

Matthew S. Marro Environmental Consulting
Old Bedford Road
January 27, 2020

Planting Plan

Amended July 8, 2020

The flowing planting plan assumes at 848 square foot area as outlined on the plan entitled "Notice of Intent Plan" dated January 25, 2020. The amount of alteration in the buffer zone proposed to accommodate the garage is a total of 572 square feet within the outer 50 foot buffer zone and 27 square feet within the inner 50 foot buffer zone for a total of 599 square feet. The restorative area outline on the plans would include a 572 square foot area for the 1:1 mitigation for the outer 50 feet and 270 square feet for the 10:1 mitigation for the inner 50 foot buffer zone for a total of 842 square feet required. The total of 848 square feet provided is slightly above the local requirements for mitigation.

All plants to be utilized within the restoration area are native. As the proposed, the garage will be placed on existing lawn. The proposed enhancement as outlined in the referenced plan, is designed to allow sheet flow coming off of the dirt portion of the common drive off Old Bedford. This area is closer to the stream, relative to the remaining exiting lawn/landscaped area and the direction of flow will make this section of stream the most vulnerable. This vegetative buffer is proposed to cleanse sheet flow.

The proposal for the planting plan is to plant the following:

1. A Meadow Seed Mix enclosed in the following page.
2. High Bush Blueberry planted adjacent to the wetland resource area to provide a shrub buffer compatible with the edge of wetland which will also provide shelter and food source to various wildlife in the adjacent resource areas.

Based on the density required by the Concord Natural Resource department, it is assumed a triangular planting regimen with shrubs planted 5 feet off center.

For the 848 square feet the following is proposed:

1. The exiting lawn will be removed to expose the underlying loam layer.
2. 4 Blueberry Bushes will be planted along the adjacent edge of wetland. This will be accomplished in a triangular pattern allowing for proper and meaningful coverage along the restoration area.
3. A total groundcover, as outlined in the proposed meadow mix, for the remainder of the 848 sq. ft. that will promote a biodiversity lacking in a manicured lawn. The plantings will provide a quick stable cover that will provide vegetation in a manner that growth and bloom occur through the three warmer weather parts of the year allowing for a dynamic biodiverse area conducive to a continuous seasonal and non-segmented utilization by wildlife in the adjacent wetland resource areas that abut off the subject property.

The plantings will commence from the edge of the designated restoration adjacent to the demarcated wetland area. The mix of plantings was calculated based on the planting offsets cited above with a monitoring schedule listed on the following page.

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Planting list for Old Bedford Road Amended July 8, 2020

New England Conservation/Wildlife Mixⁱ

Botanical Name	Common Name	Indicator
<i>Elymus virginicus</i>	Virginia Wild Rye	FACW-
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU
<i>Andropogon gerardii</i>	Big Bluestem	FAC
<i>Festuca rubra</i>	Red Fescue	FACU
<i>Sorghastrum nutans</i>	Indian Grass	UPL
<i>Panicum virgatum</i>	Switch Grass	FAC
<i>Chamaecrista fasciculata</i>	Partridge Pea	FACU
<i>Desmodium canadense</i>	Showy Tick Trefoil	FAC
<i>Asclepias tuberosa</i>	Butterfly Milkweed	NI
<i>Bidens frondosa</i>	Beggar Ticks	FACW
<i>Eupatorium purpureum (Eutrochium maculatum)</i>	Purple Joe Pye Weed	FAC
<i>Rudbeckia hirta</i>	Black Eyed Susan	FACU-
<i>Aster pilosus (Symphyotrichum pilosum)</i>	Heath (or Hairy) Aster	UPL
<i>Solidago juncea</i>	Early Goldenrod	

The New England Conservation/Wildlife Mix provides a permanent cover of grasses, wildflowers, and legumes for both good erosion control and wildlife habitat value. The mix is designed to be a no maintenance seeding, and is appropriate for cut and fill slopes, detention basin side slopes, and disturbed areas adjacent to commercial and residential projects.

ⁱ Mix list and narrative generated by New England Wetland Plants, Inc. Amherst, MA.

TABLE OF PROPOSED EVENT
Proposed restoration timeline.

EVENT	START	END	PROPOSED MONITORING
Areas of grass to be cleared	Fall 2020	Fall 2020	Once per day during implementation
Soils spreading Vegetation planting	Fall 2020 to Spring 2021	Spring 2021	Bi-weekly
Allow for growth	Spring 2021	Fall 2021	Once per week May -October
Re-seeding if necessary	Fall 2021	Fall 2021	Once per week May-October

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Narrative Analysis for request for a waiver from the 50 foot no touch zone.

As a result of the initial hearing, potential relocation of the garage to attempt to remove the proposed structure out of the 50-foot buffer zone was examined. As illustrated in supplemental material enclosed, evidence is submitted from the building commissioner's office. This narrative is intended to show good cause for the Conservation Commission to grant a waiver from the inner 50 foot no structure requirement. The current makeup of the inner 50-foot buffer zone is a combination manicured lawn, driveway, and landscaped shrubbery leading to a wetland bordering an intermittent stream.

The building commissioner had taken the initial drawing and hand wrote *and* highlighted the setbacks for each area of the lot. The information submitted by the building commissioner was considered by Rosemary Chaulk. The proposed attached garage has been optimized to maintain maximal distance from the resource area without causing a zoning non conformance. This has resulted in a minimized amended proposal showing only 27 square feet within the inner 50 foot, no closer than 45 feet to the resource area.

The potential for a detached garage was examined and is determined to be not practical for the following:

1. Work for the site preparation could result in more alteration in the buffer zone for grading and cuts into the hill side of the open yard. This would further likely result in added impervious surface over and above what is proposed in addition to the extra work in the buffer zone. It should be noted the outer 50 feet in the buffer zone is more steeply sloped and still lawn area, however, there would be more grading required than the preferred site as previously noted.
2. The septic system location would compromise future title V work on the septic system on the property. Maintaining the integrity of the rear yard would allow for the flexibility to maintain setbacks to comply with title V and local regulations.

Moving the proposed attached garage was examined as well. The following is offered for the commissions' consideration:

1. The layout of the house would not allow for location on the opposite side of the home. The resultant relocation to another section of attachment to the home would require extensive renovation to the home that is cost prohibitive and would involve land modification as noted in section 2.
2. Placing the garage on the opposite side of the home would require more work within the buffer zone for grading as well as extension of the driveway. The proposed location will require no increase in impervious surface for a driveway accommodation.
3. It should be noted that my client, being a long-time resident of the domicile and retired, had an incident of injury due to a fall. The location proposed is preferred as it logistically required no alteration within the home, offers a safer area for vehicle storage and access for my client. The portion of the buffer zone proposed for alteration is relatively flat for good access. As the area is a combination of existing driveway, lawn and some walkway, changes to impervious surface has been minimized.

The Commission expressed concerns relative to an area of the plan noted as snow storage. In conferring with my client, that area has been commonly utilized because of normal shoveling and plowing activities and is not a formal stockpiling area. Snow storage in the formal sense, as in creating a specific area where winter snow is piled and stored was not the intention of the notation on the plans. The notation was to simply illustrate common snow clearing activities and to note to the commission that the standards my client applies to usual domestic snow clearing maintaining a conscious effort to keep snow away from the intermittent stream area and bordering wetland areas of the property. The term "snow storage" has been removed from the plan to prevent confusion and future misunderstanding.

In the examination of the site, I would bring to the Commission's attention the enclosed Mass GIS overlay. My client's moving of the garage any closer to the sidelines or the construction of a detached/relocated structure would bring the alterations closer to the demarcated species habitat as noted in the overlay provided by the Mass Endangered Species program. The location proposed is in an area of the lot that is optimized to keep the addition as far away from the marked habitat as possible. As the proposed addition is on an existing lawn area, minimizes impervious addition and optimizes both an enhanced vegetative buffer to the adjacent wetlands and maximizes distance to the rare species area, it is the position of MSMEC and my client, that allowing for the slight intrusion of 27 square feet optimizes protection of multiple resources and will allow for the spirit of the local regulation to be maintained in a non-deleterious manner.