

## ADDENDUM NUMBER ONE

Date: October 01, 2020

Project: 149 West Boylston Drive Improvements  
City of Worcester Department of Public Works and Parks  
Parks, Recreation and Cemetery Division

### General Bid Clarifications

Question1: Are we responsible for filing a swift plan for this job or is it an engineering Beals and Thomas allowance?

Answer: *B+T has prepared a draft SWPPP (Stormwater Pollution Prevention Plan) (DRAFT attached). Once a contractor is selected, the SWPPP will be finalized by B+T and the contractor will need to register as an Operator on the EPA's website (instructions will be provided). During construction, the contractor will need to follow the requirements in the SWPPP with regard to on-going construction activities and inspections.*

### Attachments:

Draft SWPPP (89 pages)

END OF ADDENDUM ONE

# Stormwater Pollution Prevention Plan

149 West Boylston Drive

**149 West Boylston Drive  
Worcester, Massachusetts**

*Prepared for:*

**City of Worcester  
Department of Public Works and Parks  
50 Skyline Drive  
Worcester, MA, 01605**

*Prepared by:*



**BEALS + THOMAS**

**Beals and Thomas, Inc.  
Reservoir Corporate Center  
144 Turnpike Road (Route 9)  
Southborough, MA 01772-2104**

**08/25/2020**

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## 1.0 CONTACT INFORMATION/RESPONSIBLE PARTIES

### 1.1 OPERATOR(S)/ SUBCONTRACTORS

#### Operator(s)

|            |   |        |    |           |       |
|------------|---|--------|----|-----------|-------|
| Company:   | City of Worcester, Department of Public Works and Parks |        |    |           |       |
| Name:      | Cesar Valiente  |        |    |           |       |
| Address:   | 50 Skyline Drive  |        |    |           |       |
| City:      | Worcester   | State: | MA | ZIP Code: | 01605 |
| Telephone: | (508) 799-1190  | Email: |    |           |       |

|            |  |        |  |           |  |
|------------|--|--------|--|-----------|--|
| Company:   |  |        |  |           |  |
| Name:      |  |        |  |           |  |
| Address:   |  |        |  |           |  |
| City:      |  | State: |  | ZIP Code: |  |
| Telephone: |  | Email: |  |           |  |

#### Subcontractor(s)

|                  |     |        |  |           |  |
|------------------|-----|--------|--|-----------|--|
| Company:         | TBD |        |  |           |  |
| Name:            |     |        |  |           |  |
| Address:         |     |        |  |           |  |
| City:            |     | State: |  | ZIP Code: |  |
| Telephone:       |     | Email: |  |           |  |
| Area of Control: |     |        |  |           |  |

#### 24-Hour Emergency Contact

|            |     |
|------------|-----|
| Company:   | TBD |
| Name:      |     |
| Telephone: |     |

## 1.2 STORMWATER TEAM

### SWPPP Preparer

|            |                        |        |                             |           |       |
|------------|------------------------|--------|-----------------------------|-----------|-------|
| Company:   | Beals and Thomas, Inc. |        |                             |           |       |
| Name:      | Robert Kennedy         |        |                             |           |       |
| Address:   | 144 Turnpike Road      |        |                             |           |       |
| City:      | Southborough           | State: | MA                          | ZIP Code: | 01772 |
| Telephone: | 508-366-0560           | Email: | rkennedy@bealsandthomas.com |           |       |

### Personnel Responsible for Installation & Maintenance of Stormwater BMPs

|            |      |        |      |           |      |
|------------|------|--------|------|-----------|------|
| Company:   | Text |        |      |           |      |
| Name:      | Text |        |      |           |      |
| Address:   | Text |        |      |           |      |
| City:      | Text | State: | Text | ZIP Code: | Text |
| Telephone: | Text | Email: | Text |           |      |

### Inspection Personnel

|            |      |        |      |           |      |
|------------|------|--------|------|-----------|------|
| Company:   | Text |        |      |           |      |
| Name:      | Text |        |      |           |      |
| Address:   | Text |        |      |           |      |
| City:      | Text | State: | Text | ZIP Code: | Text |
| Telephone: | Text | Email: | Text |           |      |

### Personnel Responsible for Taking Corrective Actions

|            |      |        |      |           |      |
|------------|------|--------|------|-----------|------|
| Company:   | Text |        |      |           |      |
| Name:      | Text |        |      |           |      |
| Address:   | Text |        |      |           |      |
| City:      | Text | State: | Text | ZIP Code: | Text |
| Telephone: | Text | Email: | Text |           |      |

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## 2.0 SITE EVALUATION, ASSESSMENT AND PLANNING

### 2.1 PROJECT/SITE INFORMATION

|                                |                         |        |    |           |       |
|--------------------------------|-------------------------|--------|----|-----------|-------|
| Project/Site Name:             | 149 West Boylston Drive |        |    |           |       |
| Project Street/Location:       | 149 West Boylston Drive |        |    |           |       |
| City:                          | Worcester               | State: | MA | ZIP Code: | 01606 |
| County or Similar Subdivision: | Worcester County        |        |    |           |       |

|  |                |            |                |
|--|----------------|------------|----------------|
| Latitude:  | 42°18'01.12" N | Longitude: | 71°48'22.90" W |
| Method for Determining Latitude/Longitude:   |                |            |                |
| <input type="checkbox"/> USGS Topographic Map (specify scale: _____ )<br><input type="checkbox"/> EPA Website<br><input type="checkbox"/> GPS<br><input checked="" type="checkbox"/> Other (please specify): <u>Google Earth</u> |                |            |                |
| Horizontal Reference Datum:  |                |            |                |
| <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> WGS 84<br><input type="checkbox"/> NAD 83 <input type="checkbox"/> Unknown   |                |            |                |

Is the project located on Indian country lands, or located on a property of religious or cultural significance to an Indian tribe?                       Yes                       No

If yes, provide the name of the Indian tribe associated with the area of Indian country (including the name of Indian reservation if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property:

\_\_\_\_\_

Is this project considered a federal facility?                       Yes                       No

Are you applying for permit coverage as a “federal operator” as defined in Appendix A of the 2017 CGP?                       Yes                       No

NPDES project or permit tracking number: TBD

### 2.1.1 Emergency-Related Projects

Is this project in response to a public emergency?  Yes  No

If yes, document the cause of the public emergency (*e.g., natural disaster, extreme flooding conditions*), information substantiating its occurrence (*e.g., state disaster declaration*), and a description of the construction necessary to reestablish effective public services:

## 2.2 NATURE AND SEQUENCE OF CONSTRUCTION ACTIVITY

### 2.2.1 Function of the Construction Activity

The proposed work includes clearing the existing thick brush from the property and replacing it with a meadow habitat that can be mowed approximately one to two times per year.

Function of the construction activity:

- |   |   |
|---|---|
| <input type="checkbox"/> Single-Family Residential                              | <input type="checkbox"/> Commercial                   |
| <input type="checkbox"/> Multi-Family Residential                               | <input type="checkbox"/> Industrial                   |
| <input type="checkbox"/> Institutional  | <input type="checkbox"/> Highway or Road Construction |
| <input type="checkbox"/> Utility  |   |
| <input checked="" type="checkbox"/> Other (please specify): <u>Recreational</u> |   |

### 2.2.2 Building Demolition

Will there be demolition of any structure built or renovated before January 1, 1980?  Yes  No

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space?  Yes  No

### 2.2.3 Agricultural Land

Was the pre-development land use used for agriculture?  Yes  No

### 2.2.4 Estimated Project Dates

Estimated Project Start Date: TBD

Estimated Project Completion Date: TBD

| Estimated Timeline of Activity | Construction Activity and BMP Descriptions   |
|--------------------------------|--|
| TBD – TBD                      | <p><i>Before any site grading activities begin</i></p> <ol style="list-style-type: none"> <li>1. Stake Limit of Construction. Workers shall be informed that no construction activity is to occur beyond this limit at any time.</li> <li>2. Delineate the limit of the natural buffer to be maintained with flags, tape or other similar device.</li> <li>3. Clear vegetation as necessary within the limits of construction. A stockpile of wood chips from tree cutting shall be left on site for stabilization.</li> <li>4. Grub the areas where silt fence is required, removing stumps and roots as necessary. The existing ground surface shall be disturbed as little as possible prior to the start of construction.</li> <li>5. Install silt fence and straw bales as shown on the plans. An adequate stockpile of erosion control materials shall be on site at all times for emergency or routine replacement and shall include materials to repair silt fences, straw bales, or any other devices planned for use during construction.</li> <li>6. Construct stabilized construction exits.</li> <li>7. Construct staging and materials storage area.</li> <li>8. Install temporary sanitary facilities and dumpsters or enclosed trash container if a dumpster is not feasible for the project.</li> </ol> |
| TBD – TBD                      | <p><i>Site grading</i></p> <ol style="list-style-type: none"> <li>1. Begin site clearing and grubbing operations.</li> <li>2. Begin overall site grading and topsoil stripping.</li> <li>3. Establish topsoil stockpile.</li> <li>4. Install silt fences around stockpile and cover stockpiles.</li> <li>5. Disturbed areas where construction will cease for more than 14 days shall be stabilized with erosion controls.</li> </ol>  |
| TBD – TBD                      | <p><i>Final stabilization and landscaping</i></p> <ol style="list-style-type: none"> <li>1. Remove all temporary control BMPs and stabilize any areas disturbed by their removal with erosion controls</li> <li>2. Prepare final seeding and landscaping.</li> <li>3. Monitor stabilized areas until final stabilization is reached.</li> </ol>  |

## 2.3 SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

Soil type(s): According to NRCS Web Soil Survey, the soils within the area of interest are listed as Urban land. These soils consist of developed areas. No hydrologic soil class is assigned to these soil types, but permeability is typically low.

Slopes: The topography of the site is generally flat, ranges from elevations 530 feet to 541 feet, and slopes gradually downward to the southeast.

Drainage Patterns: Currently, the stormwater within the Site drains towards the southeast corner of the Property and ultimately discharges to the Indian Lake.

Vegetation: The existing vegetation on the Site consists of multiple vegetative communities which vary in density and composition. Non-native, invasive species such as Japanese knotweed (*Fallopia japonica*), multiflora rose (*Rosa multiflora*), and Asiatic bittersweet (*Celastrus orbiculatus*), among others, are prevalent throughout the property. Additionally, although similar in vegetation, the northern area of the property is more densely vegetated with shrub growth than the area near the adjacent residential development.

An evaluation was also undertaken to identify potentially significant trees, with particular attention to the presence of any that were approximately twenty feet in height or greater. Generally, these larger trees include eastern red cedar (*Juniperus virginiana*), tree-of-heaven (*Ailanthus altissima*, invasive), pin cherry (*Prunus pensylvanica*), and cottonwood (*Populus deltoides*), among others. However, each tree was either an invasive species (i.e., large stands of tree-of-heaven) or were encapsulated by multiflora rose (*Rosa multiflora*) and Asiatic bittersweet (*Celastrus orbiculatus*) growth.

## 2.4 CONSTRUCTION SITE ESTIMATES

|   |            |
|---|------------|
| Total property area:                            | 3.5± acres |
| Total construction site area to be disturbed:   | 3.2± acres |
| Maximum area to be disturbed at one time:       | 3.2± acres |
| Percentage impervious area before construction: | 0 %        |
| Runoff coefficient before construction:         | 85         |
| Percentage impervious area after construction:  | 0 %        |
| Runoff coefficient after construction:          | 80         |

## 2.5 DISCHARGE INFORMATION

### 2.5.1 Description of Receiving Storm Sewer Systems

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)?  Yes  No

### 2.5.2 Receiving Waters

Indian Lake, located along the western boundary of the site, receives runoff from the site. According to the Waterbody Assessment and TMDL Status Map of Worcester, MA, produced by the EPA, an unnamed tributary, State ID: MA51-08\_2008, has an outlet at Indian Lake. This unnamed tributary ultimately receives runoff from the site, as well. The unnamed tributary surface water has been listed as impaired, and Indian Lake has a completed TMDL.

### 2.5.3 Impaired Waters/ TMDLs

Has the surface water been listed as “impaired?”  Yes  No

If yes, list the pollutant(s) causing the impairment: Ammonia (Un-Ionized); Fecal Coliform; Foam/Flocs/Scum/Oil Slicks; Nutrient/Eutrophication Biological Indicators; Other Cause; Sedimentation/Siltation; Taste and Odor

Describe the method(s) used to determine whether or not your project site discharges to an impaired water: EPA’s Stormwater Discharge Mapping Tools, accessed on August 17, 2020

Has a TMDL been completed?  Yes  No

If yes, list the title of the TMDL document: EPA TMDL No. 2323 – Total Maximum Daily Loads of Phosphorus for Indian Lake (CN 116.0)

List the pollutant(s) for which there is a TMDL: Phosphorus

### 2.5.4 Tier 2, 2.5, or 3 Waters

Is this surface water designated as a Tier 2, 2.5 or 3 water?  Yes  No

If yes specify which Tier the surface water is designated as:

Tier 2  Tier 2.5  Tier 3

## 2.6 UNIQUE SITE FEATURES AND SENSITIVE AREAS

This site does not contain unique features or sensitive areas to be preserved.

## 2.7 POTENTIAL SOURCES OF POLLUTION

### 2.7.1 Potential Sources of Sediment

- Clearing and grubbing operations
- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping operations

### 2.7.2 Potential Sources of Non-Sediment Pollutants

- Combined Staging Area — small fueling activities, minor equipment maintenance, sanitary facilities.
- Materials Storage Area — trash, and so on.

| Material/<br>Chemical     | Physical Description  | Stormwater Pollutants   | Location <sup>[1]</sup>                         |
|---------------------------|---|---|---|
| Pesticides                | Various colored to colorless liquid, powder, pellets, or grains | Chlorinated hydrocarbons, organophosphates, carbamates, arsenic                 | Herbicides used for noxious weed control        |
| <sup>[2]</sup> Fertilizer | Liquid or solid grains  | Nitrogen, phosphorous   | Newly seeded areas                              |
| Cleaning solvents         | Colorless, blue, or yellow-green liquid                         | Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates | No equipment cleaning allowed in project limits |
| Hydraulic oil/fluids      | Brown oily petroleum hydrocarbon                                | Mineral oil   | Leaks or broken hoses from equipment            |
| Gasoline                  | Colorless, pale brown or pink petroleum hydrocarbon             | Benzene, ethyl benzene, toluene, xylene, MTBE                                   | Secondary containment/staging area              |
| Diesel Fuel               | Clear, blue-green to yellow liquid                              | Petroleum distillate, oil & grease, naphthalene, xylenes                        | Secondary containment/staging area              |
| Kerosene                  | Pale yellow liquid petroleum hydrocarbon                        | Coal oil, petroleum distillates   | Secondary containment/staging area              |
| Antifreeze/coolant        | Clear green/yellow liquid                                       | Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)            | Leaks or broken hoses from equipment            |
| Sanitary toilets          | Various colored liquid  | Bacteria, parasites, and viruses  | Staging area                                    |

[1] Area where material/chemical is used on-site.

[2] Use of fertilizers containing nitrogen and/ or phosphorus in ratios greater than recommended by the manufacture must be documented.

## 2.8 SITE PLANS

The Topographic Plan shows the undeveloped site and its current features. The Site Plans show the developed site, or the major phases of development.

These Site Plans include:

- Delineation of construction phasing, if applicable
- Areas of soil disturbance and areas that will not be disturbed
- Direction(s) of stormwater flow and approximate slopes before and after major grading activities
- Natural features to be preserved
- Locations of major structural and non-structural BMPs identified in the SWPPP
- Location(s) of sediment, soil or other construction materials will be stockpiled
- Locations **[and timing]** of stabilization measures
- Locations of off-site material, waste, borrow, or equipment storage areas
- Location of all waters of the U.S., including wetlands on or near the site. Indicate if water bodies are listed as impaired, or are identified as Tier 2, 2.5 or 3 waters.
- Boundary lines of any natural buffers,
- Locations of stormwater discharges and/ or authorized non-stormwater will be discharged to surface water(s)
- Locations of storm drain inlets and stormwater control measures on the site and in the immediate vicinity of the site
- Locations of all pollutant-generating activities
- Locations where polymers, flocculants, or other treatment chemicals will be used and stored
- Areas of federally listed critical habitat for endangered or threatened species

See Appendix B: Site Plans

### 3.0 COMPLIANCE WITH APPLICABLE FEDERAL & STATE REQUIREMENTS

#### 3.1 ENDANGERED SPECIES CERTIFICATION

Are endangered or threatened species and critical habitats on or near the project area?

Yes       No

Describe how this determination was made:

Based on information accessed from the Information for Planning and Consultation (IPaC) tool provided by the U.S. Fish and Wildlife Services (US FWS), accessed on August 17, 2020, there are no federally-jurisdictional endangered species expected to occur on the Subject Property.

According to Massachusetts Bureau of Geographic Information (MassGIS) information accessed on August 17, 2020, the Site is not located within Natural Heritage and Endangered Species Program (NHESP)-designated Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife.

US FWS listed the Northern Long Eared Bat (NLEB, *Myotis septentrionalis*) as a Threatened species under the Endangered Species Act (ESA, 50 CFR 17.11) on April 2, 2015 and mapped the majority of the state of Massachusetts as habitat. The Northern Long-Eared Bat is also listed as Endangered under the Massachusetts Endangered Species Act (MESA, M.G.L. c. 131 A).

Impacts to the NLEB under Section 7 of the ESA were assessed following the final 4(d) rule published January 14, 2016. This rule states, “*Incidental take resulting from tree removal is prohibited if it: 1) Occurs within 0.25 mile radius of known northern long-eared bat hibernacula or 2) cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot (45-meter) radius from the known maternity tree during the pup season (June 1 through July 31).*”

Based on review of information published by the Massachusetts Natural Heritage and Endangered Species Program (NHESP), last updated June 4, 2019, the Property contains no mapped winter hibernacula or maternity roost trees for the NLEB. The Determination Key was completed on August 19, 2020. Based on the IPaC submission, any take of the NLEB that may occur as a result of the Project is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Please refer to the enclosed consistency letter.

## 3.2 HISTORIC PRESERVATION

### Step 1

Will stormwater controls that require subsurface earth disturbance be installed on the site?

Yes  No

### Step 2

If you answered yes in Step 1, have prior surveys or evaluations conducted on the site already determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties?

Yes  No

### Step 3

If you answered no in Step 2, has it been determined that the installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties?

Yes  No

### Step 4

If you answered no in Step 3, did the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Office (THPO), or other tribal representative (whichever applies) respond within 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties?

Yes  No

Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.

No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls.

Other:

### 3.3 SAFE DRINKING WATER ACT UNDERGROUND INJECTION CONTROL REQUIREMENTS

Do you plan to install any of the following controls?

- Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)
- Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow
- Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

If yes, attach documentation of contact between you and the applicable state agency or EPA Regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR Parts 144-147.

### 3.4 APPLICABLE STATE OR LOCAL PROGRAMS

This SWPPP complies with the requirements of Standard 8 of the Massachusetts Department of Environmental Protection Stormwater Handbook, which states:

*A plan to control construction-related impacts, including erosion, sedimentation, and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plans) shall be developed and implemented.*

#### 4.0 EROSION AND SEDIMENT CONTROL BMPS

This SWPPP contains a listing of the erosion and sediment control best management practices (BMPs) that will be implemented to control pollutants in stormwater discharges. The BMPs are categorized under one of the areas of BMP activity as described below:

- Natural Buffers or Equivalent Sediment Controls
- Minimize disturbed area and protect natural features and soil
- Stabilize soils
- Establish perimeter controls and sediment barriers
- Establish stabilized construction exits

#### 4.1 NATURAL BUFFERS OR EQUIVALENT SEDIMENT CONTROLS

Are there any surface waters located within 50 feet of your construction disturbances that receive stormwater discharges from the site?  Yes  No

If yes, check the compliance alternative that applies:

- A 50-foot undisturbed natural buffer will be maintained. The 50-foot buffer is shown on the attached site plans and will be clearly marked off with flags, tape, or a similar marking device prior to the commencement of earth disturbing activities.
- An undisturbed natural buffer of xx-feet will be provided along with supplemental erosion and sediment controls, which in combination achieves the sediment load reduction equivalent to a 50-foot undisturbed natural buffer. The estimated sediment removal calculations are included in the appendixes of this report and have been calculated using the applicable tables included in Appendix G of the 2017 Construction General Permit or site-specific calculations were performed to estimate the sediment removal of a 50-buffer zone and the efficiency of the reduced buffer zone and supplemental erosion control measures.
- It is infeasible to provide and maintain an undisturbed natural buffer of any size, therefore erosion and sediment controls will be implemented that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer. The estimated sediment removal calculations are included in the appendixes of this report and have been calculated using the applicable tables included in Appendix G of the 2012 Construction General Permit or site-specific calculations were performed to estimate the sediment removal of a 50-buffer zone and the efficiency of the reduced buffer zone and supplemental erosion control measures.
- The project qualifies for one of the exceptions in Part G.2.2 of Appendix G of the 2017 Construction General Permit. Specifically:

- There is no discharge of stormwater to surface waters through the area between the disturbed portions of the site and any surface waters located within 50 feet of the site. This includes situations where control measures have been implemented such as a berm or other barrier that will prevent such discharges.
- No natural buffer exists due to preexisting development disturbances, such as impervious surfaces or structures that were constructed prior to the initiation of planning for this project.
- For a “linear project,” site constraints (e.g., limited right-of-way) make it infeasible for the site to meet any of the CGP Part 2.2.1.a compliance alternatives
- The project qualifies as “small residential lot” construction, and complies with:
  - Alternative 1: A [select one: 50-foot buffer, a buffer <50 feet and > 30 has been provided with double perimeter controls buffer less than 30-feet has been provided with double perimeter controls with 7-day site stabilization requirements has been provided.] Provide a description on how the controls will comply with the CGP requirements.
  - Alternative 2: A sediment discharge risk evaluation has been prepared and is included in the appendices of this report.
  - Buffer disturbances are authorized under a CWA Section 404 permit.
  - Buffer disturbances will occur for the construction of a water-dependent structure or water access area (e.g., pier, boat ramp, and trail).

## 4.2 MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL

### 4.2.1 Stockpiling Topsoil

|                        |   |
|------------------------|---|
| Description:           | Topsoil stripped from the immediate construction area shall be stockpiled as identified on the Site Plans and Sitework Specifications or as approved by the SWPPP preparer. Stockpiles shall be located outside of any natural buffers and away from any stormwater conveyances, drain inlets, and areas where stormwater flow is concentrated.   |
| Installation Schedule: | Topsoil stockpiles shall be established during grading activities. The silt fence and temporary erosion controls shall be installed immediately after the stockpile has been established. For piles that will be unused for 7 or more days provide cover over the stockpile or temporary stabilization to avoid direct contact with precipitation |

|                             |   |
|-----------------------------|---|
|                             | and wind. Install a sediment barrier along all downgradient perimeter areas of stockpiles.  |
| Maintenance and Inspection: | The area shall be inspected weekly for erosion and immediately after storm events. Areas on or around the stockpile that have eroded shall be stabilized immediately with erosion controls. See following Silt Fence section for Maintenance and inspection procedures. |

## 4.3 STABILIZE SOIL

### 4.3.1 Temporary Stabilization

|                             |  |
|-----------------------------|--|
| Description:                | Initiation of temporary vegetative cover shall occur immediately where construction will cease for more than 7 days. It shall be established using hydroseeding for areas of exposed soil (including stockpiles).  |
| Installation Schedule:      | Temporary stabilization measures shall be initiated immediately where construction activities will temporarily cease for more than 7 days. Stabilization will be completed as soon as practicable, but no later than 7 calendar days after stabilization has been initiated. |
| Maintenance and Inspection: | Stabilized areas shall be inspected weekly and after storm events until a dense cover of vegetation has become established. If failure is noticed at the seeded area, the area shall be reseeded, fertilized, and mulched immediately.                                       |

### 4.3.2 Mulching

|                             |   |
|-----------------------------|---|
| Description:                | Hydromulching shall provide immediate protection to exposed soils during short periods of disturbance. Hydromulch shall also be applied in areas that have been seeded for temporary or permanent stabilization.                      |
| Installation Schedule:      | Hydromulch shall be applied to soil exposed temporarily for >7 days during construction.  |
| Maintenance and Inspection: | Mulched areas shall be inspected weekly and after storm events to check for movement of mulch or erosion. If washout, breakage, or erosion occurs, the surface shall be repaired, and new mulch shall be applied to the damaged area. |

### 4.3.3 Permanent Stabilization

|                             |  |
|-----------------------------|--|
| Description:                | Initiation of permanent stabilization measures shall occur immediately after the final design grades are achieved and earth moving activities cease. Vegetative cover shall be used to establish vegetative cover on exposed soils. Permanent stabilization shall be completed in accordance with the procedures outlined in the Final Stabilization section of this report.   |
| Installation Schedule:      | Portions of the site where construction activities have permanently ceased shall be stabilized as soon as possible, but no later than 7 calendar days after stabilization has been initiated.  |
| Maintenance and Inspection: | All seeded areas shall be inspected weekly during construction activities and after storm events until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area shall be reseeded, fertilized, and mulched immediately. Care shall be taken to avoid compacting newly placed topsoil. After construction is completed at the site, permanently stabilized areas shall be monitored until final stabilization is reached. |

### 4.3.4 Dust Control

|                             |   |
|-----------------------------|---|
| Description:                | Dust from the site shall be controlled by using a mobile pressure-type distributor truck to apply water to disturbed areas. The mobile unit shall apply water at a rate of 300 gallons per acre and minimized as necessary to prevent runoff and ponding.   |
| Installation Schedule:      | Dust control shall be implemented as needed once site grading has been initiated and during windy conditions (forecasted or actual wind conditions of 20 mph or greater) while site grading is occurring. Spraying of water shall be performed no more than three times a day during the months of May–September and once per day during the months of October–April or whenever the dryness of the soil warrants it. |
| Maintenance and Inspection: | At least one mobile unit shall be available at all times to distribute water to control dust on the project area. Each mobile unit shall be equipped with a positive shutoff valve to prevent over watering of the disturbed area.  |

## 4.4 ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS

### 4.4.1 Erosion Control Barrier

|  |   |
|--|---|
| <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary |   |
| Description:   | An erosion control barrier, consisting of entrenched straw bales, straw wattles, compost socks and siltation fencing, shall be installed along the downgradient side of the proposed project to decrease the velocity of sheet flows and intercept and detain small amounts of sediment from disturbed areas.   |
| Installation Schedule:   | Erosion Control Barrier shall be installed prior to clearing and grubbing.  |
| Maintenance and Inspection:  | Erosion Control Barrier shall be inspected weekly, following storms, and daily during rainy periods. Damaged fencing shall be replaced. Concentrated flows shall be intercepted and rerouted. Sediment accumulations shall be removed when reaching a depth of 6-inches, or one-half of the above ground height of the barrier, whichever is less. Deteriorated fencing material shall be replaced. Used fencing shall be properly disposed of. |

### 4.4.2 Silt Fence

|  |  |
|--|--|
| <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary |  |
| Description:   | Entrenched silt fence shall be installed to decrease the velocity of sheet flows and intercept and detain small amounts of sediment from disturbed areas.  |
| Installation Schedule:   | Silt fence shall be installed prior to clearing and grubbing.  |
| Maintenance and Inspection:  | Silt fence shall be inspected weekly, following storms, and daily during rainy periods. Damaged fencing shall be replaced. Concentrated flows shall be intercepted and rerouted. Sediment accumulations shall be removed when reaching a depth of 6-inches. Deteriorated fencing material shall be replaced. Used fencing shall be properly disposed of. |

#### 4.5 ESTABLISH STABILIZED CONSTRUCTION ENTRANCE/EXIT

|  |  |
|--|--|
| <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary |  |
| Description:   | Temporary gravel or crushed stone construction entrances/exits or other means shall be used to minimize off-site movement of soil with vehicles. Construction access points shall be maintained to minimize tracking of soil onto public roads and existing parking lots to remain. If the rock entrance is not working to keep streets clean, then install wheel wash, sweep streets, or wash streets if wash water can be collected.   |
| Installation Schedule:   | Stabilized construction entrance shall be installed prior to clearing and grubbing.  |
| Maintenance and Inspection:  | Stabilized construction entrances shall be inspected daily. Gravel or crushed stone shall be added if the pad is no longer in accordance with the specifications. If the construction entrance/ exit is not working to keep streets clean, then install wheel wash, sweep streets, or wash streets if wash water can be collected. When sediment has been tracked off of the site, it shall be removed by the end of the same working day, or by the end of the next working day if track-out occurs on a non-work day. Remove sediment by sweeping, shoveling or vacuuming roadways were sediment has been tracked-out. |

## 5.0 GOOD HOUSEKEEPING BMPs

This SWPPP contains a listing of the good housekeeping best management practices (BMPs) that shall be implemented to control pollutants in stormwater discharges during construction-related work. The BMPs are categorized below:

- Material Handling and Waste Management
- Establish Proper Equipment/Vehicle Fueling and Maintenance Practices
- Allowable Non-Stormwater Discharges and Control Equipment/Vehicle Washing
- Spill Prevention and Control Plan

## 5.1 MATERIAL HANDLING AND WASTE MANAGEMENT

Several management procedures and practices are proposed to prevent and/or reduce the discharge of pollutants to stormwater from solid or liquid wastes that will be generated at the site. These measures are grouped into the following categories: (1) solid or construction waste disposal, (2) recycling, (3) sanitary and septic waste, and (4) hazardous materials.

### 5.1.1 Solid or Construction Waste Disposal

|                             |   |
|-----------------------------|---|
| Description:                | All waste materials shall be collected and disposed of into metal trash dumpsters or enclosed trash containers in the materials storage area. Dumpsters shall have a secure watertight lid, be placed away from stormwater conveyances and drains, and meet all federal, state, and municipal regulations. Only trash and construction debris from the site shall be deposited in the dumpster. No construction materials shall be buried on-site unless authorized by a program for recycling/beneficial use. All personnel shall be instructed regarding the correct disposal of trash and construction debris. Notices that state these practices shall be posted in the office trailer and the individual who manages day-to-day site operations shall be responsible for seeing that these practices are followed. |
| Installation Schedule:      | Trash dumpsters shall be installed once the materials storage area has been established.  |
| Maintenance and Inspection: | The dumpsters shall be inspected weekly and immediately after storm events. The dumpsters shall be emptied weekly and taken to an approved landfill or recycling facility. If trash and construction debris are exceeding the dumpsters' capacity, the dumpsters shall be emptied more frequently. Waste container lids shall be closed when not in use and at the end of the business day. For waste containers that do not have lids, provide cover or a similarly effective means to minimize the discharge of pollutants.   |

### 5.1.2 Recycling

|                             |   |
|-----------------------------|---|
| Description:                | Wood pallets, cardboard boxes, and other recyclable construction scraps shall be disposed of in a designated dumpster for recycling. The dumpster shall have a secure watertight lid, be placed away from stormwater conveyances and drains and meet all local and state solid-waste management regulations. Only solid recyclable construction scraps from the site shall be deposited in the dumpster. All personnel shall be instructed regarding the correct procedure for disposal of recyclable construction scraps. Notices that state these procedures shall be posted in the office trailer, and the individual who manages day-to-day site operations shall be responsible for seeing that these procedures are followed. |
| Installation Schedule:      | Designated recycling dumpsters shall be installed once the area has been established.   |
| Maintenance and Inspection: | The recycling dumpster shall be inspected weekly and immediately after storm events. The recycling dumpster shall be emptied weekly and taken to an approved recycling center. If recyclable construction wastes are exceeding the dumpsters' capacity, the dumpsters shall be emptied more frequently.   |

### 5.1.3 Sanitary and Septic Waste

|                             |  |
|-----------------------------|--|
| Description:                | Temporary sanitary facilities (portable toilets) shall be provided at the site throughout the construction phase. The portable toilets shall be located in the staging area, away from concentrated flow paths and traffic flow.   |
| Installation Schedule:      | The portable toilets shall be brought to the site once the staging area has been established.  |
| Maintenance and Inspection: | All sanitary waste shall be collected from the portable facilities on a regular basis. The portable toilets shall be inspected weekly for evidence of leaking holding tanks. Toilets with leaking holding tanks shall be removed from the site and replaced with new portable toilets. |

#### 5.1.4 Hazardous Materials and Waste

|                             |  |
|-----------------------------|--|
| Description:                | All hazardous waste materials such as oil filters, petroleum products, paint, and equipment maintenance fluids shall be stored in structurally sound and sealed shipping containers, within the hazardous materials storage area. Hazardous waste materials shall be stored in appropriate and clearly marked containers and segregated from other non-waste materials. Secondary containment shall be provided for all waste materials in the hazardous materials storage area and shall consist of commercially available spill pallets. Additionally, all hazardous waste materials shall be disposed of in accordance with federal, state, and municipal regulations. Hazardous waste materials shall not be disposed of into the on-site dumpsters. All personnel shall be instructed regarding proper procedures for hazardous waste disposal. Notices that state these procedures shall be posted in the office trailer and the individual who manages day-to-day site operations shall be responsible for seeing that these procedures are followed. |
| Installation Schedule:      | Shipping containers used to store hazardous waste materials shall be installed once the site materials storage area has been installed.  |
| Maintenance and Inspection: | The hazardous waste material storage areas shall be inspected weekly and after storm events. The storage areas shall be kept clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Material safety data sheets, material inventory, and emergency contact numbers shall be maintained in the office trailer.  |

#### 5.2 ESTABLISH PROPER EQUIPMENT/VEHICLE FUELING AND MAINTENANCE PRACTICES

|              |  |
|--------------|--|
| Description: | Several types of vehicles and equipment will likely be used on-site throughout the project, including graders, scrapers, excavators, loaders, paving equipment, rollers, trucks and trailers, backhoes, and forklifts. All major equipment/vehicle fueling and maintenance shall be performed outside of wetland buffer zones. When vehicle fueling must occur on-site, the fueling activity shall occur in the staging area. Only minor equipment maintenance shall occur on-site. All equipment fluids generated from maintenance activities shall be disposed of into designated drums stored on spill pallets in accordance with the Material Handling and Waste Management Section. Absorbent, spill-cleanup materials and spill kits shall be available at the combined staging and materials storage area. Drip pans shall be placed under all equipment receiving maintenance and vehicles and equipment parked overnight. |
|--------------|--|

|                             |  |
|-----------------------------|--|
| Installation Schedule:      | BMPs implemented for equipment and vehicle maintenance and fueling activities shall begin at the start of the project.   |
| Maintenance and Inspection: | Inspect equipment/vehicle storage areas weekly and after storm events. Vehicles and equipment shall be inspected on each day of use. Leaks shall be repaired immediately, using dry cleanup measures where possible and eliminating the source of the discharge. Problem vehicle(s) or equipment shall be removed from the project site. Keep ample supply of spill-cleanup materials on-site and immediately clean up spills and dispose of materials properly. Do not clean surfaces by hosing-down the area |

### 5.3 ALLOWABLE NON-STORMWATER DISCHARGES AND CONTROL EQUIPMENT / VEHICLE WASHING

|                             |  |
|-----------------------------|--|
| Description:                | All equipment and vehicle washing shall be performed off-site, except as required for wheel washes and concrete washout areas. |
| Installation Schedule:      | N/A  |
| Maintenance and Inspection: | N/A  |

### 5.4 SPILL PREVENTION AND CONTROL PROCEDURES

|                        |  |
|------------------------|--|
| Description:           | <ul style="list-style-type: none"> <li>i. Employee Training: All employees shall be trained as detailed in the Inspection and Maintenance section of this report.</li> <li>ii. Vehicle Maintenance: Vehicles and equipment shall be maintained off-site. All vehicles and equipment including subcontractor vehicles shall be checked for leaking oil and fluids. Vehicles leaking fluids shall not be allowed on-site.</li> <li>iii. Hazardous Material Storage: Hazardous materials shall be stored in accordance with this report and federal and municipal regulations.</li> <li>iv. Spill Kits: Spill kits shall be kept within the materials storage area. Spills: All spills shall be cleaned up immediately upon discovery. Spent absorbent materials and rags shall be hauled off-site immediately after the spill is cleaned up for disposal at an approved landfill. Spills large enough to discharge to surface water shall be reported to the National Response Center at 1-800-424-8802 and MA DEP at 888-304-1133.</li> <li>v. Material safety data sheets: A material inventory and emergency contact information shall be maintained at the on-site project trailer.</li> </ul> |
| Installation Schedule: | The spill prevention and control procedures shall be implemented once construction begins on-site.   |

|                             |   |
|-----------------------------|---|
| Maintenance and Inspection: | All personnel shall be instructed on the correct procedures for spill prevention and control. Notices that state these practices shall be posted in the office trailer, and the individual who manages day-to-day site operations shall be responsible for seeing that these procedures are followed. |
|-----------------------------|---|

## 5.5 FERTILIZER DISCHARGE RESTRICTIONS

|                             |  |
|-----------------------------|--|
| Description:                | Discharges from fertilizers containing nitrogen and phosphorus shall be minimized. Fertilizers shall be applied at rates and amounts consistent with the manufacture's specification, and shall at no time exceed local, state, or federal specifications. See project landscape specifications for acceptable fertilizers that can be used for the project. |
| Installation Schedule:      | Fertilizers shall be applied at an appropriate time of year, timed to coincide as closely as possible to the period of maximum vegetation uptake and growth. Avoid applying fertilizers before heavy rains. Do not apply fertilizers to frozen ground or stormwater conveyance channels flowing with water.  |
| Maintenance and Inspection: | N/A  |

## 5.6 ALLOWABLE NON-STORMWATER DISCHARGE MANAGEMENT

Any changes in construction activities that produce other allowable non-stormwater discharges shall be identified, and the SWPPP shall be amended and the appropriate erosion and sediment control shall be implemented.

The following is a list of allowable non-stormwater discharges:

- Water Used to Control Dust
- Uncontaminated Excavation Dewatering
- Landscape Irrigation
- Fire Hydrant Flushing
- Firefighting
- Potable Water including uncontaminated waterline flushing
- Building Wash-Down provided soaps, solvents and detergents are not used and the external surface does not contain hazardous substances (i.e. paint or caulk containing PCBs)
- Pavement Wash-Down provided spills or leaks of toxic substances have not occurred and where soaps, solvents and detergents are not used.

- Non-Detergent Laden Vehicle Wash Water
- Foundation or Footing Drains
- Uncontaminated air conditioning or compressor condensate

Except for water used to control dust and irrigation water, the above discharges shall not be routed to areas of exposed soil.

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## 6.0 FINAL STABILIZATION

In compliance with the Construction General Permit, soil stabilization measures must be implemented immediately whenever earth-disturbing activities are temporarily or permanently ceased on any portion of the site. Earth-disturbing activities are temporarily ceased when clearing, grading, and excavation within any area of a site that will not include a permanent structure will not resume for a period of 7 or more calendar days, but such activities will resume in the future.

In the context of this provision, “immediately” means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased. The following activities constitute the initiation of stabilization:

- Preparing the soil for vegetative or non-vegetative stabilization;
- applying mulch or other non-vegetative product to the exposed area;
- seeding or planting the exposed area;
- starting any of the activities in listed above on a portion of the area to be stabilized, but not on the entire area; and
- finalizing arrangements to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization.

As soon as practicable, but no later than 7 calendar days after the initiation of soil stabilization measures the following activities are required to be completed:

- For vegetative stabilization, all activities necessary to initially seed or plant the area to be stabilized; and/or
- For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

The following sections detail the management practices proposed to achieve final stabilization of the site.

### 6.1 PERMANENT SEEDING

|              |   |
|--------------|---|
| Description: | Permanent seeding shall be applied immediately after the final design grades are achieved on portions of the site but no later than 7 days after construction activities have permanently ceased. After the entire site is stabilized, any sediment that has accumulated shall be removed and hauled off-site for disposal at an approved landfill. Construction debris, trash and temporary BMPs (including silt fences, material storage areas, sanitary toilets, and inlet protection) shall also be removed and any areas |
|--------------|---|

|                             |  |
|-----------------------------|--|
|                             | disturbed during removal shall be seeded immediately. Seeding shall be performed in accordance to the Site Plans and Landscape Specifications for the project.   |
| Installation Schedule:      | Seeding shall occur at portions of the site where construction activities have permanently ceased shall be stabilized, as soon as possible but no later than 7 days after construction ceases.   |
| Maintenance and Inspection: | All seeded areas shall be inspected weekly during construction activities for failure and after storm events until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area shall be reseeded, fertilized, and mulched immediately. After construction is completed at the site, permanently stabilized areas shall be monitored until final stabilization is reached. |

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## 7.0 INSPECTIONS AND MAINTENANCE

### 7.1 INSPECTIONS

#### 7.1.1 Inspection Schedule and Procedures

Inspections of the site will be performed once every 7 days and within 24 hours of the end of a storm event of 0.25-inch or greater unless otherwise specified. The inspections will verify that all BMPs required are implemented, maintained, and effectively minimizing erosion and preventing stormwater contamination from construction materials.

To determine if a storm event of 0.25 inches or greater has occurred on the site, either a properly maintained rain gauge will be kept on the site or the storm event information will be obtained from a weather station that is representative of the location. If an inspection is conducted because of rainfall measuring 0.25 inches or greater, the applicable rain gauge or weather station readings that triggered the inspection will be noted in the inspection report.

Inspections shall include all areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation. Inspectors shall look for evidence of, or the potential for, pollutants entering the storm water conveyance system. Sedimentation and erosion control measures identified in the SWPPP shall be observed to ensure proper operation. Discharge locations shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream location shall be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.

Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may limit the access of inspection personnel to the areas described in the above paragraph. Inspection of these areas could require that vehicles compromise temporarily or even permanently stabilized areas, cause additional disturbance of soils, and increase the potential for erosion. In these circumstances, controls shall be inspected on the same frequencies as other construction projects, but representative inspections may be performed. For representative inspections, personnel shall inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described above.

The conditions of the controls along each inspected 0.25 mile segment may be considered as representative of the condition of controls along that reach extending from the end of the 0.25 mile segment to either the end of the next 0.25 mile inspected segment, or to the end of the project, whichever occurs first.

For detailed inspection procedures, see Sections 4 and 5.

All inspections shall be coordinated with a representative from the Commonwealth of Massachusetts Highway Department. A Commonwealth of Massachusetts Highway Department representative shall accompany the Inspector when possible, during inspections.

Inspection reports are required to be completed within 24-hours of an inspection. If corrective actions are identified by the Inspector during the inspection, he/she shall notify and submit a copy of the inspection report to the Operator(s). For corrective actions identified, the project managers shall be responsible for initiating the corrective action within 24 hours of the report and completing maintenance as soon as possible or before the next storm event. For any corrective actions requiring a SWPPP amendment or change to a stormwater conveyance or control design, the project manager shall notify the Commonwealth of Massachusetts Highway Department, as soon as possible, before initiating the corrective action.

The business days for the project are **9:00 am to 5:00 pm, Monday through Friday.**

For a copy of the inspection report template, see Appendix E.

## **7.2 REDUCTIONS IN INSPECTION FREQUENCY**

Once an area is stabilized, inspections may be reduced to twice per month for the first month, no more than 14 calendar days apart, then once per month. If construction resumes at the stabilized area the inspection frequency shall increase as outlined in section 7.1.

If earth-disturbing activities are suspended due to frozen conditions inspections can be temporarily suspended until a thaw occurs.

## **7.3 CORRECTIVE ACTION LOG**

The corrective action log describes repairs, replacements, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures. Additionally, remedies of permit violations and clean and proper disposal of spills, releases other deposits should be recorded.

If it is determined the stormwater controls have not been installed as required, or that they are not functioning adequately corrective action is required within 7 calendar days.

The operator will document the completion of the corrective action within 24 hours.

See Appendix F – Corrective Action Log.

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## 8.0 **RECORDKEEPING AND TRAINING**

### 8.1 **RECORDKEEPING**

A copy of the SWPPP, along with all inspection reports and corrective action logs are required to be stored at an accessible location at the site, and shall be made available upon request of the EPA, or state or local agency approving stormwater management plans. If an on-site location is unavailable to keep the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance of your construction site.

The following records shall be kept at the project site (or posted location) and shall be available for inspectors to review. These records shall be retained for a minimum period of at least 3 years after the permit is terminated.

**Date(s) when major grading activities occur:**

See Appendix I – Grading and Stabilization Activities Log

**Date(s) when construction activities temporarily or permanently cease on a portion of the site:**

See Appendix I – Grading and Stabilization Activities Log

**Date(s) when an area is either temporarily or permanently stabilized:**

See Appendix I – Grading and Stabilization Activities Log

### 8.2 **LOG OF CHANGES TO THE SWPPP**

The log of changes to the SWPPP is maintained in Appendix G and includes additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures and update to site plans.

### 8.3 **TRAINING**

Prior to the commencement of earth-disturbing activities or pollutant-generating activities, whichever occurs first, training on the pollution prevention measures outlined in this SWPPP shall be provided to staff and subcontractors.

#### 8.3.1 **Individual(s) Responsible for Training**

Company/Organization: TBD

Name: TBD

### 8.3.2 Description of Training Conducted

Informal training shall be conducted for all staff, including subcontractors, on the site. The training shall be conducted primarily via tailgate sessions and shall focus on avoiding damage to stormwater BMPs and preventing illicit discharges. The tailgate sessions shall be conducted biweekly and shall address the following topics: Erosion Control BMPs, Sediment Control BMPs, Non-Stormwater BMPs, Waste Management and Materials Storage BMPs, and Emergency Procedures specific to the construction site. (See Appendix J – Training Log)

Formal training shall be provided to all staff and subcontractors with specific stormwater responsibilities, such as installing and maintaining BMPs. The formal training shall cover all design and construction specifications for installing the BMPs and proper procedures for maintaining each BMP. Training shall also cover inspection schedules and procedures for personnel whose job duties are related to inspections. Formal training shall occur before any BMPs are installed on the site. (See Appendix J – Training Log)

## 9.0 CERTIFICATION AND NOTIFICATION

### 9.1 SIGNATURE, PLAN REVIEW, AND MAKING PLANS AVAILABLE

A copy of the SWPPP (including a copy of the Construction General Permit, NOI, and acknowledgement letter from EPA shall be retained at the construction site (or other location easily accessible during normal business hours to EPA, a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service) from the date of commencement of construction activities to the date of final stabilization. A copy of the SWPPP shall be available at a central location on-site for the use of all those identified as having responsibilities under the SWPPP. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location shall be posted near the main entrance at the construction site.

### 9.2 NOTICE OF PERMIT COVERAGE

A sign must be posted at a safe, publicly accessible location in close proximity to the construction site detailing the permit coverage. The notice must be located so that it is visible from the public road that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way. At a minimum, the notice must include:

- The NPDES Permit Tracking Number,
- A contact name and phone number for obtaining additional construction site information,
- The Uniform Resource Locator (URL) for the SWPPP (if available), or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional 1 Office at (617) 918-1038,
- The following statement "If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: <https://www.epa.gov/enforcement/report-environmental-violations>."

### 9.3 OWNER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

DRAFT

## 9.4 OPERATOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

DRAFT

DRAFT

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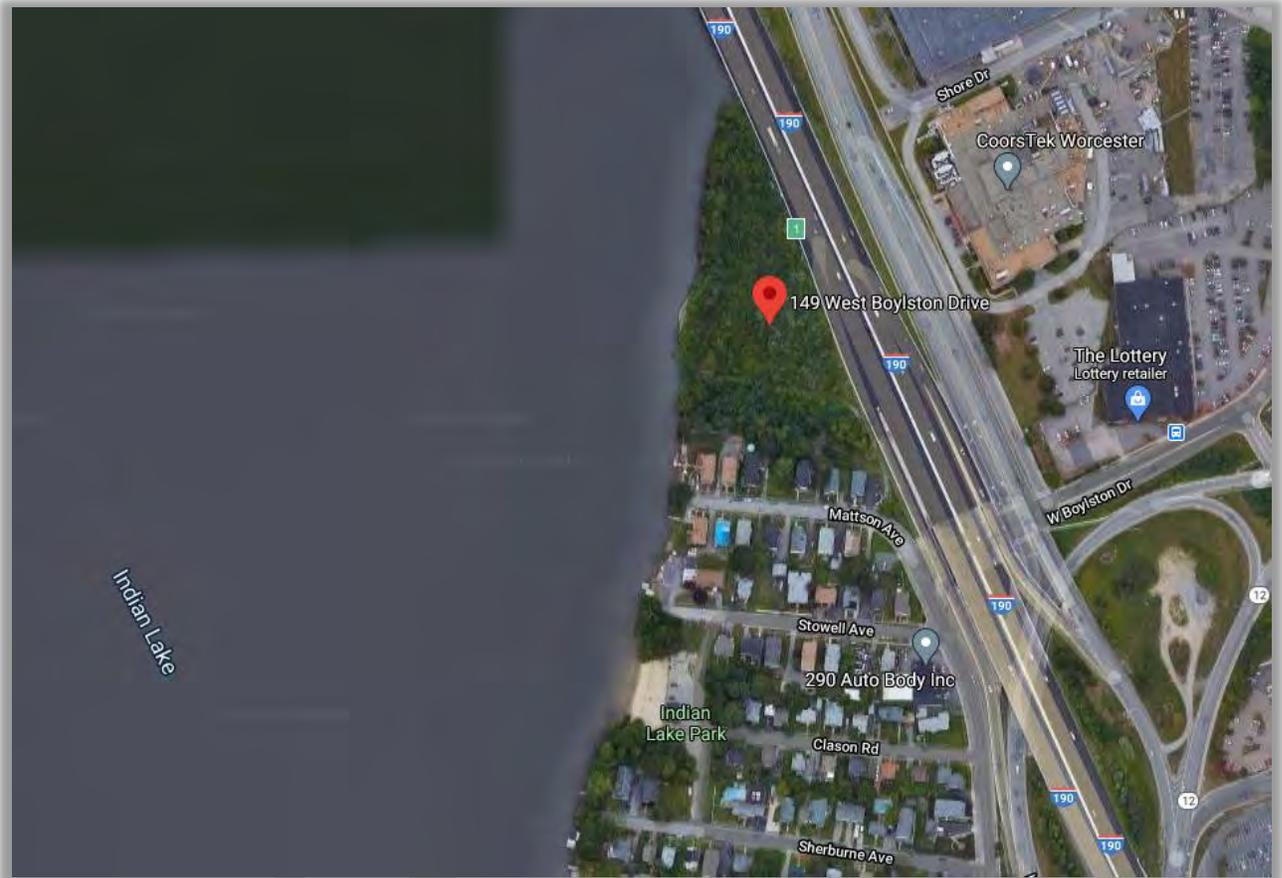
**APPENDICES**

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**Appendix A**

General Location Map



Locus Map.  
Project Location Denoted by Red Pin.

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**Appendix B**

Site Plans

# 149 WEST BOYLSTON DRIVE

## WORCESTER, MASSACHUSETTS (Worcester County)

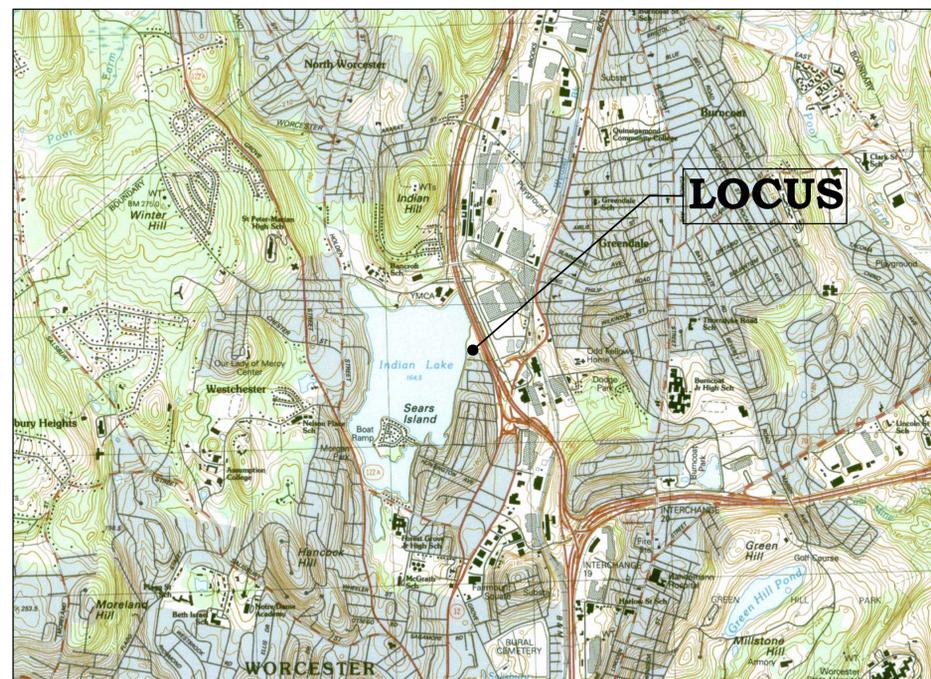
April 28, 2020 - Issued for Permitting

### SHEET INDEX

|             |                          |
|-------------|--------------------------|
|             | Cover Sheet              |
| C1.1        | Notes and Details        |
| PL-1 & PL-2 | Topographic Plan of Land |
| C2.1        | Site Preparation Plan    |
| C2.2        | Landscape Plan           |

### LAND SURVEYOR, CIVIL ENGINEER AND LANDSCAPE ARCHITECT

Beals and Thomas, Inc.  
Reservoir Corporate Center  
144 Turnpike Road  
Southborough, Massachusetts 01772



**Locus Map**  
Scale: 1" = 2000'



**Edward M. Augustus, Jr.**  
*City Manager*

**Paul J. Moosey, P.E.**  
*Commissioner*  
*Department of Public Works & Parks*

**Robert C. Antonelli, Jr.**  
*Assistant Commissioner*

Job No.: 2407.05  
Plan No.: 240705P036A-001

**GENERAL NOTES**

1. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL ALSO PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE ENGINEER AND ARCHITECT AS REQUIRED.
2. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND METHODS.
3. LIMIT OF WORK SHALL BE EROSION CONTROL BARRIERS, LIMIT OF GRADING AND SITE PROPERTY LINES AND/OR AS INDICATED ON DRAWINGS.
4. PORTIONS OF THE ADJACENT ROADWAY, SIDEWALK AND ROADSIDE AREA DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR CONDITIONS PRIOR TO DISTURBANCE.
5. CONTRACTOR TO VERIFY UTILITY STUB LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
6. ANY ALTERATION TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS.
7. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
8. EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
9. FOR DRAWING LEGIBILITY, ALL EXISTING TOPOGRAPHIC FEATURES, EXISTING UTILITIES, PROPERTY BOUNDARIES, EASEMENTS, ETC. MAY NOT BE SHOWN ON ALL DRAWINGS. REFER TO ALL REFERENCED DRAWINGS AND OTHER DRAWINGS IN THIS SET FOR ADDITIONAL INFORMATION.
10. ALL EXCAVATORS OR CONTRACTORS MUST REFER TO 520 CMR 14.00 TO OBTAIN A TRENCH PERMIT PRIOR TO ANY CONSTRUCTION RELATED TRENCHES ON SITE.

**EROSION CONTROL AND SEDIMENTATION NOTES**

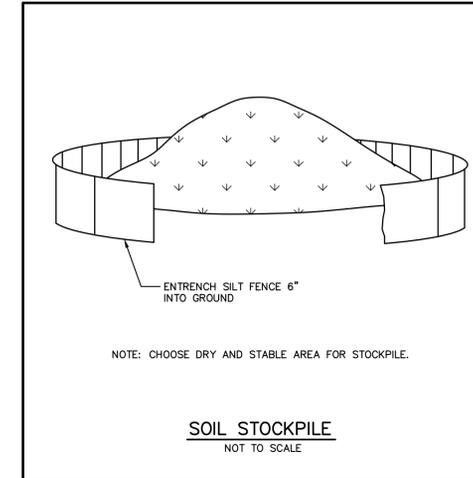
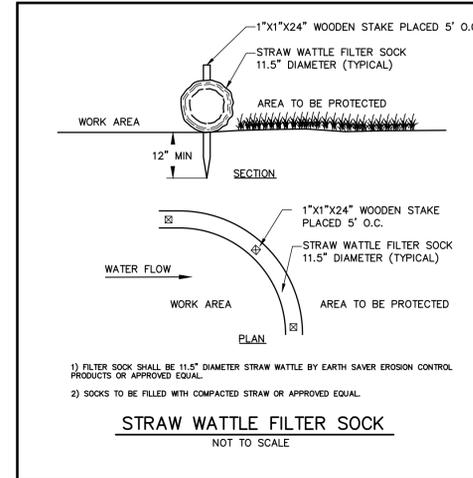
1. AN EROSION CONTROL BARRIER SHALL BE INSTALLED ALONG THE EDGE OF PROPOSED DEVELOPMENT AS INDICATED IN THE PLAN PRIOR TO THE COMMENCEMENT OF DEMOLITION OR CONSTRUCTION OPERATIONS.
2. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES DURING ENTIRE CONSTRUCTION PERIOD.
3. ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEEPED AT THE END OF EACH WORKING DAY.
4. ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN LIMIT OF WORK LINE AND STABILIZED TO PREVENT EROSION.
5. ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF SITE.
6. PROVIDE CRIBBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.
7. SITE ELEMENTS TO REMAIN MUST BE PROTECTED FOR DURATION OF PROJECT.
8. ALL TOPSOIL ENCOUNTERED WITHIN WORK AREA SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR REUSE. EXCESS TOPSOIL SHALL BE DISPOSED OF ON SITE AS DIRECTED BY OWNER. TOPSOIL PILES SHALL REMAIN SEGREGATED FROM EXCAVATED SUBSURFACE SOIL MATERIALS.
9. ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
10. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS.
11. ALL AREAS IDENTIFIED AS CRITICAL AREA SEEDING SHALL BE STABILIZED DURING CONSTRUCTION BY SEEDING WITH ANNUAL RYE GRASS AT THE RATE OF FORTY (40) LBS/ACRE.
12. TEMPORARY DIVERSION DITCHES, PERMANENT DITCHES, CHANNELS, EMBANKMENTS AND ANY DENUDEED SURFACE WHICH WILL BE EXPOSED FOR A PERIOD OF ONE MONTH OR MORE SHALL BE CONSIDERED CRITICAL VEGETATION AREAS. THESE AREAS SHALL BE MULCHED WITH STRAW. MULCH SHALL BE SPREAD UNIFORMLY IN A CONTINUOUS BLANKET OF SUFFICIENT THICKNESS TO COMPLETELY HIDE THE SOIL FROM VIEW.
13. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS DURING CONSTRUCTION TO INSURE THAT CHANNELS, DITCHES AND PIPES ARE CLEAR OF DEBRIS AND THAT THE EROSION CONTROL BARRIERS ARE INTACT.
14. CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY OWNER.
15. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.
16. STRAW BALE CHECK DAMS SHALL BE PROVIDED AROUND ALL EXISTING DRAIN INLETS PRIOR TO CONSTRUCTION ACTIVITIES AND AROUND ALL PROPOSED DRAIN INLETS PRIOR TO PERMANENT PAVEMENT TO CONTROL SILTATION.
17. STRAW BALE CHECK DAMS ARE TO BE PROVIDED ON TWO HUNDRED (200) FOOT SPACINGS WITHIN ALL DRAINAGE SWALES AND DITCHES AND AT UPSTREAM SIDES OF ALL DRAINAGE INLETS.
18. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE WETLANDS.
19. ADDITIONAL STRAW BALES SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.
20. CLEAN AND MAINTAIN EROSION CONTROL BARRIER AS REQUIRED DURING CONSTRUCTION OPERATIONS TO ENSURE ITS CONTINUED FUNCTIONALITY.

**GRADING NOTES**

1. UNDERGROUND UTILITIES WERE COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES, ARE APPROXIMATE AND ASSUMED. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTACT "DIG SAFE" AT 1-888-344-7233 TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES ARE PROPERLY NOTIFIED IN ADVANCE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
3. THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE OWNER AND ENGINEER FOR RESOLUTION.

**PLANTING NOTES**

1. ANY PROPOSED SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITH MATERIAL EQUIVALENT TO THE DESIRED MATERIAL IN OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE. PROPOSED SUBSTITUTIONS WILL ONLY BE CONSIDERED IF SUBMITTED WITH ENUMERATED REASONS WHY SUBSTITUTIONS ARE PROPOSED.
2. VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE OWNER OR HIS REPRESENTATIVE.
3. NO PLANT SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING.
4. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
5. LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE INDICATED.
6. REGRADE STOCKPILE AREA AFTER REMOVAL OF SURPLUS MATERIALS (SEE SITE WORK SPECIFICATIONS). LOAM AND SEED THE DISTURBED AREA.
7. TOPSOIL STRIPPED FROM THE SITE AND PROPERLY STOCKPILED PRIOR TO APPLICATION MAY, UPON APPROVAL OF THE ENGINEER, BE USED FOR PREPARATION OF SEEDED AREAS. IT SHOULD BE FREE OF LARGE (ONE (1) INCH OR GREATER) COBBLES, ROOTS, OLD SOD, TRASH, WOOD OR OTHER CONTAMINANTS AND BE OF A FRIABLE CONSISTENCY AND SUITABLE FOR PLANT GROWTH. TOPSOIL SHALL NOT BE WORKED OR APPLIED IN A MUDDY OR WET CONDITION.
8. TOPSOIL SHALL BE SPREAD TO A MINIMUM DEPTH OF FOUR (4) INCHES AFTER SETTLING ON ALL STRIPPED PLANTED AREAS INCLUDING LAWN AREAS. THE SETTLED TOPSOIL SHALL BE UP TO THE FINISHED GRADE AS CALLED FOR ON THE DRAWINGS. SCARIFY SUBGRADE TO A DEPTH OF TWO (2) INCHES BEFORE PLACING TOPSOIL.
9. REMOVE ALL ROCKS AND DEBRIS FROM SOIL SURFACE AND GRADE TO AN EVEN SURFACE.
10. PLANTING SEED SHALL BE SOWN IN SEASONAL CONDITIONS AS APPROPRIATE FOR GOOD SEED SURVIVAL, OR AT SUCH TIMES AS APPROVED BY THE OWNER. PROVIDE SUFFICIENT HOSE AND SPRINKLER HEADS FOR ADEQUATE WATERING TO MAINTAIN A MOIST SEED BED AT ALL TIMES.
11. AFTER SEEDING, THE SURFACE OF THE SOIL SHALL BE EVENLY RAKED WITH A FINE-TOOTHED RAKE AND THEN ROLLED WITH A HAND ROLLER WEIGHING NOT LESS THAN ONE HUNDRED (100) POUNDS PER FOOT OF WIDTH.
12. WATER THE MULCH AND SEED BEDS THOROUGHLY AND IMMEDIATELY AFTER COMPLETION OF MULCHING AND SEEDING OPERATIONS. SOIL SHALL BE MOISTENED TO A DEPTH OF FOUR (4) INCHES. CONTRACTOR SHALL INSTRUCT OWNERS REPRESENTATIVE ON APPROPRIATE WATERING PROCEDURES DURING INITIAL ESTABLISHMENT.
13. IF CERTAIN OF THE LAWN AREAS DO NOT SHOW A PROMPT "CATCH", THESE SHALL BE RESEEDED AT THE SAME RATE AND IN THE SAME MANNER AS BEFORE IN INTERVALS OF TEN (10) DAYS, WHICH PROCESS SHALL CONTINUE UNTIL A GROWTH OF GRASS IS ESTABLISHED OVER THE ENTIRE AREA.
14. PROTECT NEWLY TOPSOILED, GRADED AND/OR SEEDED AREAS FROM TRAFFIC AND EROSION. KEEP AREAS FREE OF TRASH AND DEBRIS RESULTING FROM LANDSCAPE CONTRACTOR OPERATIONS.
15. PLACE WARNING SIGNS IN SEEDED AREAS AND ERECT NECESSARY BARRICADES TO PREVENT DAMAGE BY PERSONS OR MACHINES AND MAINTAIN THESE FOR AT LEAST THIRTY (30) DAYS.
16. REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO THE SPECIFIED GRADE AND TOLERANCES.
17. THE LANDSCAPE CONTRACTOR IS TO CLEAN UP AND REMOVE ANY DEBRIS FROM THE SITE CAUSED BY THE LANDSCAPE CONTRACTOR.
18. PLANT MATERIAL IS TO BE MAINTAINED BY THE LANDSCAPE CONTRACTOR WHILE THE PROJECT IS UNDERWAY.
19. PERENNIALS, BULBS AND ANNUALS ARE TO BE PLANTED IN A WELL PREPARED BED WHICH SHALL INCLUDE PEAT AND SLOW RELEASE FERTILIZER. BEDS SHALL BE SKIMMED WITH ONE AND ONE-HALF (1-1/2) INCH TO TWO (2) INCH MULCH (INCLUDING GROUND COVERS).
20. ALL TREES ALONG SIDEWALKS SHALL HAVE A MINIMUM SIX (6) FOOT BRANCHING HEIGHT.
21. ALL TREES WITHIN THE FOUR HUNDRED (400) FOOT SIGHT LINE AT THE ENTRY DRIVE SHALL BE INSTALLED AND MAINTAINED WITH A MAXIMUM SIX (6) FOOT BRANCHING HEIGHT. SHRUBS WITHIN THE FOUR HUNDRED (400) FOOT SIGHT LINE AT THE ENTRY DRIVE SHALL BE INSTALLED AND MAINTAINED TO A MAXIMUM HEIGHT OF EIGHTEEN (18) INCHES.
22. LIGHT POLES LOCATED IN PLANTING ISLANDS SHALL BE CENTERED BETWEEN EDGES OF PAVEMENT ON OPPOSITE SIDES OF THE POLE. LIGHT POLES IN PARKING AREAS SHALL BE CENTERED ON THE INTERSECTIONS OF PAINT STRIPES.



**CONSTRUCTION SEQUENCE NOTES:**

1. THE CONSTRUCTION SEQUENCE REQUIREMENTS FOR WORK CONDUCTED IN THE BUFFER ZONES TO WETLAND RESOURCE AREAS SHALL BE USED BY THE CONTRACTOR TO FORM A COMPLETE SCHEDULE FOR THE PROJECT, WHICH SHALL BE COORDINATED WITH THE OWNER, WORCESTER CONSERVATION COMMISSION AND ENGINEER. BEFORE PERFORMING ANY WORK AT THE SITE, THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN TO THE WORCESTER CONSERVATION COMMISSION AND ENGINEER FOR REVIEW. THIS PLAN SHALL DESCRIBE THE PROPOSED SEQUENCE, METHODS, AND TIMING OF THE WORK TO BE PERFORMED ON THE SITE.
2. THE FOLLOWING IS A LIST OF PARAMETERS FOR THE CONTRACTOR TO FOLLOW DURING CONSTRUCTION:
  - A. NOTIFY CITY OF WORCESTER CONSERVATION AGENT PRIOR TO COMMENCEMENT OF WORK AND SCHEDULE/CONDUCT PRE-CONSTRUCTION MEETING.
  - B. DISPLAY DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) PERMIT NUMBER AT CONSTRUCTION SITE.
  - C. INSTALL EROSION CONTROL BARRIERS ACCORDING TO SITE PLANS AND PERFORM WORK ACCORDING TO THE SITE PLANS:
    - CLEAR AND GRUB EXISTING VEGETATION
    - ROUGH GRADE AREA AFTER REMOVAL OF VEGETATION/DEBRIS
    - FINE GRADE TO PREPARE FOR SEEDING
    - HYDROSEED AREA
    - CLEAN UP SITE
  - D. NOTIFY CITY OF WORCESTER CONSERVATION AGENT UPON COMPLETION OF WORK
  - E. REMOVE EROSION CONTROL MEASURES UPON APPROVAL AND CERTIFICATE OF COMPLIANCE FROM CITY OF WORCESTER CONSERVATION COMMISSION.

SOIL CLASSIFICATION: URBAN LAND (EXCAVATED AND FILLED LAND)

PREPARED FOR:

**CITY OF WORCESTER**  
**DEPARTMENT OF PUBLIC WORKS AND PARKS**  
50 SKYLINE DRIVE  
WORCESTER, MASSACHUSETTS



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PREPARED BY:



BEALS AND THOMAS, INC.  
Reservoir Corporate Center  
144 Turnpike Road  
Southborough, Massachusetts 01772-2104  
T 508.366.0560 | www.bealsandthomas.com

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| DES        | DWN                   |
| CHK'D      | APP'D                 |

PROJECT:

**149 WEST BOYLSTON DRIVE**  
WORCESTER, MASSACHUSETTS

SCALE: N/A DATE: APRIL 28, 2020

**NOTES AND DETAILS**

B+T JOB NO.2407.05

B+T PLAN NO. 240705P036A-002

**C1.1**

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PREPARED FOR:

**CITY OF WORCESTER**  
**DEPARTMENT OF PUBLIC WORKS AND PARKS**  
 50 SKYLINE DRIVE  
 WORCESTER, MASSACHUSETTS



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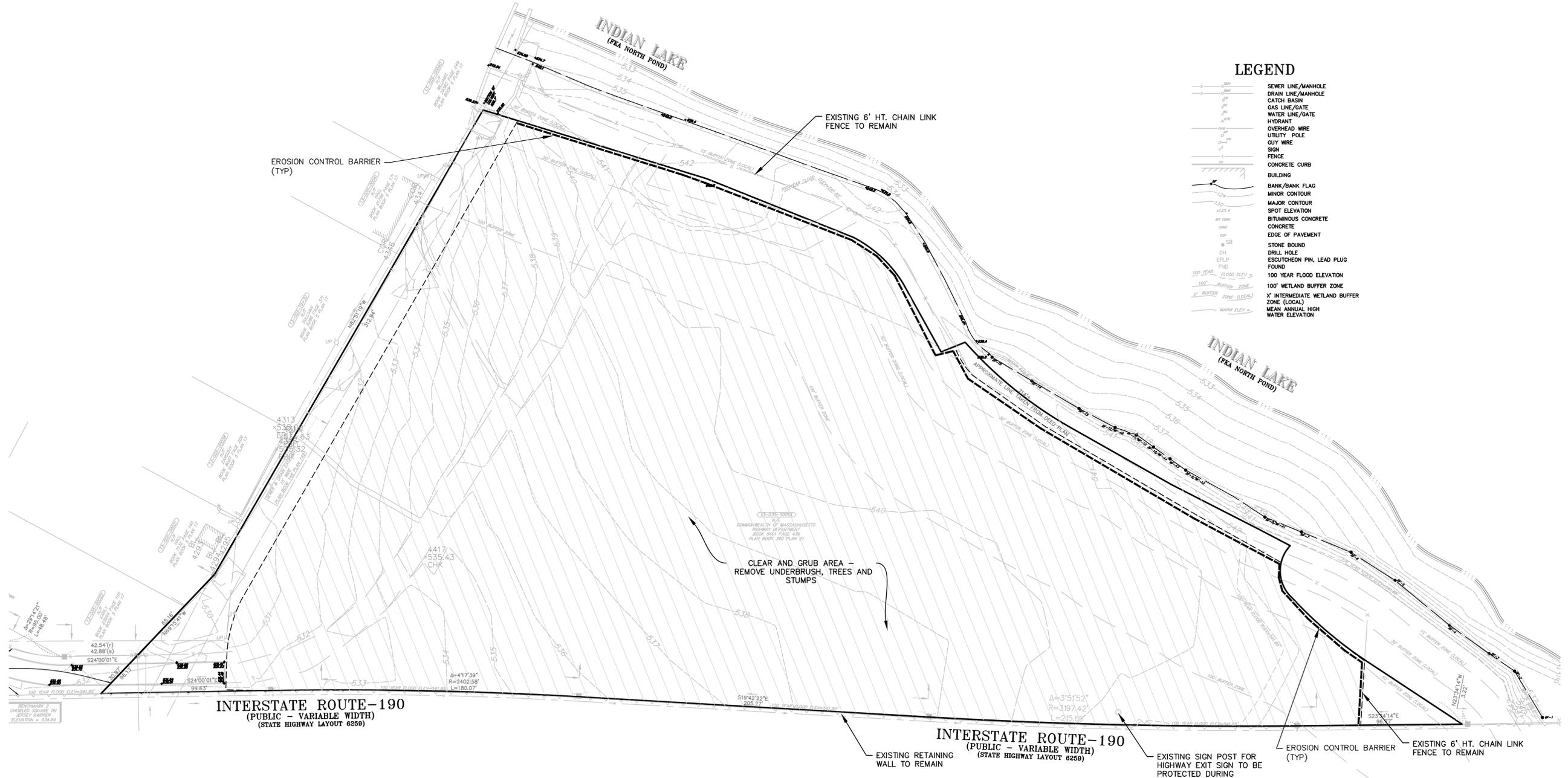
PROJECT:  
**149 WEST BOYLSTON DRIVE**  
 WORCESTER, MASSACHUSETTS

SCALE: 1" = 30' DATE: APRIL 28, 2020  
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**SITE PREPARATION PLAN**

B+T JOB NO.2407.05  
 B+T PLAN NO. 240705P035A-001

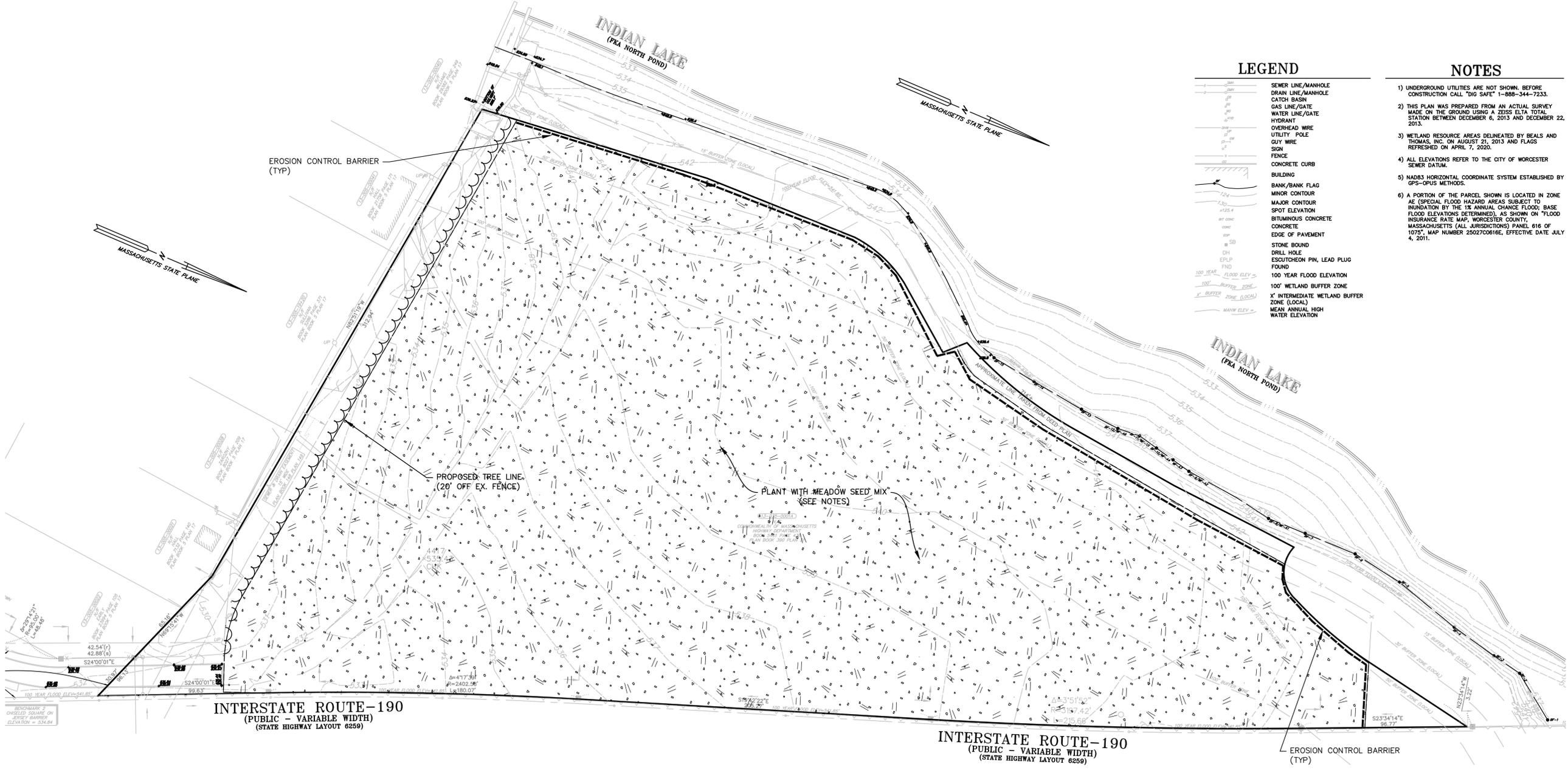
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**LEGEND**

|  |  |
|--|--|
|  | SEWER LINE/MANHOLE                         |
|  | DRAIN LINE/MANHOLE                         |
|  | CATCH BASIN                                |
|  | GAS LINE/GATE                              |
|  | WATER LINE/GATE                            |
|  | HYDRANT                                    |
|  | OVERHEAD WIRE                              |
|  | UTILITY POLE                               |
|  | GUY WIRE                                   |
|  | SIGN                                       |
|  | FENCE                                      |
|  | CONCRETE CURB                              |
|  | BUILDING                                   |
|  | BANK/BANK FLAG                             |
|  | MINOR CONTOUR                              |
|  | MAJOR CONTOUR                              |
|  | SPOT ELEVATION                             |
|  | BITUMINOUS CONCRETE                        |
|  | CONCRETE                                   |
|  | EDGE OF PAVEMENT                           |
|  | STONE BINDING                              |
|  | DRILL HOLE                                 |
|  | ESCUTCHEON PIN, LEAD PLUG                  |
|  | FOUND                                      |
|  | 100 YEAR FLOOD ELEVATION                   |
|  | 100' WETLAND BUFFER ZONE                   |
|  | X INTERMEDIATE WETLAND BUFFER ZONE (LOCAL) |
|  | MEAN ANNUAL HIGH WATER ELEVATION           |

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.  
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**LEGEND**

- SEWER LINE/MANHOLE
- DRAIN LINE/MANHOLE
- CATCH BASIN
- GAS LINE/GATE
- WATER LINE/GATE
- HYDRANT
- OVERHEAD WIRE
- UTILITY POLE
- GUY WIRE
- SIGN
- FENCE
- CONCRETE CURB
- BUILDING
- BANK/BANK FLAG
- MINOR CONTOUR
- MAJOR CONTOUR
- SPOT ELEVATION
- BITUMINOUS CONCRETE
- CONCRETE
- EDGE OF PAVEMENT
- STONE BOUND
- DRILL HOLE
- ESCUTCHEON PIN, LEAD PLUG
- FOUND
- 100 YEAR FLOOD ELEVATION
- 100' WETLAND BUFFER ZONE
- 100' WETLAND BUFFER ZONE (LOCAL)
- MEAN ANNUAL HIGH WATER ELEVATION

**NOTES**

- 1) UNDERGROUND UTILITIES ARE NOT SHOWN. BEFORE CONSTRUCTION CALL "DIG SAFE" 1-888-344-7233.
- 2) THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING A ZEISS ELTA TOTAL STATION BETWEEN DECEMBER 6, 2013 AND DECEMBER 22, 2013.
- 3) WETLAND RESOURCE AREAS DELINEATED BY BEALS AND THOMAS, INC. ON AUGUST 21, 2013 AND FLAGS REFRESHED ON APRIL 7, 2020.
- 4) ALL ELEVATIONS REFER TO THE CITY OF WORCESTER SEWER DATUM.
- 5) NAD83 HORIZONTAL COORDINATE SYSTEM ESTABLISHED BY GPS-OPUS METHODS.
- 6) A PORTION OF THE PARCEL SHOWN IS LOCATED IN ZONE AE (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANGE FLOOD; BASE FLOOD ELEVATIONS DETERMINED), AS SHOWN ON "FLOOD INSURANCE RATE MAP, WORCESTER COUNTY, MASSACHUSETTS (ALL JURISDICTIONS) PANEL 616 OF 1079", MAP NUMBER 25027C0616E, EFFECTIVE DATE JULY 4, 2011.



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PREPARED BY:  
**BEALS + THOMAS**  
 Civil Engineers + Landscape Architects +  
 Land Surveyors + Planners +  
 Environmental Specialists

BEALS AND THOMAS, INC.  
 Reservoir Corporate Center  
 144 Turnpike Road  
 Southborough, Massachusetts 01772-2104  
 T 508.366.0560 | www.bealsandthomas.com

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PROJECT:  
**149 WEST BOYLSTON DRIVE**  
 WORCESTER, MASSACHUSETTS

SCALE: 1" = 30' DATE: APRIL 28, 2020  
 METERS  
 0 5 10 25  
 FEET  
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**LANDSCAPE PLAN**

B+T JOB NO.2407.05  
 B+T PLAN NO. 240705P035A-005  
**C2.2**

New England Conservation/Wildlife Mix from New England Wetland Plants, Inc., Amherst, MA (413) 548-8000  
 Apply: 25 lbs/acre 1 lb/1750 sq ft

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.  
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Soil Map—Worcester County, Massachusetts, Northeastern Part



Soil Map may not be valid at this scale.

Map Scale: 1:1,910 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

4/28/2020 Page 1 of 3

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



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



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

**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: Worcester County, Massachusetts, Northeastern Part  
 Survey Area Data: Version 14, Sep 13, 2019

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

Date(s) aerial images were photographed: Jul 26, 2019—Oct 5, 2019

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 |
|------------------------------------|---|--------------|----------------|
| 1                                  | Water   | 1.4          | 18.8%          |
| 602                                | Urban land  | 4.3          | 58.3%          |
| 622C                               | Paxton-Urban land complex, 8 to 15 percent slopes | 1.7          | 22.9%          |
| <b>Totals for Area of Interest</b> |   | <b>7.4</b>   | <b>100.0%</b>  |

## Appendix C

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### Construction General Permit

[https://www.epa.gov/sites/production/files/2019-06/documents/final\\_2017\\_cgp\\_current\\_as\\_of\\_6-6-2019.pdf](https://www.epa.gov/sites/production/files/2019-06/documents/final_2017_cgp_current_as_of_6-6-2019.pdf)

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**Appendix D**

NOI and Acknowledgement Letter from EPA

## Appendix E

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### Inspection Reports

Inspections under this SWPPP shall be conducted in accordance with each installed BMPs recommended maintenance requirements. This inspection frequency may be reduced to at least once every month if: a) the entire site is temporarily stabilized, b) runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or the ground is frozen), or c) construction is occurring during seasonal arid periods in arid areas and semi-arid areas. If an inspection report is filed according to this modified schedule it shall be noted at the end of the report under the “NOTES” section.

The following pages should be copied and completed for each inspection. All inspection forms should be compiled in a binder to prove compliance with this SWPPP.



**Site-specific BMPs**

- *Number the structural and non-structural BMPs identified in your SWPPP on your site map and list them below (add as many BMPs as necessary). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required BMPs at your site.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

| BMP | BMP Installed?   | BMP Maintenance Required?                                | Corrective Action Needed and Notes |
|-----|--|--|------------------------------------|
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
|     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |

**Overall Site Issues**

*Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.*

| BMP/activity   | Implemented?   | Maintenance Required?                                    | Corrective Action Needed and Notes |
|--|--|--|------------------------------------|
| Are all slopes and disturbed areas not actively being worked properly stabilized?<br>*Note: Soil stockpiles not in use for a period of 14 days or more must be temporarily stabilized. | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?  | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?   | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Are discharge points and receiving waters free of any sediment deposits?   | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Are storm drain inlets properly protected?   | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Is the construction exit preventing sediment from being tracked into the street?   | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Is trash/litter from work areas collected and placed in covered dumpsters?   | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?  | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?   | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |

| BMP/activity   | Implemented?   | Maintenance Required?                                    | Corrective Action Needed and Notes |
|--|--|--|------------------------------------|
| Are materials that are potential stormwater contaminants stored inside or under cover? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?      | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |
| Are outfalls free of debris?   | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |                                    |

**Non-Compliance**

|   |
|---|
| Describe any incidents of non-compliance not described above: |
|---|

**CERTIFICATION STATEMENT**

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

**Print name and title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



**BEALS + THOMAS**

# SWPPP PHOTOGRAPHIC LOG

|                     |              |                        |                    |
|---------------------|--------------|------------------------|--------------------|
| <b>Client Name:</b> |              | <b>Photo Location:</b> | <b>Project No:</b> |
| <b>Photo No: 1</b>  | <b>Date:</b> |                        |                    |
| <b>Description:</b> |              |                        |                    |
| <b>Client Name:</b> |              | <b>Photo Location:</b> | <b>Project No:</b> |
| <b>Photo No: 2</b>  | <b>Date:</b> |                        |                    |
| <b>Description:</b> |              |                        |                    |

|                     |              |                        |                    |
|---------------------|--------------|------------------------|--------------------|
| <b>Client Name:</b> |              | <b>Photo Location:</b> | <b>Project No:</b> |
| <b>Photo No: 3</b>  | <b>Date:</b> |                        |                    |
| <b>Description:</b> |              |                        |                    |
| <b>Client Name:</b> |              | <b>Photo Location:</b> | <b>Project No:</b> |
| <b>Photo No: 4</b>  | <b>Date:</b> |                        |                    |
| <b>Description:</b> |              |                        |                    |

|                     |              |                        |                    |
|---------------------|--------------|------------------------|--------------------|
| <b>Client Name:</b> |              | <b>Photo Location:</b> | <b>Project No:</b> |
| <b>Photo No: 5</b>  | <b>Date:</b> |                        |                    |
| <b>Description:</b> |              |                        |                    |
| <b>Client Name:</b> |              | <b>Photo Location:</b> | <b>Project No:</b> |
| <b>Photo No: 6</b>  | <b>Date:</b> |                        |                    |
| <b>Description:</b> |              |                        |                    |

|                     |              |                        |                    |
|---------------------|--------------|------------------------|--------------------|
| <b>Client Name:</b> |              | <b>Photo Location:</b> | <b>Project No:</b> |
| <b>Photo No: 7</b>  | <b>Date:</b> |                        |                    |
| <b>Description:</b> |              |                        |                    |
| <b>Client Name:</b> |              | <b>Photo Location:</b> | <b>Project No:</b> |
| <b>Photo No: 8</b>  | <b>Date:</b> |                        |                    |
| <b>Description:</b> |              |                        |                    |

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**Appendix F**

Corrective Action Log



## Appendix G

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### SWPPP Amendment Log

The SWPPP, including the site plans, shall be amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants to the waters of the United States that has not been previously addressed in the SWPPP.

The SWPPP shall be amended if during inspections or investigations by site staff, or by local, state, tribal or federal officials, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the construction site.

Based on the results of an inspection, the SWPPP shall be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within seven (7) calendar days following the inspection. Implementation of these additional or modified BMPs shall be accomplished as described in Subpart 3.6B of the Construction General Permit (located in Appendix C).



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**Appendix H**

Subcontractor Certifications/Agreements

**Sample Subcontractor Certifications/Agreements**

**SUBCONTRACTOR CERTIFICATION  
STORMWATER POLLUTION PREVENTION PLAN**

Project Number: \_\_\_\_\_

Project Title: \_\_\_\_\_

Operator(s): \_\_\_\_\_

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

**I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.**

This certification is hereby signed in reference to the above named project:

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Type of construction service to be provided: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix I

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### Grading and Stabilization Activities Log

Site Plans in Appendix B should be annotated to indicate areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.



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**Appendix J**

Training Log



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**Appendix K**

Delegation of Authority

## Sample Delegation of Authority Form

### Delegation of Authority

I, \_\_\_\_\_ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the \_\_\_\_\_ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (name of person or position)  
\_\_\_\_\_ (company)  
\_\_\_\_\_ (address)  
\_\_\_\_\_ (city, state, zip)  
\_\_\_\_\_ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix I.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Name:** \_\_\_\_\_

**Company:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

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**Appendix L**

Endangered Species Documentation



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5094  
Phone: (603) 223-2541 Fax: (603) 223-0104  
<http://www.fws.gov/newengland>

In Reply Refer To:

August 17, 2020

Consultation Code: 05E1NE00-2020-SLI-3689

Event Code: 05E1NE00-2020-E-11318

Project Name: 149 West Boylston Drive

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**New England Ecological Services Field Office**

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

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## Project Summary

Consultation Code: 05E1NE00-2020-SLI-3689

Event Code: 05E1NE00-2020-E-11318

Project Name: 149 West Boylston Drive

Project Type: WATER QUALITY MODIFICATION

Project Description: Clearing and planting.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.300771815903246N71.8064692386319W>



Counties: Worcester, MA

---

## Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

| NAME   | STATUS     |
|--|------------|
| Northern Long-eared Bat <i>Myotis septentrionalis</i><br>No critical habitat has been designated for this species.<br>Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a> | Threatened |

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5094  
Phone: (603) 223-2541 Fax: (603) 223-0104  
<http://www.fws.gov/newengland>

In Reply Refer To:

August 19, 2020

Consultation Code: 05E1NE00-2020-TA-3689

Event Code: 05E1NE00-2020-E-11373

Project Name: 149 West Boylston Drive

Subject: Verification letter for the '149 West Boylston Drive' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Robert Kennedy:

The U.S. Fish and Wildlife Service (Service) received on August 19, 2020 your effects determination for the '149 West Boylston Drive' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"<sup>[1]</sup> prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

---

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

149 West Boylston Drive

**2. Description**

The following description was provided for the project '149 West Boylston Drive':

Clearing and planting.

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.300771815903246N71.8064692386319W>

**Determination Key Result**

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

**Determination Key Description: Northern Long-eared Bat 4(d) Rule**

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

---

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

## Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

## Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?  
Yes
2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")  
No
3. Will your activity purposefully **Take** northern long-eared bats?  
No
4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?  
**Automatically answered**  
No
5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at [www.fws.gov/midwest/angered/mammals/nleb/nhisites.html](http://www.fws.gov/midwest/angered/mammals/nleb/nhisites.html).

Yes

---

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

*No*

7. Will the action involve Tree Removal?

*Yes*

8. Will the action only remove hazardous trees for the protection of human life or property?

*No*

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

*No*

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

*No*

---

## Project Questionnaire

**If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.**

1. Estimated total acres of forest conversion:

0

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

**If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.**

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

**If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.**

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

**If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.**

---

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?  
0