



Martin Brogie, Inc.
ENVIRONMENTAL SERVICES

- Environmental Site Investigations
 - Building Contaminant Surveys
 - Wetlands Consulting
- Remediation Contract Management

February 13, 2023

Kris Sullivan
Town of Woodbridge
11 Meetinghouse Lane
Woodbridge, CT
06525

RE: Wetland Application Review
Woodbridge Fire House
100 Center Road
Woodbridge, CT

Dear Ms. Sullivan:

Martin Brogie, Inc. (MBI) is pleased to submit the following information regarding our review of wetland permit application documents including a January 11, 2023, *Wetland Assessment Report and Mitigation Recommendations* prepared by Soil Science and Environmental Services, Inc. (SSES) and a January 10, 2023 plan set prepared by Donald W. Smith Jr., P.E. Consulting Engineer entitled *Improvement Location Plan – Proposed* for the Town of Woodbridge, Woodbridge Volunteer Fire Station. MBI also completed a site visit on January 30, 2023.

Proposed Project

The proposed storage shed project site is located behind the existing firehouse south of Center Road (Route 114) in the central portion of Woodbridge. The Firehouse and associated improvements were constructed circa 2007 in a previously forested area adjacent to an agricultural field (to the east). The shed project site is in an area that has been disturbed by the firehouse construction and ongoing storage and use activities. The uplands within and near the project area include the firehouse, paved parking lot and driveway areas, an existing shed slab, enclosed garbage container, storage container, storage tank, school bus, trailers, patio with fire pits and picnic tables, mulch and fill material, and wooded upland.

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The proposed project consists of the construction of a 2,019 square foot (s.f.) concrete foundation adjacent to an existing 1,806 s.f. foundation that was permitted and constructed in circa 2010, and the construction of a 3,825 s.f. storage garage on the same combined foundation. The proposed project will directly impact (fill) 1,614 s.f. of Connecticut Regulated Inland Wetlands in the vicinity of the existing dumpster enclosure and concrete shed pad. The project will provide for a 1,718 square foot wetland mitigation area. A total of 7,527 square feet of area will be disturbed in association with the project and site impervious area will be increased by 2,551 s.f. The project disturbs approximately 5,913 s.f. of upland review area. Vegetation was previously cleared and wood chips deposited in a portion of the wetland impact area. Vegetation will be removed from the wetland impact area and the area will then be filled and graded and will receive approximately half of the new foundation pad for the construction of the storage shed.

SSES indicated that potential impacts that could result from the upland review area clearing and wetland impacts includes accidental human intrusion further into the wetlands, as well as increased sunlight and invasive species plant growth within the northern edge of the wetland. To reduce the potential for these impacts, SSES recommended that native, non-invasive trees and shrubs be installed along the edge of the wetlands. SSES indicated that the plantings will supplement the remaining vegetation, provide screening, and will enhance wildlife habitat (food and cover).

The wetland mitigation area is proposed adjacent to the eastern wetland boundary and occupies approximately 1,718 square feet. The mitigation area will be cleared and then excavated to allow for the placement of organic-rich topsoil to match the elevation of the existing wetland.

Native species that currently exist in the project area and complementary species have been selected for the mitigation area including shrubs such as Winterberry (*Ilex verticillata*), Spicebush (*Lindera benzoin*), and Arrowwood (*Viburnum dentatum*) and trees including Red Maple (*Acer rubrum*) and Pin Oak (*Quercus palustris*). *New England Wetmix* is proposed to populate the herbaceous layer.

Additional buffer plantings are to be installed at the upland edge of disturbance northeast and east of the mitigation area. SSES indicates that the plantings will provide a screen to the wetland, will provide wildlife habitat, and increase the species diversity. The recommended shrub species for the buffer planting includes Shadbush (*Amelanchier canadensis*), Gray Dogwood (*Cornus racemosa*), and American hazelnut (*Corylus americana*) and trees include Flowering Dogwood (*Cornus florida*) and Red Oak (*Quercus rubra*).

SSES also addresses the presence of invasive species located throughout the area with recommendations for annual removal of invasive species. A visual wetland demarcation is also recommended such as a split rail fence to avoid future incursion into the wetlands.

SSES also recommended an inspection schedule following plant installation to document the placement and vigor of the tree and shrub plantings and additional inspections of the planting areas conducted during the growing season for three subsequent years to ascertain “survival rates, soil stabilization, and invasive species maintenance”.

Conclusions and Recommendations

MBI visited the site and verified the wetland delineation line completed by SSES and also concurs with the characterization of the wetlands, including the functions and values assessment completed by SSES. The wetland mitigation plan, buffer enhancements, invasives removal and three year monitoring plan are all consistent with good practices and will provide the wetland resource benefits as described in the report.

Since invasives species are prominent throughout the project area, MBI suggests a more vigorous and more well-documented invasives control plan be implemented as overseen by a Biologist and included in the annual reports to the Town.

MBI also suggests that the disturbed area behind the existing concrete pad be restored and included in the buffer planting scheme.

Finally, we recommend that additional details be provided for the shed roof leader discharges that perhaps include splash pads or rain gardens to manage water quality and control erosion, as needed.

Thank you for the opportunity to be of service.

Sincerely,

A handwritten signature in black ink, appearing to read "Martin Brogie", with a stylized flourish at the end.

Martin Brogie, LEP
President