



10/17/2015

## ***Ian Cole, LLC***

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September 21, 2025

Mr. David Peter Castaldi  
 Civil Engineer & Wetland Agent  
 Town of Bloomfield  
 Inland Wetlands and Watercourses Commission  
 800 Bloomfield Avenue  
 Bloomfield, CT 06002

**RE: WETLAND REPORT**  
**PROPOSED RESIDENTIAL DEVELOPMENT**  
**9 PROSSER LANE / LOEFFLER ROAD (Rte. 178)**  
**BLOOMFIELD, CONNECTICUT**

Dear Mr. Castaldi and Commission Members:

On behalf of the Applicant, I completed a delineation of the jurisdictional wetland and watercourse boundaries on the above referenced project site. Additionally, I was retained to complete an updated site evaluation to describe the existing on-site wetland and was asked to provide a wetland function and value analysis and impact assessment. I offer the following comments for the Town of Bloomfield's Inland Wetlands Commission consideration relative to assessing impacts to the regulated areas.

**PROPOSED ACTIVITIES**

The applicant is proposing to develop a residential dwelling on the 1.46-acre residentially zoned lot of record located at the terminus of Prosser Lane. The site will be accessed by a new driveway entrance onto Loeffler Road (a.k.a. CT Rte. 178). The site will be serviced by sewer and water. Due to the juxtaposition of the regulated inland wetlands and watercourse boundaries the entire buildable uplands on the property fall within the 100-foot upland review area. With the limited uplands available to develop, the proposed activities call for the filling of approximately +/- 375 SF of regulated wetlands. The wetland proposed to be filled was previously disturbed by past excavations which extended the wetland boundary into the uplands (Photo 2). To offset the impact of the 375-SF of wetland fill, a new more diversely planted wetland area will be constructed

along the wetland boundary on the east side of the proposed home. The wetland creation area will be approximately +/- 750 SF or nearly a 2:1 replacement ratio.

Prior to construction erosion and sediment control barriers installed at the limits of disturbance. These site protection measures will be maintained throughout construction and will be removed once the site is stabilized. The site erosion controls will also serve as exclusion fencing, helping prevent any migrating amphibians from entering the work zone that may utilize a noted Vernal Pool identified straddling the south property boundary. The entire site falls within the Town's designated 500-foot vernal pool review area.

Clearing limits have been minimized to the extent it is practical to develop the lot. The site work proposed will not impact the vernal pool and will preserve the 100-foot vernal pool envelope in its existing natural undisturbed state. With the limited uplands available in the northern portion of the site, the dwelling and associated appurtenances have been located to the maximum distance from the wetlands possible while meeting all required zoning criteria. Details of the location and extent of the proposed regulated activities are illustrated on the subject site plans.

### **SITE DESCRIPTION**

The project site consists of a 1.46-acre lot-of-record located in a Residential R-30 zone. The site is found between the Burnwood Drive Subdivision located to the south of the site and Loeffler Road (Rte. 178) which bounds the site to the North. The lot is currently wooded, vegetated by an early successional hardwood mesic forest community comprised of maple, birch, and oak (Photo 1). The topography throughout the lot is level and there are two notable easements on the property; a 50'-wide drainage easement along the east property line and a second 25'-wide utility easement that cuts diagonally across the development zone extending from the northwest corner of the lot to the end of Prosser Lane.

The southern two-thirds of the site is covered by a forested wetland with a notable Vernal Pool found straddling the south property boundary. The vernal pool outline is captured on the Town GIS wetland boundary layer (Town GIS Map attached below).

### **WETLAND DELINEATION**

The wetland delineation was completed in 2023. The on-site wetland delineation examined the upper 20" of the soil profile for the presence of hydric soil conditions. Those areas meeting the wetland criteria noted above were marked in the field with sequentially numbered pink and blue wetland flagging as illustrated on the subject site plans.

The flagged wetlands are associated with seasonally flooded Red Maple (*Acer rubrum*) forested wetland (Photo 2) that is thickly vegetated with sweet pepper bush, spicebush, and highbush blueberry, tussock sedge, sensitive fern, skunk cabbage, and false hellebore. The wetland boundary is very well-defined and in the vicinity of the proposed development the wetland boundary closely follows a notable break in topography. Most

of the land in the northern portion of the site slated to host the development has been previously disturbed during the installation of utility easements that cross the site. Similarly portions of the soil profile along the flagged northern limits of the wetland boundary also show evidence of past ground disturbance with noted stockpiles, berms, excavations and ditches noted throughout the northern wetland portions of the property. Generally, the wetlands drain from the northwest corner of the site to the drainage easement on the east side of the site. The site is very flat and little evidence of flow can be found in the muted swale that drains the wetland east. The site falls within the North Branch Park River subregional drainage basin (CTDEEP #4404).

Additionally, along the south property line is a notable topographic depression embedded in the interior of the wetland which contains a noted vernal pool that provides suitable breeding habitat for vernal pool organism like Wood Frog and Spotted Salamanders. The pool is readily identifiable by the absence of vegetation in the understory, a stark contrast to the surrounding densely vegetated forested landscape and is an eco-indicator of prolonged standing water which prohibits plant growth (See Photos 4 & 5).

The soils identified on-site are a refinement of the Natural Resources Conservation Service (NRCS) Websoil Soil Survey.

#### Wetland Soils

The poorly drained wetland soils along the flagged wetland boundary consist of Wilbraham silt loams. The Wilbraham series consists of poorly drained loamy soils formed in subglacial till. The soils are very deep to bedrock and moderately deep to a dense contact. They are nearly level to gently sloping soils in drainageways and low-lying positions of till hills. Wilbraham soils have a water table at or near the surface most of the year.

A typical soil profile along the wetland boundary consists of approximately 2"-0" of intermediately decomposed organic material (Oi), followed by 0"-4" of a thick dark topsoil horizon (A), underlain by 4"-18" of a wet weakly developed grayish subsoil horizon (Bg) with common redoximorphic features (Common medium distinct strong brown mottles, masses) ranging from fine sandy loam to very fine sandy loam. This subsoil is underlain by a saturated sandy loam to fine sandy loam gray substratum (2Cg).

#### Upland Soils

The upland soils in the bulk of the interior of the property are mapped and classified as Broadbrook silt loam. Generally, this soil mapping unit is suitable to host development projects, however it should be noted that Broadbrook silt loams are associated with a high seasonal water-table, and slow permeability rates in the substratum.

Inclusions of soils surrounding proposed development of the have portions of the soil profile that have been disturbed and the ground smoothed and leveled. These disturbed and developed soils are reclassified as belonging to the Udorthents soil complex which contains miscellaneous soil types that are present on the landscape in a complex pattern that is not practical or necessary to sperate. These soils are used to denote moderately

well to well drained earthen material which has been so disturbed by cutting, filling, or grading, that the original soil profile can no longer be discerned and are co-associated with buildings, roads, parking lots and landscaping of developed areas.

Digitally available updated soil survey information was obtained from the Natural Resources Conservation Service ("NRCS") and generally confirmed during the field investigations. A copy of the NRCS Map is attached for reference.

#### **WETLAND FUNCTIONS AND VALUES**

The assessment of wetlands and watercourses functions and values is based on the US Army Corps of Engineers' (USACE) *The Highway Methodology Workbook, A Descriptive Approach* (1995) methodology, and on best professional judgment.

The functions and values of the wetland pocket is summarized in Table 1. The *Highway Methodology* recognizes 13 separate wetland functions and values. The degree to which a wetland provides each of these functions is determined by one or more of the following factors: landscape position, substrate, hydrology, vegetation, history of disturbance, and size. Each wetland may provide one or more of the listed functions at significant levels. The determining factors that affect the level of function provided by a wetland can often be broken into two categories. The effectiveness of a wetland to provide a specified function is generally dependent on factors within the wetland whereas the opportunity to provide a function is often influenced by the wetland's position in the landscape as well as adjacent land uses. For example, a depressed wetland with a restricted outlet may be considered highly effective in trapping sediment due to the long residence time of runoff water passing through the system. If this wetland is located in gently sloping woodland, however, there is no significant source of sediment in the runoff therefore the wetland is considered to have a small opportunity of providing this function.

| Wetland Functions and Values                                | Groundwater Recharge/Discharge | Sediment/Shoreline Stabilization | Floodflow Alteration | Fish & Shellfish Habitat | Sediment/Toxicant/Pathogen Retention | Nutrient Removal/Attenuation | Production Export | Wildlife Habitat | Recreation | Educational/Scientific Value | Uniqueness/Heritage | Visual Quality/Aesthetics | Listed Species Habitat |
|---|--------------------------------|----------------------------------|----------------------|--------------------------|--------------------------------------|------------------------------|-------------------|------------------|------------|------------------------------|---------------------|---------------------------|------------------------|
| WETLAND #1  | P                              | U                                | P                    | N                        | S                                    | S                            | N                 | P                | U          | U                            | U                   | U                         | U                      |
| <b>Suitability</b>  |                                |                                  |                      |                          |                                      |                              |                   |                  |            |                              |                     |                           |                        |
| P = principal function                                      |                                |                                  |                      |                          |                                      |                              |                   |                  |            |                              |                     |                           |                        |
| S = secondary function                                      |                                |                                  |                      |                          |                                      |                              |                   |                  |            |                              |                     |                           |                        |
| U = function unlikely to be provided at a significant level |                                |                                  |                      |                          |                                      |                              |                   |                  |            |                              |                     |                           |                        |
| N/A = not applicable or unknown                             |                                |                                  |                      |                          |                                      |                              |                   |                  |            |                              |                     |                           |                        |

Table:1 Wetland Functions and Values – 9 PROSSER LANE - BLOOMFIELD

The functions and value analysis focus on the services that forested wetland provides. The principle function of the on-site wetland is groundwater discharge / recharge, flood flow alteration and wildlife habitat, although it's important to acknowledge the project site is a habitat island, fragmented by the Burnwood Drive Subdivision to the south and Route 178 to the north, also it is noteworthy to highlight the site is not located within a noted CTDEEP NDDB polygon.

Secondary functions such as Sediment/Toxicant/Pathogen Retention and Nutrient Removal/attenuation (water quality renovation) functions are provided at a secondary level. The wetland is low gradient (i.e., will have longer retention times), and the bordering riparian zone is densely vegetated with woody wetland and emergent vegetation which enhances sediment trapping and pollutant attenuation capabilities (effectiveness). These functions are not likely to be adversely affected by the proposed development.

### **WETLAND IMPACT EVALUATION**

The proposed activities will have minor direct impacts to the wetland resources. The planned site improvements falls within areas of historic disturbance including the proposed wetland fill. The site development and modifications within the upland review area will also not have secondary impacts, either short term or long term. Short term impacts will be mitigated with standard construction best management practices and adherence to the erosion and sediment control plan. Clearing limits have been minimized to a reasonable limit to include what is needed for constructing the development and associated appurtenances as well as providing a modest outdoor space for the dwelling. The site will be sewered so dissolved nitrates and pollutants will not be an issue. The development will leave the bulk of the property wooded including the Vernal Pool basin and it's critical 100-foot envelope in its natural undisturbed state.

To offset the impact of filling 375 SF of previously disturbed wetlands (see photo 3), the site will create a 750 SF shrub wetland, planted with 14 shrubs including 4 different woody species and a New England wetland seed mix for the wetland floor containing a diverse assemblage of wetland sedges, grasses and herbs. This wetland mitigation area is nearly twice the size of the wetland fill and will be planted with more vegetation than what is being removed.

The proposed activities are not likely to have a significant effect on the wetland for the following reasons:

1. The proposed activities will not substantially change the natural channel or may inhibit the natural dynamics of the wetland system.
2. The proposed activities will not diminish the natural capacity of the wetland.
3. The erosion and sediment controls will protect the wetland resources from the proposed activities and if appropriately installed, monitored and maintained will not likely cause or have the potential to cause substantial turbidity, siltation or sedimentation in a wetland or watercourse.
4. The proposed development is sewered and is unlikely to cause or have the potential to cause pollution of the wetland.
5. The proposed activities within that review area will not diminish the uniqueness of wetlands nor will it impact on any inherent scientific or educational value the wetlands may provide. The site is not located within a mapped CTDEEP NDDB polygon.

The activities in the uplands required to facilitate the development will provide an opportunity to nearly double the size of the impacted wetland area. Post development the newly created wetland will have increased performance over the existing wetland it will replace. As a result, environmental effects will be minor, temporary, and highly localized. A final site restoration plan will include a landscaping plan that has been coordinated to match the adjacent properties.

As the proposed development does not impact a high-quality portion of the wetlands, no other economically viable alternatives are proposed which would result in less environmental impact. A no-built alternative will leave the land vacant, with no benefit to the Town, the property owner or the applicant. In considering feasible and prudent alternatives, the current proposal respects the integrity of the environment, provides mitigation to offset impacts and implements best management practices that will protect the adjacent resource areas. It is the most feasible and prudent alternative for the development of this property, giving due consideration to balancing the protection of the inland wetlands and watercourses while fostering reasonable development and use of the site as intended for this residential zone.

In my professional opinion, the regulated activities depicted on the subject site development plans:

1. Will not result in an adverse impact to a wetland;
2. Are consistent with and satisfy the statutory factors for consideration provided by Section 22a-41 of the Connecticut General Statutes; and
3. Are consistent with and satisfy the criteria for consideration provided by the Town of Bloomfield Inland Wetlands and Watercourses Regulations.

If you have any questions or comments, please do not hesitate to contact me at [itcole@gmail.com](mailto:itcole@gmail.com) or (860) 514-5642.

Sincerely,

Ian T. Cole

Professional Registered Soil Scientist  
Professional Wetland Scientist #2006





Photo 1: Example of the uplands slated to host the development and general conditions of the 100-Foot Upland Review Area.



Photo 2: Example of the flagged wetland boundary south of the proposed development.



Photo 3: Example of the wetland area slated to be filled to facilitate the development.



Photo 4: Example of the vernal pool on the south property line in July 2025.

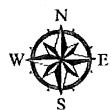
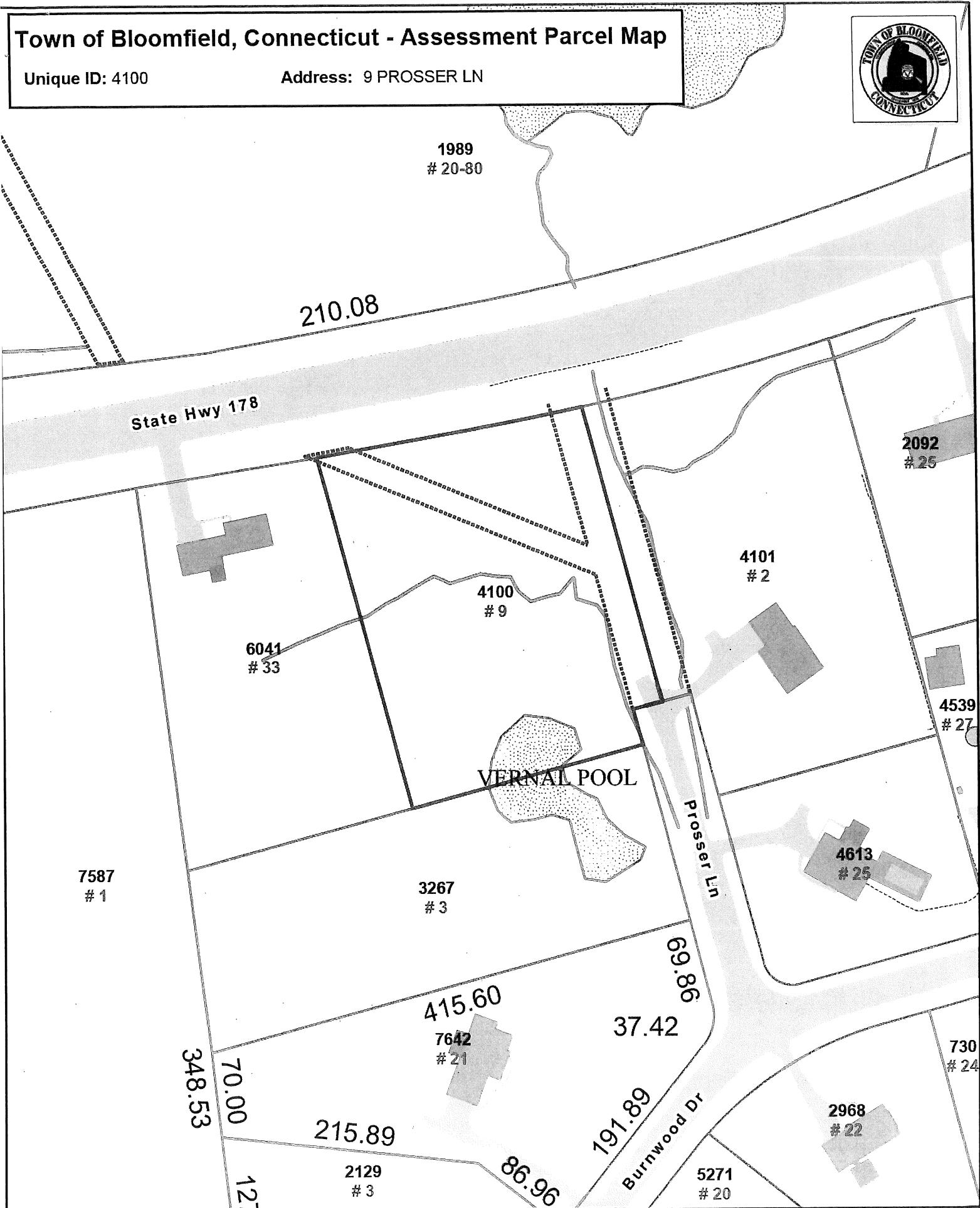


Photo 5: Example of the vernal pool in the spring breeding season when the wetland is inundated.

# Town of Bloomfield, Connecticut - Assessment Parcel Map

Unique ID: 4100

Address: 9 PROSSER LN



Approximate Scale:

1 inch = 100 feet

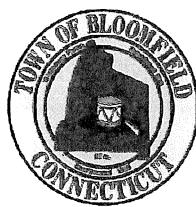
**Disclaimer:**

This map is for informational purposes only.  
All information is subject to verification by any user.  
The Town of Bloomfield and its mapping contractors  
assume no legal responsibility for the information contained herein.

Map Produced October 2024

# Town of Bloomfield

Geographic Information System (GIS)



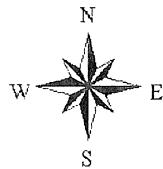
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## MAP DISCLAIMER - NOTICE OF LIABILITY

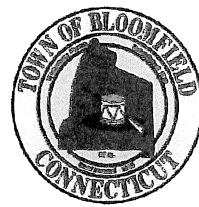
This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Bloomfield and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 376 feet



# Town of Bloomfield

Geographic Information System (GIS)



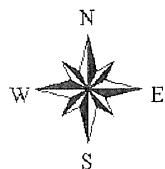
Date Printed: 9/21/2025



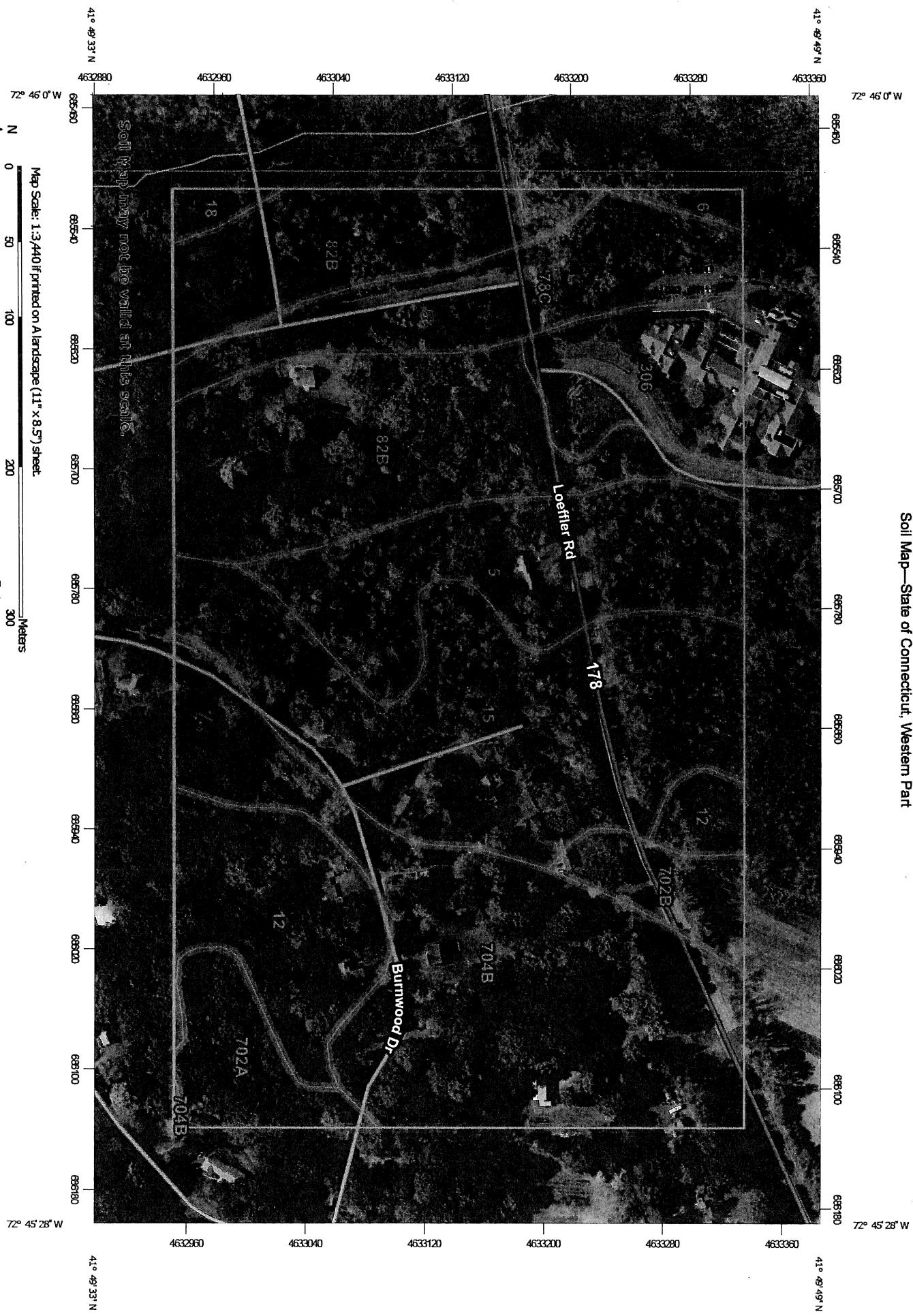
## MAP DISCLAIMER - NOTICE OF LIABILITY

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Approximate Scale: 1 inch = 94 feet



## Soil Map—State of Connecticut, Western Part



## MAP LEGEND

|  |  |
|--|--|
| <b>Area of Interest (AOI)</b>  |  Spol Area            |
| <b>Area of Interest (AOI)</b>  |  Stony Spot           |
| <b>Soils</b>   |  Very Stony Spot      |
|  Soil Map Unit Polygons |  Wet Spot             |
|  Soil Map Unit Lines    |  Other                |
|  Soil Map Unit Points    |  Special Line Features |
| <b>Special Point Features</b>  |  |
|  Blowout                  |  |
|  Borrow Pit               |  |
|  Clay Spot                |  |
|  Closed Depression        |  |
|  Gravel Pit               |  |
|  Gravelly Spot            |  |
|  Landfill                 |  |
|  Lava Flow                |  |
|  Marsh or swamp           |  |
|  Mine or Quarry             |  |
|  Miscellaneous Water        |  |
|  Perennial Water            |  |
|  Rock Outcrop               |  |
|  Saline Spot                |  |
|  Sandy Spot                 |  |
|  Severely Eroded Spot     |  |
|  Sinkhole                 |  |
|  Slide or Slip            |  |
|  Sodic Spot               |  |

## 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: [Web Soil Survey URL](http://websoilsurvey.nrcs.usda.gov/)

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, Western 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: Mar 1, 2024—Jul 1, 2024

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 Unit Legend

| Map Unit Symbol                    | Map Unit Name   | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------------|----------------|
| 5                                  | Wilbraham silt loam, 0 to 3 percent slopes                        | 6.5          | 10.9%          |
| 6                                  | Wilbraham and Menlo soils, 0 to 8 percent slopes, extremely stony | 0.3          | 0.5%           |
| 12                                 | Raypol silt loam, 0 to 3 percent slopes                           | 5.1          | 8.6%           |
| 15                                 | Scarboro muck, 0 to 3 percent slopes                              | 11.0         | 18.5%          |
| 18                                 | Catden and Freetown soils, 0 to 2 percent slopes                  | 0.4          | 0.6%           |
| 78C                                | Holyoke-Rock outcrop complex, 3 to 15 percent slopes              | 4.9          | 8.2%           |
| 82B                                | Broadbrook silt loam, 3 to 8 percent slopes                       | 12.0         | 20.2%          |
| 306                                | Udorthents-Urban land complex                                     | 3.2          | 5.3%           |
| 702A                               | Tisbury silt loam, 0 to 3 percent slopes                          | 2.2          | 3.6%           |
| 702B                               | Tisbury silt loam, 3 to 8 percent slopes                          | 1.6          | 2.6%           |
| 704B                               | Enfield silt loam, 3 to 8 percent slopes                          | 12.4         | 20.9%          |
| <b>Totals for Area of Interest</b> |   | <b>59.4</b>  | <b>100.0%</b>  |