access negotiations; however, the Town and the abutting residential property owner were unable to execute a mutually agreeable access agreement. Due to access issues with the abutting residential property owner, the Town and MassDEP agreed to a superseding ACO dated February 9, 2023; the Town submitted a Revised Final Assessment Plan to MassDEP in February 2023; and this *Revised Solid Waste Assessment Summary Report* has been prepared for the portion of the Site located on Town-owned property only.

## 5.0 Solid Waste Assessment

The following sections summarize solid waste assessment activities conducted by TRC on behalf of the Town to further evaluate the nature and extent of dumping at the Town-owned portion of the Site. The September 2022 assessment program included the following:

- installing test pits;
- documenting lithology and types of solid waste and debris encountered;
- evaluating for the presence of contamination by screening soil samples with a PID and recording visual and olfactory observations; and
- completing an ACM inspection on the Town-owned portion of the Site.

A photograph log documenting the September 2022 solid waste assessment is provided as **Appendix C**.

### 5.1 Notice of Intent & Order of Conditions

Prior to performing assessment activities at the Site, TRC prepared a Notice of Intent (NOI) on behalf of the Town. The NOI was required because a portion of the project Site is located within wetland resource areas including Bordering Vegetated Wetlands (BVW) and associated buffer zones. The NOI was filed on July 15, 2022 and prepared to perform assessment activities on Town-owned property. Following review by MassDEP and the Town of Southborough Conservation Commission and a public hearing held on August 4, 2022, an Order of Conditions was issued to allow the implementation of the proposed solid waste assessment program on August 8, 2022. For reference, the Order of Conditions prepared for the Breakneck Hill Farm Dumping Site solid waste assessment program is included as **Appendix D**.

### 5.2 Survey for Test Pits

On September 13, 2022, Land Planning returned to the Site to stake out the 14 test pit locations depicted on **Figure 3** (the *Site Plan* included in the February 2023 *Revised Final Assessment Plan*), which depicts the initially proposed test pit locations on Town-owned land. TRC and MassDEP personnel observed surveying activities performed by Land Planning, reviewed proposed test pit locations, and discussed adjusting the locations of certain test pits in the field, as necessary.

### **5.3 Test Pit Installation**

Between September 14, 2022 and September 16, 2022, nineteen (19) test pits were installed by Strategic Environmental Services, Inc. (SES) throughout the Town-owned portion of the Site. The test pits were installed using a track-mounted, mini excavator to further evaluate the nature and extent of solid waste at the Site; the test pits were advanced to depths ranging between approximately 4.5 feet below ground surface (bgs) and 8.5 feet bgs. Test pits were terminated due to shallow refusal, lack of solid waste, or excavator constraints. TRC documented the location, dimensions, and contents of each test pit including the types of solid waste and lithology. In addition, TRC collected soil samples from each test pit for logging and screening purposes as described in Section 5.4 below.

Solid waste was encountered in 12 of the 19 test pits to depths ranging between the ground surface up to approximately 7.0 feet bgs. Based on the findings associated with the September 2022 solid waste assessment program, the vertical and horizontal extent of buried solid waste and debris appears to have been defined on the Town-owned portion of the Site. Notwithstanding, the solid waste and debris is not uniformly buried; discrete pockets of buried solid waste and debris are apparent throughout the Site. Due to access restrictions, the horizontal extent of buried solid waste and debris was not able to be delineated at the western portion of the Site, extending towards the abutting residential property. Test pit locations are depicted on **Figure 4**, and the test pit logs are included as **Appendix E**. A photograph log is also provided as **Appendix C**.

### **5.4 Soil Screening & Sampling**

During the test pitting program, soil samples were collected from the sidewalls and base of each test pit for logging and screening purposes. Intervals exhibiting evidence of contamination (if any) were targeted for screening. The soil samples were screened with a PID on a parts per million by volume (ppmv) basis to evaluate for the presence of volatile organics. PID headspace readings ranged between 0.0 ppmv and 1.6 ppmv. Furthermore, visual and/or olfactory evidence of contamination was not encountered during the test pitting program. Based on observations made during soil screening and sampling activities, no soil samples were retained for laboratory analyses in accordance with the May 2022 *Final Assessment Plan*. The soil screening results are summarized on **Table 1**.

### **5.5 Drums and Containers**

No drums, tanks, or other containers housing hazardous waste or materials were encountered during the September 2022 solid waste assessment. However, several corroded drums, tanks, and/or other discarded containers were encountered during the test pitting program; these containers were empty, and evidence of release(s) stemming from the empty containers was not observed.

## 5.6 Leachate, Sheens & OHM Seeps

Leachate, sheens and/or OHM seeps were not encountered throughout the Town-owned portion of the Site during the test pitting program.

## 5.7 ACM Survey

During the solid waste assessment, Mr. Brian Burk (Commonwealth of Massachusetts Department of Labor Standards [DLS] certified Asbestos Inspector No. 900513) performed a limited ACM survey on the Town-owned portion of the Site. Specifically, Mr. Burk identified and sampled suspect ACM unearthed during the test pitting program and visually inspected other solid waste and debris present on the ground surface throughout the Town-owned portion of the Site. Nine suspect materials including grey cement board, tan boiler bricks, black asphalt based built-up roofing material (2), black felt paper roofing material (2), grey insulation, red wire insulation, and black conduit were identified and sampled as part of the ACM survey. One of the nine suspect materials was unearthed during test pitting activities. Specifically, the suspect tan fire brick was encountered in test pit TP(86,184) at a depth of approximately 3.5 feet bgs. The remaining eight suspect materials were identified during the visual surficial assessment. Three samples were collected from each of the nine suspect materials (resulting in 27 total samples) and submitted to TRC's Industrial Hygiene Laboratory located in Windsor, Connecticut for asbestos analysis via Polarized Light Microscopy (PLM), United State Environmental Protection Agency (EPA) Method 600/R-93/116.

Laboratory analysis of the 27 ACM survey samples detected asbestos greater than 1% in three of the nine suspect materials. Asbestos was detected in the grey cement board at 20% and both of the black asphalt based built-up roofing materials between 3% and 5%. The ACM survey sample locations are displayed on **Figure 4**. The ACM survey analytical results are summarized on **Table 2**, and the associated laboratory analytical report is included as **Appendix F**. In addition, the complete *Limited Asbestos Survey Summary Report* is provided as **Appendix G**.

## 6.0 Findings

Findings associated with the September 2022 solid waste assessment are provided below:

- Nineteen (19) test pits were installed to depths ranging between approximately 4.5 feet bgs and 8.5 feet bgs to further evaluate the nature and extent of solid waste throughout the Town-owned portion of the Site.
- Solid waste was encountered in 12 of the 19 test pits at depths ranging between the ground surface up to approximately 7.0 feet bgs. Solid waste was not observed during the test pitting operation at depths exceeding 7.0 feet bgs. Accordingly, the vertical extent of solid waste appears to be approximately 7.0 feet bgs. However, the solid waste and debris is not uniformly buried, and discrete pockets of buried solid waste and debris are apparent throughout the Town-owned portion of the Site. Although not identified during the September 2022 solid waste assessment, solid waste could be located at depths greater than 7.0 feet bgs in select portions of the Site.
- The horizontal extent of buried solid waste and debris appears to have been defined on the Town-owned portion of the Site; however, the solid waste and debris is not uniformly buried, and discrete pockets of buried solid waste and debris are apparent throughout the Site. In addition, the horizontal extent of buried solid waste and debris was not able to be delineated at the western portion of the Site, extending towards the abutting residential property due to access restrictions.
- No visual or olfactory evidence of contamination was encountered on the Town-owned portion of the Site. In addition, PID headspace readings did not exceed the 10 ppmv threshold specified in the May 2022 *Final Assessment Plan*. As a result, no soil samples were retained for laboratory analyses.
- No intact drums, tanks, or other containers housing hazardous waste or materials were encountered during the September 2022 solid waste assessment.
- Leachate, sheens and/or OHM seeps were not encountered throughout the Town-owned portion of the Site during the test pitting program.
- Laboratory analysis of the ACM survey samples detected asbestos greater than 1% in three of the nine suspect materials. Specifically, asbestos was detected in the grey cement board at 20% and both of the black asphalt based built-up roofing materials between 3% and 5%.

## 7.0 Conclusions & Recommendations

Conclusions and recommendations to address the findings of the September 2022 solid waste assessment are provided below:

- The Town should provide MassDEP with a copy of this February 2023 *Revised Solid Waste Assessment Report* and the February 2023 *Revised Final Assessment Plan*.
- No additional assessment activities are proposed for the Town-owned portion of the Site prior to initiating cleanup.
- TRC understands that the Town is required to select contractors to implement the proposed and approved *Cleanup Plan* for the Town-owned portion of the Site via a bidding process, and funds for the cleanup operation will be available beginning in July 2023. Accordingly, cleanup operations are anticipated to begin in July 2023
- As requested by the Town and MassDEP, a *Cleanup Plan* will be prepared, which will specify proposed methods, procedures, and removal actions to be performed at the Town-owned portion of the Site to remove all waste materials. At minimum, the *Cleanup Plan* will include the following: methods and procedures to segregate and stockpile solid waste; measures to protect adjacent wetland resource areas from adverse impacts during cleanup efforts; identification of proposed disposal and/or recycling facilities to receive solid waste and debris; an anticipated schedule for cleanup operations; and written approval from the Southborough Conservation Commission to perform work as proposed in the *Cleanup Plan* within areas of the Site under its jurisdiction. The *Cleanup Plan* will specify cleanup activities that will need to be performed at the Town-owned portion of the Site by the selected cleanup contractor(s). The *Cleanup Plan* should be submitted to MassDEP for review, comment, and approval.
- The Town provided MassDEP with a copy of the certified asbestos inspector's report (**Appendix G**) within seven days of receipt and no later than 30 days after the certified asbestos inspector completed the Site inspection, which was September 16, 2022.
- It's anticipated that ACM abatement will be performed in conjunction with solid waste cleanup operations for the Town-owned portion of the Site. Prior to performing asbestos abatement activities at the Town-owned portion of the Site, a *Non-Traditional Asbestos Abatement Work Plan* should be prepared by a DLS-certified Project Designer. The Town should retain the services of a DLS-licensed asbestos contractor to conduct the necessary asbestos abatement activities as part of the comprehensive cleanup strategy for the Town-owned portion of the Site.

## 8.0 References

*Solid Waste Management Facility Regulations (310 CMR 19.000)* prepared by MassDEP dated February 14, 2014.

*Wetland Delineation & Aerial Photo Review, Breakneck Hill Conservation Land, Southborough, Massachusetts* prepared by Lucas Environmental, LLC dated June 29, 2020.

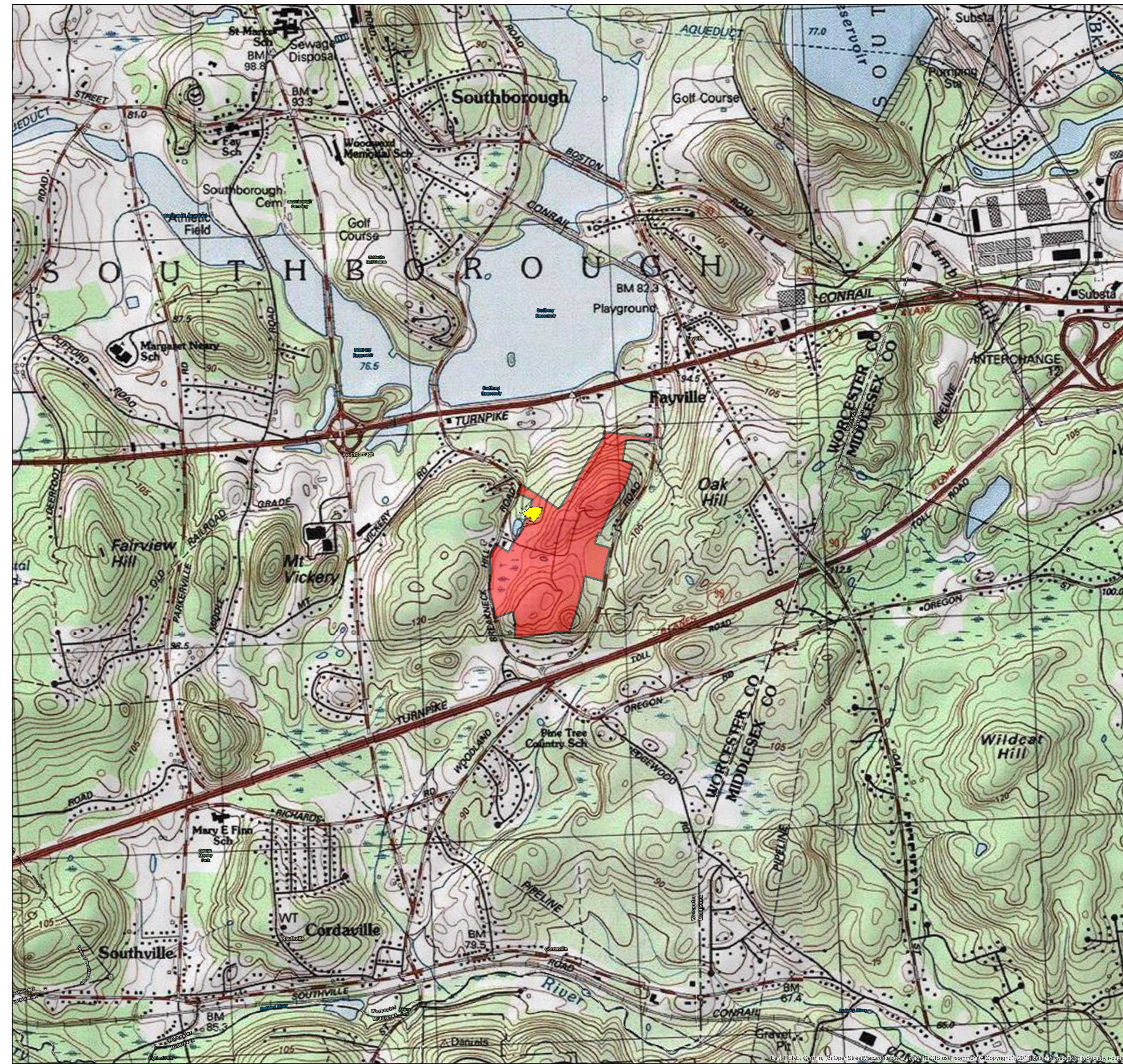
*Draft Site Assessment Report* prepared by Board of Health Agent dated October 20, 2020.

*Existing Conditions Plan, Off Breakneck Hill Road, Southborough, Massachusetts* prepared by Land Planning, Inc. dated June 23, 2021.

*Final Assessment Plan, Breakneck Hill Farm Dumping Site, Breakneck Hill Road, Southborough, Massachusetts* prepared by TRC Environmental Corporation dated May 2022.

*Limited Asbestos Survey Summary Report, Solid Waste Assessment, Breakneck Hill Farm Dumping Site, Breakneck Hill Road, Southborough, Massachusetts* prepared by TRC Environmental Corporation dated October 3, 2022.

## **Figures**



PROJECT: BREAKNECK HILL FARM DUMPING SITE  
 SOUTHBOROUGH, MA 01772

TITLE: SITE LOCATION MAP

DRAWN BY:	C. HARDY	PROJ. NO.:	277567
CHECKED BY:	T. BEVENOUR		
APPROVED BY:	T. BEVENOUR		
DATE:	SEPTEMBER 2022		

650 SUFFOLK STREET  
 LOWELL, MA 01854  
 PHONE: 978.970.5600

Breakneck Hill.mxd

FILE NO.:

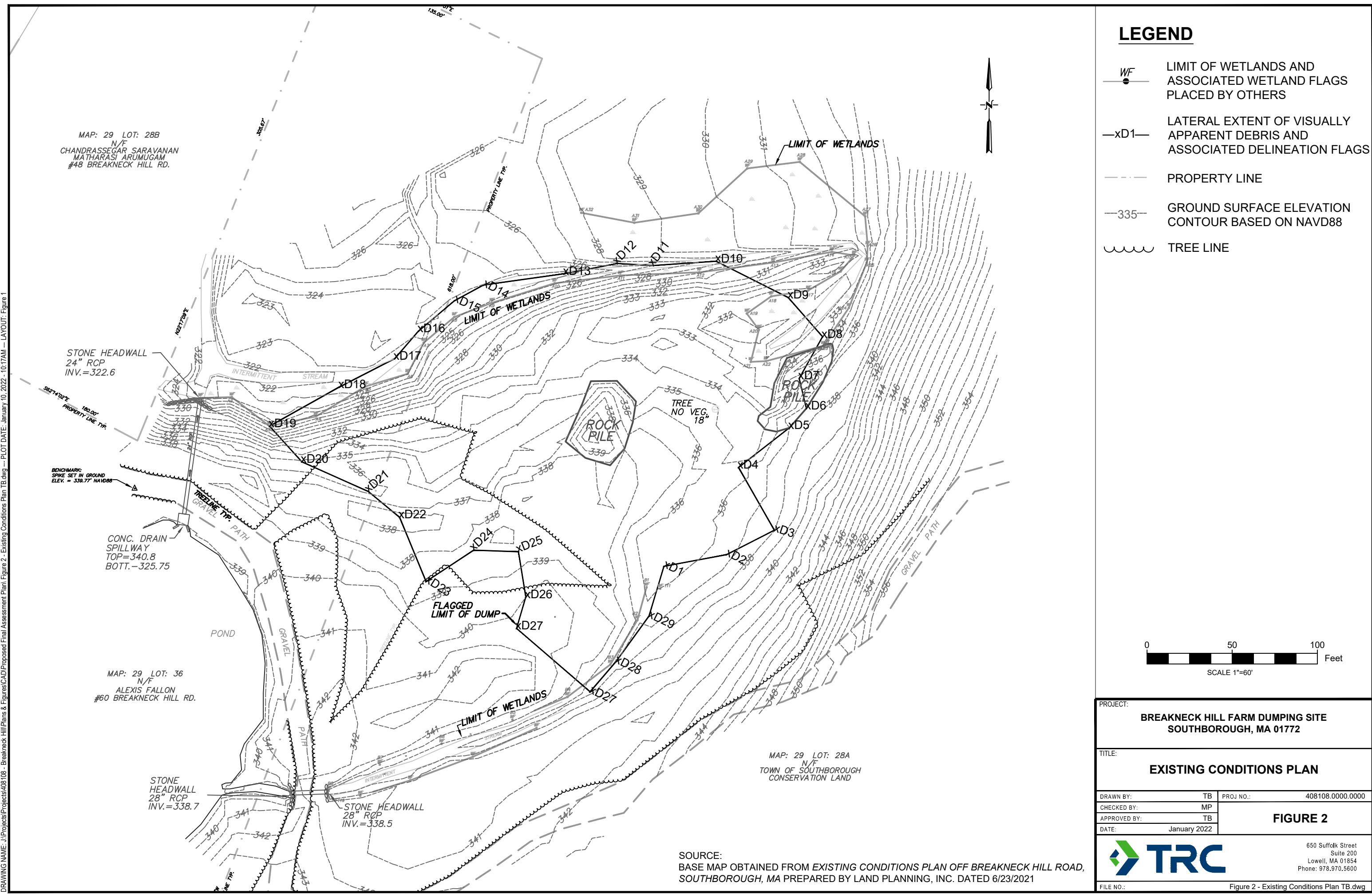


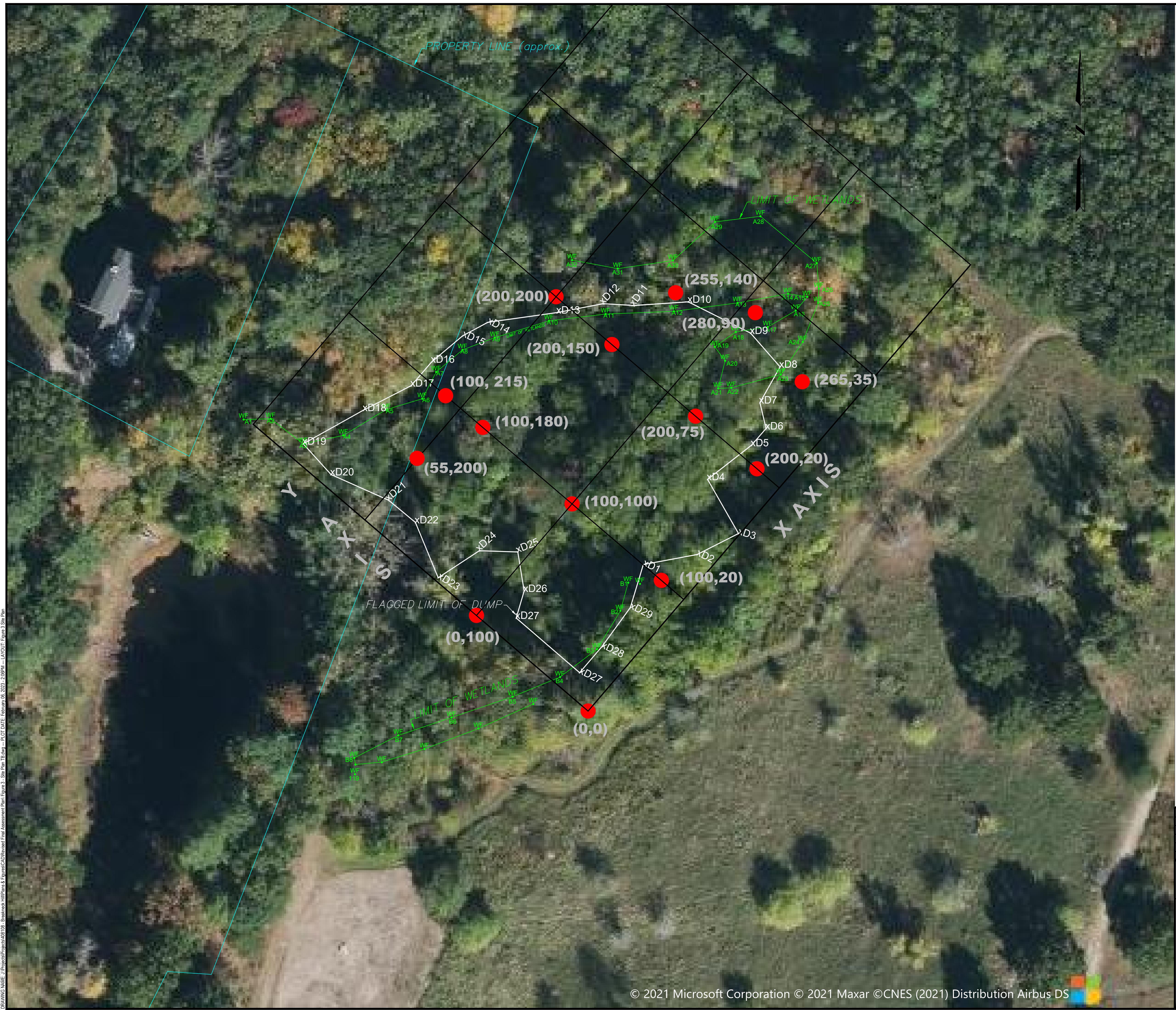
Esri, HERE, Garmin, (c) OpenStreetMap contributors and the GIS user community. Copyright © 2013 National Geographic Society. All rights reserved.

Breakneck Hill.mxd



FIGURE 1





## LEGEND

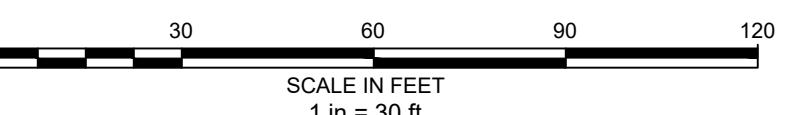
- WF LIMIT OF WETLANDS AND ASSOCIATED WETLAND FLAGS PLACED BY OTHERS
- xD1 LATERAL EXTENT OF VISUALLY APPARENT DEBRIS AND ASSOCIATED DELINEATION FLAGS
- (0,0) PROPOSED TEST PIT LOCATIONS & COORDINATES (FEET FROM ORIGIN)

NOTES:

FEATURES INCLUDING WETLAND AND DEBRIS DELINEATION FLAGS WERE OBTAINED FROM EXISTING CONDITIONS PLAN OFF BREAKNECK HILL ROAD, SOUTHBOROUGH, MA PREPARED BY LAND PLANNING, INC. DATED 6/23/2021

SOIL AND DEBRIS REMOVED DURING THE INSTALLATION OF TEST PITS WILL BE TEMPORARILY PLACED ADJACENT TO THE RESPECTIVE TEST PIT. MATERIAL EXCAVATED DURING THE TEST PITTING PROGRAM WILL BE UTILIZED AS BACKFILL AND RETURNED TO A SIMILAR LOCATION AND DEPTH FROM WHERE IT ORIGINATED, AS FEASIBLE.

TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROLS WILL BE INSTALLED IN THE VICINITY OF EACH TEST PIT LOCATION, AS NECESSARY, PRIOR TO ADVANCEMENT



02	TB	2/6/23 SITE PLAN REV02 TB
01	TB	5/18/22 SITE PLAN REV01 TB
00	CH	1/24/22 SITE PLAN REV00 TB
NO.	BY	DATE REVISION APPD.

TITLE: SITE PLAN

PROJECT: BREAKNECK HILL FARM DUMPING SITE SOUTHBOROUGH, MA 01772

DRAWN BY: TB	PROJ. NO.: 408108.2023.0000
CHECKED BY: LA	
APPROVED BY: TB	
DATE: FEBRUARY 2023	

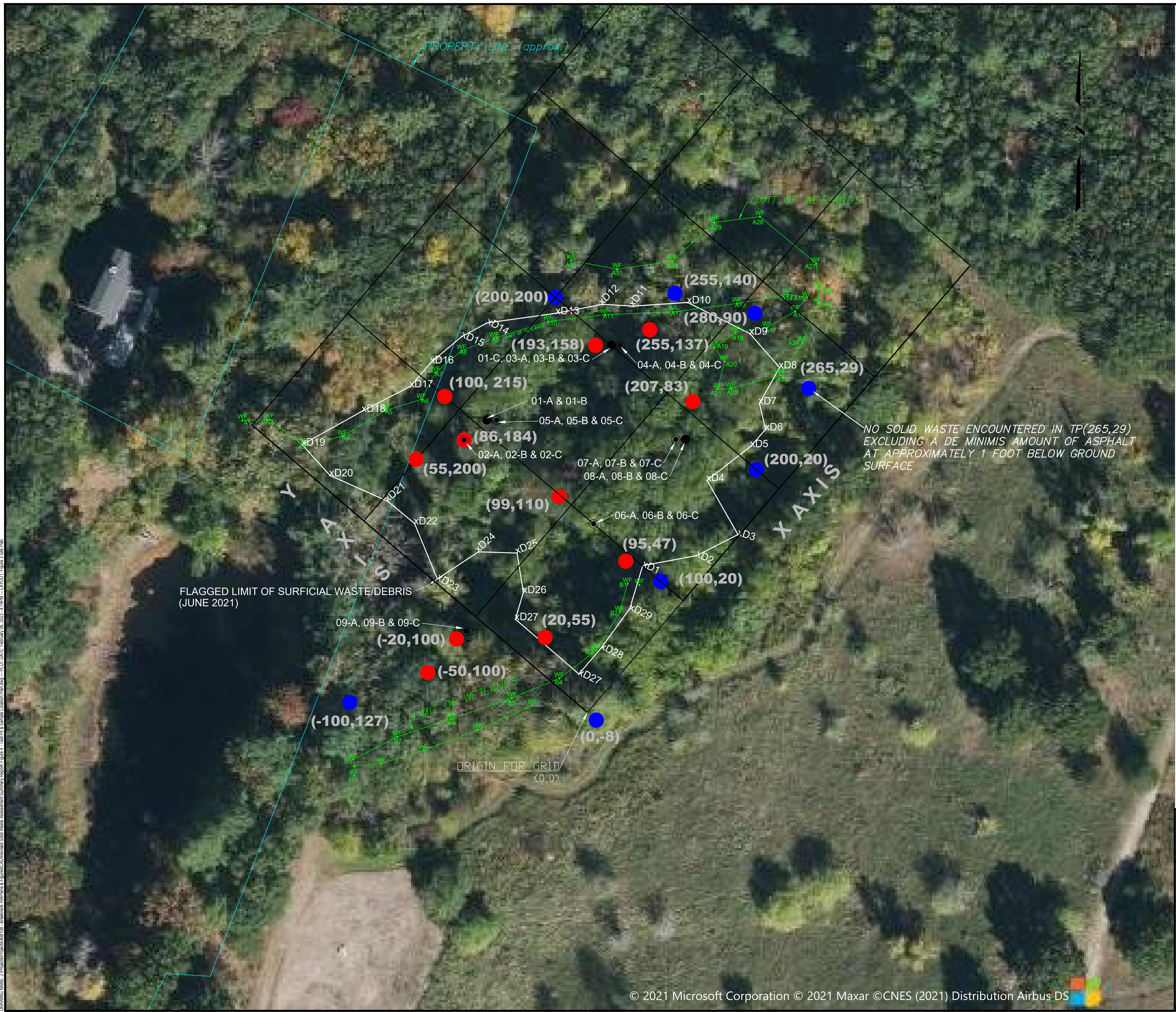
FIGURE 3

COMMONWEALTH OF MASSACHUSETTS  
TAYLOR A. BEVEROUR  
ENVIRONMENTAL  
NO. 55724  
PROFESSIONAL ENGINEER

WANNAANCIT MILLS  
LOWELL, MA 01854  
(978) 970-5660

TRC 650 SUFFOLK STREET  
LOWELL, MA 01854  
(978) 970-5660

FILE NO.: Figure 3 - Site Plan TB.dwg



## **Tables**

**Table 1: Soil Screening Summary**  
**Solid Waste Assessment**  
**September 14, 2022 - September 16, 2022**  
**Breakneck Hill Farm Dumping Site**  
**Breakneck Hill Road**  
**Southborough, Massachusetts**

Date	Test Pit Identification	Maximum Depth (fbgs)	PID Headspace Reading Range (ppmv)	Maximum PID Headspace Reading (ppmv)	Sample Collected for Analytical Parameters (excluding asbestos content)?	Sample Identification
9/14/2022	TP (100, 215)	5.5	0.2 - 0.4	0.4	No	NA
9/14/2022	TP (55, 200)	7.0	0.2 - 0.6	0.6	No	NA
9/14/2022	TP (86, 184)	7.5	0.1 - 0.3	0.3	No	NA
9/14/2022	TP (99, 110)	5.5	0.0 - 0.3	0.3	No	NA
9/14/2022	TP (193, 158)	6.0	0.1 - 0.2	0.2	No	NA
9/14/2022	TP (207, 83)	8.5	0.1 - 0.2	0.2	No	NA
9/15/2022	TP (200, 20)	5.0	0.0 - 0.2	0.2	No	NA
9/15/2022	TP (265, 29)	5.0	0.0 - 0.2	0.2	No	NA
9/15/2022	TP (280, 90)	6.0	0.1	0.1	No	NA
9/15/2022	TP (255, 140)	5.0	0.1 - 0.2	0.2	No	NA
9/15/2022	TP (200, 200)	4.5	0.0 - 0.1	0.1	No	NA
9/15/2022	TP (100, 20)	5.0	0.0 - 0.1	0.1	No	NA
9/15/2022	TP (0, -8)	5.0	0.0 - 0.6	0.6	No	NA
9/16/2022	TP (-20, 100)	5.0	0.0 - 0.1 *	0.1 *	No	NA
9/16/2022	TP (-50, 100)	5.0	0.0 - 0.1 *	0.1 *	No	NA
9/16/2022	TP (-100, 127)	5.0	0.0 - 1.6	1.6	No	NA
9/16/2022	TP (20, 55)	6.0	0.5 - 0.9	0.9	No	NA
9/16/2022	TP (225, 137)	5.0	0.2 - 0.6	0.6	No	NA
9/16/2022	TP (95, 47)	5.0	0.1 - 0.2	0.2	No	NA

PID - Photoionization Detector

fbgs - feet below ground surface

ppmv - parts per million by volume (referenced to benzene)

NA - Not Applicable

Samples (if any) were collected if PID headspace readings exceeded 10 ppmv and/or visual or olfactory evidence of contamination was encountered.

\* - PID readings were recollected due to erroneous initial readings caused by equipment malfunction.

Refer to the test pit logs for lithology and solid waste descriptions, and refer to the Test Pit & Sample Location Plan for test pit locations and where solid waste was encountered.

**Table 2: ACM Sampling Analytical Results Summary**  
**ACM Survey**  
**September 14, 2022 - September 16, 2022**  
**Breakneck Hill Farm Dumping Site**  
**Breakneck Hill Road**  
**Southborough, Massachusetts**

Date Collected	Sample Identification	Description	Asbestos %	Asbestos Type	Considered ACM?
9/14/2022	01-A	Grey Cement Board	20%	Chrysotile	Yes
9/14/2022	01-B	Grey Cement Board	NA/PS	NA/PS	Yes
9/14/2022	01-C	Grey Cement Board	NA/PS	NA/PS	Yes
9/14/2022	02-A	Tan Boiler Brick	ND	None	No
9/14/2022	02-B	Tan Boiler Brick	ND	None	No
9/14/2022	02-C	Tan Boiler Brick	ND	None	No
9/14/2022	03-A	Black Roofing, Asphalt Based Built-Up	5%	Chrysotile	Yes
9/14/2022	03-B	Black Roofing, Asphalt Based Built-Up	NA/PS	NA/PS	Yes
9/14/2022	03-C	Black Roofing, Asphalt Based Built-Up	NA/PS	NA/PS	Yes
9/14/2022	04-A	Black Roofing, Felt Paper	ND	None	No
9/14/2022	04-B	Black Roofing, Felt Paper	ND	None	No
9/14/2022	04-C	Black Roofing, Felt Paper	ND	None	No
9/15/2022	05-A	Grey Insulation, Unknown	ND	None	No
9/15/2022	05-B	Grey Insulation, Unknown	ND	None	No
9/15/2022	05-C	Grey Insulation, Unknown	ND	None	No
9/15/2022	06-A	Red/Black Wire Insulation	ND	None	No
9/15/2022	06-B	Red/Black Wire Insulation	ND	None	No
9/15/2022	06-C	Red/Black Wire Insulation	ND	None	No
9/15/2022	07-A	Black Roofing, Felt Paper	ND	None	No
9/15/2022	07-B	Black Roofing, Felt Paper	ND	None	No
9/15/2022	07-C	Black Roofing, Felt Paper	ND	None	No
9/15/2022	08-A	Black Roofing, Asphalt Based Built-Up	3%	Chrysotile	Yes
9/15/2022	08-B	Black Roofing, Asphalt Based Built-Up	NA/PS	NA/PS	Yes
9/15/2022	08-C	Black Roofing, Asphalt Based Built-Up	NA/PS	NA/PS	Yes
9/16/2022	09-A	Black Conduit	ND	None	No
9/16/2022	09-B	Black Conduit	ND	None	No
9/16/2022	09-C	Black Conduit	ND	None	No

Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

ND - Asbestos was not detected at a concentration exceeding the laboratory reporting limit (1% asbestos)

NA/PS - Not Analyzed/Positive Stop

## **Appendix A**

### **Wetland Delineation & Aerial Photo Review Lucas Environmental, LLC**

## MEMORANDUM

TO: Town of Southborough  
Conservation Commission  
17 Common Street  
Southborough, MA 01772

FROM: Matthew Varrell  
Project Manager, PWS

DATE: June 29, 2020

PROJECT NUMBER: 10030.40

RE: Wetland Delineation &  
Aerial Photo Review  
Breakneck Hill Conservation Land  
Southborough, MA

Lucas Environmental, LLC (LE) was retained by the Town of Southborough to conduct a detailed wetland investigation of the northwestern portion of the Breakneck Hill Conservation Land (the Study Area). The Study Area is generally defined as the area to the west of the existing man-made pond which has received dumping of various man-made debris historically. The wetland investigation consisted of an inspection and delineation of the wetland resource areas within the Study Area. In addition to the delineation, LE was tasked with reviewing available historic aerial photos to assess the estimated limits of wetland resources prior to the dumping activities. No survey services, hazardous materials or subsurface soil explorations were conducted as part of this investigation.

### 1.0 WETLAND DELINEATION

A Professional Wetland Scientist (PWS) from Lucas Environmental, LLC (LE) conducted site investigations of the Study Area in Southborough, Massachusetts on May 6, 2020 for the purposes of delineating regulated wetland resource areas. The current delineation supplements a previous delineation conducted by LE in 2016.

The wetland investigation was performed in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40) and regulations (310 CMR 10.00 *et seq.*); Section 404 of the Clean Water Act (33 U.S.C. 1344); Massachusetts Department of Environmental Protection (MassDEP) publication “Delineating Bordering Vegetated Wetlands” under the Massachusetts Wetlands Protection Act (1995); and the U.S. Army Corp of Engineers (USACE) Wetland Delineation Manual (1987); the Northcentral and Northeast Regional Supplement (2012); and the Town of Southborough Wetland By-law (Chapter 170) and its implementing regulations.

The following data sources were examined prior to the site investigation:

- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps
- United States Geological Survey Topographic Quadrangle;
- MassGIS MassDEP Wetland and Hydrography Datalayers;
- MassGIS Natural Heritage Atlas Datalayers; and
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) Soil Survey.

## **1.1 Existing Conditions**

The Study Area consists of the portion of the Breakneck Hill Conservation Land located to the west and northwest of an existing off-site man-made pond. The pond itself is located on the abutting 60 Breakneck Hill Road property, which is privately owned. The Study Area is historically altered by its use as a working farm. The pond is believed to have been constructed in 1957 and was likely formed by impounding an existing stream channel through the construction of an earthen dam. The majority of the Study Area consists of forested uplands and wetlands, interspersed with trails and scattered man-made debris within an area best described as a dump. The uplands vary from maintained grassland to forested areas. The dump area is significantly overgrown with invasive species, including Oriental bittersweet (*Celastrus orbiculata*), tatarian honeysuckle (*Lonicera tatarica*), and garlic mustard (*Alliaria petiolata*).

According to the July 16, 2014 FEMA Flood Insurance Rate Maps (FIRM) for Worcester County, Map Number 25027C0667F, the Study Area is located within a Zone X (Other Areas), which is classified as an area determined to be outside the 0.2% annual chance floodplain (500-year flood). Therefore, Bordering Land Subject to Flooding (BLSF) does not occur within the Study Area.

A review of the current MassGIS data layer for the Massachusetts Natural Heritage Atlas (effective August 1, 2017) under the Natural Heritage and Endangered Species Program (NHESP) indicates that the Study Area is not located within Priority Habitat of Rare Species or within Estimated Habitat of Rare Wildlife. No Certified Vernal Pools under the jurisdiction of the Wetlands Protection Act Regulations (310 CMR 10.00 et seq.) or the Massachusetts Endangered Species Act (321 CMR 10.00 et seq.) occur within the Study Area.

The Study Area is located within an area designated as an Outstanding Resource Water (ORW) as it is tributary to the Sudbury Reservoir. The Study Area is not designated as an Area of Critical Environmental Concern (ACEC), Watershed Protection Area, or designated Cold Water Fisheries Resource. The Study Area does not lie within any MassDEP Wellhead Protection Areas.

## **1.2 Environmental Resource Areas**

Wetland resource areas identified within the Study Area include Bordering Vegetated Wetlands (BVW), Inland Bank, and Land Under Water Bodies and Waterways (LUWW). Under the Massachusetts Wetlands Protection Act (WPA), the wetlands observed are regulated as follows:

### **Inland Bank – 310 CMR 10.54**

Section 310 CMR 10.54 of the WPA defines a Bank *as the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent flood plain, or, in the absence of these, it occurs between a water body and an upland. The upper boundary of a Bank is the first observable break in the slope or the mean annual flood level, whichever is lower. The lower boundary of a Bank is the mean annual low flow level.* The delineated Banks are described below.

**Bordering Vegetated Wetlands – 310 CMR 10.55**

Section 310 CMR 10.55 of the Wetlands Protection Act (WPA) defines Bordering Vegetated Wetlands as *freshwater wetlands which border on creeks, rivers, streams, ponds and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps and bogs. Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. Wetland indicator plants are also those classified in the indicator categories of Facultative, Facultative+, Facultative Wetland-, Facultative Wetland, Facultative Wetland+, or Obligate Wetland in the National List of Plant Species That Occur in Wetlands: Massachusetts (Fish & Wildlife Service, U.S. Department of the Interior, 1988) or plants exhibiting physiological or morphological adaptations to life in saturated or inundated conditions.* The delineated BVW is described below.

**Land Under Water Bodies and Waterways – 310 CMR 10.56**

Land Under Water Bodies and Waterways is located within perennial streams, as well as ponds, and is defined as *the mean annual low water level* under section 310 CMR 10.56 (2)(c) of the WPA. As this resource area is located below the edge of Bank or the Mean Annual High Water (MAHW) mark of perennial streams and ponds, it is not field delineated, although would be located within the existing off-site pond which is part of the wetland system.

**1.3 Resource Area Description*****Wetland A & B***

The entirety of the wetland resource areas within the Study Area are part of a single contiguous system, identified as Wetland A & B. Wetland A consists of an intermittent stream that drains from the eastern side of the man-made pond and the vegetated wetlands that border the channel. The system is described as a Palustrine Forested wetland and occurs on both the Town-owned Conservation Land and the abutting 60 Breakneck Hill Road property. The site delineation was generally restricted to the Town-owned land as could be determined in the field. The wetland is delineated with pink survey tape numbered sequentially with flag series WFA-1 to WFA-32 and WFB-1 to WFB-8.

The A-Series flagging identifies the limits of both BVW and Bank. Flags WFA-3 through WFA-15 identifies the limit of Bank which is formed by the extent of dumped material. Based upon the nature of the channel, it is likely man-made and may have been constructed to convey surface waters emerging from a hillside seep.

The B-Series flagging identifies the northern Bank of an intermittent stream originating from the man-made pond. This channel also appears to be man-made and flows contained within it appear to discharge to the ground at flag location WFB-1. LE could not identify a contiguous channel or BVW connection between the downgradient end of the B-Series channel and the upper portion of the A-Series wetland. LE theorizes this is due to historic alteration of the area.

Plant species observed include red maple (*Acer rubrum*), yellow birch (*Betula alleghaniensis*), multiflora rose (*Rosa multiflora*), northern spicebush (*Lindera benzoin*), tartarian honeysuckle, steeplebush (*Spiraea tomentosa*), Oriental bittersweet, grape (*Vitis* sp.), skunk cabbage (*Symplocarpus foetidus*), sensitive fern (*Onoclea sensibilis*), tussock sedge (*Carex stricta*), lady fern (*Athyrium filix-femina*), and horsetail (*Equisetum arvense*).

The wetland/upland boundary is generally located along a well-defined topographic break. In numerous areas, the topographic break consists of the limits of dumped debris. Soils exhibit hydric characteristics and indicators of wetland hydrology include shallow soil saturation, evidence of seasonal inundation, and drainage patterns. Local, state, and federal boundaries are coincident. Photographs of the Study Area are provided as Appendix A.

## **2.0 AERIAL PHOTO REVIEW**

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As part of the contract, LE was tasked with reviewing available historic aerial photos to assess the estimated limits of wetland resources prior to the dumping activities and report any other pertinent information gleaned from the review of the photos. LE inspected aerial images of the Study Area dated June 30, 1959 (high resolution), March 9, 1966 (stereoscopic pair), 1977 (low resolution), and a series of images taken since 1995 that are publicly available through Google Earth.

The 1959 image shows the Study Area within two years of the construction of the pond and provides good detail (see Figure 1). This image appears to show that the dam was still somewhat under construction at this time and the area contained significant open soil areas. The 1959 photo also appears to show in progress clearing of trees within the Study Area and possibly the placement (or exposure) of the boulders that are currently observable where soil has eroded. The eastern intermittent channel is not obvious in the 1959 photo, although it appears the culvert beneath the cart path may have existed at that time. LE theorizes that the channel would have been constructed between 1959 and 1966, as the channel appears to be visible in the 1966 photos.

The stereoscopic images obtained from 1966 provide a three-dimensional stereoscopic view of the Study Area at that time. These images depict a clearly defined limit of the top of the constructed dam. Having been built in only nine years previous, it is reasonable to expect that the top of the dam was being well maintained at this time and no significant mature vegetation had become established. Unfortunately, the remaining photos were not of sufficient resolution to determine when exactly the man-made debris (forming the dump) began to be deposited. A review of additional photographs may provide greater detail on the timeline, although the end result of the current condition would not be changed.

**Figure 1. 1959 Image of Study Area**



### **3.0 ESTIMATED TIMELINE**

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Based upon the delineation and associated observations made of the Study Area, information from the aerial photos, and best professional judgement, LE has the following hypothesis of the events that have occurred over the years leading to the current conditions:

- Based upon the date on the concrete outlet structure, it appears the earthen dam was constructed in 1957, forming the pond and a secondary, man-made channel. The pond was likely constructed within an existing stream channel that may have had a border of vegetated wetlands with a naturally occurring topographic valley at the base of the hill. This naturally occurring wetland was likely supported hydrologically by one or more natural hillside seeps or springs that seasonally discharged groundwater to the surface. Such a seep currently exists in the vicinity of LE flag number WFA-23.
- The pond is primarily drained through the main drop inlet at its northern end which discharges to the channel at the base of the dam on its northern face. The secondary channel exists on the eastern side of the pond (flagged with the B-series delineation). Any discharge from the pond to this channel must flow through a culvert beneath a cart path that runs along the eastern side of the pond. LE presumes this channel may have been constructed as an emergency spillway in the event that the main outlet became clogged.
- After construction of the pond and dam, the secondary channel provided hydrology to support wetland conditions to the northeast of the pond (the “Northeastern Area”). The hillside seeps would have likely also continued to support wetlands in this area. Based upon the aerial photos, it appears the Northeastern Area was lower in elevation than the dam itself, although perhaps not significantly. However, LE theorizes that that the top of the dam would have been an artificially elevated landform behind which may have been an attractive location to deposit unwanted materials over time.
- At some point in time (~1959), it appears large stones and boulders were deposited within the Northeastern Area, presumably to eliminate the wetland areas that may have not been desirable for the agricultural use of the property at the time. The boulders were likely then covered with a layer of soil to create usable land for the farming operations. However, the secondary channel from the pond was not eliminated, resulting in occasional continued flow of surface water to the area. Currently, the Northeastern Area that was not delineated as wetland (but exists within the 100-Foot Buffer Zone) exhibits numerous voids in the substrate, revealing the underlying stones and boulders. LE theorizes that the continued surface flows from the channel eroded the placed topsoil over time, resulting in the current condition. Evidence from the 1959 photo supports this theory.
- LE could not definitively determine exactly when the dumping of man-made debris commenced. However, based on the some of the materials observable on the surface, it appears the area continued to receive material until fairly recently. LE is unable to definitively ascertain if the dumping of man-made debris occurred within wetland resources or if it occurred on top of the stone and boulder material that appears to have been placed. However, it is not unreasonable to assume that materials were dumped in both areas.

- LE believes the historic alterations of the wetland resources within the Study Area are limited to the area defined by the two delineated stream channels. LE recommends the recent flagging be field surveyed and added to the existing site plan of the area entitled "*Wetland Resource Area Limits Breakneck Hill Conservation Land at Breakneck Hill Road in Southborough, Massachusetts*," dated May 10, 2018.

## **4.0 CONCLUSION**

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LE has completed a delineation of the currently regulated wetland resource areas within the Study Area. The dumping within the Study Area is partially on the Town-owned Breakneck Hill Conservation Land and partially on the abutting privately-owned 60 Breakneck Hill Road property. In general, observed dumped materials are immediately adjacent to, but not necessarily within the limits of the wetland resource areas. The entirety of the Study Area is significantly altered by historic uses, although some of the dumped materials do not appear to be terribly old.

In the event that the Town wishes to remediate the area, it may be possible to either remove materials or install a cap to permanently cover the materials with fairly minor direct alterations to regulated wetland resource areas, based on guidance from a Licensed Site Professional (LSP). However, any such remediation would be entirely within the 100-Foot Buffer Zone and would require permitting under the WPA and the local By-law. Depending on the need for any direct wetland alteration, federal wetland permitting may also be necessary. If so desired by the Town, there may be an opportunity to provide a more significant wetland restoration within the Study Area by removing all deposited materials (including boulders, etc.) and restoring the natural topography of the area. Any such work would appear to require close cooperation with the abutting property owner.



## APPENDIX A

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### PHOTOGRAPHIC DOCUMENTATION

## PHOTOGRAPHIC DOCUMENTATION

DATE: May 6, 2020



Photograph 1: Bank of A-Series wetland delineation.



Photograph 2: Bank of A-Series wetland delineation.

## PHOTOGRAPHIC DOCUMENTATION

DATE: May 6, 2020



Photograph 3: Bank of A-Series wetland delineation.



Photograph 4: BVW of A-Series wetland delineation.

## PHOTOGRAPHIC DOCUMENTATION

DATE: May 6, 2020



Photograph 5: Bank of B-Series wetland delineation.



Photograph 6: Bank of B-Series wetland delineation.

## PHOTOGRAPHIC DOCUMENTATION

DATE: May 6, 2020



Photograph 7: Debris within wetland resource area Buffer Zone.



Photograph 8: Debris within wetland resource area Buffer Zone.

## PHOTOGRAPHIC DOCUMENTATION

DATE: May 6, 2020



Photograph 9: Debris within wetland resource area (Bank).



Photograph 10: Debris within wetland resource area Buffer Zone.

## **Appendix B**

### **Draft Site Assessment Report Email Board of Health**

## Paul Pisinski

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**From:** Paul Pisinski  
**Sent:** Tuesday, October 20, 2020 1:14 PM  
**To:** Barbara Spiri; mary lou Woodford; Nancy Sacco; Dan O'Rourke  
**Subject:** DRAFT Site Assessment Report —Davis Farm Dump off Breakneck Hill Road, 10/19/20

What follows is a draft report of my finding at the Solid Waste Breakneck Hill Road Farm "Dump" site in the Northwest corner of property once belonging to a Mr. Davis and sold to the Town of Southborough. Melissa Danza and I walked the site on September 29, 2020. Solid waste covers an irregularly, oval shaped area approximately 400 feet by 800 feet . It appears that at the time of our walk- thru the site and based on the previous investigations by other professionals, THERE IS NO TOXIC OR HAZARDOUS CHEMICALS OR SUBSTANCES ON THE SURFACE OF THIS SITE , which in my opinion would pose a current Public Health Risk. Please refer to maps and drawings of this area attached to this report as well as documents submitted to the Southborough Conservation Commission. It would appear that the area with solid waste constitutes about 5 to 6 acres, although the exact size would need to be surveyed to better ascertain this estimate. Also, Mr. Davis must not have been aware of exact bounds and property lines of his property. Town assessor maps show solid waste which has "spilled " onto adjoining properties, particularly the property belonging to Number 60 Breakneck Hill Road and will need to be removed. A comprehensive site survey by a Massachusetts Registered Land Surveyor will need to be completed with appropriate boundary markers before any rectification of solid waste can be started. The site is overgrown with brambles, vines, trees, shrubs and weeds. The ground was "squishy in numerous places on the site, with unseen below ground voids, indicating decomposing wooden or metal waste and could constitute a dangerous condition if a person were to fall through. There were numerous surface voids and openings where waste had rusted or decayed to such an extent that the site was pock-marked with these small craters.

The property was assigned to the care, protection and management of the Southborough Conservation Commission. The trash, solid waste and discarded debris at the site was on the property when the Town took possession of and Title to the property and to my knowledge no further material has been deposited or disposed at this site or in the last several years after the Town took possession.

I visited the site with the Board of Health Chairman ( Mr. Phillip Mauch ) in or around 2005 or 2006. The site has had considerably more vegetation and growth of trees, vines, shrubs and weeds in that 15 year period of time. The visible surface trash consists of old tires, abandoned cars, trucks, farm vehicles and farm equipment, broken metal and plastic pails, broken metal parts, metal and wooden cases, broken glass windows and broken glass bottles , ceramics, demolition debris, discarded furniture, bookcases, desks, and all manner of household trash (broken containers, cans and plastic parts).

The Conservation Commission hired several consultants to document conditions at this site in the past. I am making their reports and findings as attachments to this brief site assessment. The essence of their reports, especially those of the Licensed Site Professional (LSP) fully document the Surface leachate and laboratory analysis of samples taken at the time of their visit. The leachate analysis did not detect any hazardous or toxic PUBLIC HEALTH harm at the time the samples were taken and analyzed.

At this time, I have no reason to believe, nor do I have access to undertake or hire expertise to repeat any further testing to determine if the site poses a PUBLIC HEALTH THREAT to the neighborhood or the public who might visit this site. However, the trash dump site with partially buried and exposed SOLID WASTE IS A DEFINITE PUBLIC SAFETY DANGER TO THE GENERAL PUBLIC and the town must take action to remedy this situation.

The dump site most likely predates the Massachusetts DEP regulation requiring the formal process of establishing a Site Assignment —310 CMR 16.00 which was enacted long after Mr. Davis started disposing of solid waste on his own land. This regulation is very specific and requires the Board of Health to hold a public hearing prior to allow anyone to dispose of solid waste on ANY site. Now that the trash is there and poses a PUBLIC SAFETY HAZARD THE TOWN and several town boards, commissions and departments will need to work cooperatively to rectify the situation at this site. I do not believe a Public hearing as required by 310 CMR 16.00 is necessary since the "dump" is there and the Conservation Commission, as owners/caretakers of the property are NOT seeking a new landfill.

## RECOMMENDATIONS

I would like the Board to consider embarking on the following steps. Everything concerning these recommendations is entirely contingent upon many other Town Boards, Committees, Commissions and Departments working in concert similar to the manner that was established for going thru the process of closing the Parkerville Road landfill but without having to go through a capping, methane gas collection/elimination system , and quarterly monitor well analysis and reporting.

1. As was already mentioned, the property needs to be surveyed with clearly staked bounds, and plot plan duly stamped and certified by a Massachusetts Registered Land Surveyor
2. A tree and brush removal company will need to be hired with a wood chipper. Tree logs will need to be either chipped or removed off site.
3. The Town will need to prepare bid specifications to retain the services of a company that is qualified to remove the old partially decomposed trash, debris, stumps, glass, and other material that might pose a safety hazard to the general public and restore the site to the visual and environmental satisfaction of the Conservation Commission and the Massachusetts DEP, Central District Office, Section Chief, Solid Waste Management Program.

I have discussed the current situation and condition of this site with the Worcester District Office of DEP and the individual in charge. He was very helpful with suggestions. I think we should keep in contact with the DEP Section Chief as this project moves forward to whatever timeline and funding mechanisms the Town elected and appointed officials establish is doable and the Legislative Body decides it can afford.

Respectfully Submitted:

Paul Pisinski,  
Part-Time Public Health Director/Board of Health Agent

The site:

The site was walked by me and Melissa Danza

Get [Outlook for iOS](#)

## **Appendix C**

### **Photograph Log**

## Appendix A Photograph Log



Photo 1: Test Pit TP(100,215); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 2: Test Pit TP(55,200); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 3: Test Pit TP(86,184); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 4: Test Pit TP(99,110); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name	TRC
408108	G. Yapo (9/2022)	1 of 4	Town of Southborough	Breakneck Hill Farm Dumping Site	

## Appendix A Photograph Log



Photo 5: Test Pit TP(193,158); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 6: Test Pit TP(207,83); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 7: Test Pit TP(200,20); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 8: Test Pit TP(265,29); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name	
408108	G. Yapo (9/2022)	2 of 4	Town of Southborough	Breakneck Hill Farm Dumping Site	

## Appendix A Photograph Log



Photo 9: Test Pit TP(255,140); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 10: Test Pit TP(100,20); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 11: Test Pit TP(0,-8), refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 12: Test Pit TP(-20,100); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name	TRC
408108	G. Yapo (9/2022)	3 of 4	Town of Southborough	Breakneck Hill Farm Dumping Site	

## Appendix A Photograph Log



Photo 13: Test Pit TP(-50,100); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 14: Test Pit TP(20,55); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 15: Test Pit TP(255,137); refer to **Figure 4** for location and **Appendix E** for a description of materials encountered



Photo 16: Orange discolored surface water located in intermittent stream downgradient of dumping area to northwest of Test Pit TP(100,215)

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name	TRC
408108	G. Yapo (9/2022)	4 of 4	Town of Southborough	Breakneck Hill Farm Dumping Site	

**Appendix D**

**Order of Conditions**

□ **Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

**WPA Form 5 - Order of Conditions**

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

Provided by MassDEP:  
MassDEP File #:290-1095  
eDEP Transaction #:1411801  
City/Town:SOUTHBOROUGH

**A. General Information**

1. Conservation Commission	SOUTHBOROUGH			
2. Issuance	a. <input checked="" type="checkbox"/> OOC	b. <input type="checkbox"/> Amended OOC		
<b>3. Applicant Details</b>				
a. First Name	MARK	b. Last Name	PURPLE	
c. Organization	TOWN OF SOUTHBOROUGH			
d. Mailing Address	17 COMMON STREET			
e. City/Town	SOUTHBOROUGH	f. State	MA	g. Zip Code
				01772
<b>4. Property Owner</b>				
a. First Name	MARK	b. Last Name	PURPLE	
c. Organization	TOWN OF SOUTHBOROUGH			
d. Mailing Address	17 COMMON STREET			
e. City/Town	SOUTHBOROUGH	f. State	MA	g. Zip Code
				01772
<b>5. Project Location</b>				
a. Street Address	BREAKNECK HILL ROAD (& 60 BREAKNECK IF REQUIRED & PERMITTED BY OWNER)			
b. City/Town	SOUTHBOROUGH			c. Zip Code
d. Assessors Map/Plat#	29	01772		
f. Latitude	42.28775N	e. Parcel/Lot#28A		
		g. Longitude 71.51560W		
<b>6. Property recorded at the Registry of Deed for:</b>				
a. County	b. Certificate	c. Book	d. Page	
WORCESTER		6996	313	
<b>7. Dates</b>				
a. Date NOI Filed	7/15/2022	b. Date Public Hearing Closed	8/4/2022	c. Date Of Issuance
				8/8/2022
<b>8. Final Approved Plans and Other Documents</b>				
a. Plan Title:	b. Plan Prepared by:	c. Plan Signed/Stamped by:	d. Revised Final Date:	e. Scale:
PROPOSED WORK / BREAKNECK HILL TRC FARM DUMPING SITE FINAL ASSESSMENT PLAN (APPROVED TRC BY DEP)			July 2022	1"=30'
EXECUTED ACO	DEP		May 2022	
			May 5, 2022	

**B. Findings**

**1. Findings pursuant to the Massachusetts Wetlands Protection Act**

Following the review of the the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act.

Check all that apply:

a. <input checked="" type="checkbox"/> Public Water Supply	b. <input type="checkbox"/> Land Containing Shellfish	c. <input checked="" type="checkbox"/> Prevention of Pollution
d. <input checked="" type="checkbox"/> Private Water Supply	e. <input checked="" type="checkbox"/> Fisheries	f. <input checked="" type="checkbox"/> Protection of Wildlife Habitat
g. <input checked="" type="checkbox"/> Ground Water Supply	h. <input checked="" type="checkbox"/> Storm Damage Prevention	i. <input checked="" type="checkbox"/> Flood Control

2. Commission hereby finds the project, as proposed, is:

**Approved** subject to:

a.  The following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.

**Denied** because:

b.  The proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**

c.  The information submitted by the applicant is not sufficient to describe the site, the work or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the interests of the Act , and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**

3.  Buffer Zone Impacts:Shortest distance between limit of project disturbance and the wetland resource area specified in 310CMR10.02(1)(a).

a. linear feet

**Inland Resource Area Impacts:(For Approvals Only):**

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input type="checkbox"/> Bank	a. linear feet	b. linear feet	c. linear feet	d. linear feet
5. <input checked="" type="checkbox"/> Bordering Vegetated Wetland	48 a. square feet	48 b. square feet	48 c. square feet	48 d. square feet
6. <input type="checkbox"/> Land under Waterbodies and Waterways	a. square feet e. c/y dredged	b. square feet f. c/y dredged	c. square feet	d. square feet

**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**WPA Form 5 - Order of Conditions**

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

Provided by MassDEP:  
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7. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	a. square feet	b. square feet		
Cubic Feet Flood Storage	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
9. <input type="checkbox"/> Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet

**Coastal Resource Area Impacts:**

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below			
11. <input type="checkbox"/> Land Under the Ocean	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
12. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
13. <input type="checkbox"/> Coastal Beaches	a. square feet	b. square feet	c. c/y nourishment	d. c/y nourishment
14. <input type="checkbox"/> Coastal Dunes	a. square feet	b. square feet	c. c/y nourishment	d. c/y nourishment
15. <input type="checkbox"/> Coastal Banks	a. linear feet	b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	a. square feet	b. square feet		
17. <input type="checkbox"/> Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
19. <input type="checkbox"/> Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet



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20. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above
	<hr/> c. c/y dredged <input type="checkbox"/> d. c/y dredged <input type="checkbox"/>

21.  Land Subject to Coastal Storm Flowage \_\_\_\_\_ a. square feet b. square feet

22.

Restoration/Enhancement (For Approvals Only)

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.5.c & d or B.17.c & d above, please enter the additional amount here.

a. square feet of BVW

---

b. square feet of Salt Marsh

23.

Streams Crossing(s)

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

a number of new stream crossings.

b. number of replacement stream crossings

## C. General Conditions Under Massachusetts Wetlands Protection Act

## **The following conditions are only applicable to Approved projects**

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
  - a. the work is a maintenance dredging project as provided for in the Act; or
  - b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order.
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not exceed the issuance date of the original Final Order of Conditions.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.
8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.

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9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work..
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,

" Massachusetts Department of Environmental Protection"  
[or 'MassDEP']  
File Number :"290-1095"

11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before Mass DEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.
17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

**NOTICE OF STORMWATER CONTROL AND MAINTENANCE REQUIREMENTS**

19. The work associated with this Order(the "Project") is (1)  is not (2) subject to the Massachusetts Stormwater Standards. If the work is subject to Stormwater Standards, then the project is subject to the following conditions:
  - a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollutant Discharge Elimination System Construction General Permit as required by Stormwater Standard 8. Construction period

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erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.

- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that: *i.* all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures; *ii.* as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized; *iii.* any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10; *iv.* all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition; *v.* any vegetation associated with post-construction BMPs is suitably established to withstand erosion.
- c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 19(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following: *i.* the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and *ii.* the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.
- d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollutant Discharge Elimination System Multi-Sector General Permit.
- e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 19(f) through 19(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 19(f) through 19(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.
- f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.
- g) The responsible party shall:
  1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
  2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission")

upon request; and

3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

**Special Conditions:**

PLEASE SEE ATTACHED.

#### **D. Findings Under Municipal Wetlands Bylaw or Ordinance**

1. Is a municipal wetlands bylaw or ordinance applicable?  Yes  No

2. The Conservation Commission hereby(check one that applies):

a.  DENIES the proposed work which cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw specifically:

1. Municipal Ordinance or Bylaw \_\_\_\_\_ 2. Citation \_\_\_\_\_

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order or Conditions is issued. Which are necessary to comply with a municipal ordinance or bylaw:

b.  APPROVES the proposed work, subject to the following additional conditions.

SOUTHBOROUGH  
1. Municipal Ordinance or Bylaw WETLANDS BYLAW & REGULATIONS

GENERAL  
2. Citation PERFORMANCE STANDARDS 3.2.3

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows:  
PLEASE SEE ATTACHED.

**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection - Wetlands  
**WPA Form 5 - Order of Conditions**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
MassDEP File #:290-1095  
eDEP Transaction #:1411801  
City/Town:SOUTHBOROUGH

#### **E. Signatures**

This Order is valid for three years from the date of issuance, unless otherwise specified pursuant to General Condition #4. If this is an Amended Order of Conditions, the Amended Order expires on the same date as the original Order of Conditions.

8/8/2022

1. Date of Original Order

Please indicate the number of members who will sign this form. This Order must be signed by a majority of the Conservation Commission.

3

2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

Mark Possemato

Benjamin Smith

Kevin Farrington

by hand delivery on

by certified mail, return receipt requested, on

Date

Date

#### **F. Appeals**

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act

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Bureau of Resource Protection - Wetlands  
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(M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

#### **G. Recording Information**

This Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

SOUTHBOROUGH

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

SOUTHBOROUGH

Conservation Commission

Please be advised that the Order of Conditions for the Project at:

BREAKNECK HILL ROAD (& 60 BREAKNECK IF  
REQUIRED & PERMITTED BY OWNER)

290-1095

Project Location

MassDEP File Number

Has been recorded at the Registry of Deeds of:

County	Book	Page
for:		
Property Owner MARK PURPLE		

and has been noted in the chain of title of the affected property in:

Book	Page
------	------

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

**Massachusetts Department of Environmental Protection**  
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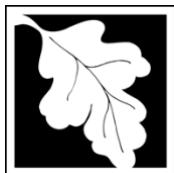
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Document Number

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Signature of Applicant

Rev. 4/1/2010



**Massachusetts Department of Environmental Protection**  
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**WPA Form 5 – Order of Conditions**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File #

eDEP Transaction #  
 Southborough

City/Town

## E. Signatures

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

1. Date of Issuance

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

*Mark Possemato*

Signature

Printed Name

*Benjamin Smith*

Signature

Printed Name

Recused as abutter

Signature

Printed Name

*Kevin Farrington*

Signature

Printed Name

— by hand delivery on

— by certified mail, return receipt requested, on

8/8/22

Date

**Pursuant to the vote taken by the Southborough Conservation Commission on January 7, 2021, the following signatures are made in accordance with M.G.L. c.110G and pursuant to said Commission's electronic signature authorization vote recorded on January 25, 2021 with the Worcester Registry of Deeds Book 64305, Page 83.**

**Additional Special Conditions  
Town of Southborough  
Breakneck Hill Conservation Land  
Map 29, Lot 28A  
& (as noted) 60 Breakneck Hill Road**

**FINDINGS OF FACT:**

1. The proposed project is completion of soil test pitting in conformance with the Final Assessment Plan and Executed ACO approved by DEP.
2. This work is to determine the extent and depths of solid waste on site so that the Town may complete a Clean-Up plan as outlined in the ACO.
3. There is work proposed within the 20' Buffer Zone and temporary impacts to BVW to conduct actual test pits. The Applicant has provided a waiver in which the Commission has granted.
4. Test pits will be conducted at Breakneck Hill Conservation Land first in conformance with the Site Assessment Plan. If test pitting along the property boundary with 60 Breakneck Hill Road demonstrates solid waste and DEP requires additional test pits on the private property of 60 Breakneck Hill, the Town shall request the homeowner to sign an access agreement to conduct the test pits. Only if and when the abutter signs the access agreement shall the Town enter the property of 60 Breakneck Hill Road.
5. Erosion controls shall be installed around each test pit as depicted on the approved site plan.
6. Erosion controls shall be installed along the downgradient side of the route between test pits in all areas where ground disturbance is anticipated within Buffer Zone or BVW.
7. Documents submitted:
  - a. WPA Form 3 (Notice of Intent application) and supporting materials for the project at Breakneck Hill Farm
  - b. Site Plan (1 sheet), entitled "Proposed Work;" prepared by TRC; last revised July 2022; scale: 1"=30'

**FINDINGS OF FACT UNDER THE SOUTHBOROUGH WETLANDS BYLAW AND REGULATIONS:**

1. Work within BVW and/or 20' Buffer Zone is approved with this Order due to necessary test pitting and no practical alternative. Disturbances will be restored in situ by returning soil to the test pitted area.

**GENERAL & PRE-CONSTRUCTION CONDITIONS:**

**SC#1.** The findings of fact are incorporated as a special condition and given equal status as a special condition of this Order.

**SC#2.** All work shall be done in accordance with the final approved plan as stated in the Findings of Fact.

**Additional Special Conditions  
Town of Southborough  
Breakneck Hill Conservation Land  
Map 29, Lot 28A  
& (as noted) 60 Breakneck Hill Road**

**SC#3.** Except where modified by the following special conditions, all work shall be performed in accordance with the plans and the Notice of Intent referenced above. Where a conflict exists between the referenced plans and these conditions, the conditions shall govern.

**SC#4.** Written notification of the construction start date is required to be submitted a minimum of 72 hours in advance.

**SC#5.** The Site Contractor shall be required to complete a **Contractor Affidavit of Service** and submit it to the Southborough Conservation Commission (SCC) office at least 72 hours prior to the pre-construction meeting.

**SC#6.** A pre-construction on-site meeting with SCC staff and/or representative, project supervisor, Site Contractor responsible for the work, or other relevant parties identified by the Applicant or the SCC is required prior to any work commencing on the site other than the installation of erosion controls. Erosion and sedimentation controls, and DEP File # signage will be inspected at this time. All required additional documentation (if any) shall be submitted in advance of this meeting being scheduled.

Please contact the SCC office at 508-281-8984 to arrange for the pre-construction meeting at least seventy-two (72) hours prior in advance. The meeting shall:

- a) Ensure that the requirements of the Order of Conditions are understood.
- b) Check administrative requirements (DEP file number sign, contact info. etc.).
- c) Inspect, adjust and expand, if necessary, the erosion control devices, installation and line.

**SC#7.** Only certified “**weed-free and invasive-free**” erosion control devices shall be installed to control erosion and sedimentation on the site as shown on the plans. In addition, **a sign showing the DEP File # shall be posted in a visible location on the site as specified in the standard conditions.**

**SC#8.** The Applicant shall provide the Conservation Agent with the name and telephone number in writing of the person designated as the emergency contact for all construction activities who will be immediately responsible for supervision of all work on the project site, and compliance with this Order of Conditions. The Applicant shall provide notification to the Conservation Administrator within 48 hours in the event that the contractor, emergency contact, or site supervisor has changed.

**SC#9.** The SCC reserves the right to require additional conditions if deemed necessary to protect resource areas and interests as defined in MGL Chapter 131 section 40 (310 CMR 10.00) or regulations promulgated thereunder after written notice to the Applicant and a legally advertised public hearing, conducted in accordance with applicable law.

**Additional Special Conditions  
Town of Southborough  
Breakneck Hill Conservation Land  
Map 29, Lot 28A  
& (as noted) 60 Breakneck Hill Road**

**SC#10.** If unforeseen problems occur during construction which may affect the statutory interests of the Wetlands Protection Act, the bylaw or regulations promulgated thereunder, the SCC shall immediately be notified, and an immediate meeting shall be held between the SCC or its agent, the applicant, and other concerned parties to determine the correct measures to be employed. The Applicant shall then act to correct the problems using the corrective measures agreed upon. Subsequent to resolution, the activity and resulting actions shall be documented in writing. Absent good faith efforts by the Applicant to implement any such corrective measures, failure to comply with this Order of Conditions may constitute sufficient ground for the SCC to order all work to cease until compliance is achieved.

**SC#11.** It is the responsibility of the Applicant to complete any review required by all agencies with jurisdiction over the activity that is the subject of this Order of Conditions, and to procure all required permits or approvals before any work commenced to the extent such permits or approvals are required to execute the work in question.

**SC#12.** Members and agents of the SCC shall have the right to enter and inspect the premises to evaluate and ensure compliance with the conditions and performance standards stated in this Order, the Act, and 310 CMR 10.00, and may acquire any information, measurements, photographs, observations, and/or materials or may require the submittal of any data or information deemed necessary by the SCC for that evaluation.

**SC#13.** Any change made or intended to be made in the plans, shall require the Applicant to file a new Notice of Intent or to inquire of the SCC in writing whether the change is substantial enough to require a new filing or request an Amendment to the Order of Conditions.

**SC#14.** This Order shall apply to every successor in control or successor in interest of the property described in the Notice of Intent and accompanying plans, or part thereof. In the event of this land or any part thereof changing ownership before or during construction, the current owner shall notify the new owner prior to the transfer of ownership by registered mail of this Order and shall forward proof of this notification to the SCC.

**SC#15.** This Order and a copy of approved drawings and plans referenced in this Order shall be available at the project site at all times for easy reference.

**SC#16.** This Order of Conditions shall be included in all construction contracts and subcontracts dealing with the work proposed and shall supersede other contract requirements.

**DURING CONSTRUCTION:**

**SC#17.** Erosion controls shall be inspected daily (by the project engineer, landscape architect, site contractor, or other professional deemed qualified by the Conservation Administrator) and

**Additional Special Conditions  
Town of Southborough  
Breakneck Hill Conservation Land  
Map 29, Lot 28A  
& (as noted) 60 Breakneck Hill Road**

maintained or reinforced if necessary, during construction. After any storm event, any accumulated silt adjacent to the barriers shall be removed. The erosion control barrier shall remain in proper functioning condition until all disturbed areas have been stabilized with an adequate vegetative cover, after which the stakes shall be removed by permission of the SCC, and the silt fencing shall be completely removed and disposed of lawfully.

**SC#18.** The limit of work shall be strictly adhered to, and no activity shall occur within the 20-foot No Disturb Area, unless prior approval was granted by the SCC.

**SC#19.** If dewatering is necessary during construction, notification shall be made to the SCC to allow for the inspection and approval of the setup. Any water from the project work areas shall be effectively filtered or settled to remove silt and turbidity [by employing Best Management Practices \(BMPs\)](#) prior to discharging to any resource area. All areas where dewatering hoses are discharged shall be protected so as not to cause erosion.

**SC#20.** No plants listed on the latest Massachusetts Department of Agricultural Resources Prohibited Plant List may be brought onto or planted anywhere on the property.

**SC#21.** Erosion control matting or other methods of erosion control shall be installed on disturbed areas if necessary, as may be authorized by Agents or Members of the SCC.

**SC#22. Notification to the SCC shall be required when site work ceases for any length of time greater than 14 days.**

**SC#23.** Stabilization measures are required to be initiated immediately in portions of the site where earth-disturbing activities have permanently or temporarily ceased. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume (i.e. the land will be idle) for a period of fourteen (14) or more calendar days, but such activities will resume in the future.

**SC#24.** In no case, shall more than one (1) day pass without initiating stabilization measures in portions of the site where construction activities have temporarily or permanently ceased. Any of the following activities constitute the initiation of stabilization: Prepping the soil for vegetative or non-vegetative stabilization; Applying mulch or other non-vegetative product to the exposed area; Seeding or planting the exposed area; Starting any of the preceding stabilization activities on a portion of the area to be stabilized, but not on the entire area; and Finalizing arrangements to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization as described below.

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& (as noted) 60 Breakneck Hill Road**

**SC#25.** Any stockpiles of materials, soils, or other erodible material that are expected to remain inactive for more than fourteen (14) days must also be stabilized by one of the aforementioned methods. All stockpiles shall also be surrounded by silt fence or other temporary perimeter sediment barrier and checked daily for evidence of migration of materials.

**SC#26.** As soon as is practicable, but no later than fourteen (14) calendar days after the initiation of soil stabilization measures, stabilization activities shall be completed as follows: For vegetative stabilization, all activities necessary to initially seed or plant the area to be stabilized, including, but not limited to, soil conditioning, application of seed or sod, planting of seedlings or other vegetation, application of fertilizer, and watering as needed; For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

**SC#27.** Exceptions to the deadlines for initiating and completing stabilization activities may be granted by the SCC in cases of drought or when circumstances beyond the control of the Contractor cause delays.

**SC#28.** All debris, fill, and excavated material shall be stockpiled far enough away from designated wetlands, and at a location to prevent sediment from surface runoff entering wetlands. At no time, shall any debris or other material be buried or disposed of within that line marked on the plan as wetland.

**SC#29.** Stockpiles of soils, aggregate, or any other unconsolidated construction materials permitted by this order within 100-foot buffer zones shall be covered with tarpaulins when not being worked with. Stockpiles in place for greater than twenty-four (24) hours shall be ringed with erosion control devices and covered by properly secured tarpaulins at the close of each workday. The areas of construction shall remain in a stable condition at the close of each construction day.

**SC#30.** Measures to prevent and control erosion of soil at the site shall be implemented and maintained until the site is permanently stabilized. Erosion and siltation of soils must be prevented at all times by an effective control device.

**SC#31.** Should any erosion or sedimentation control measures fail; immediate attention will be given by the Applicant or representative to correcting the failure and to rectify any adverse impact from the failure, for example, by the removal of any silt or debris that may have bypassed the control measure. The SCC must be notified within 24 hours of the failure.

**SC#32.** Any damage caused as a result of this project to any wetland resource areas, shall be the responsibility of the Applicant to promptly repair, restore, and/or replace. Sedimentation or erosion into these areas shall be considered damage to wetland resource areas. If sediment reaches these areas, the SCC shall be contacted and a plan for abatement of the problem and

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Map 29, Lot 28A  
& (as noted) 60 Breakneck Hill Road**

proposed restoration and/or mitigation measures shall be submitted for approval and implementation.

**SC#33.** The SCC reserves the right to impose additional conditions on portions of this project to mitigate any impacts which are the result of the failure of the applicant to undertake the work in accordance with this Order and which, without the imposition of such additional conditions, are likely to result in site erosion or a noticeable degradation of surface water quality discharging from the site.

**SC#34.** Material of construction and equipment shall be stored in a manner and location that will minimize the compaction of soils and the concentration of runoff.

**SC#35.** All waste products, grubbed stumps, slash, construction materials, etc. which result from the project shall be properly disposed of in accordance with applicable regulations and shall not be incorporated into the project site construction with the exceptions of the reduction of stumps and slash to mulch, and the use of inert materials such as pulverized or broken asphalt, brick or concrete as fill or subbase below pavement.

**SC#36.** Used petroleum products resulting from the maintenance of construction equipment and construction debris shall be collected and disposed of off-site in accordance with applicable regulations. No on-site disposal of these items is allowed.

**SC#37.** Servicing of equipment, (fueling, changing, adding or applying lubricants or hydraulic fluids) must be done outside the 100-Foot Buffer Zone (BZ). Equipment must be maintained to prevent leakage or discharge of pollutants. Cement trucks shall not be washed out within the BZ or into any drainage system. Overnight storage of equipment must be a minimum of fifty (50) feet from the wetland boundary.

**POST CONSTRUCTION AND ONGOING CONDITIONS:**

**SC#38.** Erosion controls shall not be removed without prior consent from the SCC to ensure the site is stable.

**SC#39.** Stabilized slopes shall be maintained as designed and constructed by the property owner of record.

**SC#40.** If an Extension to the Order of Conditions (“OOC”) is being sought, a written request must be received at the SCC office at least thirty (30) days in advance of the expiration date of the OOC. The written request shall include an explanation as to why an extension is needed, and the length of time the extension is being sought for (no more than 3 years). Failure to submit an Extension request in accordance with the requirements of this Special Condition shall be grounds for denial of the request.

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**SC#41.** In order for a project to be released from an Order of Conditions, a request for a Certificate of Compliance is required in writing.

**SC#42.** Prior to requesting a Certificate of Compliance, the engineer of record shall certify that all cut materials used on site or disposed of off-site, was disposed of in accordance with MassDEP and/or all federal and local regulations.

**SC#43.** Upon completion of construction, all work regulated by this Order, and final stabilization, the Applicant/owner shall submit the following to request a Certificate of Compliance from the SCC:

- a) Two (2) copies of a completed request for Certificate of Compliance form (WPA Form 8A) and a check in the appropriate amount made out to the “Town of Southborough”.
- b) Two (2) copies of a stamped “As-Built” plan depicting post construction conditions on the work site, prepared by a professional engineer or land surveyor certifying that the site has been developed in accordance with the conditions of this Order, and showing in detail the exact location of all structures and the topography of the finished grades of the site, along with a letter from a registered professional engineer certifying compliance of the property with this Order of Conditions and detailing any deviations from the approved plans and their potential effect on the project. A statement that the work is in “substantial compliance” with no detailing of the deviations shall not be accepted.
- c) A PDF file sent electronically to the Conservation Agent of all items detailed above.

**SC#44.** Any siltation barrier (silt fence) shall be removed and disposed of lawfully before a Certificate of Compliance will be issued, once the site has been completely stabilized and the SCC has given permission to do so. All other erosion control devices, such as straw bales, straw wattles, compost filter socks, silt sacks, etc. may be removed once permission is sought from and given by the SCC.

**SC#45.** Dumping Prohibited: There shall be no dumping of leaves, grass clippings, brush or other debris into any wetland resource area (including the 100-Foot Buffer Zone). Landscaping debris shall be removed from the site and disposed of in a legal fashion. This condition shall survive the expiration of this Order and shall be included as a continuing condition on the Certificate of Compliance.

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Map 29, Lot 28A  
& (as noted) 60 Breakneck Hill Road**

**SC#46.** No synthetic pesticides or herbicides may be applied within wetland buffer zones on the site. This condition shall survive the expiration of this Order and shall be included as a continuing condition on the Certificate of Compliance.

**SC#47.** Landscape Plantings: No plants listed on the latest Massachusetts Department of Agricultural Resources Prohibited Plant List may be brought onto or planted anywhere on the property. This condition shall survive the expiration of the Order and shall be included as a continuing condition on the Certificate of Compliance.

**SC#48.** Additional Alteration Prohibited: There shall be no additional alterations of areas under SCC jurisdiction without the required review and permit(s). This condition shall survive the expiration of the Order and shall be included as a continuing condition on the Certificate of Compliance.

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## **Appendix E**

### **Test Pit Logs**



Wannalancit Mills  
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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(100,215)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/14/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5.5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	5 x 4
FIELD SCREENING EQUIPMENT	Photoionization Detector (PID)	TOTAL VOLUME OF SOIL (CY)	4.1
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., refrigerator, metal panels, empty 55-gallon drum, miscellaneous automobile parts and wire fencing) and sand, trace organics (no odor/staining, dry).		
- 1			Dark-brown SILT, some boulders, cobbles and sand (no odor/staining, dry).		
- 2			Dark-brown SILT, some solid waste (i.e., scrap metal, plastic and bricks), boulders, cobbles and sand (no odor/staining, dry).	0.2 - 0.4	
- 3					
- 4					
- 5			Brown SILT, some sand, boulders and cobbles (no odor/staining, dry).		
-			Test pit terminated at 5.5 feet below ground surface due to safety concerns along slope and capabilities of machine.	0.4	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(55,200)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/14/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	7
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	3 x 7
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	5.4
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., scrap metal and plastic), cobbles and sand, trace organics (no odor/staining, dry).		
- 1					
- 2			Dark-brown SILT, some solid waste (i.e., asphalt), cobbles and sand (no odor/staining, dry).	0.4	
- 3				0.6	
- 4			Dark-brown SILT, some cobbles and sand (no odor/staining, dry).	0.3	
- 5					
- 6					
- 7			Test pit terminated at 7 feet below ground surface.	0.2	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(86,184)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/14/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	7.5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 7.5
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	8.3
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
WEATHER			65F, Sunny

REMARKS No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was encountered in test pit (see below).

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., plastic, scrap metal, glass and brick) and sand, trace organics (no odor/staining, dry).		
- 1					
- 2				0.1	
- 3			Light-brown to gray SILT, some solid waste (i.e., plastic, scrap metal, glass and brick) and sand, (no odor/staining, dry).	0.2	
- 4				0.2	Suspect fire brick sampled for potential ACM (samples 02-A through 02-C)
- 5					
- 6					
- 7					Amount of solid waste appears to be reducing with depth; however, could not advance deeper to determine vertical extent of solid waste at TP(86,184) due to equipment and Site constraints.
-			Test pit terminated at 7.5 feet below ground surface.	0.3	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(99,110)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/14/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5.5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	3.5 x 9
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	6.4
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., scrap metal, plastic, glass, electrical cables, garden planters, house-hold waste, brick, Styrofoam and hub caps) and sand, trace organics (no odor/staining, dry).		
- 1					
- 2				0.3	
-			Dark-brown SILT, some solid waste (i.e., scrap metal, plastic, house-hold waste, Styrofoam and clay pipe) and sand (no odor/staining, dry).	0.2	
- 3					
- 4					
- 5			Light-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).	0.3	
-			Test pit terminated at 5.5 feet below ground surface.		



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(193,158)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/14/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	6
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	6 x 9.5
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	12.7
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., metal shelving, empty drum, fencing, tires, plastic, glass, cans, brick and concrete block) and sand, trace organics (no odor/staining, dry).		
- 1					
- 2					
- 3			Light-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).	0.1	
- 4				0.2	
- 5				0.2	
- 6			Test pit terminated at 6 feet below ground surface.	0.1	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(207,83)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/14/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	8.5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	5 x 9.5
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	15
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., scrap metal, plastic, sheets, cans, fencing, tires, brick, wood debris and concrete block) and sand, trace organics (no odor/staining, dry).		
- 1			Dark-brown SILT, some solid waste (i.e., scrap metal, plastic, sheets, cans, fencing, tires, brick, wood debris and concrete block) and sand (no odor/staining, dry).		
- 2					
- 3				0.1	
- 4				0.1	
-			Dark-brown SILT, some sand (no odor/staining, dry).		
- 5					
- 6					
- 7			Gray SILT, some sand (no odor/staining, dry).		
- 8			Light-brown SILT, some sand (no odor/staining, dry).	0.2	
-			Test pit terminated at 8.5 feet below ground surface.		



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(200,20)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/15/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	6.5 x 10
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	12
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some sand, trace organics (no odor/staining, dry).		Solid waste was not encountered in test pit TP(200,20).
- 1			Dark-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).	0.0	
- 2				0.0	
- 3				0.2	
- 4				0.0	
- 5			Light-brown SILT, some sand (no odor/staining, dry).	0.0	
			Test pit terminated at 5 feet below ground surface.	0.0	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(265,29)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/15/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 9
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	6.7
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some sand, trace organics (no odor/staining, dry).		
- 1			Light-brown SILT, some sand, boulders and cobbles, trace asphalt (no odor/staining, dry).		Solid waste was not encountered in test pit TP(265,29), excluding trace amount of asphalt at approximately 1' below ground surface.
- 2					
- 3					
- 4					
- 5			Test pit terminated at 5 feet below ground surface.	0.2	
				0.0	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(280,90)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/15/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	6
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 7
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	6.2
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some sand, trace organics (no odor/staining, dry).		Solid waste was not encountered in test pit TP(280,90).
- 1			Dark-brown SILT, some sand and cobbles (no odor/staining, dry).		
- 2				0.1	
- 3				0.1	
- 4				0.1	
- 5			Gray SILT (with orange striations), some sand (no odor/staining, dry).		
- 6			Gray SILT (with orange striations), some sand, boulders and cobbles (no odor/staining, dry).		
			Test pit terminated at 6 feet below ground surface on apparent boulders.	0.1	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(255,140)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/15/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	3.5 x 9
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	5.8
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some sand, trace organics (no odor/staining, dry).		Solid waste was not encountered in test pit TP(255,140).
- 1					
- 2			Light-gray SILT, some sand (no odor/staining, dry).		
- 3			Light-gray SILT (with orange striations), some sand and cobbles (no odor/staining, dry).	0.1 - 0.2	
- 4					
- 5			Test pit terminated at 5 feet below ground surface.	0.2	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(200,200)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/15/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	4.5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 9
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	6
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some sand, trace organics (no odor/staining, dry).		Solid waste was not encountered in test pit TP(200,200).
- 1			Light-gray SILT, some sand and cobbles (no odor/staining, dry).	0.1	
- 2				0.1	
- 3				0.1	
- 4			Light-brown SILT (with orange striations), some sand (no odor/staining, dry).	0.0	
			Test pit terminated at 4.5 feet below ground surface.	0.0	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(100,20)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/15/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4.5 x 9
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	7.5
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some sand, trace organics (no odor/staining, dry).		Solid waste was not encountered in test pit TP(100,20).
- 1			Dark-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).	0.1	
- 2				0.1	
- 3				0.1	
- 4				0.0	
- 5			Test pit terminated at 5 feet below ground surface.	0.0	



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Fax: 978-453-1995

# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(0,-8)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/15/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 9
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	6.7
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some sand, trace organics (no odor/staining, dry).		Solid waste was not encountered in test pit TP(0,-8).
- 1			Brown SILT, some sand (no odor/staining, dry).		
- 2			Light-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).	0.6	
- 3					
- 4					
- 5			Test pit terminated at 5 feet below ground surface.	0.1	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(-20,100)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/16/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x10
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	7.4
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., plastic bags, cans, scrap metal, plastic, brick, wood and glass) and sand, trace organics (no odor/staining, dry).		
- 1					
-			Dark-brown to gray SILT, some sand, boulders and cobbles (no odor/staining, dry).		
- 2					
-					
- 3					
-					
- 4					
-					
- 5			Test pit terminated at 5 feet below ground surface.	0.1	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(-50,100)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/16/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	6 x 6
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	6.7
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Brown SILT, some solid waste (i.e., scrap metal, brick, glass and plastic) and sand, trace organics (no odor/staining, dry).		
- 1			Brown SILT, some solid waste (i.e., scrap metal, brick, glass and plastic) and sand (no odor/staining, dry).		
- 2				0.1	
- 3			Light-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).	0.1	
- 4				0.1	
- 5			Test pit terminated at 5 feet below ground surface.	0.1	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(-100,127)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/16/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 9
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	6.7
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Brown SILT, some sand, trace organics (no odor/staining, dry).		Solid waste was not encountered in test pit TP(-100,127).
- 1			Light-brown SILT, some sand (no odor/staining, dry).		
- 2			Light-brown SILT, some sand and cobbles (no odor/staining, dry).	1.6	
- 3					
- 4					
- 5			Light-brown to gray SILT, some sand and cobbles (no odor/staining, dry).	1.6	
			Test pit terminated at 5 feet below ground surface.	1.6	



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(20,55)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/16/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	6
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 9
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	8
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., scrap metal, cable, farm equipment, plastic, rubber tires and brick) and sand, trace organics (no odor/staining, dry).		
- 1			Dark-brown SILT, some sand and cobbles (no odor/staining, dry).		
- 2					
- 3			Light-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).	0.5 - 0.7	
- 4					
- 5			Dark-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).	0.9	
- 6			Test pit terminated at 6 feet below ground surface.		



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(225,137)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/16/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	To be determined
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 8
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	5.9
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Brown SILT, some solid waste (i.e., scrap metal and plastic) and sand, trace organics (no odor/staining, dry).		
- 1			Light-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).		
- 2				0.2 - 0.6	
- 3			Dark-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).		
- 4					
- 5			Gray SILT, some sand (no odor/staining, dry).	0.3	
			Test pit terminated at 5 feet below ground surface.		



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# TEST PIT LOG

PROJECT/NUMBER	408108.2022.0000	TEST PIT NUMBER	TP(95,47)
LOCATION	Breakneck Hill Rd, Southborough, MA	DATE	9/16/2022
CONTRACTOR/PERSONNEL	Strategic Environmental Services/Sean	GROUND ELEVATION	NA
EQUIPMENT USED	Bobcat E35 (Mini-Excavator)	TOTAL DEPTH (feet)	5
PIEZOMETER INSTALLED	None	TEST PIT DIMENSIONS (feet)	4 x 8
FIELD SCREENING EQUIPMENT	PID	TOTAL VOLUME OF SOIL (CY)	5.9
LOGGED BY	Brian Burk & Garry Yapto	DEPTH TO WATER (Feet)	Not Encountered
REMARKS	No evidence of contamination was encountered, and no soil samples were collected. Potential ACM was not encountered in test pit.		

DEPTH (ft. BGL)	SAMPLE ID.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	PID (ppm)	NOTES
-			Dark-brown SILT, some solid waste (i.e., scrap metal, plastic and rubber tire) and sand, trace organics (no odor/staining, dry).		
- 1			Light-brown SILT, some sand, boulders and cobbles (no odor/staining, dry).		
- 2				0.1	
- 3					
- 4					
- 5			Test pit terminated at 5 feet below ground surface.	0.2	

**Appendix F**

**Laboratory Analytical Report**

**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: Town of Southborough	Lab Log #:	0060158
	Project #:	408108.2022.0000
	Date Received:	09/20/2022
	Date Analyzed:	09/21/2022

Site: Breakneck Hill, 60 Breakneck Hill Road, Southborough, MA

**POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116**

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
01-A	100,180 truck	Grey Cement Board	---	20%	Chrysotile
01-B	100,180 truck	--	--	NA/PS	--
01-C	200,150 surface	--	--	NA/PS	--
02-A	100,180 offset 3.5' depth	Tan Boiler Brick	---	ND	None
02-B	100,180 offset 3.5' depth	Tan Boiler Brick	---	ND	None
02-C	100,180 offset 3.5' depth	Tan Boiler Brick	---	ND	None
03-A	200,150 surface	Black Roofing, Asphalt Based Built-Up	---	5%	Chrysotile
03-B	200,150 surface	--	--	NA/PS	--
03-C	200,150 surface	--	--	NA/PS	--
04-A	200,150 surface	Black Roofing, Felt Paper	---	ND	None
04-B	200,150 surface	Black Roofing, Felt Paper	---	ND	None
04-C	200,150 surface	Black Roofing, Felt Paper	---	ND	None
05-A	100,180 by truck	Grey Insulation, Unknown	95%	mineral wool	ND
05-B	100,180 by truck	Grey Insulation, Unknown	95%	mineral wool	ND
05-C	100,180 by truck	Grey Insulation, Unknown	95%	mineral wool	ND
06-A	By 100,100	Red/Black Wire Insulation	---	ND	None
06-B	By 100,100	Red/Black Wire Insulation	---	ND	None

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

## POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
06-C	By 100,100	Red/Black Wire Insulation	---	ND	None
07-A	20' SW of 200,75	Black Roofing, Felt Paper	90%	fibrous glass	ND
07-B	20' SW of 200,75	Black Roofing, Felt Paper	90%	fibrous glass	ND
07-C	20' SW of 200,75	Black Roofing, Felt Paper	90%	fibrous glass	ND
08-A	20' SW of 200,75	Black Roofing, Asphalt Based Built-Up	---	3%	Chrysotile
08-B	20' SW of 200,75	--	--	NA/PS	--
08-C	20' SW of 200,75	--	--	NA/PS	--
09-A	By 0,100	Black Conduit	---	ND	None
09-B	By 0,100	Black Conduit	---	ND	None
09-C	By 0,100	Black Conduit	---	ND	None

ND - asbestos was not detected

Trace - asbestos was observed at level of 1% or less - This is the reporting limit

NA/PS - Not Analyzed / Positive Stop

SNA - Sample Not Analyzed- See Chain of Custody for details

Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2023. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2024. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, as received by the laboratory.

Analyzed by:



Joel Corso, Laboratory Analyst

Reviewed by:



Kathleen Williamson, Laboratory Manager

Date Issued

09/22/2022

### TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS



650 Suffolk Street Suite 200 Lowell MA 01854

Client: Southborough Conservation Commission

## ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

<p>Project Name: Breakneck Hill Breakneck Hill 60 Breakneck Hill Rd Southborough Ma</p>		<p>Project Number: 408108.2022.0000</p>		<p>Sampling Technician: Brian Burk Mobile App: BSI - HAZMAT Survey</p>	
		<p>Tracking Number:</p>		<p>Requested TAT: 3 DAY</p>	
<p><b>ASBESTOS BULK SAMPLE INFORMATION</b></p>					
Sample Date	Sample Identification	Material Description	Homogeneous Area	Location	Sample Lab Identification (Lab Use Only)
09/14/22	01-A	Cement Board, Grey	200,150 Surface , 100,180 Truck	100,180 truck	
09/14/22	01-B	Cement Board, Grey	200,150 Surface , 100,180 Truck	100,180 truck	
09/14/22	01-C	Cement Board, Grey	200,150 Surface , 100,180 Truck	200,150 surface	
09/14/22	02-A	Boiler Brick, Tan	N/A	100,180 offset 3.5' depth	
09/14/22	02-B	Boiler Brick, Tan	N/A	100,180 offset 3.5' depth	
09/14/22	02-C	Boiler Brick, Tan	N/A	100,180 offset 3.5' depth	
09/14/22	03-A	Roofing, Asphalt Based Built-Up, Black	200,150 Surface	200,150 surface	
09/14/22	03-B	Roofing, Asphalt Based Built-Up, Black	200,150 Surface	200,150 surface	
09/14/22	03-C	Roofing, Asphalt Based Built-Up, Black	200,150 Surface	200,150 surface	
09/14/22	04-A	Roofing, Felt Paper, Black	200,150 Surface	200,150 surface	
09/14/22	04-B	Roofing, Felt Paper, Black	200,150 Surface	200,150 surface	
09/14/22	04-C	Roofing, Felt Paper, Black	200,150 Surface	200,150 surface	
09/15/22	05-A	Insulation, Unknown , Grey	100,180 By Truck	100,180 by truck	
09/15/22	05-B	Insulation, Unknown , Grey	100,180 By Truck	100,180 by truck	
09/15/22	05-C	Insulation, Unknown , Grey	100,180 By Truck	100,180 by truck	

60158

09/15/22	06-A	Wire Insulation, Red	25' SE 100,100	By 100,100
09/15/22	06-B	Wire Insulation, Red	25' SE 100,100	By 100,100
09/15/22	06-C	Wire Insulation, Red	25' SE 100,100	By 100,100
09/15/22	07-A	Roofing, Felt Paper, Black	20' SW Of 200,75	20' SW of 200,75
09/15/22	07-B	Roofing, Felt Paper, Black	20' SW Of 200,75	20' SW of 200,75
09/15/22	07-C	Roofing, Felt Paper, Black	20' SW Of 200,75	20' SW of 200,75
09/15/22	08-A	Roofing, Asphalt Based Built-Up, Black	20' SW Of 200,75	20' SW of 200,75
09/15/22	08-B	Roofing, Asphalt Based Built-Up, Black	20' SW Of 200,75	20' SW of 200,75
09/15/22	08-C	Roofing, Asphalt Based Built-Up, Black	20' SW Of 200,75	20' SW of 200,75
09/16/22	09-A	Conduit , Black	By 0,100	By 0,100
09/16/22	09-B	Conduit , Black	By 0,100	By 0,100
09/16/22	09-C	Conduit , Black	By 0,100	By 0,100
<b>Special Instruction to Laboratory:</b>				
N/A				
<b>CHAIN OF CUSTODY INFORMATION AND LABORATORY INFORMATION</b>				
<b>Relinquished By:</b>		<b>Date and Time</b>	<b>Received By:</b>	<b>Date and Time</b>
1. (Print):	Brian Burk			9/18/2022 3:37 pm America/New_York
(Sign):				9/18/22 100
ii. (Print):				
(Sign):				
<b>Email Results To:</b>	bdburk@trccompanies.com	<b>Analytical Method:</b>	<b>Lab Comments:</b>	
PLM EPA 600/R-93/116				

**Appendix G**

**Limited Asbestos Survey Summary Report**

# **LIMITED ASBESTOS SURVEY SUMMARY REPORT**

## **Solid Waste Assessment**

**Breakneck Hill Farm Dumping Site**  
**Breakneck Hill Road,**  
**Southborough, Massachusetts**

Prepared for:

**Town of Southborough Conservation  
Commission**

**Report Date:** October 5, 2022

Prepared By:



650 Suffolk Street Suite 200 Lowell MA 01854

TRC Project: 408108.2022.0000

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## Appendices

Appendix A – Sample Location Plan

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## 1.0 Executive Summary

The Town of Southborough (the "Town") Conservation Commission contracted TRC Environmental Corporation (TRC) to conduct an asbestos survey at the Breakneck Hill Farm Dumping Site located at Breakneck Hill Road in Southborough Massachusetts (the "Site"). The purpose of the asbestos survey was to identify and sample potential asbestos-containing materials (ACM) during solid waste assessment activities, which were performed throughout the Town-owned portion of the Site only. The Site is located on Town-owned conservation land and extends to the west onto an abutting residential property identified as 60 Breakneck Hill Road. Access to 60 Breakneck Hill Road was not provided during the asbestos survey. The ACM survey was conducted in conjunction with the solid waste assessment between September 14, 2022 and September 16, 2022 by Mr. Brian Burk, Commonwealth of Massachusetts Department of Labor Standards certified Asbestos Inspector No. 900513.

### Asbestos Containing Materials

ACM are defined by the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), and the Massachusetts Department of Environmental Protection as any material containing more than one percent (>1.0%) asbestos when analyzed using Polarized Light Microscopy (PLM) methods. Laboratory analysis confirmed that asbestos was present within some of the bulk samples collected from the Town-owned portion of the Site at concentrations greater than 1.0%. Accordingly, ACM were identified at the Town-owned portion of the Site (refer to Section 4.1.2 for more details).

Any materials uncovered during excavation or other site activities that are not addressed in this inspection report, or suspect ACM identified in the future, must be sampled by an accredited asbestos inspector prior to any disturbance, or the suspect materials must be treated as ACM.

## 2.0 Introduction

The Town of Southborough Conservation Commission contracted TRC to conduct an asbestos survey at the Breakneck Hill Farm Dumping Site located at Breakneck Hill Road in Southborough, Massachusetts. The purpose of the survey was to identify and sample suspect ACM unearthed during test pitting activities and other surficial solid waste and debris present throughout the Town-owned portion of the Site. The ACM survey was performed between September 14, 2022 and September 16, 2022 by Mr. Brian Burk, Commonwealth of Massachusetts Department of Labor Standards certified Asbestos Inspector No. 900513.

## 3.0 Background

### 3.1 Site Description & History

The Site is located to the east/southeast of 48 Breakneck Hill Road in Southborough, Massachusetts. The Site is heavily vegetated and comprises approximately one acre. The Site is located on two separate tax parcels, Map 29, Lot 28A and Lot 36. The Town acquired Map 29, Lot 28A from Raymond Davis on June 20, 1980, which reportedly comprises approximately 87.66 acres and currently consists of conservation land. The area of dumping is located on the western-central portion of Map 29, Lot 28A, and the balance of the Site extends onto 60 Breakneck Hill Road (Map 29, Lot 36), a western adjoining property that currently is utilized for residential purposes. Refuse within the dump area has been documented to include (but not limited to) old

tires, machine parts, rusted 55-gallon drums, asphalt shingles, appliances, heavy equipment, broken ceramics, plastic objects, and general trash.

Prior to the Town's acquisition, Davco Farm occupied Map 29, Lot 28A. Mr. Davis, President of Davis Tractor Company, operated the Davco Farm. The farm was home to an apple and peach orchard, apiary and bee supply business, and a Belted Galloway cattle herd. Between approximately 1966 and 1980, the Site appears to have been used as dumping ground associated with the Davco Farm.

### **3.2 Purpose & Scope of Work**

An asbestos survey was performed to determine if ACM are present throughout the Town-owned portion of the Breakneck Hill Farm Dumping Site. The survey was performed during a solid waste assessment, which was conducted by TRC between September 14, 2022 and September 16, 2022. TRC performed the asbestos survey throughout accessible areas of Site during solid waste assessment activities, which were performed to assess the horizontal and vertical extent of solid waste throughout the Site. Bulk samples of suspect ACM were collected and submitted for laboratory analysis to determine asbestos content. It should be noted that suspect ACM may be present in other areas throughout the Site that were not identified during the limited ACM survey, buried in the ground surface or in heavily overgrown or similarly inaccessible areas. Limitations are further discussed in Section 6.0.

### **3.3 Survey Procedures**

The asbestos survey was performed using guidelines established by the EPA guidance document "Guidance for Controlling Asbestos-Containing Materials in Buildings" (EPA 5605-85/024), 40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP), Paragraph 61.145, Standard for Demolition and Renovation, EPA AHERA 40 CFR 763 and OSHA 1926.1101 regulations.

A visual survey was conducted to identify the types, locations, and approximate quantities of ACM, presumed ACM (as defined in 29 CFR 1926.1101), and otherwise suspect ACM. Certain building and other materials present throughout the solid waste and debris were assessed as potential ACM. Where feasible, bulk samples of suspect ACM were collected in a random manner and submitted for laboratory analysis to determine asbestos content.

It should be noted that multiple bulk samples were collected from each homogenous area of suspect ACM observed. In accordance with U.S. EPA guidelines, multiple samples were collected from each homogenous area of suspect ACM. Note that if one or more samples within a homogenous area of suspect ACM are positive for asbestos, then all of the suspect ACM must be treated as ACM. During the survey, nine suspect materials were identified, and three samples were collected from each of the nine suspect materials for laboratory analysis, resulting in 27 total samples.

### **3.4 Analytical Methods**

Sample analysis was performed by TRC's Industrial Hygiene Laboratory located in Windsor, Connecticut, using Polarized Light Microscopy with Dispersion Staining (PLM/DS) in accordance with the United States Environmental Protection Agency (US EPA) "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116. The TRC laboratory is accredited

through the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (No. 101424-0). TRC's Massachusetts Analytical Laboratory certification number is AA000052. The laboratory bulk sample analysis report is provided as Appendix B.

## 4.0 Findings

### 4.1 Asbestos Containing Materials

Laboratory analytical results indicated that the following materials were positive for asbestos at concentrations greater than 1%:

<b>Asbestos Positive Materials</b> <b>Breakneck Hill Farm Dumping Site</b> <b>Southborough, Massachusetts</b>					
<b>Samples</b>	<b>Material</b>	<b>Location</b>	<b>Percentage / Type</b>	<b>Approx. Quantity</b>	<b>Condition / Material Type / NESHP Category</b>
01-A 01-B 01-C	Grey Cement Board	200,150 Surface , 100,180 Truck	20% Chrysotile	300 SF	Significantly Damaged/Misc.
03-A 03-B 03-C	Black Roofing Asphalt Based Built-Up	200,150 Surface	5% Chrysotile	200 SF	Significantly Damaged/Misc.
08-A 08-B 08-C	Black Roofing Asphalt Based Built-Up	20' SW of 200,75	3% Chrysotile	1800 SF	Significantly Damaged/Misc.

### 4.2 Non-Asbestos Containing Materials

Laboratory results of the bulk sampling indicated that none of the following sampled materials contained detectable levels of asbestos:

<b>Asbestos Negative Materials</b> <b>Breakneck Hill Farm Dumping Site</b> <b>Southborough, Massachusetts</b>			
<b>Samples</b>	<b>Material Description</b>	<b>Material Location(s)</b>	<b>Estimated Quantity</b>
02-A 02-B 02-C	Tan Boiler Brick	86,184 Test Pit	N/A
04-A 04-B 04-C	Black Roofing Felt Paper	200,150 Surface	200 SF
05-A 05-B 05-C	Grey Insulation Unknown	100,180 By Truck	10 SF
06-A 06-B 06-C	Red Wire Insulation	25' SE 100,100	10 LF
07-A 07-B 07-C	Black Roofing Felt Paper	20' SW of 200,75	1800 SF
09-A 09-B 09-C	Black Conduit	By 0,100	5 LF

## 5.0 Conclusions & Recommendations

Results of laboratory analysis confirmed asbestos was identified within three of the suspect materials, as summarized in Section 4.1. The ACM were found to be in poor condition at the time of the inspection. The identified ACM should be securely covered with polyethylene sheeting to restrict access.

In addition, the Massachusetts Department of Environmental Protection (MassDEP) should be notified that ACM have been identified at the Site. Additional assessment activities may be warranted based on MassDEP's determination. Following completion of additional ACM assessment activities (if any), a Massachusetts DLS-certified Project Designer should prepare a work plan for the removal of all identified ACM or assumed ACM that may be disturbed as part of the future Site cleanup plan. Removal of ACM should be performed by a Massachusetts DLS

licensed asbestos abatement contractor, and should be handled, stored, and disposed of according to all local, state, and federal regulations.

Any materials uncovered during additional investigation, excavation, or other site activities that are not addressed in this inspection report, or are considered to be uncharacterized, suspect ACM, must be sampled by an accredited asbestos inspector prior to any disturbance or treated as ACM.

## 6.0 Limitations

Services performed by TRC were conducted in a manner consistent with "state of the industry" practices, recognizing that even the most comprehensive survey may not detect all suspect materials at the Site. Reasonable measures were taken to detect the presence of normally suspect materials within the survey area; however, other materials present at the Site that are not normally considered to be suspect ACM could also contain asbestos (although unlikely). In addition, other suspect materials could be buried beneath the ground surface that were not unearthed during the test pitting program, and the ground surface at the Site was covered with very dense vegetation, which prohibited a thorough evaluation of all solid waste and debris present throughout the Town-owned portion of the Site. Furthermore, access was not provided to the portion of the Site located on the abutting residential property. Accordingly, additional ACM could be present at the portion of the Site located on the abutting residential property. Given these limitations, TRC cannot act as an insurer or certify that other ACM not identified by the survey are not located at the Site. No expressed or implied representation or warranty is included in our report except that the services were performed within the limit of the scope of work authorized by the client and the encountered Site conditions. This report is not intended for, and may not be utilized as, a bidding document or as an abatement project specification document.

Sincerely,  
TRC Environmental Corporation

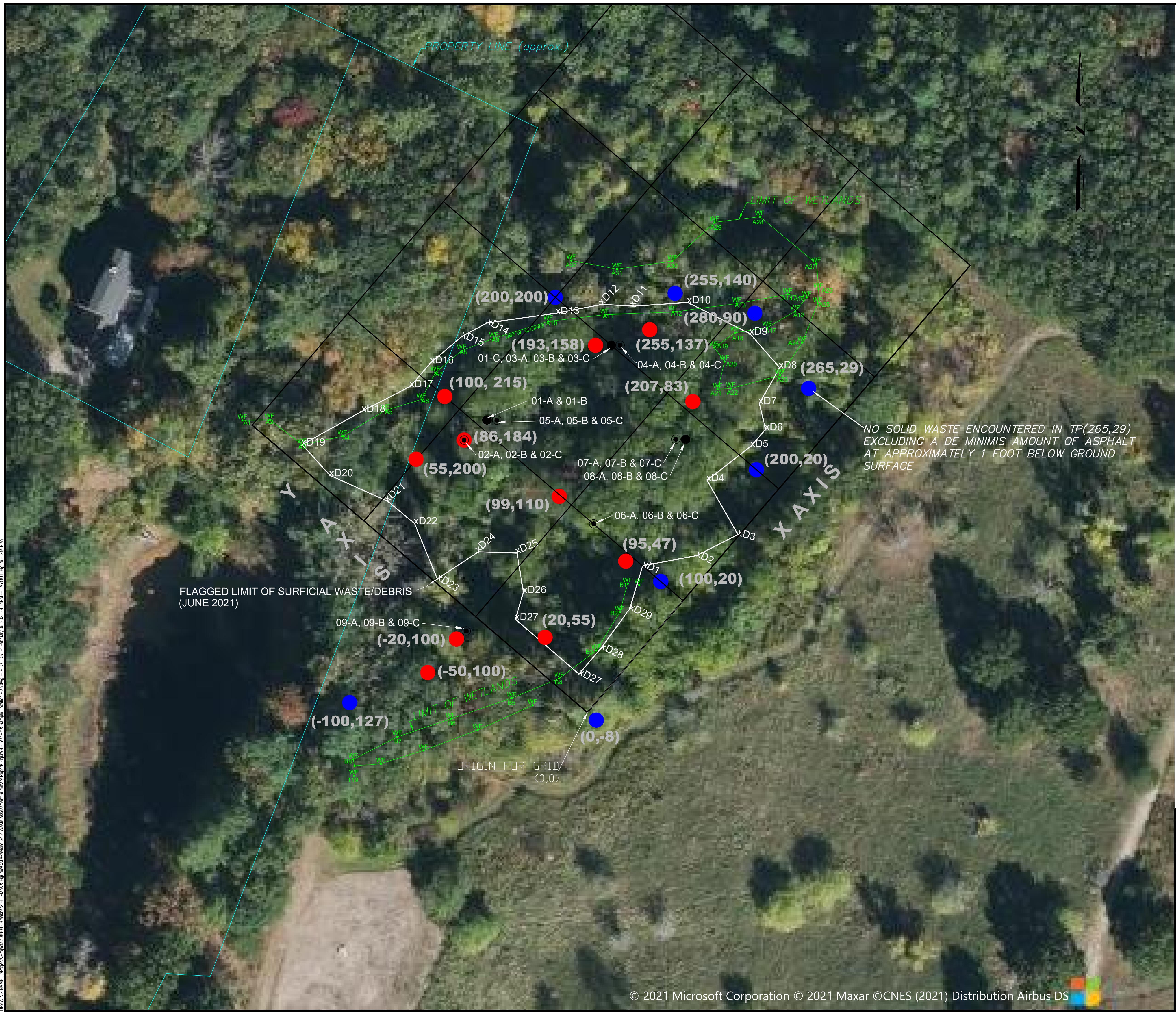


Brian Burk  
Environmental Scientist  
MA DLS AI900513



Taylor Bevenour  
Senior Environmental Engineer

## Appendix A – Sample Location Diagrams



## Appendix B – Representative Photographs

## BREAKNECK HILL BREAKNECK HILL – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

**Sample Numbers:** 01-A, 01-B, 01-C  
**Material Description:** Cement Board  
**Material Color:** Grey  
**Accessible Material:** Accessible  
**Reason Inaccessible:** N/A  
**Asbestos Detected:** Positive  
**Asbestos Type:** 20% Chrysotile  
**Homogeneous Area:** 200,150 Surface , 100,180 Truck  
**Total Approximate Quantity:** 300 SF  
**Condition:** N/A  
**Material Type:** N/A  
**NESHAP Category:** N/A  
**Notes:** Not Applicable



**Sample Numbers:** 02-A, 02-B, 02-C  
**Material Description:** Boiler Brick  
**Material Color:** Tan  
**Accessible Material:** Accessible  
**Reason Inaccessible:** N/A  
**Asbestos Detected:** Negative  
**Asbestos Type:** No Asbestos Detected  
**Homogeneous Area:**  
**Total Approximate Quantity:** TBD  
**Condition:** N/A  
**Material Type:** N/A  
**NESHAP Category:** N/A  
**Notes:** Not Applicable



## BREAKNECK HILL BREAKNECK HILL – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

**Sample Numbers:** 03-A, 03-B, 03-C  
**Material Description:** Roofing Asphalt Based Built-Up  
**Material Color:** Black  
**Accessible Material:** Accessible  
**Reason Inaccessible:** N/A  
**Asbestos Detected:** Positive  
**Asbestos Type:** 5% Chrysotile  
**Homogeneous Area:** 200,150 Surface  
**Total Approximate Quantity:** 200 SF  
**Condition:** N/A  
**Material Type:** N/A  
**NESHAP Category:** N/A  
**Notes:** Not Applicable



**Sample Numbers:** 04-A, 04-B, 04-C  
**Material Description:** Roofing Felt Paper  
**Material Color:** Black  
**Accessible Material:** Accessible  
**Reason Inaccessible:** N/A  
**Asbestos Detected:** Negative  
**Asbestos Type:** No Asbestos Detected  
**Homogeneous Area:** 200,150 Surface  
**Total Approximate Quantity:** 200 SF  
**Condition:** N/A  
**Material Type:** N/A  
**NESHAP Category:** N/A  
**Notes:** Not Applicable



## BREAKNECK HILL BREAKNECK HILL – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

**Sample Numbers:** 05-A, 05-B, 05-C  
**Material Description:** Insulation Unknown  
**Material Color:** Grey  
**Accessible Material:** Accessible  
**Reason Inaccessible:** N/A  
**Asbestos Detected:** Negative  
**Asbestos Type:** No Asbestos Detected  
**Homogeneous Area:** 100,180 By Truck  
**Total Approximate Quantity:** 10 SF  
**Condition:** N/A  
**Material Type:** N/A  
**NESHAP Category:** N/A  
**Notes:** Not Applicable



**Sample Numbers:** 06-A, 06-B, 06-C  
**Material Description:** Wire Insulation  
**Material Color:** Red  
**Accessible Material:** Accessible  
**Reason Inaccessible:** N/A  
**Asbestos Detected:** Negative  
**Asbestos Type:** No Asbestos Detected  
**Homogeneous Area:** 25' SE 100,100  
**Total Approximate Quantity:** 10 LF  
**Condition:** N/A  
**Material Type:** N/A  
**NESHAP Category:** N/A  
**Notes:** Not Applicable



## BREAKNECK HILL BREAKNECK HILL – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

**Sample Numbers:** 07-A, 07-B, 07-C  
**Material Description:** Roofing Felt Paper  
**Material Color:** Black  
**Accessible Material:** Accessible  
**Reason Inaccessible:** N/A  
**Asbestos Detected:** Negative  
**Asbestos Type:** No Asbestos Detected  
**Homogeneous Area:** 20' SW Of 200,75  
**Total Approximate Quantity:** 1800 SF  
**Condition:** N/A  
**Material Type:** N/A  
**NESHAP Category:** N/A  
**Notes:** Not Applicable



**Sample Numbers:** 08-A, 08-B, 08-C  
**Material Description:** Roofing Asphalt Based Built-Up  
**Material Color:** Black  
**Accessible Material:** Accessible  
**Reason Inaccessible:** N/A  
**Asbestos Detected:** Positive  
**Asbestos Type:** 3% Chrysotile  
**Homogeneous Area:** 20' SW Of 200,75  
**Total Approximate Quantity:** 1800 SF  
**Condition:** N/A  
**Material Type:** N/A  
**NESHAP Category:** N/A  
**Notes:** Not Applicable



## BREAKNECK HILL BREAKNECK HILL – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

**Sample Numbers:** 09-A, 09-B, 09-C

**Material Description:** Conduit

**Material Color:** Black

**Accessible Material:** Accessible

**Reason Inaccessible:** N/A

**Asbestos Detected:** Negative

**Asbestos Type:** No Asbestos Detected

**Homogeneous Area:** By 0,100

**Total Approximate Quantity:** 5 LF

**Condition:** N/A

**Material Type:** N/A

**NESHAP Category:** N/A

**Notes:** Not Applicable



## Appendix C – Laboratory Results and Chain of Custody

**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: Town of Southborough

Lab Log #: 0060158  
Project #: 408108.2022.0000  
Date Received: 09/20/2022  
Date Analyzed: 09/21/2022

Site: Breakneck Hill, 60 Breakneck Hill Road, Southborough, MA

**POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116**

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
01-A	100,180 truck	Grey Cement Board	---	20%	Chrysotile
01-B	100,180 truck	--	--	NA/PS	--
01-C	200,150 surface	--	--	NA/PS	--
02-A	100,180 offset 3.5' depth	Tan Boiler Brick	---	ND	None
02-B	100,180 offset 3.5' depth	Tan Boiler Brick	---	ND	None
02-C	100,180 offset 3.5' depth	Tan Boiler Brick	---	ND	None
03-A	200,150 surface	Black Roofing, Asphalt Based Built-Up	---	5%	Chrysotile
03-B	200,150 surface	--	--	NA/PS	--
03-C	200,150 surface	--	--	NA/PS	--
04-A	200,150 surface	Black Roofing, Felt Paper	---	ND	None
04-B	200,150 surface	Black Roofing, Felt Paper	---	ND	None
04-C	200,150 surface	Black Roofing, Felt Paper	---	ND	None
05-A	100,180 by truck	Grey Insulation, Unknown	95%	mineral wool	ND
05-B	100,180 by truck	Grey Insulation, Unknown	95%	mineral wool	ND
05-C	100,180 by truck	Grey Insulation, Unknown	95%	mineral wool	ND
06-A	By 100,100	Red/Black Wire Insulation	---	ND	None
06-B	By 100,100	Red/Black Wire Insulation	---	ND	None

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

## POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
06-C	By 100,100	Red/Black Wire Insulation	---	ND	None
07-A	20' SW of 200,75	Black Roofing, Felt Paper	90%	fibrous glass	ND
07-B	20' SW of 200,75	Black Roofing, Felt Paper	90%	fibrous glass	ND
07-C	20' SW of 200,75	Black Roofing, Felt Paper	90%	fibrous glass	ND
08-A	20' SW of 200,75	Black Roofing, Asphalt Based Built-Up	---	3%	Chrysotile
08-B	20' SW of 200,75	--	--	NA/PS	--
08-C	20' SW of 200,75	--	--	NA/PS	--
09-A	By 0,100	Black Conduit	---	ND	None
09-B	By 0,100	Black Conduit	---	ND	None
09-C	By 0,100	Black Conduit	---	ND	None

ND - asbestos was not detected

Trace - asbestos was observed at level of 1% or less - This is the reporting limit

NA/PS - Not Analyzed / Positive Stop

SNA - Sample Not Analyzed- See Chain of Custody for details

Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2023. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2024. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, as received by the laboratory.

Analyzed by:



Joel Corso, Laboratory Analyst

Reviewed by:



Kathleen Williamson, Laboratory Manager

Date Issued

09/22/2022

### TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS



650 Suffolk Street Suite 200 Lowell MA 01854

Client: Southborough Conservation Commission

## ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

		Project Number: 408108.2022.0000		Sampling Technician: Brian Burk																																																																																					
		Tracking Number:		Mobile App: BSI - HAZMAT Survey Requested TAT: 3 DAY																																																																																					
<table border="1"> <thead> <tr> <th colspan="5">ASBESTOS BULK SAMPLE INFORMATION</th> </tr> <tr> <th>Sample Date</th> <th>Sample Identification</th> <th>Material Description</th> <th>Homogeneous Area</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>09/14/22</td> <td>01-A</td> <td>Cement Board, Grey</td> <td>200,150 Surface , 100,180 Truck</td> <td>100,180 truck</td> </tr> <tr> <td>09/14/22</td> <td>01-B</td> <td>Cement Board, Grey</td> <td>200,150 Surface , 100,180 Truck</td> <td>100,180 truck</td> </tr> <tr> <td>09/14/22</td> <td>01-C</td> <td>Cement Board, Grey</td> <td>200,150 Surface , 100,180 Truck</td> <td>200,150 surface</td> </tr> <tr> <td>09/14/22</td> <td>02-A</td> <td>Boiler Brick, Tan</td> <td>N/A</td> <td>100,180 offset 3.5' depth</td> </tr> <tr> <td>09/14/22</td> <td>02-B</td> <td>Boiler Brick, Tan</td> <td>N/A</td> <td>100,180 offset 3.5' depth</td> </tr> <tr> <td>09/14/22</td> <td>02-C</td> <td>Boiler Brick, Tan</td> <td>N/A</td> <td>100,180 offset 3.5' depth</td> </tr> <tr> <td>09/14/22</td> <td>03-A</td> <td>Roofing, Asphalt Based Built-Up, Black</td> <td>200,150 Surface</td> <td>200,150 surface</td> </tr> <tr> <td>09/14/22</td> <td>03-B</td> <td>Roofing, Asphalt Based Built-Up, Black</td> <td>200,150 Surface</td> <td>200,150 surface</td> </tr> <tr> <td>09/14/22</td> <td>03-C</td> <td>Roofing, Asphalt Based Built-Up, Black</td> <td>200,150 Surface</td> <td>200,150 surface</td> </tr> <tr> <td>09/14/22</td> <td>04-A</td> <td>Roofing, Felt Paper, Black</td> <td>200,150 Surface</td> <td>200,150 surface</td> </tr> <tr> <td>09/14/22</td> <td>04-B</td> <td>Roofing, Felt Paper, Black</td> <td>200,150 Surface</td> <td>200,150 surface</td> </tr> <tr> <td>09/14/22</td> <td>04-C</td> <td>Roofing, Felt Paper, Black</td> <td>200,150 Surface</td> <td>200,150 surface</td> </tr> <tr> <td>09/15/22</td> <td>05-A</td> <td>Insulation, Unknown , Grey</td> <td>100,180 By Truck</td> <td>100,180 by truck</td> </tr> <tr> <td>09/15/22</td> <td>05-B</td> <td>Insulation, Unknown , Grey</td> <td>100,180 By Truck</td> <td>100,180 by truck</td> </tr> <tr> <td>09/15/22</td> <td>05-C</td> <td>Insulation, Unknown , Grey</td> <td>100,180 By Truck</td> <td>100,180 by truck</td> </tr> </tbody> </table>					ASBESTOS BULK SAMPLE INFORMATION					Sample Date	Sample Identification	Material Description	Homogeneous Area	Location	09/14/22	01-A	Cement Board, Grey	200,150 Surface , 100,180 Truck	100,180 truck	09/14/22	01-B	Cement Board, Grey	200,150 Surface , 100,180 Truck	100,180 truck	09/14/22	01-C	Cement Board, Grey	200,150 Surface , 100,180 Truck	200,150 surface	09/14/22	02-A	Boiler Brick, Tan	N/A	100,180 offset 3.5' depth	09/14/22	02-B	Boiler Brick, Tan	N/A	100,180 offset 3.5' depth	09/14/22	02-C	Boiler Brick, Tan	N/A	100,180 offset 3.5' depth	09/14/22	03-A	Roofing, Asphalt Based Built-Up, Black	200,150 Surface	200,150 surface	09/14/22	03-B	Roofing, Asphalt Based Built-Up, Black	200,150 Surface	200,150 surface	09/14/22	03-C	Roofing, Asphalt Based Built-Up, Black	200,150 Surface	200,150 surface	09/14/22	04-A	Roofing, Felt Paper, Black	200,150 Surface	200,150 surface	09/14/22	04-B	Roofing, Felt Paper, Black	200,150 Surface	200,150 surface	09/14/22	04-C	Roofing, Felt Paper, Black	200,150 Surface	200,150 surface	09/15/22	05-A	Insulation, Unknown , Grey	100,180 By Truck	100,180 by truck	09/15/22	05-B	Insulation, Unknown , Grey	100,180 By Truck	100,180 by truck	09/15/22	05-C	Insulation, Unknown , Grey	100,180 By Truck	100,180 by truck
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09/15/22	06-A	Wire Insulation, Red	25' SE 100,100	By 100,100
09/15/22	06-B	Wire Insulation, Red	25' SE 100,100	By 100,100
09/15/22	06-C	Wire Insulation, Red	25' SE 100,100	By 100,100
09/15/22	07-A	Roofing, Felt Paper, Black	20' SW Of 200,75	20' SW of 200,75
09/15/22	07-B	Roofing, Felt Paper, Black	20' SW Of 200,75	20' SW of 200,75
09/15/22	07-C	Roofing, Felt Paper, Black	20' SW Of 200,75	20' SW of 200,75
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09/15/22	08-B	Roofing, Asphalt Based Built-Up, Black	20' SW Of 200,75	20' SW of 200,75
09/15/22	08-C	Roofing, Asphalt Based Built-Up, Black	20' SW Of 200,75	20' SW of 200,75
09/16/22	09-A	Conduit , Black	By 0,100	By 0,100
09/16/22	09-B	Conduit , Black	By 0,100	By 0,100
09/16/22	09-C	Conduit , Black	By 0,100	By 0,100
<b>Special Instruction to Laboratory:</b>				
N/A				
<b>CHAIN OF CUSTODY INFORMATION AND LABORATORY INFORMATION</b>				
<b>Relinquished By:</b>		<b>Date and Time</b>	<b>Received By:</b>	<b>Date and Time</b>
1. (Print):	Brian Burk			9/18/2022 3:37 pm America/New_York
(Sign):				9/18/22 100
ii. (Print):				
(Sign):				
<b>Email Results To:</b>	bdburk@trccompanies.com	<b>Analytical Method:</b>	<b>Lab Comments:</b>	
PLM EPA 600/R-93/116				

## Appendix D – Certifications



THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS

Michael Flanagan  
Director

Asbestos Inspector

**BRIAN BURK**

Eff. Date 08/25/22

Exp. Date 08/25/23

AI900513

Member of C.O.N.E.S.

BOSR

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**23**

