



### WP-25-12

Wetlands Permitting

Status: Active

Submitted On: 5/24/2025

### Primary Location

41.798657, -72.337847

### Owner

No owner information

### Applicant

 Charles Brown

 860-428-9057

 countryway@charter.net

 P.O. Box 473

Coventry, Ct 06238

Applicant/Owner Information: Please note that "?" bubbles throughout the application provide additional helpful information when hovered over.

### Applicant Information

Applicant's Association to Owner:\* 

Applicant Business Name (if applicable)

Agent

### Owner Information

Owner Name

Margaret Reid and Reid Martin

Owner Phone Number

404-579-0259

Owner Email Address

Owner Address

83 Cider Mill Rd Bolton Ct

### Additional Information

Additional Agent, Engineer, Contractor Information (if applicable):

Dory Reiser-Atty -860-812-1765 - dreiser@kkc-law.com

Andrew Busnell - Engineer - 860-643-7875 - abushnell@bushnellassociatesllc.com

# Wetlands Permitting

Type of Wetlands Application:\*

Regulated Activity Application

Regulated Activity Being Applied For: \*

Activity Within a Wetlands Upland Review Area

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## Activity/Project Information

Description of Proposed Activity(s):\* 

Construction of driveway and associated stormwater controls for new home site

Distance in Feet from Regulated Wetlands/Watercourse:\*

10

Square feet of Wetlands, Watercourse and/or Regulated Area Impacted:

21,148 +/-

Describe measures (if any) that will be taken to minimize the impact on wetlands, watercourses, and the regulated areas:

See Attached Narrative and Plans for Erosion Control and Stormwater Management Measures

Any additional and/or pertinent information:

Is any portion of the property on which the regulated activity is proposed located within 500 feet of an adjoining municipality?\*

No

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# Acknowledgments

**MANDATORY PRE APPLICATION FOR ALL LAND USE, HEALTH, AND BUILDING APPLICATIONS** Except for interior work in existing buildings and exterior work that does not expand or alter the footprint of an existing building. Effective October 1, 2005 no Land Use, Health or Building application for a permit may be filed until the holder(s) of any conservation restriction or preservation restriction on the subject property has been notified. Please see the attached legislation, PA 05-124. Please provide the name of the property owner(s) and street address of the property for which one of the above applications will be submitted and complete either A or B below. Property Owner(s): Address of Permit Application: A. I hereby certify there are NO conservation easements or restrictions nor any preservation restrictions on the above referenced propeerty. B. There ARE conservation easements or restrictions or preservation restrictions on the above referenced property. Name/Phone Number of Restriction Holder: Please attach one of the following: 1. Proof that the holder of the conservation or preservation restriction was notified by certified mail return receipt requested of the property owner's intent to apply for a Land Use, Health or Building permit in the [[orgFullName]]. 2. A letter from the conservation or preservation restriction holder verifying that the application is in compliance with the terms of the restriction.\*



The undersigned electronic signature hereby grants permission to this Agency and its Agent to conduct any necessary inspections of this property, at reasonable times, both before and after the permit in question has been granted by the Agency/Agent.\*



I HEREBY ACKNOWLEDGE AND CERTIFY THAT I'M PERSONALLY FAMILIAR WITH ALL THE INFORMATION PROVIDED IN THIS APPLICATION AND THAT ALL STATEMENTS AND REPRESENTATIONS MADE ARE TRUE TO THE BEST OF MY KNOWLEDGE. I FURTHER CERTIFY THAT I AM AWARE OF THE PENALTIES FOR OBTAINING A PERMIT THROUGH DECEPTION OR THROUGH INACCURATE OR MISLEADING INFORMATION.\*



I agree that my electronic signature below warrants the truth of all statements contained herein and in all supporting documents according to the best of the Agent &/or Owner(s) knowledge and belief, and that it is equivalent to a handwritten signature and is binding for all purposes related to this transaction.\*

 Charles Brown  
May 23, 2025

## **Narrative for the Implementation of E & S and Stormwater Management Measures Proposed 15.56 Acre Building Site on Route 44**

**Project Overview:** This narrative is intended to describe the erosion and sediment control methods and the stormwater management measures to be used during the construction of a new residential building and associated paved driveway. Soil erosion and sediment controls will be provided to control impacts during construction and shall be in conformance with the methods outlined in the *2024 Connecticut Guidelines for Erosion and Sediment Control Manual*. The stormwater management measures are planned to mitigate the increase in impervious areas resulting from the proposed construction and will provide collection, treatment and infiltration of the first 1.3" of rainfall (Water Quality Volume – WQV) in a manner consistent with the *2024 Connecticut Stormwater Quality Manual*.

**Existing Conditions:** The property that is the subject of this application is a 15.56-acre parcel of land located on the northerly side of route 44 (Boston Turnpike), west of the intersection of Route 44 and Richmond Road. The property has approximately 1,800 feet of road frontage however much of the frontage contains steep slopes which are not suitable for a building site or the installation of a driveway. The remaining frontage is not as impacted by steep slopes and contains two areas of wetland soils. These two wetlands are separated by an area of upland soils approximately 100' in width.

An area containing slopes suitable for a building site and consisting of soils suitable for the installation of a septic system exists adjacent to, and upgradient from, the two wetland areas. The proposed limits of disturbance for all construction activities totals approximately 42,607 Sq. Ft. This area is currently wooded and undeveloped and contains no impervious surfaces.

The soil in the area of the proposed building site and storm water infiltration measures is identified by the United States Department of Agriculture (USDA) Natural Resources Conservation Services (NRCS) as Canton and Charlton fine sandy loam. Per the USDA, the NRCS Hydrologic Soil Group rating for within this area of the site is class B. The wetland soils on site are identified as Ridgebury, Leicester, and Whitman which have a Hydrologic Soil rating of class D. A copy of the USDA NRCS Hydrologic Soil Group Map is included for reference.

Deep hole tests were conducted on site by Bushnell Associates and observed by the Eastern Highlands Health District for the purpose of determining the suitability of the soil for use with septic systems. The results of these tests are included on page 2 of the plans and a review of these findings show the soils to be "fine sandy loam" consistent with the NRSC Soils map.

**Proposed Scope of Work:** In order to access the buildable portion of this property and to avoid an adverse impact to the wetland areas, the driveway is proposed to be constructed within the upland review area between the two areas of wetlands. The proposed driveway will be approximately 270' in length, constructed with a 12' wide paved travel way with 4' wide gravel shoulders. The driveway will terminate at a paved parking area serving a proposed building with a footprint of 26' x 60'. The impervious area of the paved drive and parking area totals 4,933 Sq. Ft. The impervious area of the proposed building is 1,560 Sq. Ft., for a total impervious area of 6,493 S.F. It should be noted that the building size used for this application is subject change. Prior to the issuance of a zoning or building permit for construction another detailed site plan will be required which will ensure that the stormwater measures proposed at the time of construction are adequate for any change in building size. A note is included on page 3 of the plans stating this requirement.

**Proposed Erosion and Sediment Control Measures:** To minimize the potential of erosion the sequence of construction will be phased to keep the area of land disturbance to a minimum. The construction of the driveway shall be substantially complete and stabilized prior to any grading or excavation of the building area. Prior to the start of construction perimeter silt fencing and an anti-tracking pad shall be installed as depicted on the plans and maintained during construction. A schedule of construction is included on page 2 of the plans.

**Proposed Stormwater Management Measures:** The addition of impervious areas resulting from the building and driveway will be addressed in several ways; The runoff from the 1,560 Sq. Ft. of the building roof area will be retained and infiltrated through the use of infiltration chambers. The upper 3,368 Sq. Ft. portion of the paved drive, including the paved parking area, will be directed to two stone filled infiltration trenches for retention and infiltration. The remaining 1,565 Sq. Ft. of paved drive is the section nearest to Route 44 and includes the pavement within the CT D.O.T. right of way. This section of the driveway will be graded with a center crown to divert the stormwater into the adjacent pervious receiving areas on either side of the driveway (simple disconnection).

In order to properly size the stormwater measures the WQV for the site must first be determined. The *2024 Connecticut Stormwater Quality Manual* (The Manual) provides the following equation (Chapter 4. Pg. 46).

$$\frac{\text{WATER QUALITY VOLUME}}{\text{WQV} = (P)(R)(A) / 12}$$

WHERE:

P = 1.3" (90<sup>TH</sup> PERCENTILE RAIN EVENT)

R = 0.05 + 0.009 x I

I = POST DEVELOPMENT % OF IMPERVIOUS AREA

A = POST DEVELOPMENT TOTAL DRAINAGE AREA

The entire site is 15.56 acres; however, the area of disturbance is 42,689 S.F.

Using 42,689 S.F. as the drainage area the resulting value of I = (6,493 S.F./42,689)x(100) = 15.21%

The resulting calculations are:

$$R = 0.05 + 0.009 (15.21\%) = .19$$

$$\text{WQV} = (1.3 \text{ inches})(.19)(42,689 \text{ S.F.})/12 = 879 \text{ Cubic Feet.}$$

Infiltration chambers are provided for the roof area runoff and are sized to retain and infiltrate 100% of the first 1.3 inches of rainfall for the building roof area. The chamber size is determined as follows: The building footprint of 26' x 60' = 1,560 S.F. 1,560 S.F x 1.3" = 169 C.F. (rounded). Four Cultec 100 HD infiltration chambers, in stone, provide 170 C.F. of storage and are proposed on the plans. Details of the specified Cultec units are attached for reference.

Two infiltration trenches are proposed to be located down gradient and parallel to the driveway to collect and infiltrate the runoff from the upper 3,370 S.F. of impervious driveway surface. The infiltration trenches are to be 3 feet wide and filled with a base layer of 21" of 1 ¼ crushed, washed stone and a 3" top layer of 3/8" pea stone. The stone will be wrapped with filter fabric along the sides and trench bottom and the top of the stone surface will be set 12 inches below the surrounding ground with side slopes of 3:1. This configuration will provide both static storage within the stone trench and ponded storage in the swale above the stone. The longitudinal slope of the trenches will be level along both the top and bottom slope for their entire length with a maximum ponded depth of 6 inches. The areas adjacent to the trenches will be vegetated to provide a measure of pretreatment of overland flow. An overflow outlet will be provided at one end of each trench with the outlet invert set at the elevation of maximum ponding. The outlet will be constructed with a fieldstone base to prevent scouring and will incorporate a fieldstone level spreader. The level spreader will allow for a dissipated flow to filter down through the URA before entering a proposed culvert under the driveway. Exiting the culvert the flow will again be filtered through the URA before ultimately entering the lower area of wetlands.

To determine the storage capacity of the infiltration trenches The Manual provides the following equation (Appendix C, Pg. 515):

$$V = (A * D_{\text{ponding}}) + (L * W * D_{\text{stone}} * N_{\text{stone}})$$

WHERE:

V = STATIC STORAGE VOLUME (C.F.)

A = AVERAGE AREA BETWEEN MAXIMUM PONDING DEPTH AND THE TRENCH SURFACE (S.F.)

D<sub>ponding</sub> = MAXIMUM PONDING DEPTH (FEET)

L = LENGTH (FEET)

W = WIDTH (FEET)

D<sub>stone</sub> = DEPTH OF STONE (FEET)

N<sub>stone</sub> = POROSITY OF STONE (USE DEFAULT VALUE OF 0.4)

For the first infiltration trench:

$$L = 150', W = 3', A \text{ (with 3:1 side slopes)} = 675, D_{\text{ponding}} = .5', D_{\text{stone}} = 2', N_{\text{stone}} = .4$$

$$(675 * .5) + (150 * 3 * 2 * .4) = 697.5 \text{ cubic feet of combined ponded and static storage.}$$

For the second infiltration trench:

$$L = 20', W = 3', A \text{ (with 3:1 side slopes)} = 90, D_{\text{ponding}} = .5', D_{\text{stone}} = 2', N_{\text{stone}} = .4$$

$$(90 * .5) + (20 * 3 * 2 * .4) = 93 \text{ cubic feet of combined ponded and static storage.}$$

Having determined the volume of the infiltration trenches it is necessary to confirm that the bottom of the trenches is large enough so that the system will completely drain within 48 hours. The Manual provides the following equation to calculate the drain time using the static method. The static method uses a default infiltration rate based on the NRCS Hydrologic Soil Group rating for underlying soils, in this case, Class B Fine Sandy Loam. The default infiltration rate is .52 inches per hour (Table 10-2 Pg 184).

$$T_d = \frac{V}{K * A} * 12 \text{ inches/foot}$$

WHERE:

T<sub>d</sub> = DRAIN TIME (HOURS)

V = DESIGN INFILTRATION VOLUME OR STATIC STORAGE VOLUME

K = DESIGN INFILTRATION RATE (INCHES PER HOUR)

A = AVERAGE SURFACE AREA OF INFILTRATION SYSTEM (SQUARE FEET)

$$\text{For the first infiltration trench: } V = 697.5 \quad K = .52 \quad A = 675$$

$$\frac{697.5}{.52 * 675} = 1.99 * 12 = 23.88 \text{ Hours}$$

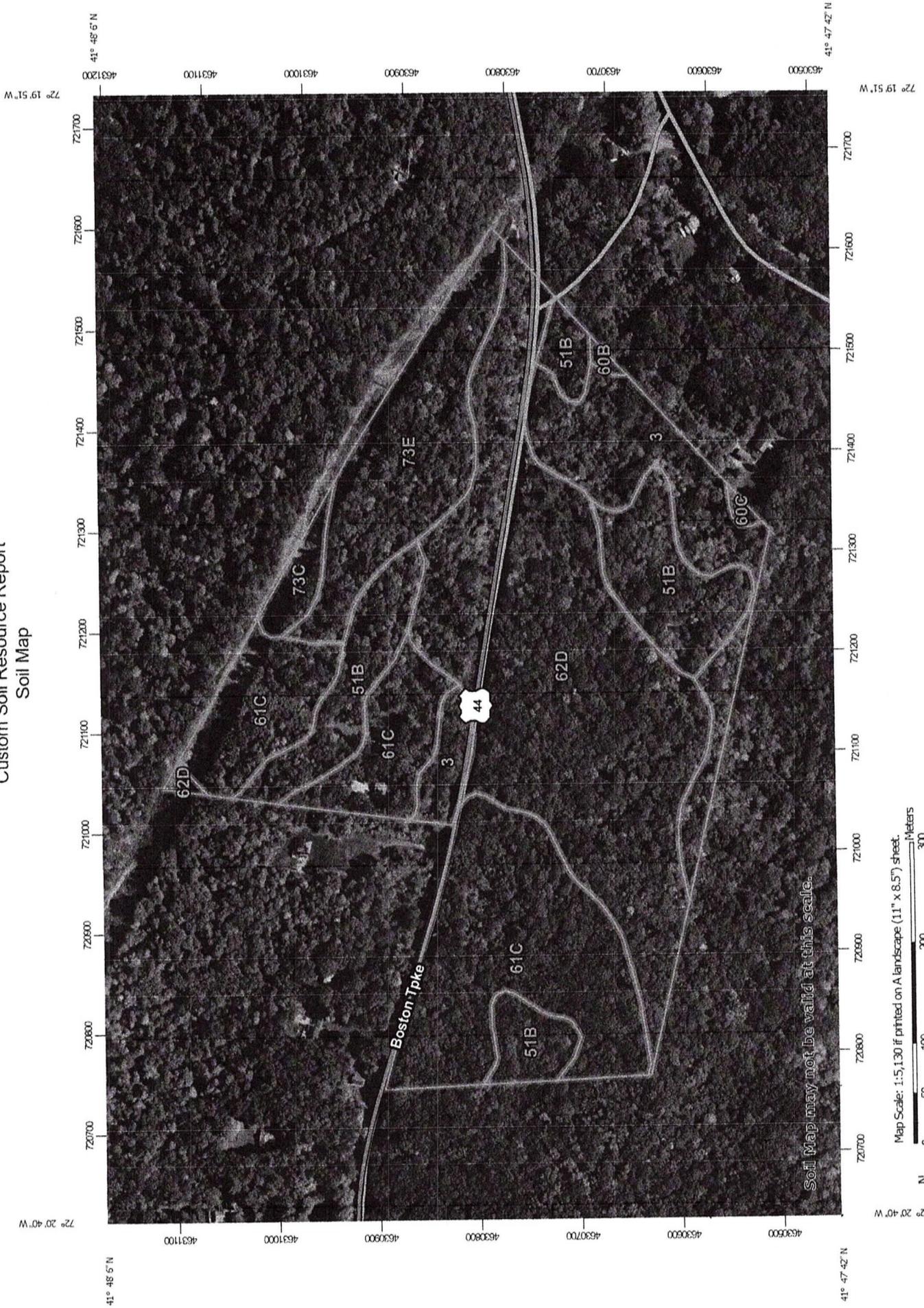
$$\text{For the second infiltration trench: } V = 93 \quad K = .52 \quad A = 90$$

$$\frac{93}{.52 * 90} = 1.99 * 12 = 23.88 \text{ Hours}$$

**Summary:** The entire Water Quality Volume of 879 cubic feet will be retained and infiltrated on-site. 170 C.F. will be treated using Cultec infiltrators, 697.5 C.F. will be treated in an infiltration trench and 93 C.F. will be treated in a second infiltration trench. The total stormwater retained and infiltrated on site is 960.5 C.F.

Construction notes, details and maintenance requirements are included on page 3 of the plans.

Custom Soil Resource Report  
Soil Map



## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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: State of Connecticut, Eastern Part  
 Survey Area Data: Version 2, Aug 30, 2024

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

Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

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.

## MAP LEGEND

- |  |                        |  |                       |
|--|------------------------|--|-----------------------|
|  | Area of Interest (AOI) |  | Spoil Area            |
|  | Soils                  |  | Stony Spot            |
|  | Soil Map Unit Polygons |  | Very Stony Spot       |
|  | Soil Map Unit Lines    |  | Wet Spot              |
|  | Soil Map Unit Points   |  | Other                 |
|  | Special Point Features |  | Special Line Features |
|  | Blowout                |  | Water Features        |
|  | Borrow Pit             |  | Streams and Canals    |
|  | Clay Spot              |  | Transportation        |
|  | Closed Depression      |  | Rails                 |
|  | Gravel Pit             |  | Interstate Highways   |
|  | Gravelly Spot          |  | US Routes             |
|  | Landfill               |  | Major Roads           |
|  | Lava Flow              |  | Local Roads           |
|  | Marsh or swamp         |  | Background            |
|  | Mine or Quarry         |  | Aerial Photography    |
|  | Miscellaneous Water    |  |                       |
|  | Perennial Water        |  |                       |
|  | Rock Outcrop           |  |                       |
|  | Saline Spot            |  |                       |
|  | Sandy Spot             |  |                       |
|  | Severely Eroded Spot   |  |                       |
|  | Sinkhole               |  |                       |
|  | Slide or Slip          |  |                       |
|  | Sodic Spot             |  |                       |

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	8.3	11.9%
51B	Sutton fine sandy loam, 0 to 8 percent slopes, very stony	9.8	14.2%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	0.1	0.2%
60C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes	0.2	0.2%
61C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes, very stony	18.1	26.2%
62D	Canton and Charlton fine sandy loams, 15 to 35 percent slopes, extremely stony	24.0	34.6%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	1.1	1.5%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	7.7	11.1%
<b>Totals for Area of Interest</b>		<b>69.2</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties

## USER INPUTS

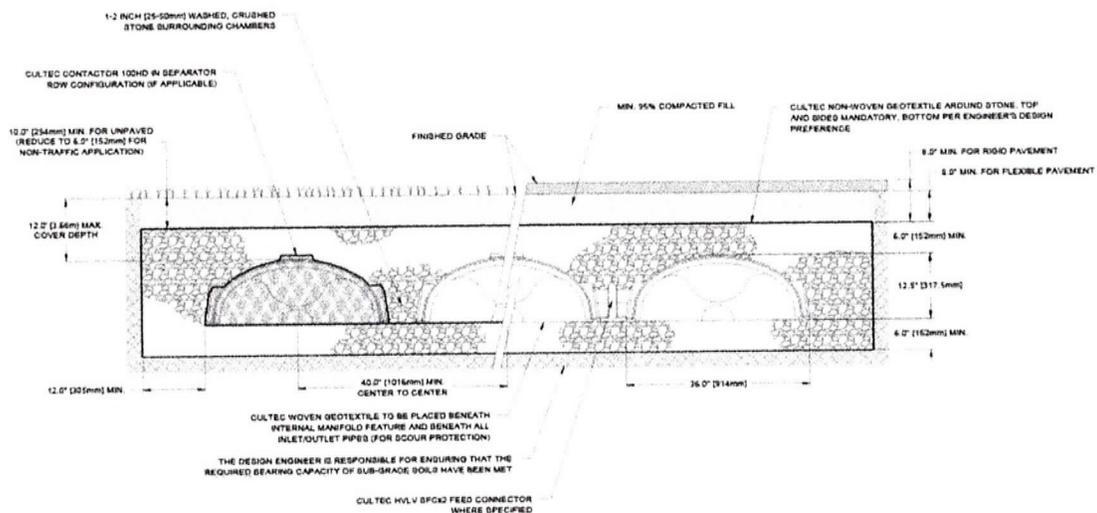
Project Name:	15 acre
Engineer:	Charles Brown
Project Location:	Connecticut
Measurement Type:	Imperial
Chamber Model:	Contactora 100HD
Required Storage Volume:	170 cf
Available Length:	20 ft
Available Width:	10 ft
Stone Above Chambers:	8 in
Stone Below Chambers:	8 in
Base Stone Elevation:	585.33 ft
Stone Porosity:	40%
Maximum Allowable Finished Grade	598.87 ft
Minimum Allowable Finished Grade	588.04 ft
Outlet Control Structure:	Yes

## RESULTS

Installed Storage Volume:	173.27 cf
Storage Volume Per Chamber:	14 cf
Chamber Rows:	2
Maximum Length:	17.50 ft
Maximum Width:	8.33 ft
Approx. Bed Area Required:	145.83 sf

## SYSTEM COMPONENTS - NOT FOR CONSTRUCTION

Number of Chambers Required:	4
Number of End Caps Required:	4
Number of Feed Connectors Required:	0
Amount of Stone Required:	11 cy
Volume of Excavation (Not Including Fill):	13 cy
Non-woven Geotextile Required:	72 sy
Woven Geotextile Required (Beneath Internal Manifold):	19 ft
Woven Geotextile Required (Separator Row):	20 ft
Total Woven Geotextile Required:	38 ft



# CULTEC Contactor® 100HD Residential Drainage Chamber

The Contactor® 100HD is a 12" (305 mm) tall, low profile chamber and is typically used for installations with depth restrictions or when a larger infiltrative area is required. The Contactor 100HD has the side portal internal manifold feature. The HVLV® SFCx2 Feed Connector is inserted into the side portal of the Contactor 100HD to create the internal manifold.

Size (L x W x H)	8' x 36" x 12" 2.44 m x 914 mm x 305 mm
Installed Length	
R-model as Stand Alone Unit	96"
R-model as Row Starter Unit	93"
E-model as Row Middle Unit	90"
E-model as Row End Unit	93"
Chamber Storage	1.87 ft <sup>3</sup> /ft 0.17 m <sup>3</sup> /m 14.00 ft <sup>3</sup> /unit 0.40 m <sup>3</sup> /unit
Chamber Weight	38.0 lbs 17.24 kg
Shipping	55 chambers/skid 2,195 lbs/skid 16 skids/48' flatbed
Max. Allowable Cover	12' 3.66 m
Max. Inlet Opening in End Wall	10" HDPE, PVC 250 mm HDPE, PVC
Max. Allowable O.D. in Side Portal	6" HDPE, PVC 150 mm HDPE, PVC
Compatible Feed Connector	HVLV SFCx2 Feed Connector

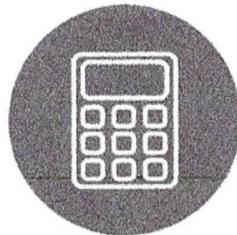


Calculations are based on installed chamber length.  
All above values are nominal.

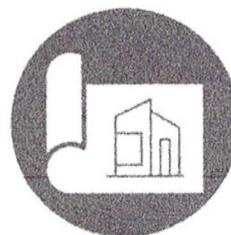
Visit our website for more information.



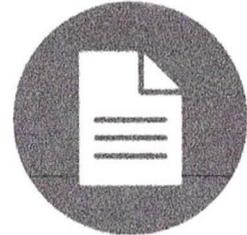
Scan to  
Learn More



System Calculator



CAD / PDF Drawings



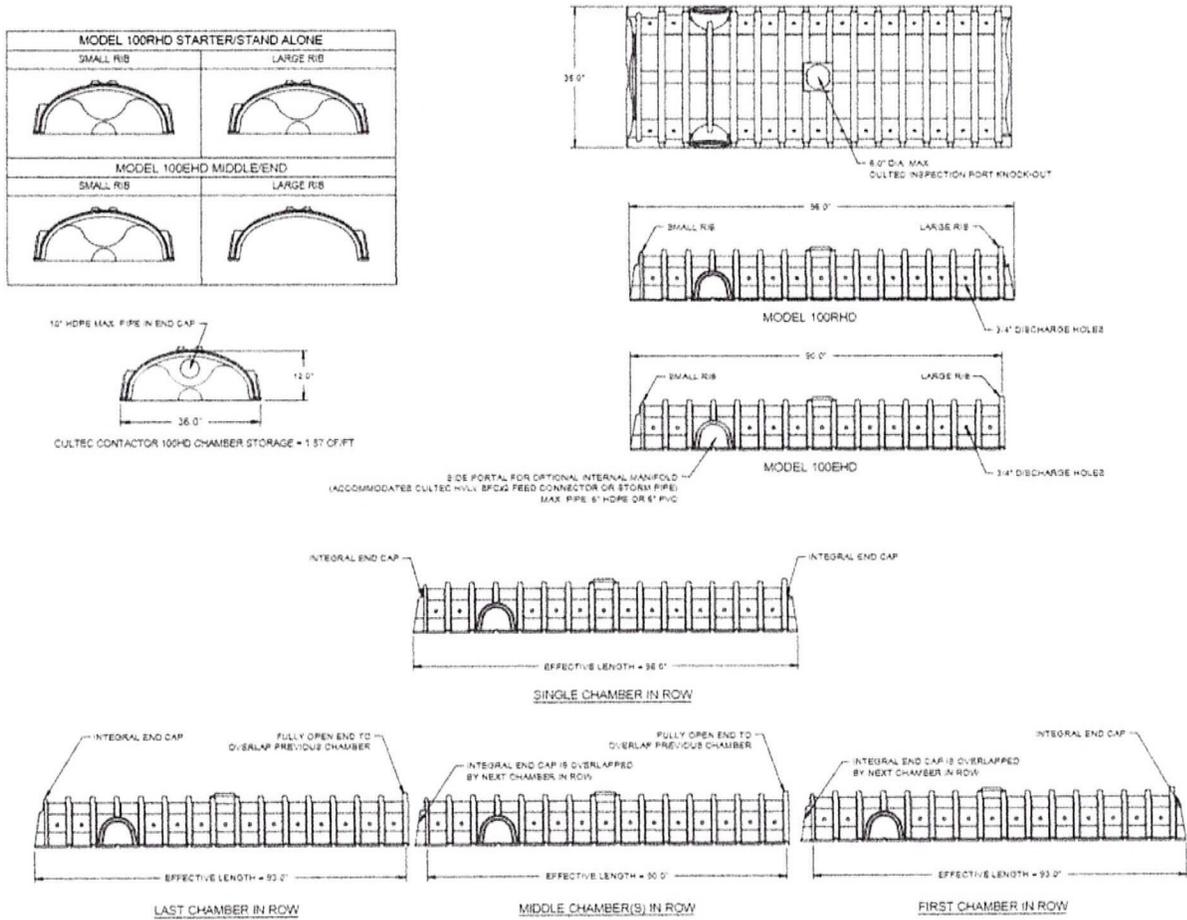
Installation Instructions



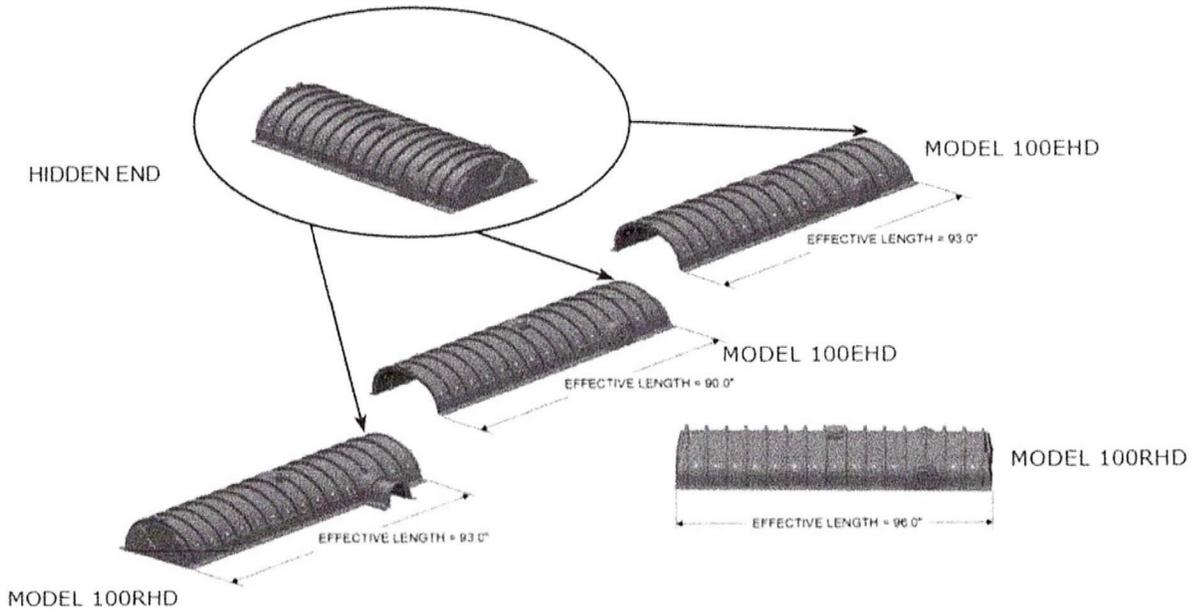
## We Have Solutions.

cultec.com  
1.800.4.CULTEC

# Three View Drawing



# Typical Interlock Installation



SHOWN WITH SIDE PORTAL TRIMMED AND OPTIONAL CULTREC HVLV SFCX2 FEED CONNECTOR INSERTED.



# CULTEC Contactor® 100HD Specifications

## GENERAL

CULTEC Contactor® 100HD chambers are designed for underground residential drainage. The chambers may be used for retention, recharging, detention, or controlling the flow of on-site stormwater runoff or greywater.

## CHAMBER PARAMETERS

1. The chambers shall be manufactured in the U.S.A. by CULTEC of Brookfield, CT (cultec.com, 203-775-4416).
2. The chamber shall be vacuum thermoformed of polyethylene with a black interior and blue exterior.
3. The chamber shall be arched in shape.
4. The chamber shall be open-bottomed.
5. The chamber shall be joined using an interlocking overlapping rib method. Connections must be fully shouldered overlapping ribs, having no separate couplings or separate end walls.
6. The nominal chamber dimensions of the CULTEC Contactor® 100HD shall be 12 inches (305 mm) tall, 36 inches (914 mm) wide and 8 feet (2.44 m) long. The installed length of a joined Contactor® 100HD shall be 7.5 feet (2.29 m).
7. Maximum inlet opening on the chamber end wall is 10 inches (250 mm) HDPE, PVC.
8. The chamber shall have two side portals to accept CULTEC HVLV® SFCx2 Feed Connectors to create an internal manifold. The nominal I.D. dimensions of each side portal shall be 5.75 inches (146 mm) high by 7.5 inches (191 mm) wide. Maximum allowable O.D. in the side portal is 6 inches (150 mm) HDPE, PVC.
9. The nominal chamber dimensions of the CULTEC HVLV® SFCx2 Feed Connector shall be 7.6 inches (194 mm) tall, 12 inches (305 mm) wide and 19.7 inches (500 mm) long.
10. The nominal storage volume of the Contactor® 100HD chamber shall be 1.866 ft<sup>3</sup> / ft (0.173 m<sup>3</sup> / m) - without stone. The nominal storage volume of the HVLV® SFCx2 Feed Connector shall be 0.294 ft<sup>3</sup> / ft (0.027 m<sup>3</sup> / m) - without stone.
11. The Contactor® 100HD chamber shall have twenty-four discharge holes bored into the sidewalls of the unit's core to promote lateral conveyance of water.
12. The Contactor® 100HD chamber shall have 16 corrugations.
13. The end wall of the chamber, when present, shall be an integral part of the continuously formed unit. Separate end plates cannot be used with this unit.
14. The Contactor® 100RHD Starter/Stand Alone unit must be formed as a whole chamber having two fully formed integral end walls and having no separate end plates or separate end walls.
15. The Contactor® 100EHD Middle/End unit must be formed as a whole chamber having one fully formed integral end wall and one fully open end wall and having no separate end plates or end walls.
16. The HVLV® SFCx2 Feed Connector must be formed as a whole chamber having two open end walls and having no separate end plates or separate end walls. The unit shall fit into the side portals of the Contactor® 100HD and act as cross feed connections.
17. Chambers must have horizontal stiffening flex reduction steps between the ribs.
18. The chamber shall have a raised integral cap at the top of the arch in the center of each unit to be used as an optional inspection port or clean-out.
19. The units may be trimmed to custom lengths by cutting back to any corrugation on the large rib end.
20. The chamber shall be manufactured in an ISO 9001:2015 certified facility.
21. Maximum allowable cover over the top of the chamber shall be 12' (3.66 m).
22. The chamber shall be designed to withstand traffic loads when installed according to CULTEC's recommended installation instructions.



## We Have Solutions.

cultec.com  
1.800.4.CULTEC



KEY MAP 1" = 1,000'

ZONING GR-80 TOTAL SITE = 15.56 ACRES 677,878 SQ. FT.

COVENTRY ZONING REGS - 4.04	REQUIRED	PROVIDED
DESCRIPTION		
MIN. LOT AREA*	80,000 SQ. FT	672,607 SQ. FT*
FRONTAGE	200 FT. MIN.	1,809.30
FRONT YARD	50 FT. MIN.	50
SIDE YARD	20 FT. MIN.	20
REAR YARD	50 FT. MIN.	50
BUILDABLE AREA	25,000 SQ. FT.	25,025 DEPICTED
LOT COVERAGE	15% MAX.	6,495 S.F. 1%
TOTAL SQ. FT.		677,878 SQ. FT.
TOTAL ACRES		15.56
TOTAL WETLAND SQ. FT.		21,083

\*FOR LOT AREA REQUIREMENTS 4.04.03 SUBTRACT 25% OF THE WETLANDS TO COMPUTE THE LOT AREA.



**SURVEY NOTES:**  
 1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES "MINIMUM STANDARDS OF ACCURACY, CONTENT AND CERTIFICATION FOR SURVEYS AND MAPS". AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON AUGUST 29 2018. IT IS A COMPILATION PLAN CONFORMING TO HORIZONTAL ACCURACY CLASS D AND TOPOGRAPHIC ACCURACY CLASS T-D. THIS PLAN WAS COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. THE INTENT OF THIS PLAN IS TO DEPICT A CONCEPTUAL LOT DEVELOPMENT PLAN FOR WETLAND PERMITTING ONLY.  
 2. THE PROPERTY IS LOCATED IN A GENERAL RESIDENTIAL ZONE-80.  
 3. THE INLAND WETLAND BOUNDARIES SHOWN WERE FIELD DELINEATED BY HIGHLAND SOILS LLC. AND FIELD LOCATED BY BUSHNELL ASSOCIATES LLC.  
 4. THE PROPERTY IS NOT LOCATED IN A FLOOD HAZARD ZONE A PER NATIONAL FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 090110 0010D JUNE 11, 1982  
 5. TOPOGRAPHY DEPICTED WAS TAKEN FROM ON-LINE GIS DATA  
 6. THE PROPERTY IS NOT SHOWN AS AN AREA OF STATE AND FEDERAL LISTED SPECIES & SIGNIFICANT COMMUNITIES ON THE CURRENT CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION BUREAU OF NATURAL RESOURCES WILDLIFE DIVISION NATURAL DIVERSITY DATA BASE DECEMBER 2024 MAPPING.

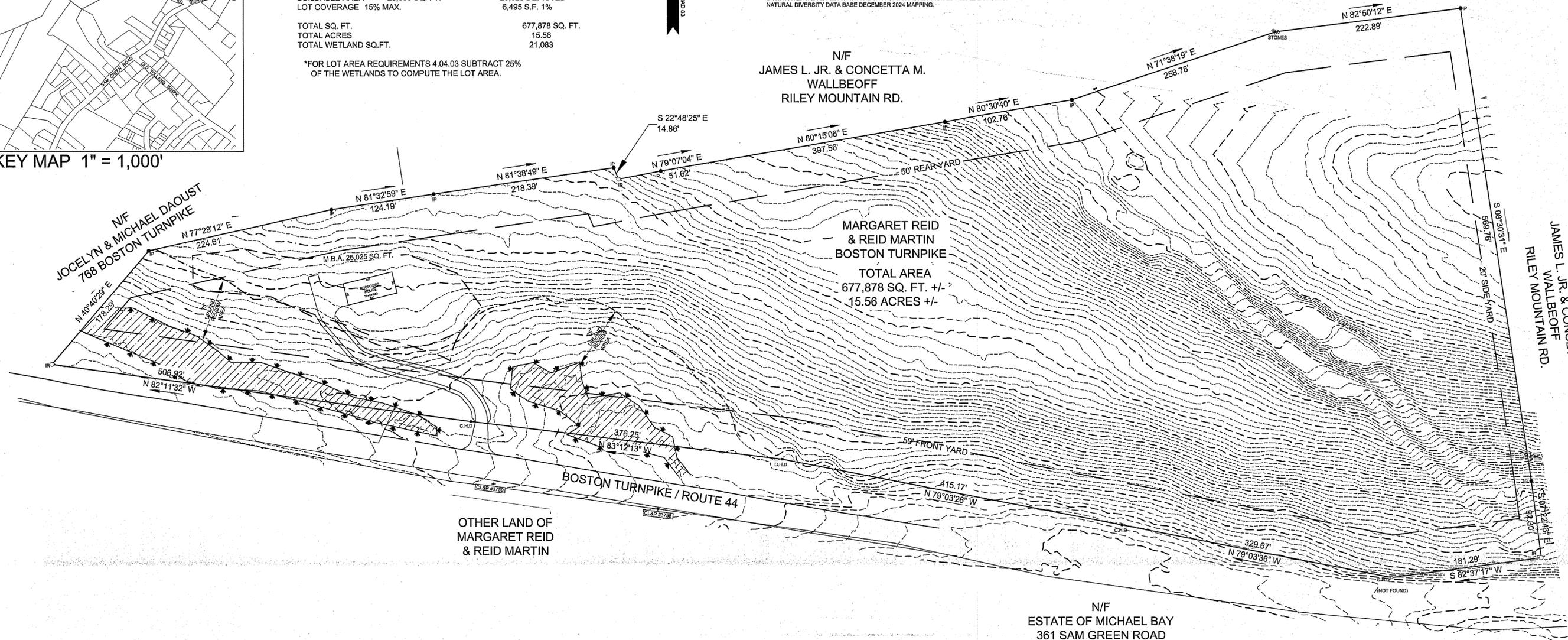
**MAP REFERENCES:**

- 1) PLAN PREPARED FOR VIOLA REID CONN. RTE. 44 COVENTRY, CONN. BOUNDARY SURVEY SCALE 1"=50' DATE 1/23/86 DRN. R.E.D. TRD. E.S.E. FILE NO. 85855 SHEET NO.1 OF 2 MEEHAN, ASSOCIATES CONSULTING ENGINEERS-SURVEYORS, P.C. 387 NORTH MAIN STREET MANCHESTER, CT. 06040
- 2) PLAN PREPARED FOR VIOLA REID CONN. RTE. 44 COVENTRY, CONN. BOUNDARY SURVEY SCALE 1"=50' DATE 1/23/86 DRN. R.E.D. TRD. E.S.E. FILE NO. 85855 SHEET NO.2 OF 2 MEEHAN, ASSOCIATES CONSULTING ENGINEERS-SURVEYORS, P.C. 387 NORTH MAIN STREET MANCHESTER, CT. 06040
- 3) SUBDIVISION PLAN PREPARED FOR ESTATE OF EUGENE BAY 431 SAM GREENE ROAD COVENTRY, CT. SCALE 1"=100' DATE 5/15/85 FILE NO. 94126 SHEET 1 OF 4 REVISED TO 7/1/86 HOLMES & HENRY ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS LAND PLANNERS 2179 BOSTON TPKE. COVENTRY, CT 06238
- 4) CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF COVENTRY COVENTRY- MANSFIELD DEPOT ROAD FROM THE MANSFIELD TOWN LINE WESTERLY ABOUT 7,300 FEET ROUTE NO. 109 SCALE 1"=40' SURVEY BY H.T.F.D. OFFICE PLOTTED BY " " TRACED BY H.C.S. APPROVED H.R.M. NUMBER 189 SHEET NO. 1 OF 3
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N/F  
 JAMES L. JR. & CONCETTA M.  
 WALLBEOFF  
 RILEY MOUNTAIN RD.

N/F  
 JAMES L. JR. & CONCETTA M.  
 WALLBEOFF  
 RILEY MOUNTAIN RD.

MARGARET REID  
 & REID MARTIN  
 BOSTON TURNPIKE  
 TOTAL AREA  
 677,878 SQ. FT. +/-  
 15.56 ACRES +/-



OTHER LAND OF  
 MARGARET REID  
 & REID MARTIN

N/F  
 ESTATE OF MICHAEL BAY  
 361 SAM GREEN ROAD

**OWNERS: APPLICANT/AGENT:**

MARGARET REID REID MARTIN  
 663 OLD POST ROAD 83 CIDER MILL ROAD  
 TOLLAND, CT. 06074 BOLTON, CT. 06043

CHARLES A. BROWN  
 P.O. BOX 473  
 COVENTRY, CT. 06238

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UTILITIES SHOWN ON THIS MAP WERE DERIVED FROM FIELD LOCATIONS AND EXISTING MAPPING CONTRACTOR TO VERIFY LOCATIONS AND DEPTH IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION. "CALL BEFORE YOU DIG (1-800-922-4455)."

PLAN PREPARED FOR CHARLES A. BROWN

LAND OF MARGARET REID AND REID MARTIN

CT. ROUTE 44 / BOSTON TURNPIKE COVENTRY, CT.

COMPILATION PLAN

SCALE: 1"=60' DATE: 5/19/2025 FILE NO. 2024-93 SHEET: 1 OF 3

**BUSHNELL ASSOCIATES LLC.**  
 CIVIL ENGINEERING AND LAND SURVEYING  
 563 WOODBRIDGE STREET MANCHESTER, CT. 06042  
 860-643-7875

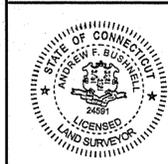
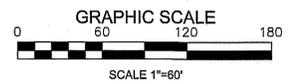
REVISIONS:

**LEGEND**

- EXISTING MERESTONE
- MERESTONE - NOT FOUND
- IRON ROD TO BE SET
- EXISTING IRON PIN
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EDGE OF FIELD LOCATED WETLANDS
- W.F. 25 WETLANDS FLAG

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

ANDREW F. BUSHNELL P.E. L.S. 24591  
 THIS MAP IS NOT VALID UNLESS IT BEARS THE EMBOSSED SEAL OF THE LICENSED LAND SURVEYOR WHOSE REGISTRATION NUMBER AND SIGNATURE APPEAR ABOVE.



**SEPTIC SYSTEM DESIGN NOTES AND CRITERIA**

SEPTIC SYSTEM DESIGN AND INSTALLATION TO COMPLY WITH CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS REVISED JANUARY 1, 2024.

MINIMUM LEACHING SYSTEM SPREAD (M.L.S.S.) CALCULATION:  
 NUMBER OF BEDROOMS 6  
 PERCOLATION RATE 1-10.0 MIN/INCH PERCOLATION TEST 1  
 RESTRICTIVE LAYER 3" TEST PITS 1, 2 & 3  
 GROUND SLOPE > 15%  
 M.L.S.S.: 18 H.F. X 2.76 F.F. (MULTI-FAMILY) X 1.0 P.F. = 49.68 FT. MINIMUM

REQUIRED: 2,000 GALLON TWO-COMPARTMENT SEPTIC TANK AND 907.50 SQ. FT. OF EFFECTIVE LEACHING AREA.

PROVIDED: 2,000 GALLON TWO-COMPARTMENT CONCRETE SEPTIC TANK WITH APPROVED EFFLUENT FILTER, NO GARBAGE DISPOSAL, WATER SOFTENING SYSTEM OR OVERSIZED TUB TO BE INSTALLED IN THE HOUSE. (ACCESS RISERS REQUIRED TO LESS THAN 12" FROM FINAL GRADE). 85 LINEAL FEET (17 UNITS) OF ELJEN YARDFILTER 53 LEACHING UNITS BACKFILLED WITH APPROVED ELJEN SPECIFIED SAND (EFFECTIVE LEACHING CREDIT 10.7 SQ. FT./FT.) WITH AN EFFECTIVE LEACHING AREA OF 909.5 SQ. FT. HOUSE SEWER PIPE OF 4" DIA. SCHEDULE 40 ASTM D-1785 / ASTM D-2665.

ELJEN YARDFILTER BOTTOMS TO BE NO MORE THAN 18" BELOW ORIGINAL GRADE.

**THE SEPTIC SYSTEM AREA SHALL NOT BE DISTURBED PRIOR TO STAKEOUT OF THE SYSTEM BY THE DESIGN ENGINEER.**

THE DESIGN ENGINEER SHALL STAKE OUT THE SEPTIC SYSTEM, SET A LOCAL BENCHMARK AND SUPPLY THE EASTERN HIGHLANDS HEALTH DISTRICT WITH A STAKING VERIFICATION MEMO BEFORE A PERMIT TO INSTALL THE SYSTEM WILL BE ISSUED.

SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER. SELECT FILL EXCEEDING 6% PASSING THE #200 SIEVE BASED ON A WET SIEVE TEST CANNOT BE APPROVED BY THE DESIGN ENGINEER.

- 1) THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
- 2) UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE.
- 3) THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
- 4) THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA.

SIEVE SIZE	WET SIEVE	DRY SIEVE
#4	100	100
#10	70 - 100	70 - 100
#40	10 - 50*	10 - 75
#100	0 - 20	0 - 5
#200	0 - 5	0 - 2.5

\* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.

SELECT FILL THAT DOES NOT MEET THE DRY SIEVE GRADATION CRITERIA BUT MEETS THE WET SIEVE CRITERIA IS ACCEPTABLE.

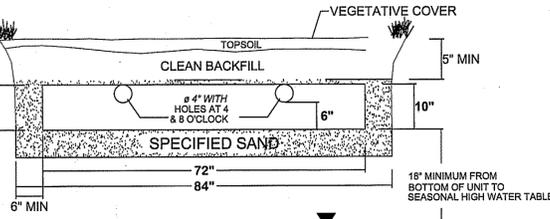
THE LICENSED INSTALLER IS RESPONSIBLE FOR PREPARING THE LEACHING AREA WITH REQUIRED SELECT FILL. THE TOPSOIL IN THE LEACHING AREA MUST BE COMPLETELY REMOVED AND THE SUBSOIL SCARIFIED PRIOR TO SELECT FILL PLACEMENT. THE INSTALLER SHALL TAKE NECESSARY STEPS TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOIL FROM OVER COMPACTION, SILTATION OR OTHER DAMAGE. THE INSTALLER IS RESPONSIBLE FOR PROPERLY COMPACTING THE SELECT FILL TO FACILITATE CONSTRUCTION AND TO PREVENT SETTLING. SELECT FILL SHALL EXTEND A MINIMUM OF FIVE (5) FEET DOWN GRADIENT AND TWO (2) FEET LATERALLY IN ALL OTHER DIRECTIONS BEYOND THE OUTER PERIMETER OF THE LEACHING AREA.

IN ADDITION, TO ENSURE PROPER SYSTEM OPERATION, ELJEN CORPORATION REQUIRES ALL OF ITS YARDFILTER SYSTEMS TO BE INSTALLED USING AN ASTM C33 SAND WITH LESS THAN 10% PASSING A #100 SIEVE, AND LESS THAN 5% PASSING A #200 SIEVE.

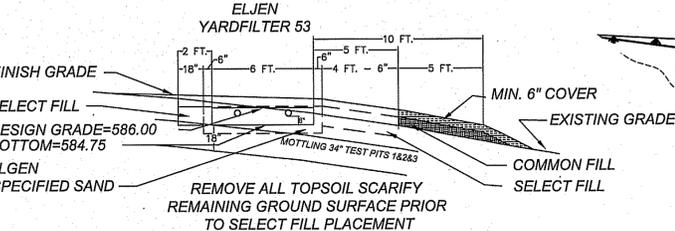
REFERENCE THE ELJEN YARDFILTER DESIGN AND INSTALLATION MANUAL FOR THE PROPER AMOUNT OF SPECIFIED SAND REQUIRED FOR INSTALLATION.

INSTALLERS SHOULD REQUEST A SIEVE ANALYSIS FROM THEIR MATERIAL SUPPLIER TO ENSURE THAT THE SPECIFIED SAND THAT THEY ARE PURCHASING FOR USE DURING INSTALLATION OF THE ELJEN GSF OR MANTS SYSTEMS MEETS THE SPECIFIED SAND REQUIREMENTS LISTED BELOW.

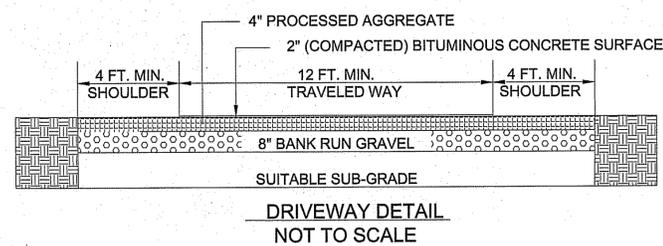
SIEVE SIZE 0.375"	#4	#8	#16	#30	#50	#100	#200
LOWER LIMIT	100	95	80	50	25	5	0
UPPER LIMIT	100	100	100	85	60	30	10



NOTE: VENTING REQUIRED WHEN MORE THAN 18" OF COVER AS MEASURED FROM THE TOP OF THE UNIT TO FINISHED GRADE  
**ELJEN YARDFILTER 53**  
 NOT TO SCALE



**LEACHING SYSTEM CROSS SECTION**  
 SCALE 1"=5'



**DRIVEWAY DETAIL**  
 NOT TO SCALE

**PERCOLATION TEST RESULTS**  
 PERFORMED BY - BUSHNELL ASSOCIATES LLC

PERC 1  
 05/07/25  
 PRE-SOAK 10:00-11:00 AM  
 DRY START @ 2:15 PM  
 22" DEEP HOLE

TIME	READING (IN.)	DIFFERENCE (IN.)
0	9	-
5	10 1/2	1 1/2
10	11 1/2	1
15	12 1/2	1
20	13	1/2
25	14	1
30	15	1
35	15 1/2	1/2
40	16 1/2	1
45	17	1/2
50	18	1
55	19	1
60	20 1/2	1 1/2

**TEST PIT 1**  
 0-5" TOPSOIL  
 5-34" BROWN FINE SANDY LOAM  
 34-64" GREY SANDY TILL ROCKS

**TEST PIT 2**  
 0-5" TOPSOIL  
 5-36" BROWN FINE SANDY LOAM  
 36-76" GREY SANDY TILL ROCKS

**TEST PIT 3**  
 0-5" TOPSOIL  
 5-34" BROWN FINE SANDY LOAM  
 34-64" GREY SANDY TILL ROCKY

**TEST PIT 4**  
 0-5" TOPSOIL  
 5-34" BROWN FINE SANDY LOAM  
 34-64" GREY SANDY TILL ROCKY

**SURVEY NOTES:**  
 1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES' MINIMUM STANDARDS OF ACCURACY, CONTENT AND CERTIFICATION FOR SURVEYS AND MAPS, AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON AUGUST 29, 2019. IT IS A COMPILATION PLAN CONFORMING TO HORIZONTAL ACCURACY CLASS D AND TOPOGRAPHIC ACCURACY CLASS T-D. THIS PLAN WAS COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. THE INTENT OF THIS PLAN IS TO DEPICT A CONCEPTUAL LOT DEVELOPMENT LAYOUT FOR WETLAND PERMITTING PURPOSES ONLY.

2. THE PROPERTY IS LOCATED IN A GENERAL RESIDENTIAL ZONE-80.

3. THE INLAND WETLAND BOUNDARIES SHOWN WERE FIELD DELINEATED BY HIGHLAND SOILS LLC. AND FIELD LOCATED BY BUSHNELL ASSOCIATES LLC.

4. THE PROPERTY IS NOT LOCATED IN A FLOOD HAZARD ZONE A PER NATIONAL FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 090110 0010D JUNE 11, 1982

5. TOPOGRAPHY DEPICTED WAS PROVIDED BY GOLDEN AERIAL SURVEYS BASED ON GROUND CONTROL PROVIDED BY BUSHNELL ASSOCIATES LLC.

6. THE PROPERTY IS NOT SHOWN AS AN AREA OF STATE AND FEDERAL LISTED SPECIES & SIGNIFICANT COMMUNITIES ON THE CURRENT CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION BUREAU OF NATURAL RESOURCES WILDLIFE DIVISION NATURAL DIVERSITY DATA BASE DECEMBER 2024 MAPPING.

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**EROSION CONTROL CONSTRUCTION SEQUENCE PLAN HOUSE LOT DEVELOPMENT**  
 NOTE: ALL EROSION AND SEDIMENT CONTROL ACTIVITIES SHALL CONFORM TO THE METHODS OUTLINED IN THE 2024 CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL MANUAL.

- 1) COORDINATE MARKING OF LIMITS OF DISTURBANCE BY A LICENSED LAND SURVEYOR. SUPPLY TOWN EROSION CONTROL OFFICER WITH A LETTER FROM THE SURVEYOR CERTIFYING THE LIMITS OF DISTURBANCE WERE MARKED IN ACCORDANCE WITH THE APPROVED PLAN.
- 2) CLEAR TREES AS REQUIRED.
- 3) PRIOR TO SOIL DISTURBANCE INSTALL EROSION CONTROL MEASURES, SILT FENCE AND ANTI-TRACKING PAD (SEE PLAN DETAILS AND LOCATIONS). ADDITIONAL MEASURES MAY BE REQUIRED AS SITE CONDITIONS REQUIRE. COORDINATE AN INSPECTION OF INSTALLED MEASURES WITH THE EROSION CONTROL OFFICER. SUPPLY THE TOWN EROSION CONTROL OFFICER WITH THE NAME AND PHONE NUMBER OF A CONTACT PERSON RESPONSIBLE FOR THE EROSION CONTROL MEASURES.
- 3) PERIODICALLY AND AFTER LARGE RAIN EVENTS INSPECT EROSION CONTROL MEASURES AND REPAIR AS NECESSARY.
- 4) GRUB AND STRIP TOPSOIL. STOCKPILE TOPSOIL IN AREAS INDICATED ON THE APPROVED PLAN.
- 5) CONSTRUCT AND STABILIZE DRIVEWAY.
- 6) CONSTRUCT HOUSE, WELL, DRIVEWAY, SEPTIC SYSTEM AND OTHER IMPROVEMENTS AS SHOWN.
- 7) SPREAD STOCKPILED TOPSOIL. MACHINE RAKE, FERTILIZE, SEED AND MULCH DISTURBED AREAS. USE GRASS SEED THAT IS ACCEPTABLE FOR THE SITE CONDITIONS (I.E. SUN OR SHADE) AND THE SEASON OF THE YEAR IN WHICH THIS ACTIVITY IS COMPLETED. PROVIDE TEMPORARY STABILIZATION OF THE SITE (I.E. STRAW OR HAY ETC.). IF THE TOPSOIL IS SPREAD DURING A TIME OF YEAR WHEN GRASS SEED WILL NOT GERMINATE, PROVIDE PERMANENT STABILIZATION WHEN WEATHER CONDITIONS ALLOW.
- 8) REMOVE EROSION CONTROL MEASURES AFTER THE SITE HAS BECOME FULLY ESTABLISHED.
- 9) ANY EXISTING DISTURBED AREAS MUST BE SEEDED WITH PERMANENT OR TEMPORARY GROUND COVER AND MULCHED BY OCTOBER 15.
- 10) DEWATERING OPERATIONS, IF REQUIRED, SHALL UTILIZE A CRUSHED STONE INTAKE SUMP AND A TEMPORARY OUTLET SILT POOL LOCATED WITHIN THE LIMITS OF DISTURBANCE.

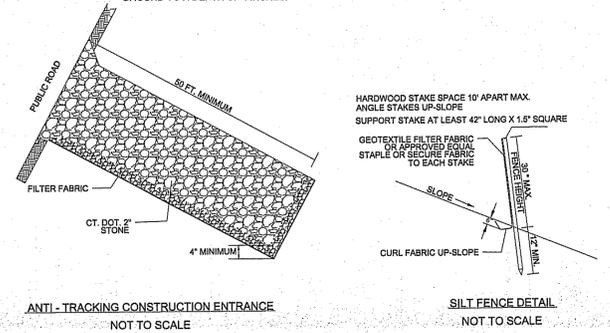
**SITE SEEDING NOTES:**  
 PREPARATION: FINE GRADE AND RAKE SOIL SURFACE TO REMOVE STONES LARGER THAN 2" IN DIAMETER. INSTALL SEEDED EROSION CONTROL DEVICES SUCH AS SURFACE WATER DIVERSIONS AS REQUIRED. APPLY LIMESTONE AT A RATE OF 2 TONS/AC. OR 90 LBS./1000 SQ.FT. FERTILIZE WITH 10-10-10 AT A RATE OF 300 LBS./AC. OR 7.5 LBS. PER 1000 SQ.FT. WORK LIME AND FERTILIZER INTO SOIL UNIFORMLY TO A DEPTH OF 4".

**SEED APPLICATION:** APPLY SEED MIXTURE FROM THE CHART BELOW BY HAND, CYCLONE SEEDER OR HYDRO SEEDER. INCREASE SEED MIXTURE BY 10% IF HYDRO SEEDER IS USED. LIGHTLY DRAG OR ROLL THE SEEDED SURFACE TO COVER SEED. SEEDING SHOULD BE DONE DURING THE TIMES SHOWN ON THE CHART BELOW. IF SEEDING CANNOT BE DONE DURING THESE TIMES, REPEAT MULCHING PROCEDURE BELOW UNTIL SEEDING CAN TAKE PLACE.

**MULCHING:** IMMEDIATELY FOLLOWING SEEDING, MULCH THE SEED SURFACE WITH STRAW OR HAY AT A RATE OF 2 TO 3 TONS/AC. SPREAD MULCH BY HAND OR MULCH BLOWER. PUNCH MULCH INTO SOIL SURFACE WITH A TRACK MACHINE OR DISK HARROW SET STRAIGHT UP. IF USING HYDRO SEED MIX USE TACIFIER ADDITIVES TO ADHERE MULCH MATERIAL TO THE SURFACE.

SEED SELECTION:	LB/1000 SQ. FT.	SEED MIXTURE	RECOMMENDED SEEDING DATES
PERMANENT LAWN	0.45	KENTUCKY BLUEGRASS	4/1-8/15
	0.45	CREeping RED FESCUE	8/15-10/1
	0.10	PERENNIAL RYEGRASS	
SLOPES & COARSE LAWN	0.45	CREeping RED FESCUE	4/1-8/15
	0.05	RED TOP	8/15-10/1
	0.45	TALL FESCUE	
SLOPES (NO MOWING)	1.8	CREeping RED FESCUE	4/1-8/15
	0.2	RED TOP	8/15-10/1
TEMPORARY COVER	3.0	WINTER RYE	4/15-8/15-10/15
	1.0	ANNUAL RYEGRASS	3/1-8/15-8/1-10/15

IF SEED IS PLANTED OUTSIDE THE RECOMMENDED SEEDING DATES IRRIGATION MAY BE REQUIRED AT A UNIFORM APPLICATION RATE OF 1 TO 2 INCHES OF WATER APPLIED PER APPLICATION, SOAKING THE GROUND TO A DEPTH OF 4 INCHES.



THE WETLAND SOILS ON THIS MAP WERE IDENTIFIED IN THE FIELD USING THE CRITERIA REQUIRED BY CT PA 72-155 AS AMENDED BY PA 73-571 AND ARE ACCURATELY REPRESENTED ON THIS PLAN.

*John P. Ianni*  
 JOHN P. IANNI  
 CERTIFIED SOIL SCIENTIST

5/15/2025  
 DATE

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UTILITIES SHOWN ON THIS MAP WERE DERIVED FROM FIELD LOCATIONS AND EXISTING MAPPING CONTRACTOR TO VERIFY LOCATIONS AND DEPTH IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION. "CALL BEFORE YOU DIG (1-800-922-4455)."

PLAN PREPARED FOR CHARLES A. BROWN

LAND OF MARGARET REID AND REID MARTIN

CT. ROUTE 44 / BOSTON TURNPIKE COVENTRY, CT.

SITE PLAN

SCALE: 1"=20' DATE: 5/19/2025 FILE NO. 2024-93 SHEET: 2 OF 3

**BUSHNELL ASSOCIATES LLC.**  
 CIVIL ENGINEERING AND LAND SURVEYING  
 563 WOODBRIDGE STREET MANCHESTER, CT. 06042  
 860-643-7875

REVISIONS:

**LEGEND**

- EXISTING MERESTONE
- MERESTONE - NOT FOUND
- IRON ROD TO BE SET
- EXISTING IRON PIN
- PROPOSED WELL
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TEST HOLE
- PERCOLATION TEST
- EDGE OF FIELD LOCATED WETLANDS
- W.F. 25 WETLANDS FLAG

**GRAPHIC SCALE**  
 0 20 40 60  
 SCALE 1"=20'

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

ANDREW F. BUSHNELL P.E. L.S. 24591  
 THIS MAP IS NOT VALID UNLESS IT BEARS THE EMBOSSED SEAL OF THE LICENSED LAND SURVEYOR WHOSE REGISTRATION NUMBER AND SIGNATURE APPEAR ABOVE.

**STORMWATER SYSTEMS CONSTRUCTION NOTES:**

- 1.) THE ENTIRE CONTRIBUTING DRAINAGE AREA SHOULD BE COMPLETELY STABILIZED PRIOR TO DIRECTING ANY FLOW TO THE SYSTEM. ADEQUATE VEGETATIVE COVER MUST BE ESTABLISHED OVER ANY PERVIOUS AREA ADJACENT OR CONTRIBUTING TO THE SYSTEM BEFORE RUNOFF CAN BE ACCEPTED.
- 2.) EROSION AND SEDIMENT CONTROLS SHOULD BE IN PLACE DURING CONSTRUCTION IN ACCORDANCE WITH THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL AND THE SOIL EROSION AND SEDIMENT CONTROL PLAN DEVELOPED FOR THE PROJECT.
- 3.) INFILTRATION TRENCHES SHOULD NOT BE USED AS TEMPORARY SEDIMENT TRAPS FOR CONSTRUCTION EROSION AND SEDIMENT CONTROL.
- 4.) DURING CLEARING AND GRADING OF THE SITE, MEASURES SHOULD BE TAKEN TO AVOID SOIL COMPACTION AT THE LOCATION OF THE PROPOSED SYSTEM.
- 5.) THE SYSTEM SHOULD BE FENCED OFF DURING THE CONSTRUCTION PERIOD TO PREVENT DISTURBANCE OF THE SOILS.
- 6.) THE INFILTRATION TRENCH SHOULD BE EXCAVATED TO THE DIMENSIONS, SIDE SLOPES, AND ELEVATIONS SHOWN ON THE PLANS. THE METHOD OF EXCAVATION SHOULD AVOID COMPACTION OF THE BOTTOM OF THE SYSTEM. A HYDRAULIC EXCAVATOR OR BACKHOE LOADER, OPERATING OUTSIDE THE LIMITS OF THE INFILTRATION TRENCH, SHOULD BE USED TO EXCAVATE THE SYSTEM. EXCAVATION EQUIPMENT SHOULD NOT BE ALLOWED WITHIN THE LIMITS OF THE SYSTEM.
- 7.) THE STONE STORAGE MEDIA AND PEA GRAVEL LAYER SHOULD BE PLACED IN THE EXCAVATION BY A HYDRAULIC EXCAVATOR OR BACKHOE LOADER LOCATED OUTSIDE THE LIMITS OF THE INFILTRATION TRENCH AND THEN HAND-RAKED TO THE DESIRED ELEVATION.
- 8.) INSTALL VEGETATION (E.G., DROUGHT TOLERANT GRASS) ON THE SIDE SLOPES AND SURFACE OF THE INFILTRATION TRENCH (IF GRASS IS USED INSTEAD OF PEA GRAVEL) IN ACCORDANCE WITH THE PLANTING PLAN AND PLANT SCHEDULE ON THE PLANS. WATER VEGETATION THOROUGHLY IMMEDIATELY AFTER PLANTING AND AS NECESSARY UNTIL FULLY ESTABLISHED.

**STORM WATER INFILTRATION TRENCH MAINTENANCE PLAN**

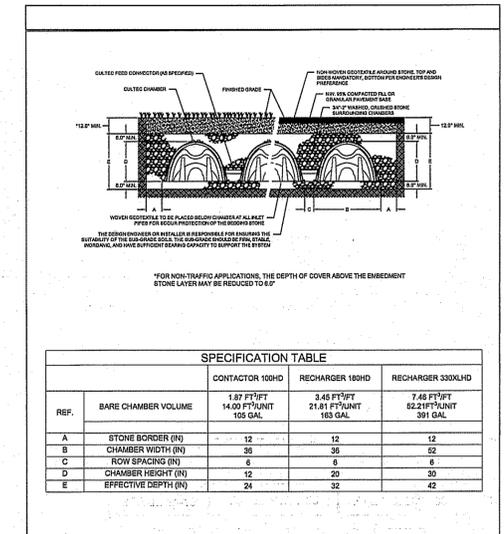
- 1.) PROPER MAINTENANCE OF THE STORM WATER STRUCTURES ARE IMPORTANT TO THE PROPER FUNCTION OF THE DRAINAGE AND WATER QUALITY TREATMENT SYSTEM PROPOSED FOR THIS PROJECT. THE SYSTEMS SHALL BE MAINTAINED AS DESCRIBED BELOW:
- 2.) INSPECT AFTER MAJOR STORMS (1 INCH OR MORE OF PRECIPITATION) IN THE FIRST FEW MONTHS FOLLOWING CONSTRUCTION.
- 3.) INSPECT THE OUTLET AND LEVEL SPREADER AREA TWICE A YEAR.
- 4.) INSPECT THE REMAINDER OF THE INFILTRATION TRENCH ANNUALLY.
- 5.) REMOVE TRASH AND ORGANIC DEBRIS (LEAVES) IN THE SPRING AND FALL.
- 6.) REMOVE SEDIMENT FROM THE INFILTRATION TRENCH SURFACE WHEN THE SEDIMENT ACCUMULATION EXCEEDS 2 INCHES OR WHEN DRAWDOWN TIME EXCEEDS 48 HOURS AFTER THE END OF A STORM EVENT, INDICATING THAT THE SYSTEM IS CLOGGED.
- 7.) WEED AS NECESSARY. MOW GRASS WITHIN INFILTRATION TRENCH TO A HEIGHT OF 4 TO 6 INCHES.
- 8.) MAINTAIN VEGETATED FILTER STRIPS OR GRASSED SIDE SLOPES OF INFILTRATION TRENCH. RE-SEED AS NECESSARY.
- 9.) PERIODICALLY REMOVE GRASS CLIPPINGS TO PREVENT CLOGGING OF THE SURFACE OF THE INFILTRATION TRENCH.
- 10.) MOWING SHOULD NOT BE PERFORMED WHEN THE GROUND IS SOFT TO AVOID THE CREATION OF RUTS AND COMPACTION, WHICH CAN REDUCE INFILTRATION.

8.) INSTALLATION OF WATER QUALITY CONTROLS ARE SHOWN TO ILLUSTRATE TECHNIQUES AND SHALL BE SUBJECT TO CHANGE UPON THE PREPARATION OF A SITE PLAN AT THE TIME OF HOUSE CONSTRUCTION. A SITE PLAN WILL BE REQUIRED PRIOR TO THE ISSUANCE OF A ZONING PERMIT. THE SITE PLAN SHALL BE LOT SPECIFIC AND SHOW THE HOUSE SIZE, DRIVEWAY ALIGNMENT, WETLANDS AND /OR BUFFER, COMPLETE SEPTIC SYSTEM DESIGN WITH DETAILS, AND ALL DRAINAGE INCLUDING FOUNDATION DRAINS. WATER QUALITY CONTROLS WILL BE INCORPORATED INTO THE PLANS TO PROVIDE TREATMENT OF THE FIRST FLUSH. THE FIRST FLUSH BEING THE RUNOFF GENERATED BY THE IMPERVIOUS SURFACE ON THE LOT DURING THE FIRST ONE AND 3 TENTHS INCH (1.3") OF RAINFALL WHICH IS TO BE COLLECTED AND RETURNED TO THE GROUND BY AN APPROPRIATE DEVICE OR TECHNIQUE. AS ILLUSTRATED ON THESE PLANS, SUCH TECHNIQUES AND DEVICES INCLUDE, BUT ARE NOT LIMITED TO, INFILTRATION BASINS, TRENCHES OR SWALES, RAIN GARDENS, OR IN-GROUND PERFORATED CHAMBERS.

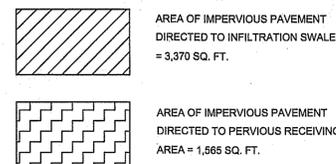
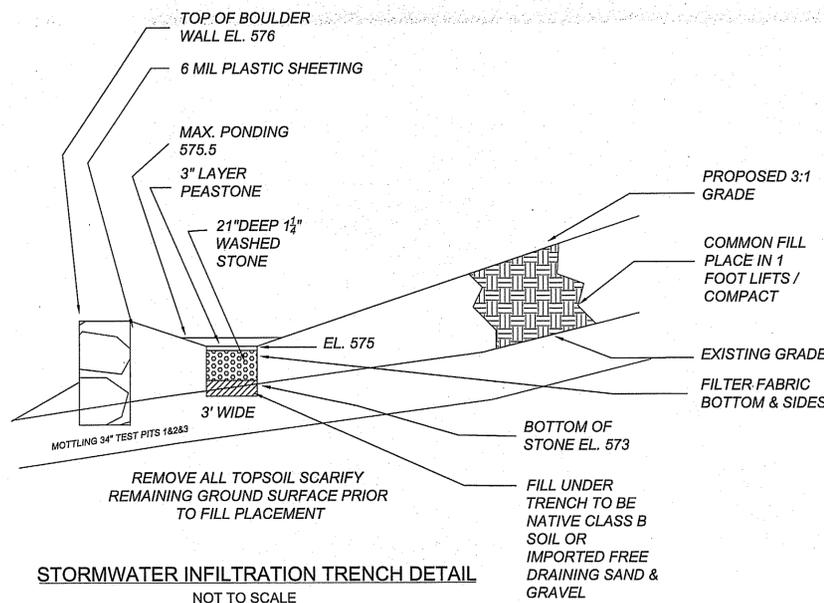
9.) THE APPROVAL OF ANY INDIVIDUAL SITE PLAN SHALL BE CONDITIONED ON THE CONTINUED MAINTENANCE OF THE DRAINAGE/INFILTRATION STRUCTURES BY THE LANDOWNER. THE FAILURE TO MAINTAIN SUCH STRUCTURES MAY RESULT IN THE ISSUANCE OF ZONING ENFORCEMENT ORDERS AND/OR OTHER ZONING ENFORCEMENT PROCEEDINGS, INCLUDING AN ACTION FOR CIVIL PENALTIES AND/OR INJUNCTIVE RELIEF IN THE SUPERIOR COURT.

10.) A NOTICE OF THE ABOVE STORMWATER SYSTEM REQUIREMENTS AND OBLIGATIONS SHALL BE INCLUDED IN THE DEED OF THE LOT AT THE TIME OF CONVEYANCE.

11.) IN ADDITION, ALL INDIVIDUAL SITE PLANS SHALL INCLUDE A COMPLETE DETAILED EROSION AND SEDIMENTATION CONTROL PLAN WITH SCHEDULE OF OPERATIONS, INCLUDING SEEDING AND CLEARING LIMITS. THE CLEARING LIMITS OF EACH LOT SHALL BE ESTABLISHED IN THE FIELD AND CONFIRMED IN WRITING BY THE APPLICANT/DEVELOPER INDICATING THAT IT IS CONSISTENT WITH THE APPROVED SITE PLAN.



**ROOF STORMWATER INFILTRATOR DETAILS**  
NOT TO SCALE



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UTILITIES SHOWN ON THIS MAP WERE DERIVED FROM FIELD LOCATIONS AND EXISTING MAPPING CONTRACTOR TO VERIFY LOCATIONS AND DEPTH IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION. "CALL BEFORE YOU DIG (1-800-922-4455)."

	PLAN PREPARED FOR CHARLES A. BROWN <b>LAND OF MARGARET REID AND REID MARTIN</b> CT. ROUTE 44 / BOSTON TURNPIKE COVENTRY, CT.			
	CONSTRUCTION DETAILS SCALE: 1"=10' DATE: 5/19/2025 FILE NO. 2024-93 SHEET: 3 OF 3			
BUSHNELL ASSOCIATES LLC. CIVIL ENGINEERING AND LAND SURVEYING 563 WOODBRIDGE STREET MANCHESTER, CT. 06042 860-643-7875				
REVISIONS:				