PROJECT DESCRIPTION

1. Introduction

This Notice of Intent application is being filed for the proposed construction of an addition and driveway to an existing single-family home located at 7 Captain Thomson Lane in Hingham (the site). The proposed project includes grading and re-landscaping activities associated with the addition and driveway. The Town of Hingham Assessors Department references the site as Parcel #182-33. Portions of the proposed project occur within the 100-foot buffer zone to a Bordering Vegetated Wetland and the 200-foot Riverfront Area. Prior to the start of work, erosion controls will be installed in order to protect wetland resource areas. This application is being submitted in accordance with the Massachusetts Wetlands Protection Act and the Town of Hingham Wetlands Protection Bylaw.

2. Site Description

The site consists of a single-family home with a paved driveway, deck, shed, maintained lawn, landscaped areas, etc. The site is located to the east of Captain Thomson Lane and bordered by a single-family residence to the north and south and woodlands to the east. As noted on the site plan, the limit of the Bordering Vegetated Wetland located on and near the site was delineated by Environmental Consulting & Restoration, LLC (ECR). For more information, please refer to the Wetland Delineation Memo attached. Based on a review of the site plans and online databases, ECR is able to confirm that the site contains the following wetland resource areas and areas of Conservation Commission jurisdiction:

- Bordering Vegetated Wetland (BVW)
- 100-foot buffer zone to BVW
- 200-foot Riverfront Area
- Bordering Lan Subject to Flooding (FEMA flood zone AE)

Notes:
1. The site is not located within an area mapped as Priority Habitat & Estimated Habitat for Rare Species according to the Massachusetts Natural Heritage & Endangered Species Program (MaNHESP).
2. The site does not contain a Certified Vernal Pool according to the MaNHESP.
3. The site is not located within an Area of Critical Environmental Concern (ACEC).

3. Proposed Activities

The purpose of this application is to authorize the construction of an addition and driveway to an existing single-family home to include grading and re-landscape activities. Portions of the proposed project occur within the 100-foot buffer zone to BVW and the 200-foot Riverfront Area. The proposed project will involve the following activities:

- Installation of Erosion Controls – Prior to the start of work an erosion control line shall be installed along the limit of work associated with the proposed addition project. The erosion control line will demarcate the limit of work associated with the project as well as protect the nearby wetland resource areas.

- Proposed Addition & Driveway – The proposed project includes an addition to the north side of the existing home and a smaller addition to the south side of the home. The proposed addition is located within an area that currently exists as driveway, maintained lawn, and/or landscaped areas. A portion of the addition is located within the outer buffer zone to BVW. The proposed project also includes the construction of a new driveway. The existing driveway shall be removed and restored to lawn. A portion of the new driveway is located within the 100-foot buffer zone to BVW and 200-foot Riverfront Area. Areas surrounding the proposed addition and driveway shall be graded as shown on the attached plan and stabilized as lawn and/or landscaped beds.

- Grading & Landscape Activities – Grading and landscape activities are proposed around the proposed addition and driveway. Grading and landscape activities occur within the existing maintain lawn area. Upon completion, the area will be stabilized as lawn and/or landscape beds. All landscape plant materials proposed within the 100-foot buffer zone at the site will consist of native plant species. The proposed lawn will consist of environmentally friendly grass seed mix that requires little maintenance needs such as irrigation and fertilization. ECR recommends using a grass seed mix with a high content of tall fescues, which requires less irrigation and fertilization needs.

- Proposed Mitigation – The proposed project includes the establishment of a native planting area within an area of existing maintained lawn to mitigate the impacts to the 100-foot buffer zone. The proposed mitigation has been designed at a 1:1 ratio and includes a total of 962 square feet of mitigation. For more information, please refer to section 5 below.

4. Riverfront Area Analysis

4.1 Riverfront Area Calculations

A portion of the proposed new driveway is located within the 200-foot Riverfront Area. The proposed project is classified as a Riverfront Redevelopment project. Please note the following Riverfront Area Analyses:

- Existing Riverfront Area on the site = approximately 38,580 square feet (sq. ft.)

- Existing Developed/Degraded Riverfront Area (shed) = approximately 144 ft. or 0.4% of the Riverfront Area.

- Proposed Developed/Degraded Riverfront Area consisting of the new driveway = 328 sq. ft. or an additional 0.9% of the Riverfront Area.

4.2 Riverfront Redevelopment

The property is previously developed, and degraded areas exist within the Riverfront Area. This development predates the Riverfront Area Regulations. This proposed project constitutes a redevelopment project; more specifically, Redevelopment Within Previously Developed Riverfront Area (310 CMR 10.58(5)). A previously developed Riverfront Area is defined as an area degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds. The proposed driveway meets this criterion for Riverfront Area Redevelopment.

In order for a project to qualify as a Riverfront Area redevelopment project, the following components are required:

a. At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40.

   The project proposes to work within an existing lawn and landscaped areas and avoids impacts to natural vegetation. Mitigation is proposed to include native plantings, which will improve the capacity of the Riverfront Area.

b. Stormwater management is provided according to standards established by the Department.

   Single family homes are exempt from the Stormwater Management Guidelines.

c. Within 200 foot Riverfront areas, proposed work shall not be closer to the river than existing conditions or 100 feet, whichever is less, or not closer than existing conditions within 25 foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).

   The proposed project is not located closer to the perennial stream than existing degraded areas and is not within 100 feet of the perennial stream. A small portion of the proposed driveway extends into the outer limits of the Riverfront Area.

d. Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).

A small portion of the proposed driveway extends into the outer limits of the Riverfront Area. This portion of the proposed driveway is located as far from the river as practically possible.

e. The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).

The existing degraded Riverfront Area at the site is approximately 0.4%. The proposed 328 sq. ft. of driveway increases the degraded area within the Riverfront Area by 0.9% to a total of 1.3% degraded Riverfront Area on the site. The total degraded Riverfront Area remains less than 10%.

f. When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Restoration shall include:
    1. removal of all debris, but retaining any trees or other mature vegetation;
    2. grading to a topography which reduces runoff and increases infiltration;
    3. coverage by topsoil at a depth consistent with natural conditions at the site; and
    4. seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site

Not applicable, restoration of Riverfront Area is not proposed.

g. When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c),(d), or (e) at a ratio in square feet of at least 2:1 of mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure…

Not applicable, mitigation of Riverfront Area is not proposed.

5. Proposed Mitigation

A portion of the proposed project includes work within the 100-foot buffer zone to BVW. As part of the proposed project, a mitigation plan has been designed in order to mitigate the proposed work located within the 100-foot buffer zone. A total of 962 square feet of work is proposed within the 100-foot buffer zone. The mitigation plan has been designed at a 1:1 ratio to include a total of 962 square feet of native plantings to enhance the 100-foot buffer zone. The proposed mitigation area will be constructed per the following:

1. Prior to the start of work, erosion control barriers shall be installed along the downgradient edge of the mitigation area to protect the nearby BVW.

2. Prior to planting, the existing maintained lawn within the mitigation area shall be turfed-off to expose the native topsoil in preparation for planting.

3. The mitigation area shall be supplemented with 1-2 inches of clean loam where necessary.

4. The mitigation area shall then be hand planted with a mixture of native saplings and shrubs. In accordance with DEP guidance shrubs will be spaced at 10 feet on center and saplings spaced 15 feet on center within the 100-foot buffer zone to the BVW. A total of 11 shrubs and 5 saplings

will be required to cover the 962 square foot mitigation area (see Table 1 below). This plant spacing is based on DEP's guidance.

TABLE 1 – BUFFER ZONE MITIGATION PLANT LEGEND

TREES

SPECIES	SIZE (height)	NUMBER
Red Maple (*Acer rubrum*)	5 to 6 feet	2
Gray Birch (*Betula populifolia)*	5 to 6 feet	3
	Total	5

SHRUBS

SPECIES	SIZE (height)	NUMBER
Bayberry (*Myrica pensylvanica*)	2 to 3 feet	4
Witch Hazel (*Hamamelis virginiana*)	2 to 3 feet	3
Black Chokeberry (*Aronia melanocarpa*)	2 to 3 feet	3
	Total	11

5. Upon completion of planting, the root zones of the plants will be mulched with a layer of leaf litter or other natural organic mulch.
6. The remaining restoration area will be scratched and seeded with a conservation/wildlife seed mix at the rate specified by the supplier. Please refer to the seed mix profile included on the proposed mitigation plan for more information.
7. The erosion control barriers will be disassembled and properly disposed of once all site work has been completed and the buffer zone mitigation area has been fully stabilized.
8. A maintenance schedule for irrigation and pruning (as necessary) will be established by the applicant.
9. The restoration area will be inspected each fall for non-native invasive or unwanted plants for a two-year period. If non-native invasive species are found, they will be uprooted and removed from the area.

Within the buffer zone mitigation area all trees will be installed to a depth as measured from the trunk flare to the bottom of the root ball. The shrubs will be installed in a hole 1.5 feet larger than the ball of the plant and the hole will not be deeper than the depth of the root ball. The hole will be backfilled with soil of the same mix as existing within the surrounding area and compost or other organic amendments will be added to the backfill to increase water-holding capacity. Watering will be of sufficient quantity to penetrate the soil to a depth of eight inches, which will meet the moisture needs of the plant without saturating the soil. All plantings will be done by hand during early spring (March 15th to April 30th) or late fall (October 15th to November 15th) seasons and supervised by a qualified wetland scientist. Please note that seed mix germination is optimal in the spring season when soil temperatures are above 45 degrees. If necessary, the plants may require a hand sprayed application of deer repellent to prevent plant death by browsing deer.

6. Summary

Erosion and sediment control measures will be implemented and maintained throughout the duration of the construction process to prevent the conveyance of sedimentation into environmentally sensitive areas. Disturbed areas will be stabilized upon the completion of work, and in the event that intense rainfall is expected, reinforcing control measures will be installed as needed to protect all wetland resource areas. Stockpiling of soils and materials, if any, shall be located beyond the 100-foot buffer zone and surrounded by the erosion controls as necessary. Erosion control measures shall remain in place and be maintained until such time that a Certificate of Compliance has been issued by the Hingham Conservation Commission,

stating that the project has been constructed in accordance with the conditions set forth in the Order of Conditions.