

Due Diligence Report

MILLSTONE ROAD
BREWSTER, MA

JULY 9, 2019



BOHLER
ENGINEERING

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1.0 INTRODUCTION

This report summarizes the due diligence findings and potential constraints for the subject properties identified off of Millstone Road in Brewster, Massachusetts for a potential affordable housing development. This summary is based on available GIS information provided to and acquired by Bohler Engineering (“Bohler”) at the time of this report.

Massachusetts Housing Partnership, in conjunction with the Town of Brewster, is reviewing the feasibility of an affordable housing development located along Millstone Road between Joe Long Road and Fern Lane. The subject properties include one parcel that fronts on the western side of Millstone Road, between 598 and 560 Millstone Road, and a second larger parcel located to the west and southwest, in the rear of the existing residential lots along Millstone Road and Captains Village Lane, as further detailed on the Existing Conditions Survey, included as Attachment 1. These parcels, currently assigned an address of 0 Millstone Road, are further identified on Deed Book 18897 Page 134 and on Deed Book 31410 Page 87 and total approximately 16.61 acres in area (the “Site”), as shown on the Exhibits included in Appendix A. Based on discussions with the Town Department of Public Works (DPW), existing water infrastructure is currently available within the Millstone Road right-of-way to serve the project, however there is no municipal sewer infrastructure. In addition, roadway improvements are planned for Millstone Road in the next several years, estimated to begin in the Fall of 2020. Roadway improvements are anticipated to include repaving, minor roadway realignment, a new public sidewalk, and utility pole relocation to accommodate any realignments. The Conceptual Roadway Layout Plans for Millstone Road in the vicinity of the Site have been included as Attachment 2. Bohler recommends that the future driveway for this development be incorporated into the final roadway and sidewalk design in this area.

Based on available GIS maps, there do not appear to be any wetland resource areas, however, a low lying area was identified by the Town’s Conservation Agent as a potential isolated wetland and will require an additional assessment to determine status and any associated impacts. Protected habitat areas are located on the opposite side of Joe Long Road to the east, but these areas appear to be located beyond the Site and are not expected to impact the development. The existing conditions, utility infrastructure and project constraints are further detailed in the sections below.

2.0 SITE DESCRIPTION

2.1 Existing Conditions & Topography

The Site, located west of Millstone Road near the intersection with Fern Lane, includes the properties identified as “CAMA ID” 99-1 and 98-12 in the Town of Brewster, Massachusetts. One parcel (ID 99-1) has frontage along the western side of Millstone Road, between 598 and 560 Millstone Road, and is located along the northeastern edge of the second parcel. The second, rear parcel (ID 98-12) is located behind single family residential lots along both Millstone Road and Captains Village Lane, and extends to the west, along the Ocean Edge development and golf course.

The Site also abuts a portion of dedicated conservation land associated with the Captains Village Lane development. The subject properties encompass approximately 16.61 acres.

The Site consists primarily of undeveloped wooded land and is bordered by single family residential lots to the east, south and west. Ocean Edge, a condominium development, borders the Site to the north with a portion of the associated golf course also located to the west. The northern portion of the Site primarily slopes from north to south, towards a low lying area along the southern property line, near the inner corner of the “L-shaped” property. The southern portion of the Site is primarily sloped from south to north, towards the same low lying area. There is a small depression on the southern portion of the Site which appears to collect and infiltrate runoff in the vicinity. This low-lying area may result in a larger stormwater system in order to recreate the storage and infiltration that the area provides under existing conditions. The elevations across the Site range from approximately elevation 82 to 122. Slopes range from generally flat in the far southern extent of the property, up to 10% in the northwest portion of the property. The Existing Conditions Survey, included as Attachment 1, further details the location and existing topography at the Site.

2.2 Soil Conditions

Based on the United States Department of Agriculture (USDA) Natural Resources Conservation Service’s (NRCS) Web Soil Survey, the soils identified across the Site consist of Barnstable-Plymouth-Nantucket complex (Hydrologic Soil Group A) and Plymouth loamy course sand (Hydrologic Soil Group A) which are expected to be very well drained soils. The NRCS Web Soil Survey report has been included in Appendix C for reference. In addition, based on the USDA NRCS Web Soil Survey, the depth to water table and any soil restrictive layer is greater than 6.5 feet. Soil testing for a septic system and geotechnical field testing for foundation design is recommended, once a concept plan is finalized, in order to confirm site specific soil conditions that may affect the project design.

2.3 Millstone Road Improvements

The Town of Brewster is currently in the planning and design phases of Millstone Road improvements which will extend all the way from Long Pond Road to Main Street (Route 6A). Roadway improvements are anticipated to include repaving, minor roadway realignment, a new public sidewalk, and utility pole relocation to accommodate any necessary realignments. These improvements are planned to begin in the Fall of 2020. The Conceptual Roadway Layout Plans for Millstone Road in the vicinity of the Site have been included as Attachment 2.

Based on initial review of the Site frontage, there may be some modifications required as part of the roadway improvements in order to ensure proper stopping sight distance is provided for the future driveway. It appears that Millstone Road currently has signage for a speed limit of 40 miles per hour. For a flat roadway and a design speed of 40 miles per hour, the required stopping sight distance is 305 feet (per MassDOT guidance). Based on this speed, some tree clearing and trimming may be required within the right-of-way as part of the roadway improvement, or an adjustment to the roadway alignment, in order to ensure proper stopping sight distance is achieved (see

Attachment 3). Alternatively, the design speed may be reduced along Millstone Road. This required distance should be further reviewed as conceptual design progresses.

In addition, the proposed sidewalk associated with these improvements includes a roadway crossing and crosswalk just south of Fern Lane, which would allow the sidewalk to easily tie into the proposed development and provide effective pedestrian access. If timing allows, the design of the future driveway for the Project should be coordinated closely with these roadway improvements in order to effectively incorporate the sidewalk and minimize any additional work.

3.0 ZONING

The subject parcels are zoned as Low Density Residential based on the Town of Brewster Zoning Map, last revised November 2015. Based on a review of the Town's GIS mapping system, there are no overlay districts in the project area.

Per the Town of Brewster Zoning By-Laws, last updated December 3, 2018, the Low Density Residential District allows by right one-family detached dwelling units, accessory single-family dwelling units (ADUs), and accessory residential buildings. For denser housing, such as cluster residential developments, major residential developments, and planned residential developments, a Special Permit from the Planning Board is required.

In terms of required parking spaces, residential uses require 1 space / dwelling unit (studio/ 1 bedroom), 1.5 space / dwelling unit (2+ bedrooms), or 1 space / 2 residential units (affordable, elderly and/or handicapped housing).

Table 1, below, outlines specific dimensional and geometrical requirements in the Low Density Residential District.

Table 1: Residential District 3 Dimensional Requirements	
Minimum Lot Area	60,000 SF (+60,000 SF for the second Dwelling)
Minimum Lot Frontage	150 Ft
Minimum Front Yard Setback	40 Ft
Minimum Side Yard Setbacks	25 Ft
Minimum Rear Yard Setbacks	25 Ft
Maximum Building Height	30 Ft
Maximum Building Coverage of Lot	20%

4.0 RESOURCE AREAS

4.1 Resource Area Evaluation

Based on available GIS mapping, there are no wetland areas located within the vicinity of the Site. During a site visit conducted by Bohler, several low lying areas were observed on and around the large parcel. The Town's Conservation Agent later performed a site visit to review these areas on the property. Based on initial review, it appeared that there is one potential isolated wetland located on the western end of the property, where some hydric indicators were noted in the soil. It is anticipated that this area would fall under the jurisdiction of the Brewster Wetland Protection Bylaw, but would not be under jurisdiction of the Wetland Protection Act (WPA). This area will require further review and evaluation by a Wetland Scientist in the future to determine if it qualifies as a wetland and the potential impacts.

4.2 100-Year Floodplain

Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) map number 25001C0418J, the Project Site is in a region classified as Zone X. Zone X are areas determined to be outside the 0.2% annual chance floodplain. The FEMA Map has been included in Appendix B for reference.

4.3 Rare Species and Habitats

There are no areas of Priority Habitat or Estimated Habitat for rare or endangered species within the Project Site according to current online Natural Heritage & Endangered Species (NHESP) Map, as shown on Exhibit C.

4.4 Wellhead Protection Zones

Based on GIS mapping, there are Zone II Wellhead Protection areas located southeast of the Site. These areas are not located within the Project Site and are not anticipated to have an impact on the contemplated development, as shown on Exhibit D.

5.0 UTILITY INFRASTRUCTURE

5.1 Sanitary Sewer System

5.1.1 Existing Sanitary Sewer System

The Town of Brewster does not have a sanitary sewer system, so any development is required to have an on-site disposal system. The Site has not been previously developed and does not have an existing septic system.

5.1.2 *Proposed Sanitary Sewer System*

The proposed project will require a septic system with associated leach fields to manage sanitary flows created from the development. Bohler expects that the total size of the project would be under the 10,000 gallons per day (90 bedroom) limit associated with Title V septic systems (310 CMR 15.004). System layout options will need to be explored in more detail during the conceptual planning stages and based on Town and community feedback.

Should the more detailed planning stage indicate a sewer load greater than 10,000 gallons per day, the subdivision of the property could be explored if it would allow for the sewer loads to be split between multiple smaller septic systems. In this case, under Title V a subdivision and sale of separate properties would be required to exceed the 10,000 GPD threshold over the project area. The Town or one owner is not allowed to be a common beneficiary of said properties. For example, on this site a subdivision of the land into multiple properties, one multifamily project lot up to 90 bedrooms and multiple single family lots to be sold to separate owners, should be allowed. Based on the shape of the lot this seems feasible.

Alternatively, a package treatment plant could be considered, but is usually cost prohibitive. Once a concept is finalized, soil testing should be performed in the areas identified for septic systems to confirm site soil conditions and system design constraints.

5.2 *Water System*

5.2.1 *Existing Water System*

The Town of Brewster owns, operates, and maintains the water distribution systems in the vicinity of the Site. Based on discussions with the Town, a 12-inch water main is located within Millstone Road. There appear to be no existing concerns with the water infrastructure and it is anticipated to be adequate to serve the proposed development. An existing fire hydrant is also located within the Millstone Road right-of-way at the intersection of Joe Long Road.

5.2.2 *Proposed Water Service*

The proposed water service for the project would connect to the existing 12-inch water main in Millstone Road. Depending on the conceptual layout and dwelling unit mix, multiple service connections may be required. The proponent will need to coordinate with the Town of Brewster Water Department and Fire Department to ensure the proposed water system meets their needs and requirements, including any private fire hydrants installed on the Site. Bohler also recommends that fire hydrant testing be performed in advance of design to ensure sufficient water pressure to serve the proposed development.

5.3 Storm Drainage System

5.3.1 Existing Storm Drainage System

Based on discussions with the Town, there are existing leaching catch basins and drywells located along Millstone Road that capture and infiltrate stormwater runoff from the roadway. Since the Site is undeveloped, there are no existing stormwater controls onsite. Based on GIS mapping, the existing soils onsite are sandy and very well drained, which would minimize any existing runoff from the Site. As previously discussed, there are several low lying areas observed at the Site which appear to capture and infiltrate any stormwater runoff during large storm events.

5.3.2 Proposed Storm Drainage System

The proposed project will require a new storm drainage system onsite to serve the development. The proposed system is anticipated to consist of a series of catch basins, water quality treatment units and an infiltration basin to collect, treat and manage stormwater runoff from the buildings and parking areas. Since the Site is undeveloped and wooded, the development will result in a substantial increase in impervious area and will require a stormwater management system to retain and infiltrate stormwater in order match or reduce peak rates of runoff compared to that of existing conditions. Given the size of the Site, it is anticipated that an aboveground infiltration basin will be the most feasible and cost effective solution for stormwater management. As previously mentioned, the existing low lying areas at the Site may require a slightly larger stormwater system in order to recreate the storage and infiltration that these areas provide under existing conditions. The proposed development would be a good candidate for the use of a low impact development drainage system, which is suggested under the Massachusetts Stormwater Management Standards. The storm drainage system will need to be further refined as the conceptual planning process moves forward. In addition, during soil testing for the proposed septic system design, Bohler recommends that soil testing be performed in areas identified for stormwater management in order to confirm site soil conditions and depth to groundwater.

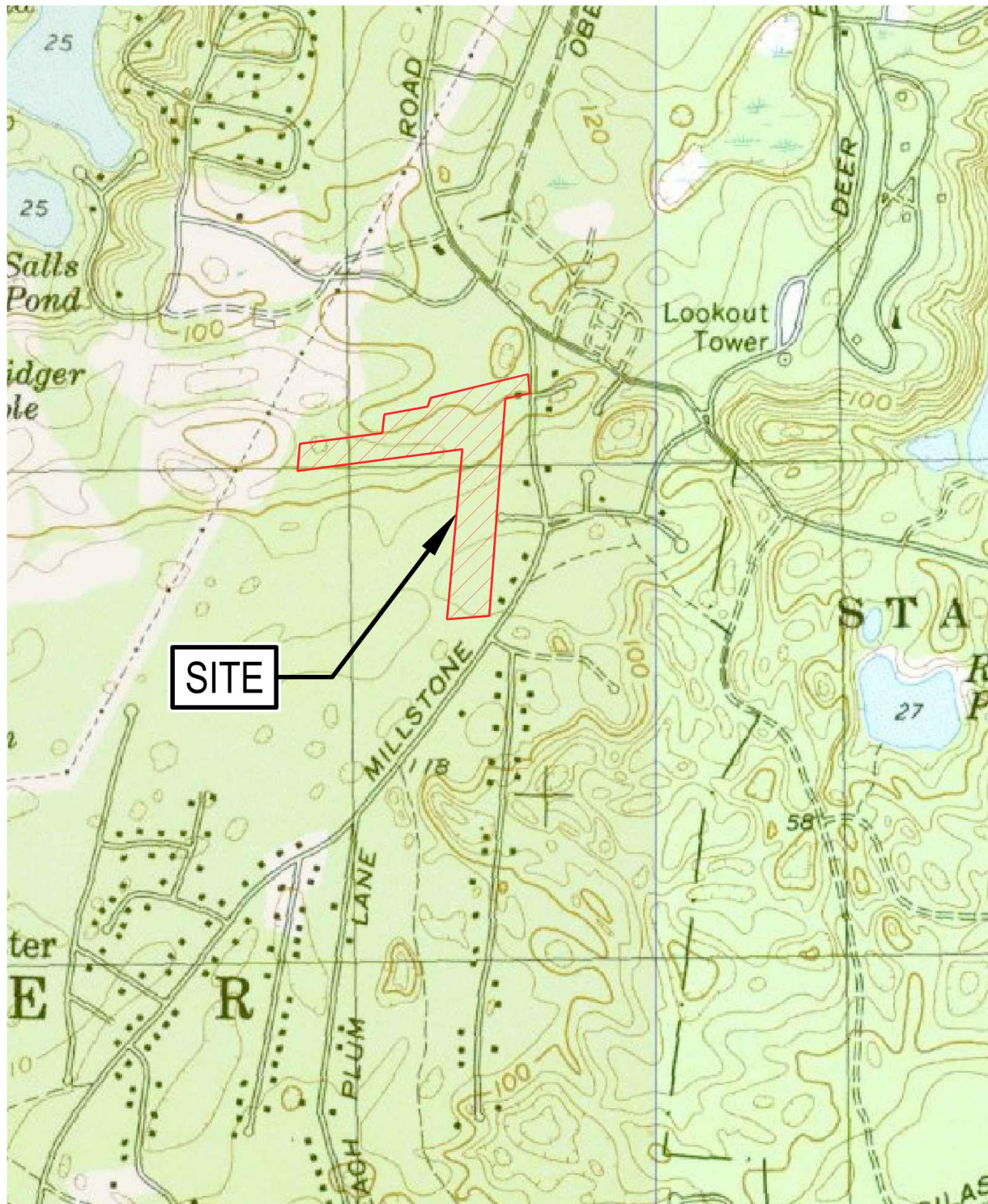
5.4 Electrical and Telecommunication Services

Based on record plans and field observations, there are two (2) existing utility poles located on Millstone Road, along the Site frontage, with overhead wires that serve the single family homes. It is anticipated that electrical and telecommunication services can be provided via these existing poles to serve the project and that both poles can be retained as part of the development. The Project will need to be reviewed with the private utility providers to confirm available services and any required infrastructure to serve the properties.

6.0 SUMMARY

The initial due diligence for the Site has identified limited potential site constraints associated with the contemplated development. Based on the review of available GIS mapping, the Site is located outside of the NHESP priority and estimated habitat areas. The western portion of the Site may contain an isolated wetland based initial review and will require an assessment by a Wetland Scientist in the future to define the area and any potential impacts. The sloped topography may present some challenges, but the large size of the Site provides some flexibility with respect to layout and concept design. Since the Site is wooded and undeveloped with some low lying areas, substantial stormwater systems will be required to manage runoff, however, sandy soils should result in high infiltration rates which help to reduce the size of systems. Based on discussions with the Town, sufficient municipal water infrastructure is readily available to serve the Site within the project frontage. The project will require a septic system to manage sewer flows from the development, but the large size of the Site should again provide various options for system locations. Concept plans will need to be developed in order to refine the septic system options and explore options relative to a subdivision in order to meet related thresholds. Finally, the Zoning Bylaws may impose some constraints to the development relative to density and housing type. Since the project is an affordable housing development, state (Chapter 40B) and or town programs may allow for a higher density development, however, it will need to be further explored with the Town and community. In conclusion, based on initial due diligence for the Site, an affordable housing development appears to be a feasible project at this location with limited constraints.

APPENDIX A: EXHIBITS



SCALE: 1"=1000'
SOURCE: MASSGIS
USGS

PROJECT:

EXHIBIT A USGS LOCUS MAP FOR

MILLSTONE ROAD

TOWN OF BREWSTER
BARNSTABLE COUNTY
MASSACHUSETTS



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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING SUSTAINABLE DESIGN PROGRAM MANAGEMENT PERMITTING SERVICES LANDSCAPE ARCHITECTURE TRANSPORTATION SERVICES

- | | | | |
|-----------------------|-----------------------|---------------------|-----------------|
| ◆ UPSTATE NEW YORK | ◆ SOUTHERN NEW JERSEY | ◆ BALTIMORE, MD | ◆ CHARLOTTE, NC |
| ◆ NEW ENGLAND | ◆ PHILADELPHIA, PA | ◆ SOUTHERN MARYLAND | ◆ ATLANTA, GA |
| ◆ BOSTON, MA | ◆ PITTSBURGH, PA | ◆ NORTHERN VIRGINIA | ◆ TAMPA, FL |
| ◆ NEW YORK, NY | ◆ LEHIGH VALLEY, PA | ◆ CENTRAL VIRGINIA | ◆ SOUTH FLORIDA |
| ◆ NEW YORK METRO | ◆ SOUTHEASTERN, PA | ◆ RALEIGH, NC | ◆ DALLAS, TX |
| ◆ NORTHERN NEW JERSEY | ◆ REHOBOTH BEACH, DE | ◆ WASHINGTON, DC | |

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SCALE: 1"=500'
SOURCE: MASSGIS
ONLINE MAP VIEWER

PROJECT:

EXHIBIT B
AERIAL MAP
— FOR —
MILLSTONE ROAD

TOWN OF BREWSTER
BARNSTABLE COUNTY
MASSACHUSETTS

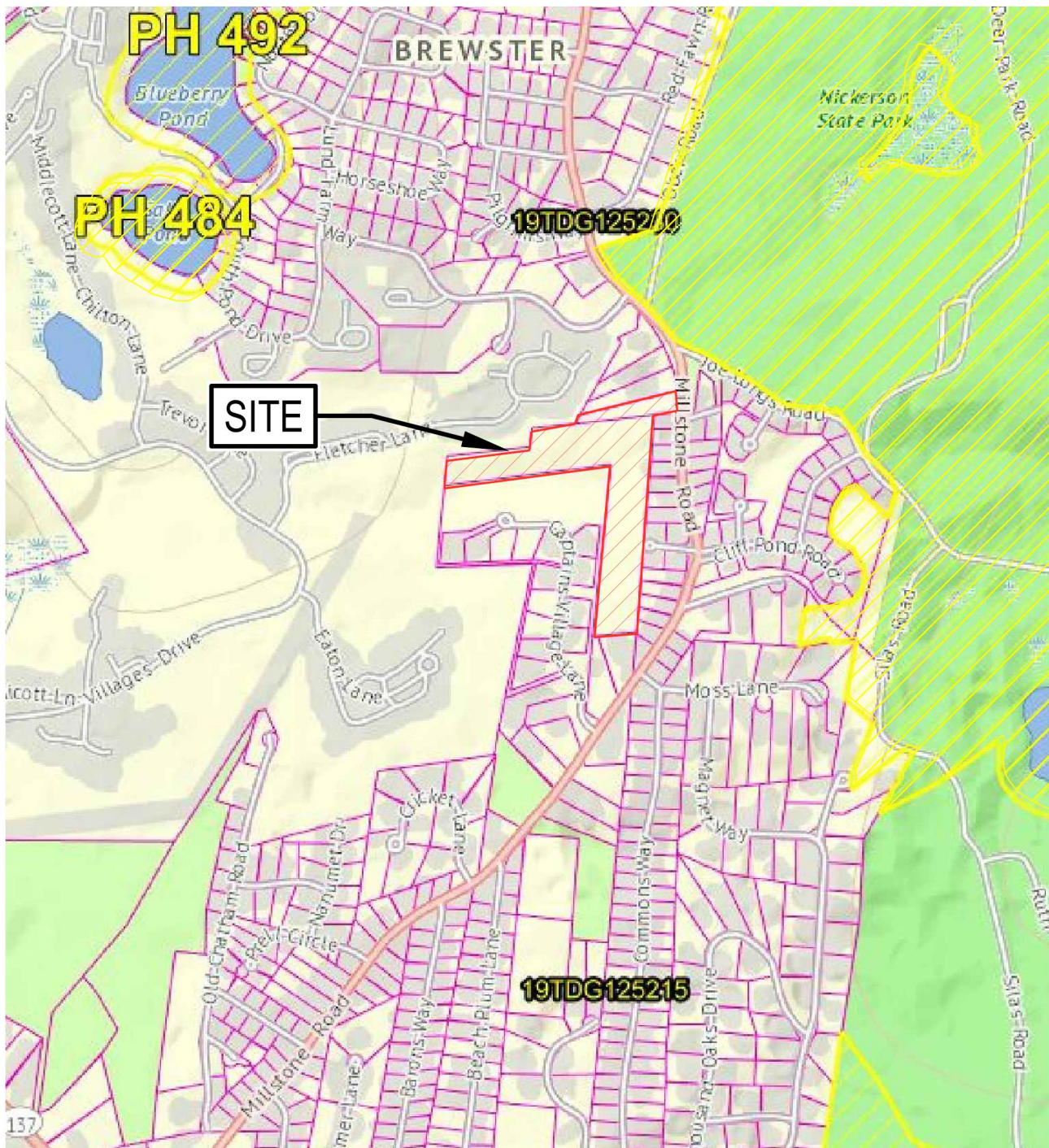


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LAND SURVEYING SUSTAINABLE DESIGN PROGRAM MANAGEMENT PERMITTING SERVICES LANDSCAPE ARCHITECTURE TRANSPORTATION SERVICES

◆ UPSTATE NEW YORK	◆ SOUTHERN NEW JERSEY	◆ BALTIMORE, MD	◆ CHARLOTTE, NC
◆ NEW ENGLAND	◆ PHILADELPHIA, PA	◆ SOUTHERN MARYLAND	◆ ATLANTA, GA
◆ BOSTON, MA	◆ PITTSBURGH, PA	◆ NORTHERN VIRGINIA	◆ TAMPA, FL
◆ NEW YORK, NY	◆ LEHIGH VALLEY, PA	◆ CENTRAL VIRGINIA	◆ SOUTH FLORIDA
◆ NEW YORK METRO	◆ SOUTHEASTERN, PA	◆ RALEIGH, NC	◆ DALLAS, TX
◆ NORTHERN NEW JERSEY	◆ REHOBOTH BEACH, DE	◆ WASHINGTON, DC	

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SCALE: 1"=1000'
SOURCE: MASSGIS
ONLINE MAP VIEWER

LEGEND:



NHESP ESTIMATED HABITATS OF RARE WILDLIFE



NHESP PRIORITY HABITATS OF RARE SPECIES



POTENTIAL VERNAL POOLS
(NONE SHOWN ON MAP EXTENTS)



CERTIFIED VERNAL POOLS
(NONE SHOWN ON MAP EXTENTS)

PROJECT:

EXHIBIT C NATURAL HERITAGE & ENDANGERED SPECIES (NHESP) MAP FOR MILLSTONE ROAD

TOWN OF BREWSTER
BARNSTABLE COUNTY
MASSACHUSETTS

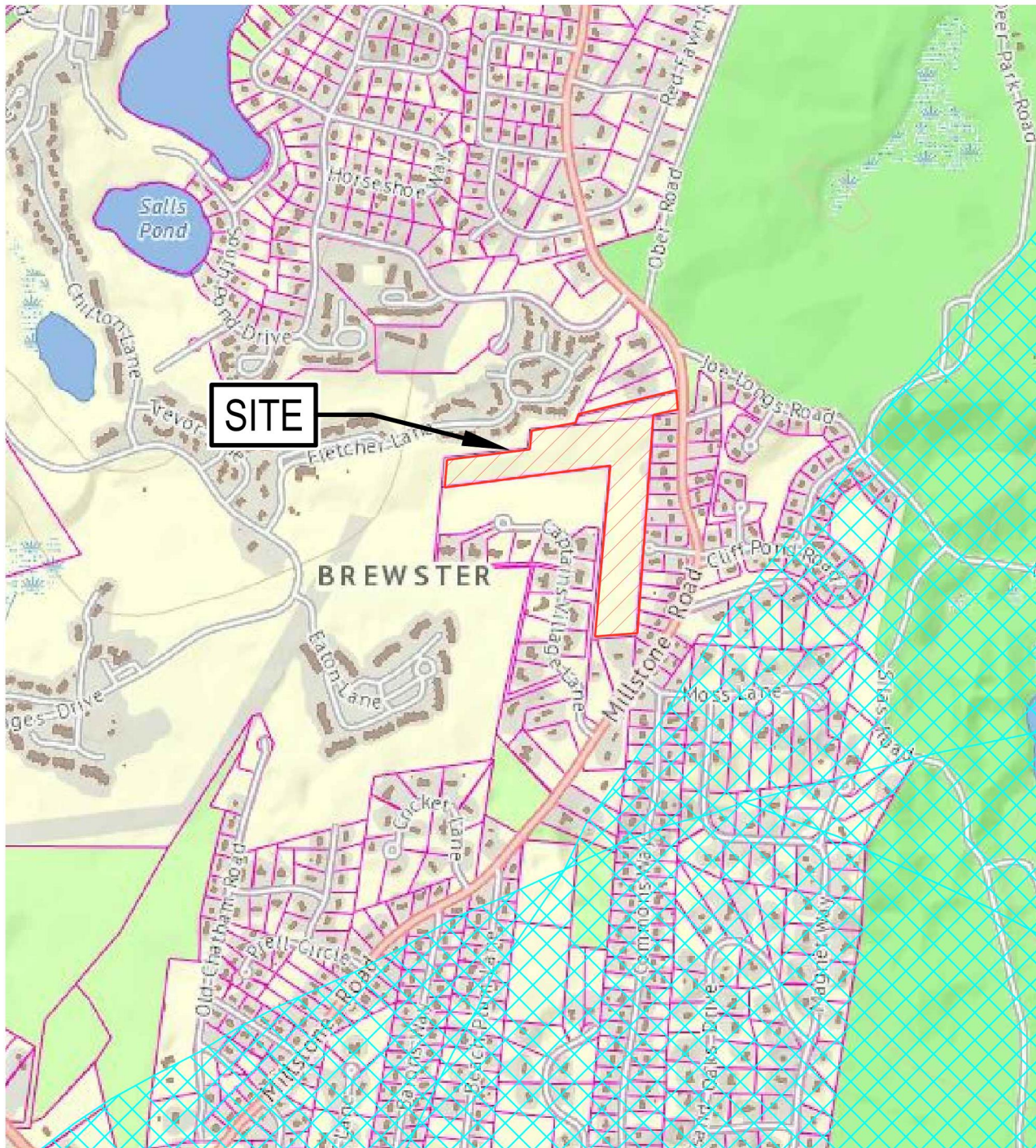


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SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES

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◆ NEW ENGLAND	◆ PHILADELPHIA, PA	◆ SOUTHERN MARYLAND	◆ ATLANTA, GA
◆ BOSTON, MA	◆ PITTSBURGH, PA	◆ NORTHERN VIRGINIA	◆ TAMPA, FL
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◆ NORTHERN NEW JERSEY	◆ REHOBOTH BEACH, DE	◆ WASHINGTON, DC	

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SCALE: 1"=1000'
SOURCE: MASSGIS
ONLINE MAP VIEWER

LEGEND:

 WELLHEAD PROTECTION AREA - ZONE II

PROJECT:

EXHIBIT D
WELLHEAD PROTECTION AREA ZONE II
— FOR —
MILLSTONE ROAD

TOWN OF BREWSTER
BARNSTABLE COUNTY
MASSACHUSETTS



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◆ NORTHERN NEW JERSEY	◆ REHOBOTH BEACH, DE	◆ WASHINGTON, DC	

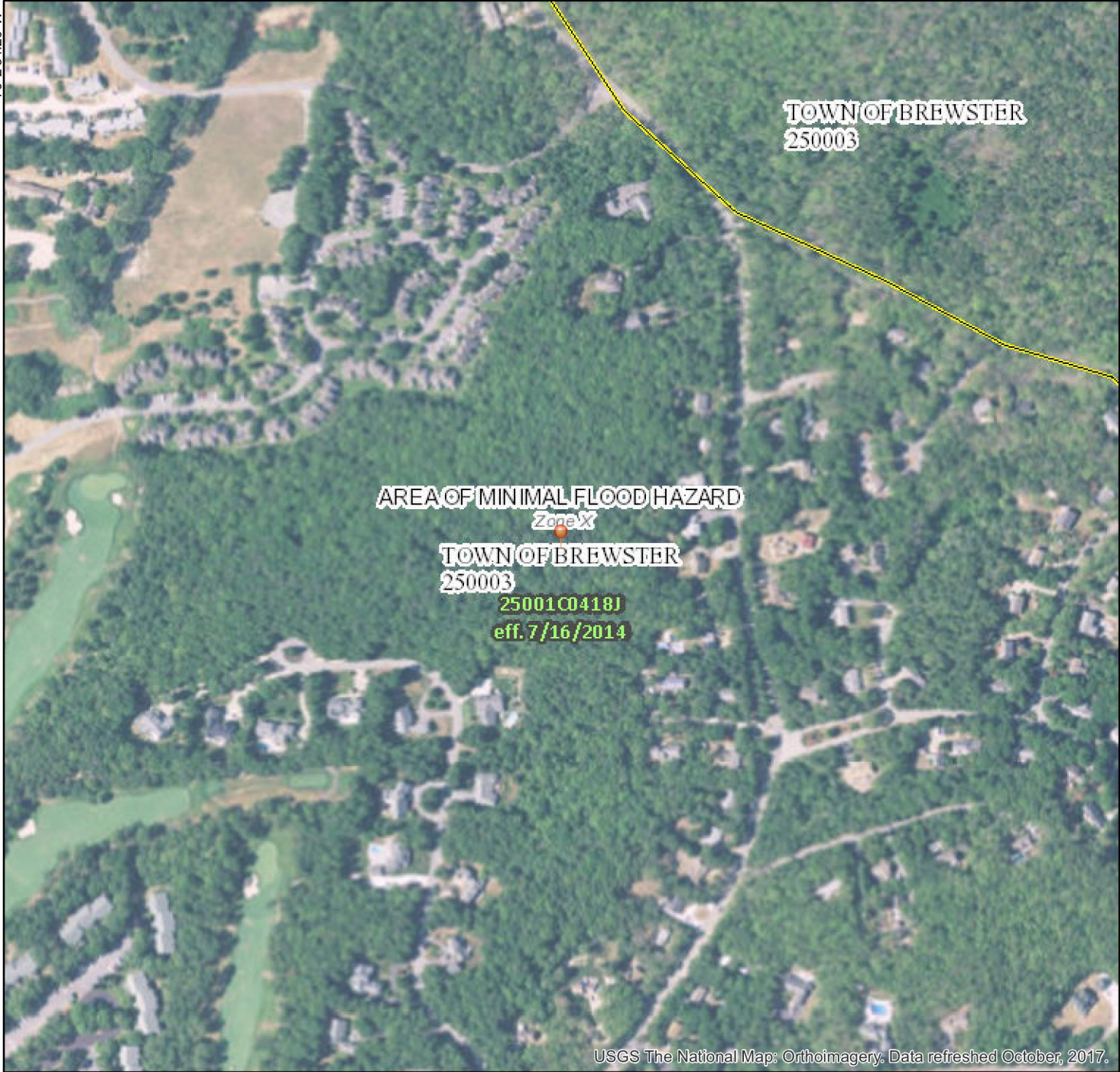
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APPENDIX B: FEMA FLOOD INSURANCE RATE MAP

National Flood Hazard Layer FIRMette



41°45'36.73"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

USGS The National Map: Orthoimagery. Data refreshed October, 2017.

41°45'9.89"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

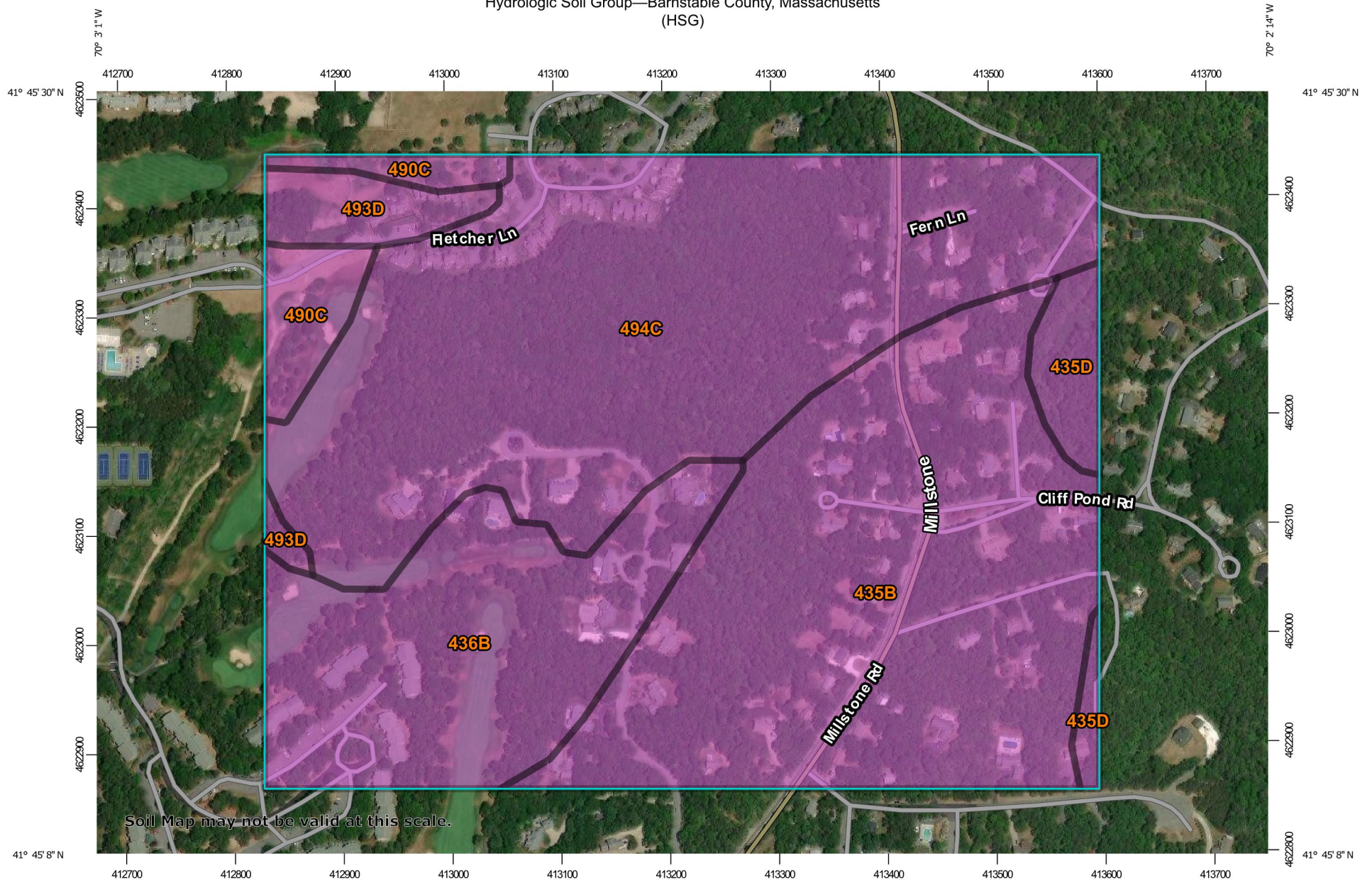
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **3/29/2019 at 2:15:48 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX C: NRCS WEB SOIL SURVEY

Hydrologic Soil Group—Barnstable County, Massachusetts (HSG)



Map Scale: 1:4,920 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters

0 200 400 800 1200 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84




**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

1/18/2019
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils





Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Barnstable County, Massachusetts
Survey Area Data: Version 15, Sep 5, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Apr 6, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
435B	Plymouth loamy coarse sand, 3 to 8 percent slopes	A	37.3	33.8%
435D	Plymouth loamy coarse sand, 15 to 35 percent slopes	A	3.1	2.8%
436B	Plymouth loamy coarse sand, 3 to 8 percent slopes, very stony	A	19.2	17.4%
490C	Barnstable-Plymouth-Nantucket complex, rolling	A	3.9	3.6%
493D	Plymouth-Barnstable-Nantucket complex, hilly, very bouldery	A	3.3	3.0%
494C	Barnstable-Plymouth-Nantucket complex, rolling, very bouldery	A	43.7	39.5%
Totals for Area of Interest			110.6	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

ATTACHMENT 1: EXISTING CONDITIONS SURVEY

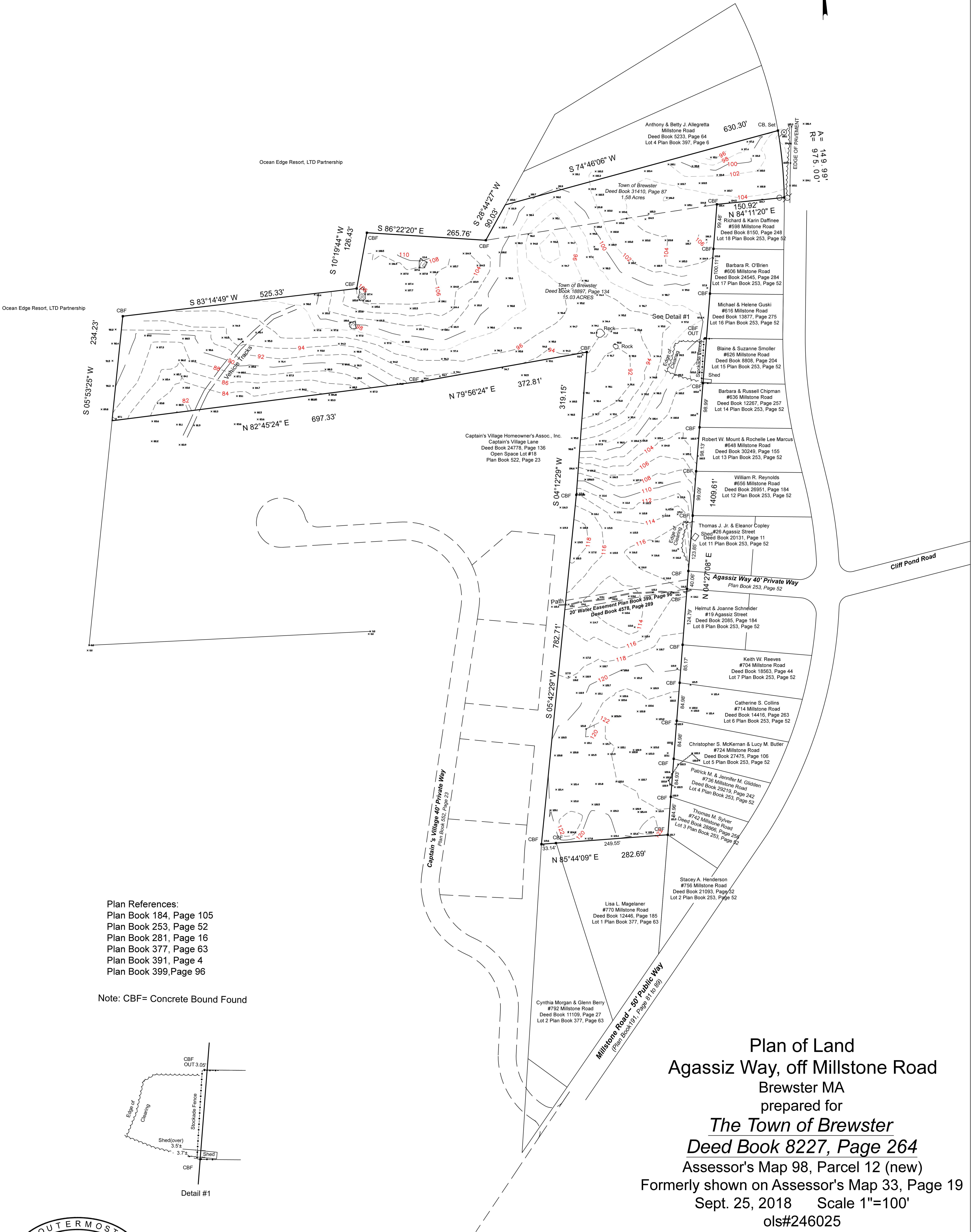
I hereby certify that this plan conforms to the rules and regulations of the Registry of Deeds effective Jan 1, 1976 and amended Jan. 7th, 1988,

and I further certify that the property lines shown on this plan are the lines dividing existing ownership's and the lines of the streets and ways already established, and that no new lines for division of existing ownership or for new ways are shown.

Donald T. Poole P.L.S. #32662

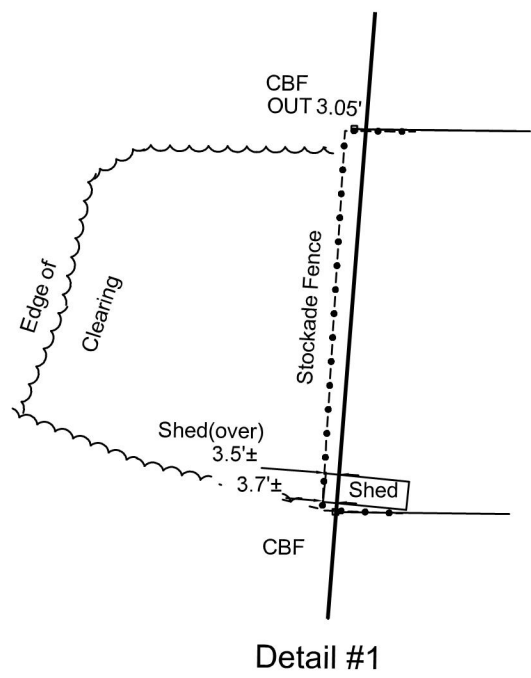
Date

For Registry Use



Plan References:
Plan Book 184, Page 105
Plan Book 253, Page 52
Plan Book 281, Page 16
Plan Book 377, Page 63
Plan Book 391, Page 4
Plan Book 399, Page 96

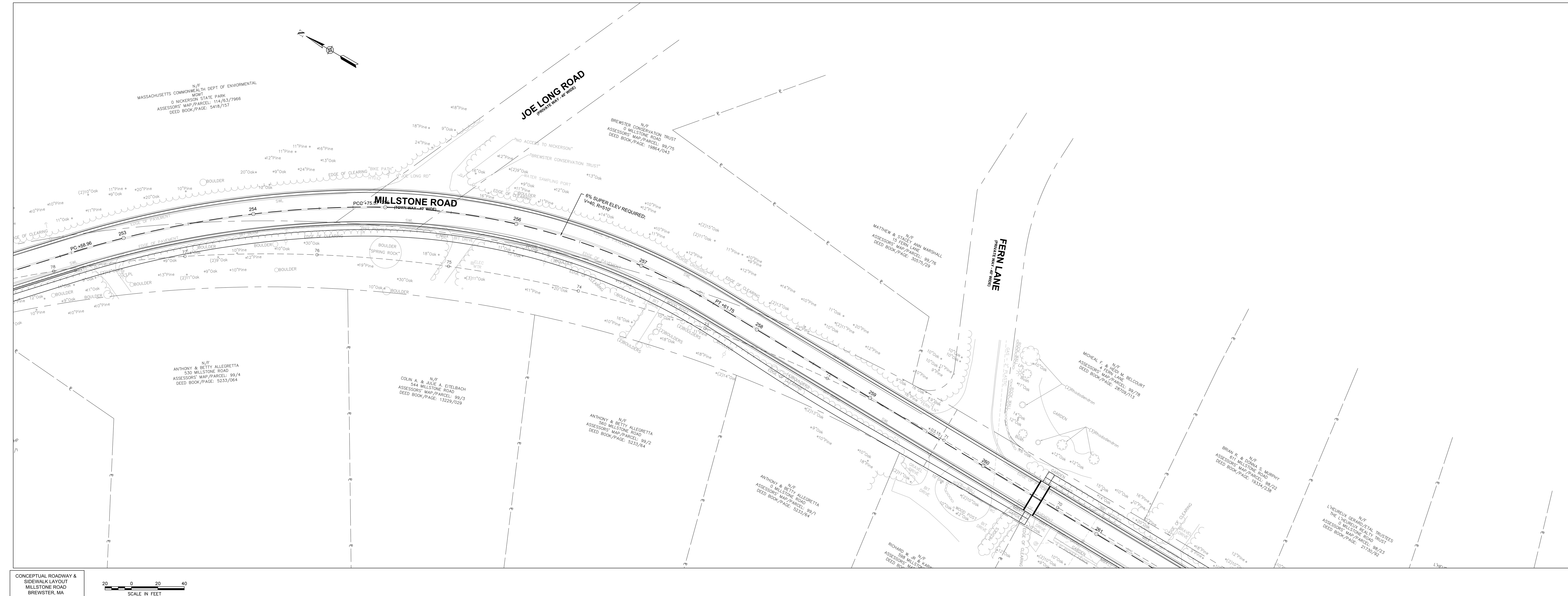
Note: CBF= Concrete Bound Found

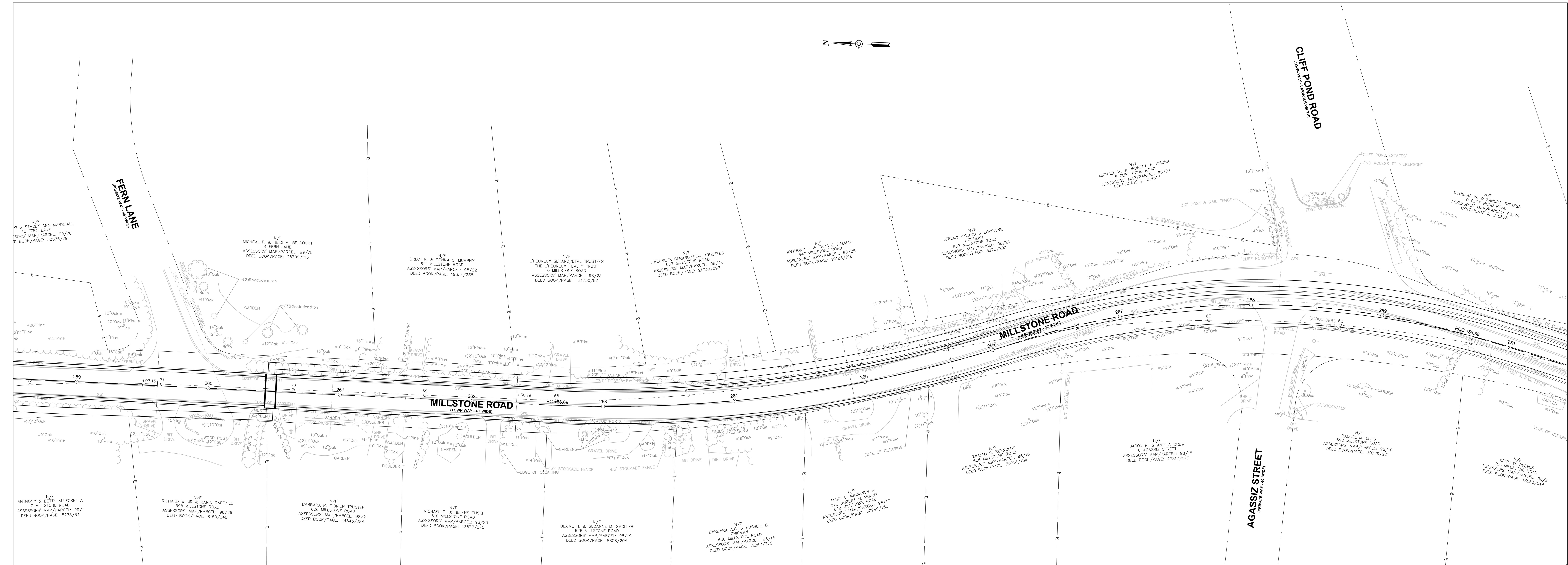


Plan of Land
Agassiz Way, off Millstone Road
Brewster MA
prepared for
The Town of Brewster
Deed Book 8227, Page 264
Assessor's Map 98, Parcel 12 (new)
Formerly shown on Assessor's Map 33, Page 19
Sept. 25, 2018 Scale 1"=100'
ols#246025



ATTACHMENT 2: CONCEPTUAL ROADWAY LAYOUT FOR MILLSTONE ROAD





ATTACHMENT 3: STOPPING SIGHT DISTANCE EXHIBIT

STOPPING SIGHT DISTANCE EXHIBIT

