



July 30, 2020

Ref: 12970.00/14424.00

Mr. David Mercer, Chair  
Hudson Conservation Commission  
78 Main Street  
Hudson, MA 01749

**Re: Hudson Conservation Commission List of Additional Items 7/27/20 – Applicants' Response  
Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project**

Dear Members of the Hudson Conservation Commission,

The Applicants, NSTAR d/b/a Eversource Energy ("Eversource") and the Massachusetts Department of Conservation and Recreation ("DCR"), are providing this response to the list of items identified verbally at the July 16, 2020 public hearing and provided in writing by Pam Helinek, Conservation Agent, in an email dated July 27, 2020. Responses are presented below. Each Hudson Conservation Commission item is in bold text and the Applicants' response is provided in plain text.

**1. Specifications for restoration seed mix**

The specifications for the restoration seed mix that includes woody species are located on Sheet 131 of the Eversource NOI plans and were submitted to the Commission in the supplemental submission filed on March 13, 2020.

**2. Identify source for pesticide-free seed mix**

The exact sourcing of the seed mix has not been determined. However, as discussed during the July 16, 2020 hearing, VHB has contacted two nurseries, New England Wetland Plants, Inc. and Pinelands Plants, to discuss the availability of a pesticide-free seed mix. Both nurseries stated that their seeds are not treated with pesticides. Prior to sourcing a seed mix for the Project, the source company will be asked to confirm that it does not treat its seeds with pesticides.

**3. Reconsideration of addition of shrubs/trees to planting plan and additional aquatic plugs near Fort Meadow Bridge**

This was addressed in the supplemental submission filed on July 24, 2020 in response to WDA Group's peer review comment letter. In summary, the Applicants completed an evaluation to identify where woody plantings could be added to supplement the restoration plan. Five areas along the Project alignment were identified for providing woody plantings, which would be in addition to the proposed use of the combined herbaceous/woody seed mix application. The Project Plans were

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revised to identify these locations, including details prescribing the species, spacing, and number of plantings of each species proposed for each of the five areas. These revised plans, dated July 24, 2020, were included as an attachment to the supplemental submission filed on July 24, 2020 in response to WDA Group's comments.

#### **4. Specifications for thermal backfill and fluidizing agents**

The specifications for the fluidized thermal backfill are attached.

#### **5. Details of construction sequencing**

The general construction sequence is provided in Section 3 of the NOI. The project will be constructed with work occurring in several segments (e.g., in areas extending from road crossing to road crossing) at the same time using multiple crews working multiple segments and, in some segments, there may be multiple crews working in subsections.

The Project will also adhere to all applicable time of year restrictions (TOYRs). Within Hudson, the TOYRs include whip-poor-will breeding habitat and vernal pools. The whip-poor-will TOYR does not allow construction from May 1 to July 31. The vernal pool TOYR does not allow construction within 450 feet of vernal pools from March 1 to June 1 but allows construction vehicles to traverse these areas. In addition to the TOYR, sweeps by an Environmental Monitor who has been specially trained on vernal pool species will be conducted during the active migratory season prior to vehicles traveling down the Project Site within vernal pool buffers. Figures showing the TOYRs along the Project Site are attached.

The following bullets outline the sequencing to be employed during Phase 1 of the Project:

- › Limits of work established via land survey with clear visible markings or fencing placed in the field;
- › Environmental specialist will work with vegetation removal contractor to identify any dead snags that need to be removed and saved. Vegetation will then be removed with no grubbing of any root systems at this time;
- › Next, all erosion control will be installed and inspected as appropriate, and then rails and ties will be removed;
- › Then all grading will be completed including stormwater features and the 14-foot wide gravel base access road will be established. In this step also will have dead standing snags re-installed to coincide with grading. If the segment includes bridge replacement or rehabilitation the work at the bridges will take place during this step of Phase 1;
- › Immediately following, the underground transmission line will be installed with manholes installed first and then the duct bank between manholes
- › Immediately following installation, disturbed areas will be loamed and seeded and/or planted



A detailed construction schedule by segment will be developed once a contractor is brought onto the Project. The Applicants can agree to a special condition in the Order of Conditions requiring them to provide the construction schedule prior to construction.

#### **6. Confirmation of construction schedule/work hours**

The Project will adhere to Condition J of the EFSB Decision dated December 18, 2019, which states the following with regard to construction schedule/work hours:

The Company shall limit construction of the New Line in residential areas to Monday through Friday from 7:00 a.m. to 6:00 p.m., with the exception of in-street work as requested by the Town of Hudson. Work requiring longer continuous duration than normal construction hours allow, such as cable splicing, is exempted from this condition. The Siting Board will allow Saturday work at the Sudbury and Hudson Substations, but it shall be limited to large equipment deliveries and to quiet assembly and testing activities. Should the Company need to extend construction work beyond the above-noted hours and days, with the exception of emergency circumstances on a given day necessitating extended hours, the Company shall seek written permission from the relevant municipal authority before the commencement of such work, and to provide the Siting Board with a copy of such permission. If the Company and municipal officials are not able to agree on whether such extended construction hours should occur, the Company may request prior authorization from the Siting Board and shall provide the relevant municipality with a copy of any such request.

#### **7. Environmental Monitor qualifications**

The environmental monitoring team consists of individuals with the range of qualifications necessary to ensure that the Project is constructed in accordance with all permit conditions. For example, a qualified biologist with the appropriate educational background and experience will be responsible for conducting turtle sweeps and ensuring that the syncopated silt fence is correctly installed within the vicinity of vernal pools.

#### **8. Final soil and groundwater management plan**

The soil and groundwater management plan ("SGMP") for each project is site-specific and is a living document that is updated during construction as necessary. The SGMP for this Project will not be completed until a contractor is selected. However, a draft table of contents for the SGMP that will be developed for this Project is attached to indicate the type of information that is typically provided in the SGMP. In addition, the Applicants can agree to a special condition in the Order of Conditions requiring them to provide the SGMP to the Commission prior to the start of construction.

#### **9. Detailed plan for soil relocations**

Approximately 4,994 cubic yards of soil will be reused within the limits of the Project in Hudson, and approximately 13,327 cubic yards of excess soil will be exported from the Project Site in Hudson for



off-site management. The attached figures illustrate cut and fill locations along the Project Site alignment in Hudson.

Should you have any questions concerning this supplemental submission or require additional information, please contact Katie Kinsella at 617.607.2157 or [kkinsella@vhab.com](mailto:kkinsella@vhab.com) or Gene Crouch at 617.607.2783 or [gcrouch@vhab.com](mailto:gcrouch@vhab.com).

Sincerely,

Two handwritten signatures in blue ink. The first signature is for Katie Kinsella and the second is for Gene Crouch.

Katie Kinsella and Gene Crouch

CC: Denise Bartone – Eversource  
Paul Jahnige - DCR  
MassDEP – Central Regional Office

Attachments:

- Fluidized Thermal Backfill Specifications
- SGMP Draft Table of Contents
- TOYR Figures
- Hudson Cut and Fill Figures



Notes (continued):

15. Thermal concrete for pipe encasement shall be 2500 psi minimum strength and comparable to the following (provided as reference only):

Cement:	91 lbs/yd <sup>3</sup>
Fly Ash:	272 lbs/yd <sup>3</sup>
Sand:	1490 lbs/yd <sup>3</sup>
Gravel:	1789 lbs/yd <sup>3</sup> (3/4")
Water:	38.6 gal/yd <sup>3</sup>
Compressive Strength:	28 Day = 2500 psi
Slump:	6"-8"

The above weights are based on the use of Atlantic Type II cement, Weber-McNeil Fly Ash, and Ossipee fine and coarse aggregates. A blend of 60% (3/4) and 40% (Pea) will be used to produce a 3/4" gravel meeting the requirements of ASTM C33 size 67 (3/4" gravel).

The thermal resistivity shall be no higher than 70°C-cm/W in totally dry condition (0% moisture content) and no higher than 60°C-cm/W at "critical moisture content".

16. At concrete construction joints, face of hardened concrete shall be coated with construction joint adhesive "Sikadur 32" (Sika Chemical Corp.) or equivalent. Application per the manufacturer's instructions.
17. The thermal backfill shall be fluidized thermal backfill (FTB). The thermal resistivity shall be no higher than 100°C-cm/W in totally dry condition (0% moisture content) and no higher than 65°C-cm/W at "critical moisture content".

FTB for the trench shall be comparable to the following (provided as reference only):

Type I/II Cement:	ASTM C-150	25 lbs/yd <sup>3</sup>
Type F Fly Ash:	ASTM C-150	315 lbs/yd <sup>3</sup>
3/8" Coarse Aggregate:	ASTM C-33	1620 lbs/yd <sup>3</sup>
Fine Aggregate (Sand):	ASTM C-33	1550 lbs/yd <sup>3</sup>
Water:	ASTM C-1602	390 lbs/yd <sup>3</sup>
Compressive Strength:		28 Day = ~200 psi
Slump:		7"
Air Content:		1-2%
W/C + P Ratio		1.17

Soil boring samples taken during preliminary subsurface investigation work shall be submitted to Geotherm USA LLC for a thermal analysis. Geotherm shall use the thermal characteristics of the native materials to design the fluidized thermal backfill mix comprised of locally sourced materials to accomplish the heat dissipation factor needed to achieve the required line ampacity.

1	10/4/17	Duct Bank Update
0	12/31/14	Issued
Rev.	Date	Description

# SUDBURY-HUDSON TRANSMISSION RELIABILITY AND MASS CENTRAL RAIL TRAIL PROJECT

## SOIL AND GROUNDWATER MANAGEMENT PLAN

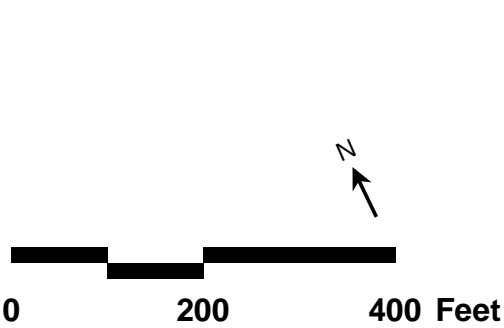
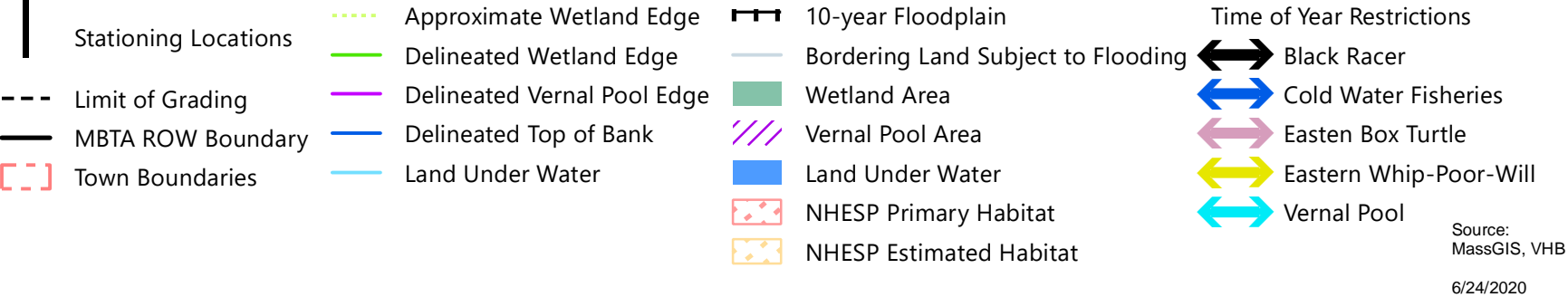
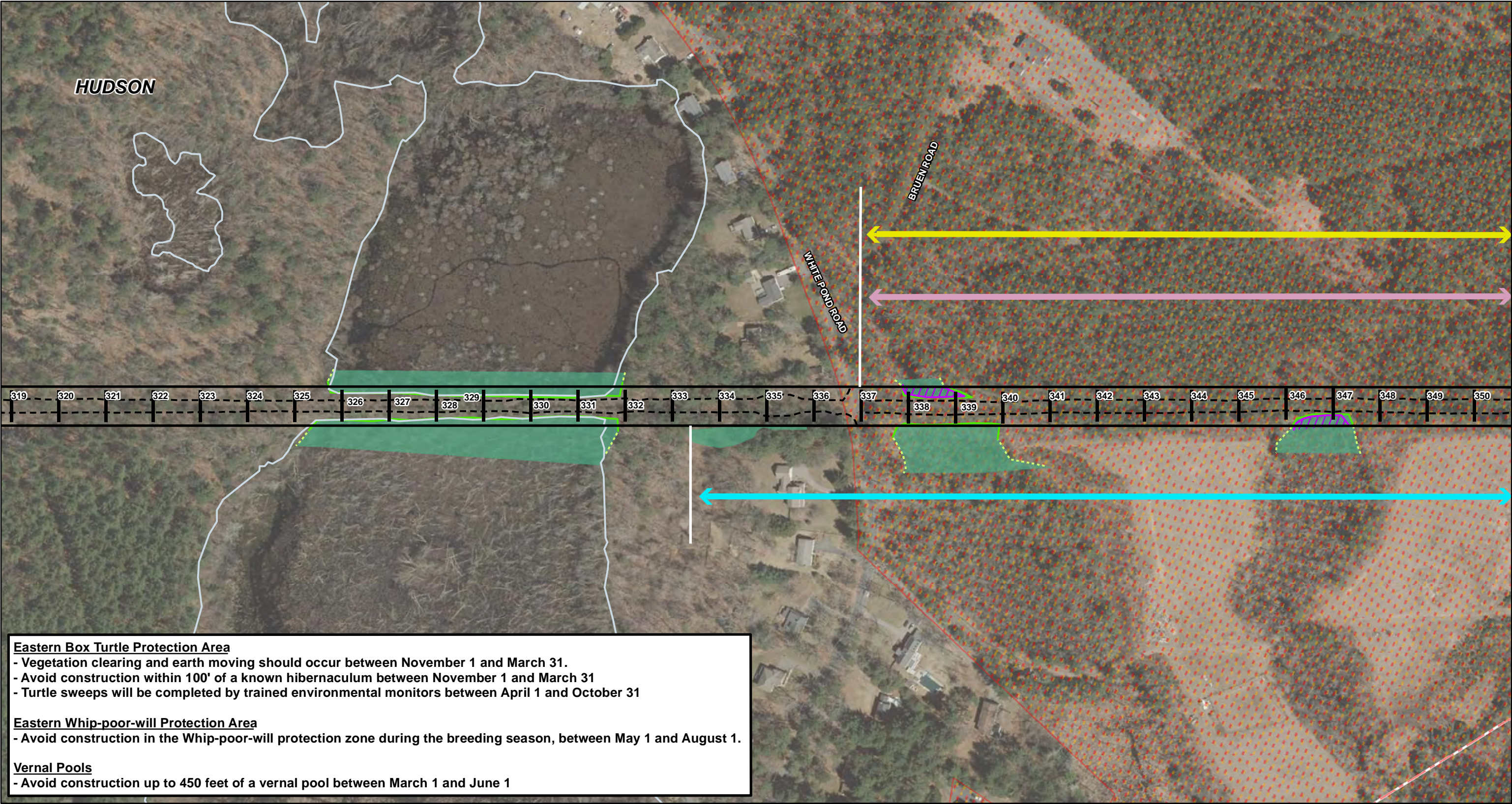
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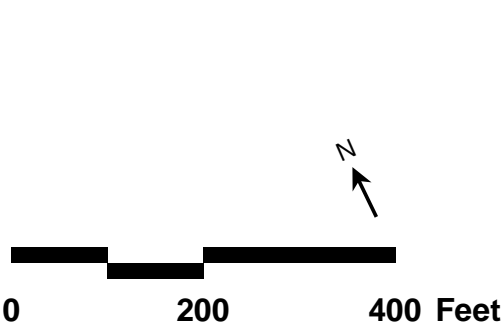
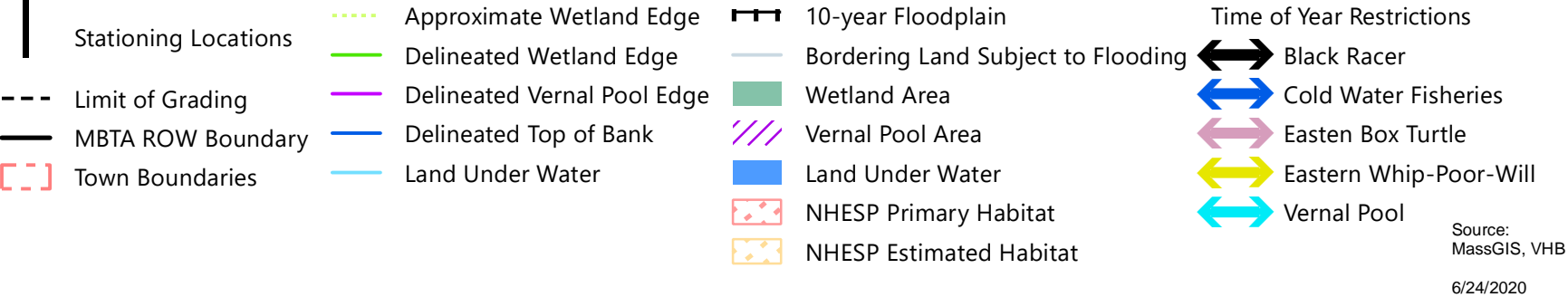
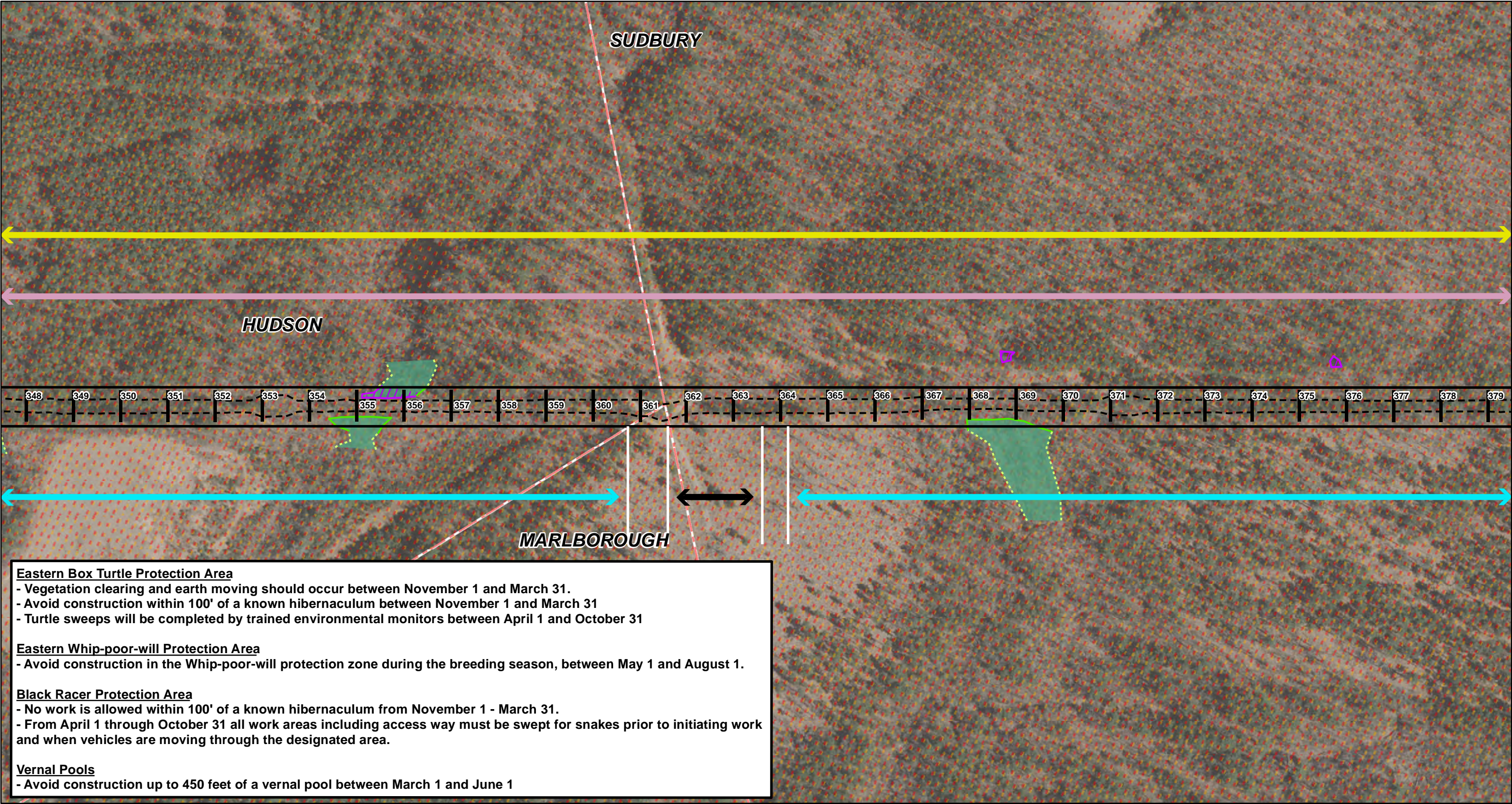
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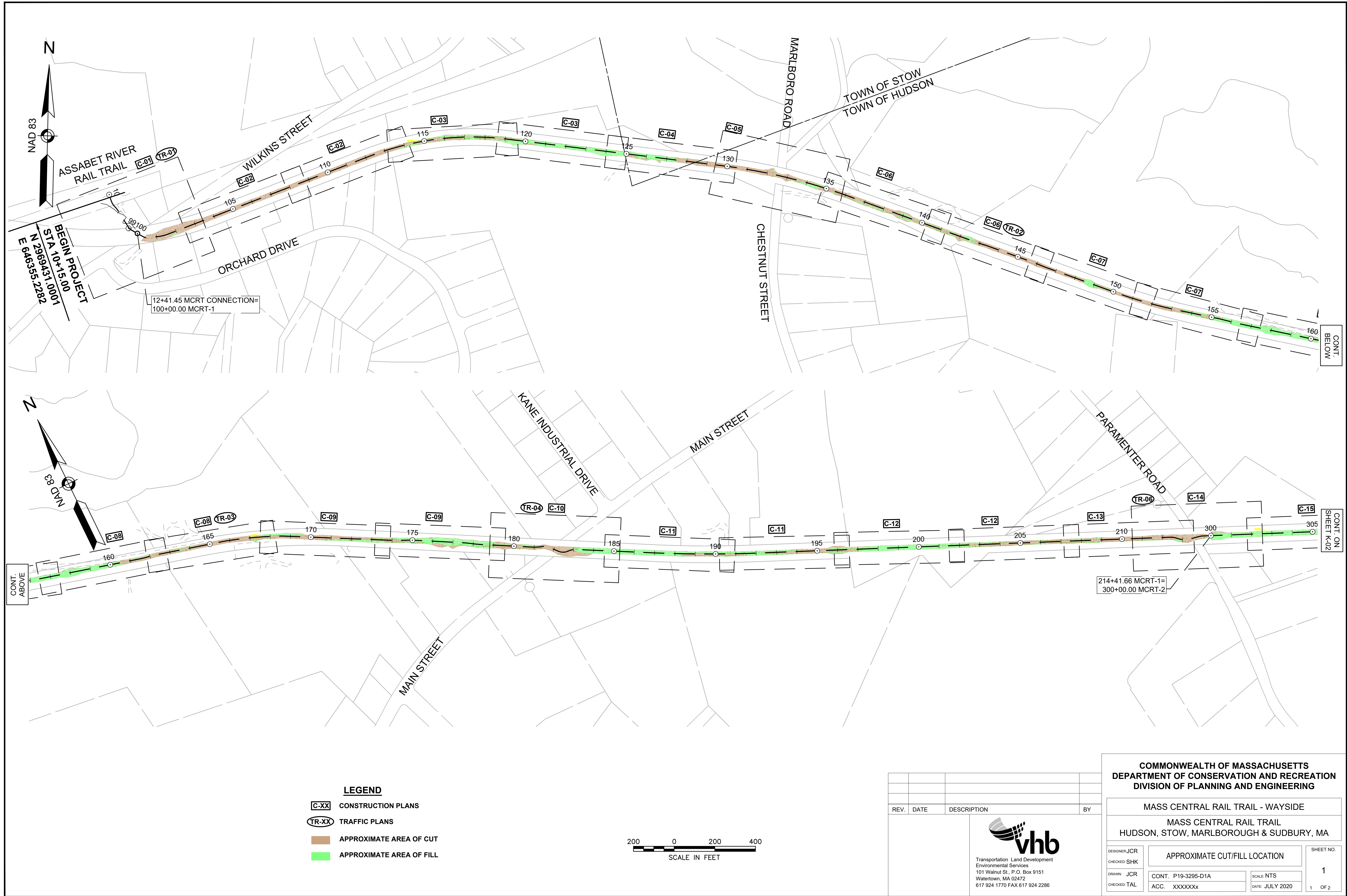












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- C-XX** CONSTRUCTION PLANS
- TR-XX** TRAFFIC PLANS
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- APPROXIMATE AREA OF FILL



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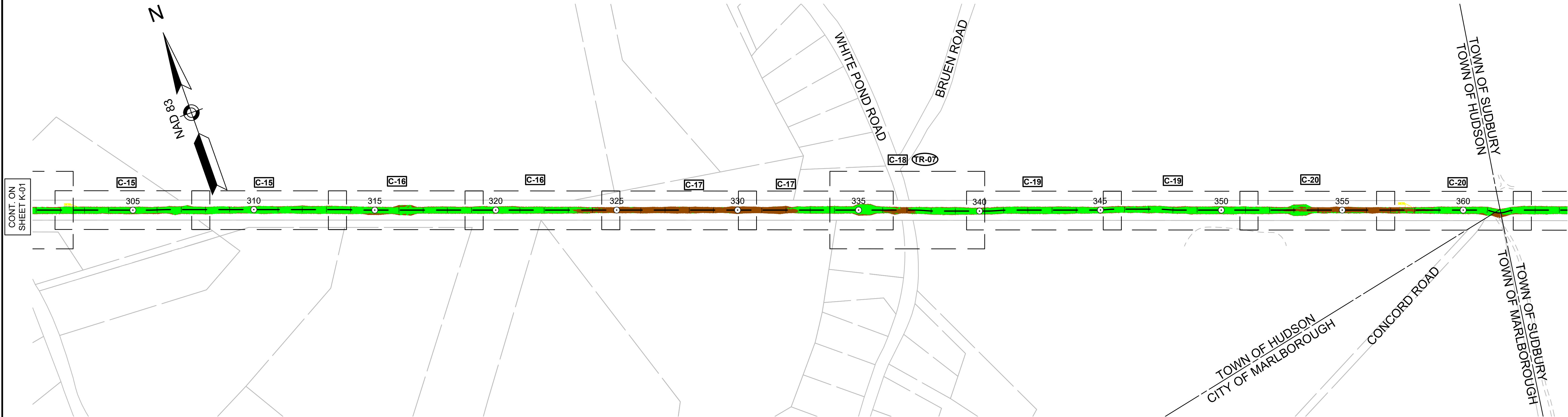
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**MASS CENTRAL RAIL TRAIL - WAYSIDE**

**MASS CENTRAL RAIL TRAIL**  
**HUDSON, STOW, MARLBOROUGH & SUDBURY, MA**

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