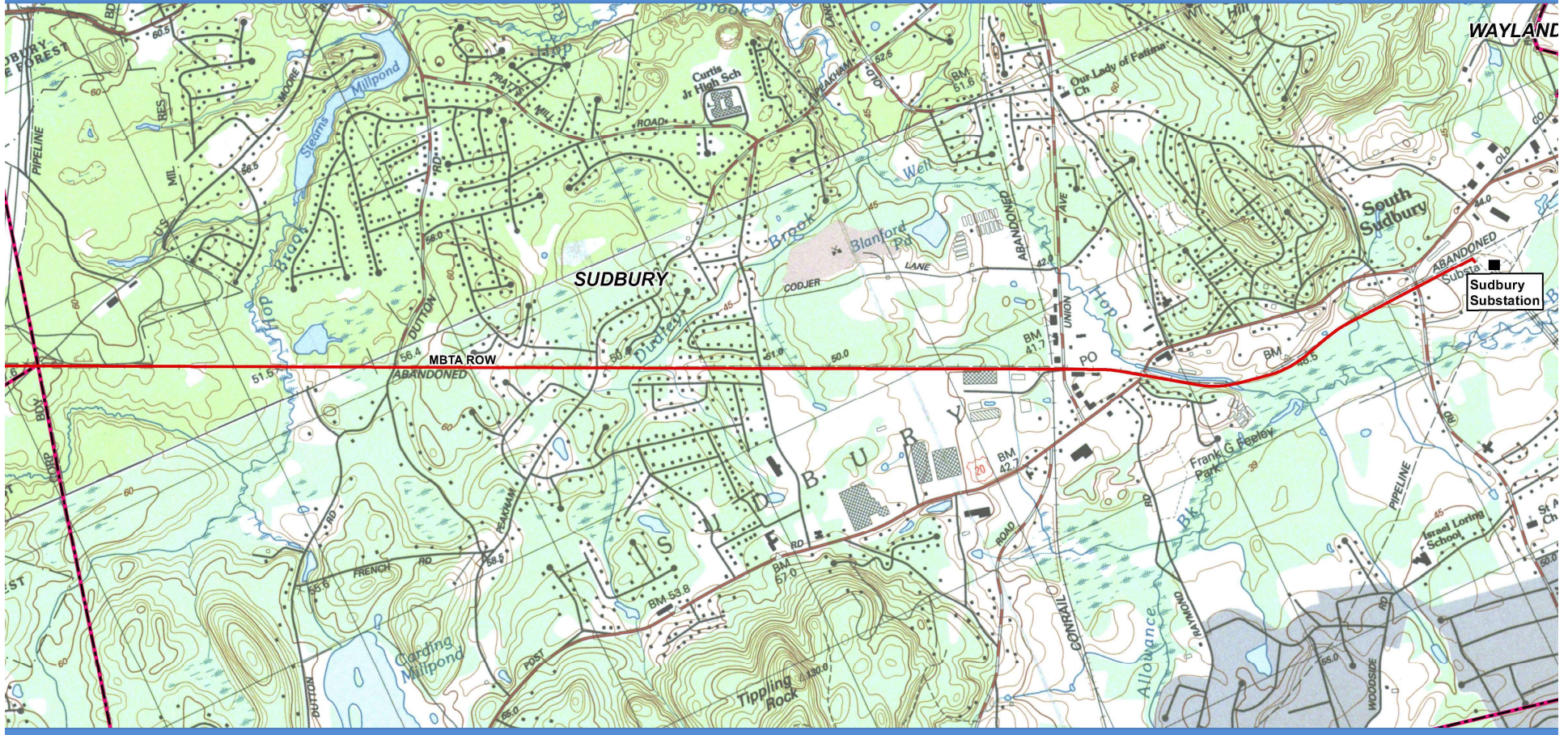


# Sudbury-Hudson Transmission Reliability and Mass. Central Rail Trail Project

**EVERSOURCE**  
ENERGY

Sudbury Earth Removal Board Hearing  
April 26, 2021

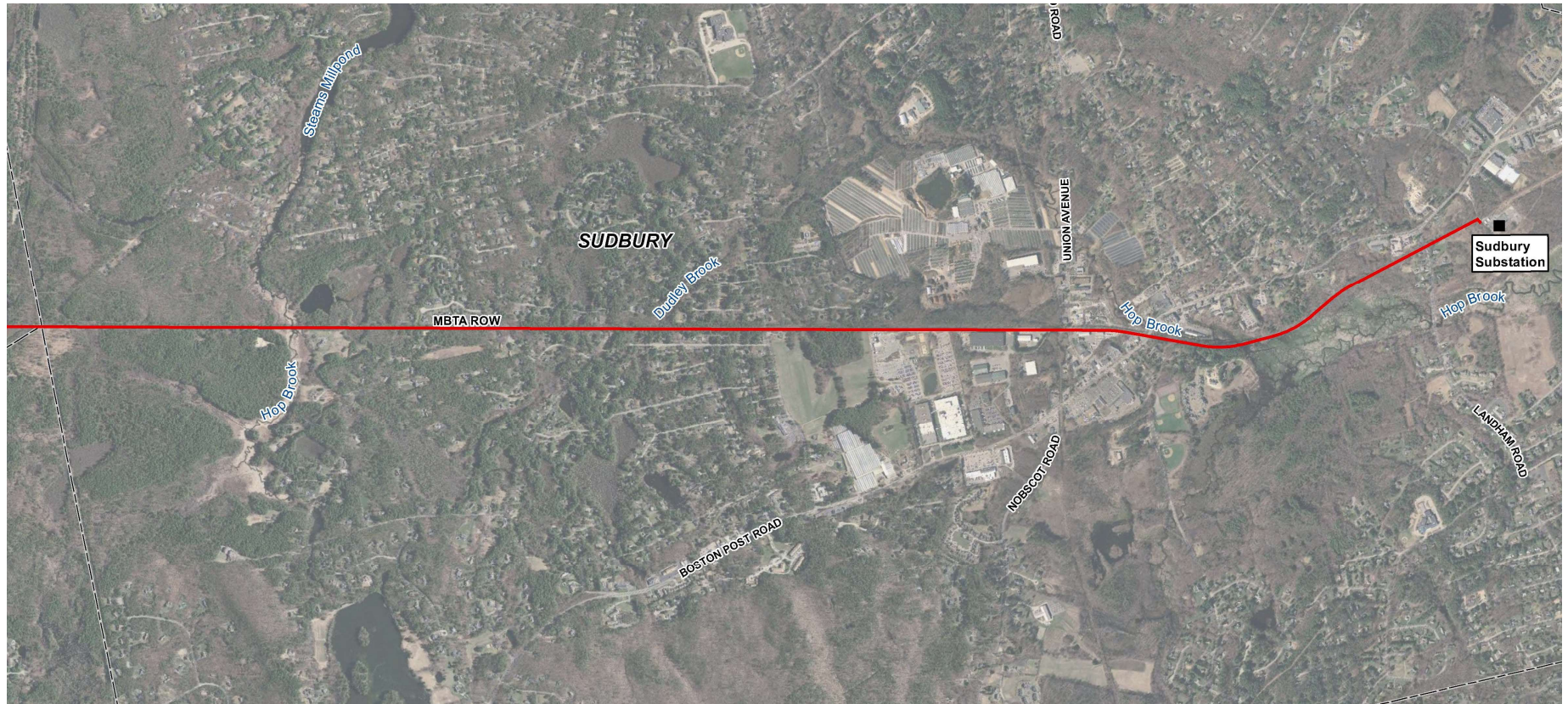


## Project Overview

- Joint Project
  - Eversource Sudbury to Hudson Transmission Reliability Project
  - Massachusetts Department of Conservation and Recreation Mass Central Rail Trail (“MCRT”)
- Proposed rail trail with a buried transmission line in the same former rail corridor
  - Two compatible uses in a single existing former rail corridor
- Entire Project in Sudbury, Marlborough, Stow, and Hudson
  - Approximately 9 miles long
  - The Project within Sudbury is 4.3 miles long
- Phased construction sequence

- Eversource is seeking an Earth Removal Permit
  - Town of Sudbury's General Bylaws Article V(A) – Removal of Earth
- Project meets intent/requirements of the Bylaw
  - All disturbed areas will be restored and graded to match existing contours
  - All disturbed areas will be restored via loam, seed, plantings, gravel/paved path
  - Project is not detrimental to the neighborhood
  - See Appendix for additional details

# Project Locus Map



## Final Project Condition



Final condition is the 10-foot-wide paved bike path with a buried transmission line

## Phase 1 Construction Sequence Overview (Eversource)



- Development of the Stormwater Pollution and Prevention Plan
- Identification of contractor access and laydown areas, to be located outside of wetland jurisdictional areas
- Limits of work will be established via land survey with clearly visible marking or fencing placed in the field
- Vegetation will be removed to facilitate installation of erosion and sediment controls
- Installation of erosion and sediment controls with on-going monitoring and maintenance during Phase 1
- Rail and tie removal
- Grubbing and stumping within the limit of work

## Phase 1 Construction Sequence Overview cont'd (Eversource)



- Grading and addition of eight inches of gravel to create 14-foot construction platform
- Installation of stormwater management features
- Construction of bridges and other crossings
- Installation of manholes and duct bank
- Installation of electrical and signal conduit for MCRT at road crossings
- Final grading of the gravel base for the paved MCRT
- Cable pulling, splicing, testing, and commissioning
- Loaming and seeding with native species seed mix of disturbed areas outside of the 14-foot-wide gravel base and installation of plantings in select restored areas
- Development of as-builts for all Phase 1 activities

## Phase 2 Construction Sequence Overview (DCR)



- Development of the SWPPP for DCR activities
- Monitoring and maintenance of all erosion and sediment controls for Phase 2
- Installation of posts and mast arms at road crossings
- Grading and compacting gravel base
- Placement of intermediate and surface course of pavement for 10-foot MCRT and turn outs
- Installation of imprinted resin median and detectable warning panels at road crossings
- Installation of fencing, benches, and bike racks

## Phase 2 Construction Sequence Overview (DCR)



- Installation of “safety” woody vegetation plantings
- Loaming and seeding with native species seed mix along shoulders, side slopes, and any other disturbed areas
- Installation of roadway and trail markings and signs
- Removal of erosion controls by hand and reseeding of footprint once vegetated areas are established and applicable final conditions are achieved
- Development of as-builts for all Phase 2 activities

# Construction Related BMP's Phase 1 and Phase 2



- Erosion and Sediment Controls
  - Timber mats for cranes and turbidity controls at Hop Brook
  - Syncopated silt fence within Estimated/Priority Habitat areas and within 450 feet of a vernal pool
  - Silt fence/compost filter tube combination in all other areas
  - Jute mesh erosion control blankets
  - Use BMPs to control sedimentation during dewatering
  - Use BMPs for temporary stockpiling
- Spill Prevention Control and Countermeasure Plan
- Stormwater Pollution Prevention Plan
- Full time environmental monitors during construction

# Cut and Fill Areas

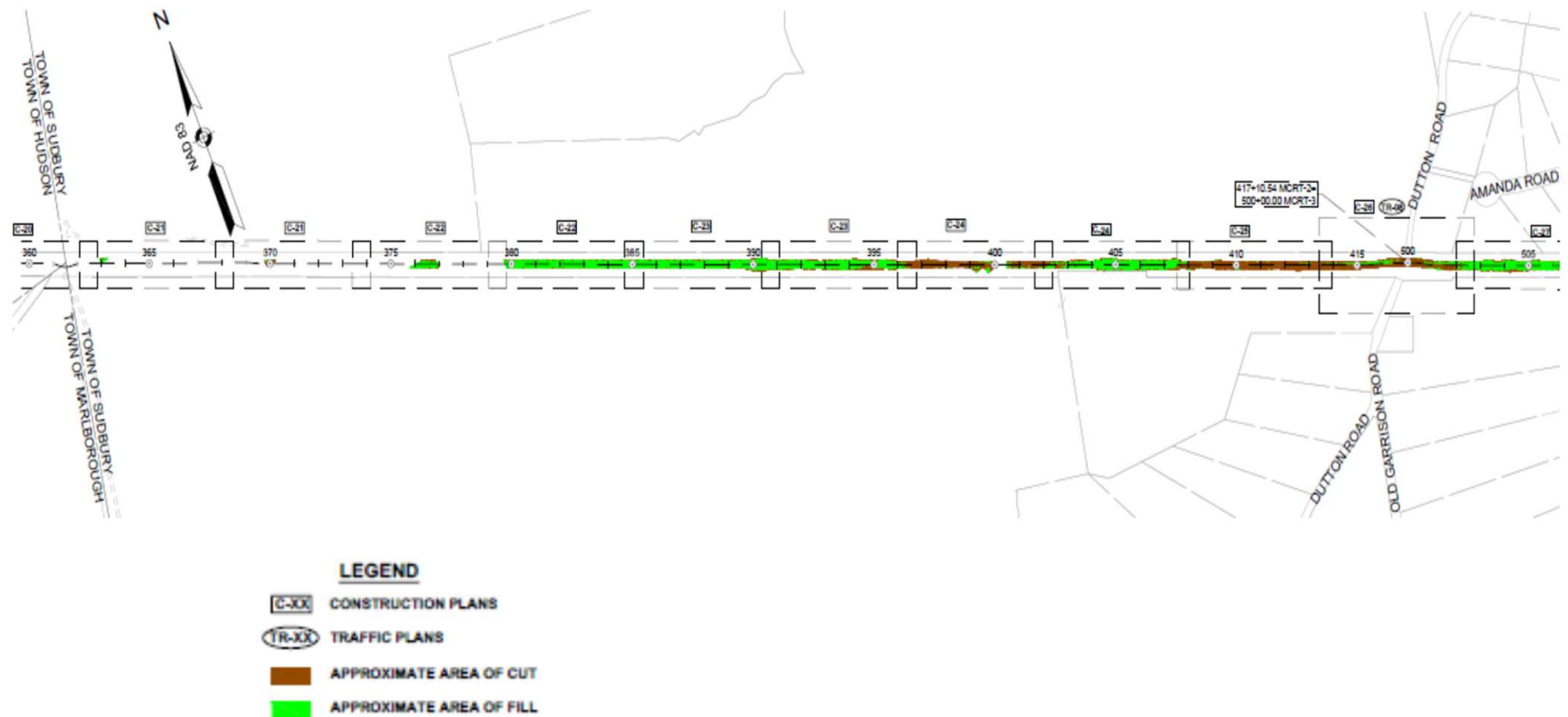
|      | Begin Station | End Station | Earthwork Summary               |                                       |                  |                                |
|------|---------------|-------------|---------------------------------|---------------------------------------|------------------|--------------------------------|
|      |               |             | Soil Removed - Access Road (CY) | Soil Removed - Transmission Line (CY) | Soil Reused (CY) | Amount of Excess Material (CY) |
| Fill | 360+50        | 396+00      | 321                             | 2,105                                 | 3,254            | (828)                          |
| Cut  | 396+00        | 403+00      | 483                             | 403                                   | 17               | 869                            |
| Fill | 403+00        | 407+50      | 13                              | 291                                   | 462              | (158)                          |
| Cut  | 407+50        | 502+00      | 1,268                           | 788                                   | 7                | 2,049                          |
| Fill | 502+00        | 516+00      | 61                              | 588                                   | 3,173            | (2,524)                        |
| Cut  | 516+00        | 545+00      | 4,448                           | 2,325                                 | 233              | 6,540                          |
| Fill | 545+00        | 555+00      | 51                              | 673                                   | 835              | (112)                          |
| Cut  | 555+00        | 566+00      | 1,079                           | 701                                   | 35               | 1,745                          |
| Fill | 566+00        | 588+00      | 405                             | 852                                   | 2,871            | (1,614)                        |
| Cut  | 588+00        | 730+00      | 1,630                           | 2,232                                 | 49               | 3,813                          |
| Fill | 730+00        | 742+00      | 121                             | 633                                   | 1,166            | (412)                          |
| Cut  | 742+00        | 753+50      | 1,164                           | 647                                   | 0                | 1,811                          |
| Fill | 753+50        | 767+20      | 112                             | 731                                   | 1,569            | (726)                          |
|      |               |             | 11,154                          | 12,969                                | 13,670           | 10,453                         |

“excavated”

“reused  
on-site”

“disposed  
off-site”

# Cut and Fill Areas (cont'd)





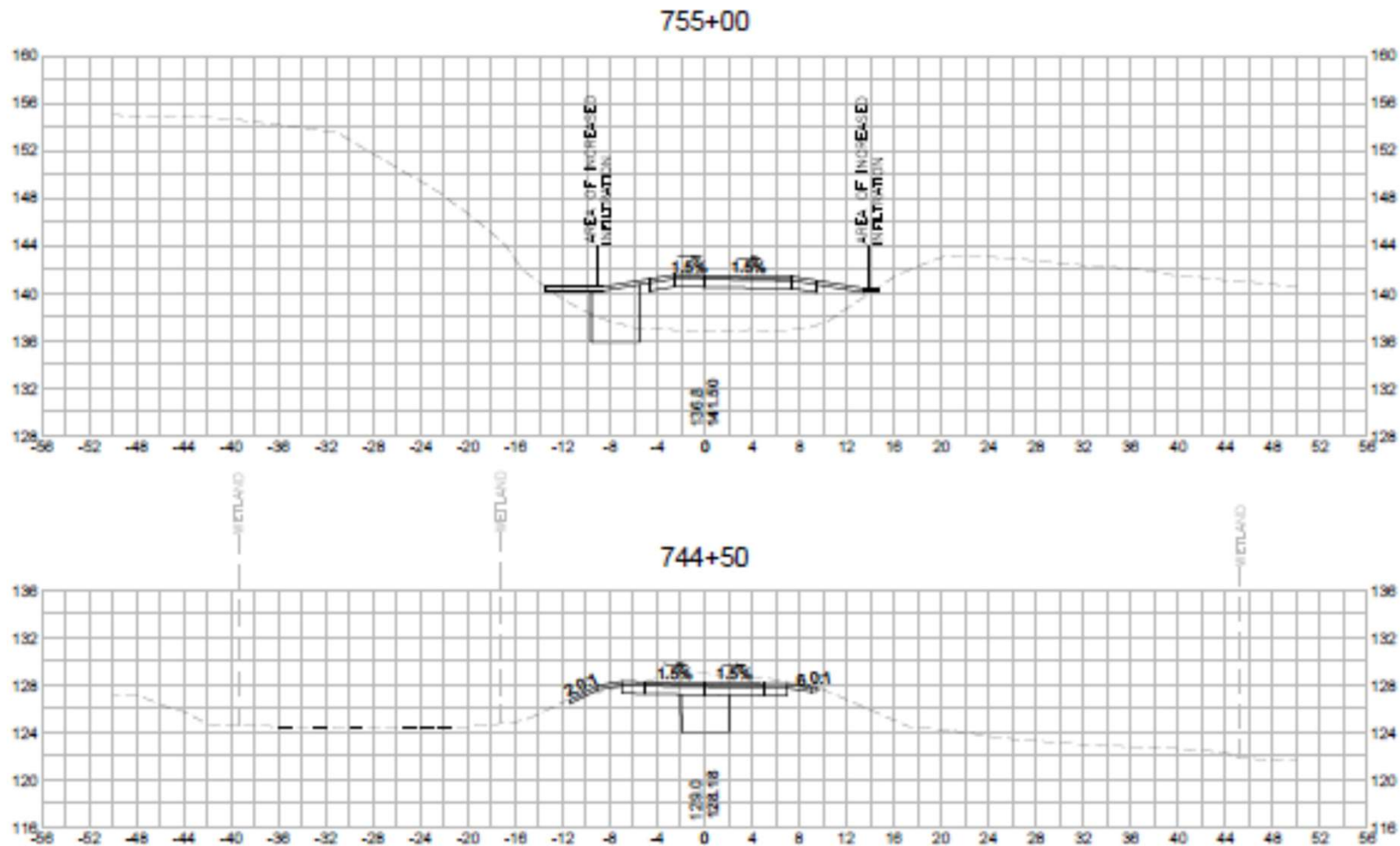
# Cut and Fill Areas (cont'd)



## LEGEND

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

# Typical Cross Sections (see Appendix)





Thank you. Questions?

# Appendix

# Earth Removal Standards and Bylaw Compliance

|                         |   |
|-------------------------|---|
| Method of Removal       | <ul style="list-style-type: none"><li>• An estimated 24,123 cubic yards of soil expected to be excavated</li><li>• Using standard methods and loaded into dump trucks for removal from the MBTA ROW</li><li>• Surplus materials will be transported to an off-site temporary storage yard where they will be reloaded and transported to a licensed facility for appropriate reuse, recycling, treatment or disposal.</li></ul>   |
| Temporary Structures    | <ul style="list-style-type: none"><li>• None</li></ul>  |
| Hours of Operation      | <ul style="list-style-type: none"><li>• Within the hours of operation authorized by the EFSB</li><li>• 7:00 a.m. to 6:00 p.m., Monday through Friday.</li></ul>   |
| Routes for Transporting | <ul style="list-style-type: none"><li>• Access to and from the project site will be predominantly via White Pond Road (Hudson), Dutton Road, Peakham Road, Horse Pond Road, Union Avenue, and Boston Post Road.</li><li>• Material removed from the project site will be transported to the contractor's offsite laydown yard.</li><li>• Location of the offsite yard will not be known until a contractor is selected and a location is secured that complies with all applicable rules and regulations.</li></ul> |

# Earth Removal Standards and Bylaw Compliance

|   |  |
|---|--|
| Area and Depth of Excavation                  | <ul style="list-style-type: none"><li>• Transmission line trench = four feet wide, average depth approximately five feet</li><li>• Larger excavations (approximately 10 feet wide by 10 feet deep) will occur at manhole locations</li><li>• Some excavation (typically one to 2 feet deep) to create a 14-foot-wide platform for the gravel access road to be used during new line construction that will be completed as the MCRT path after the new line construction is complete.</li><li>• Excavation widths and depths are shown on the cross sections included in the plans in Exhibit C.</li></ul> |
| Distance of Excavation from Streets/Lot Lines | <ul style="list-style-type: none"><li>• Distance of the work limits from street and lot lines is variable along the route.</li><li>• Excavation from street lines ranges from 0 feet (at street crossings) up to 6,500 feet.</li><li>• Excavation is typically about 20 to 25 feet from the MBTA ROW lot lines.</li><li>• All excavation is located in the previously disturbed area of the rail bed and embankment that are encompassed by vegetated areas within the 80-foot wide MBTA ROW.</li></ul>  |

# Earth Removal Standards and Bylaw Compliance (cont'd)

|                                   |  |
|-----------------------------------|--|
| Steepness of Slopes               | <ul style="list-style-type: none"><li>• Existing slopes to be excavated have a maximum grade of two-feet horizontal to one-foot vertical.</li><li>• Most of these slopes were created during initial railroad construction, and the intention of this Project is to retain these slopes as much as practicable and to tie in any proposed slopes to the existing with a similar maximum grade of 2:1.</li><li>• Where this maximum slope could not be met, such as at the two Hop Brook crossings, short walls are proposed running parallel to the MCRT to limit impacts to wetland resource areas.</li></ul> |
| Re-establishment of Levels/Grades | <ul style="list-style-type: none"><li>• Final grades will generally follow the existing grades.</li><li>• Existing grades will be met at all roadway intersections.</li><li>• Longitudinal grades are blended into the existing grades within approximately 16-feet of the center line, all within the MBTA right-of-way.</li><li>• Cuts of less than four feet are made along the embankment in areas throughout the corridor to provide a level area for the gravel base and MCRT (limit impacts to sensitive environmental resources).</li></ul>  |

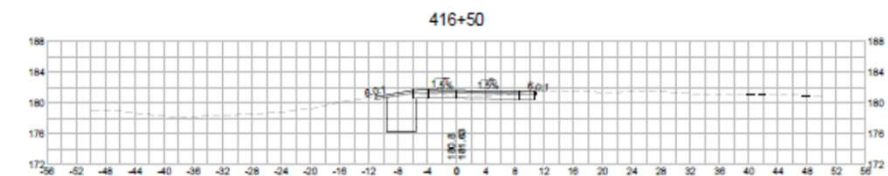
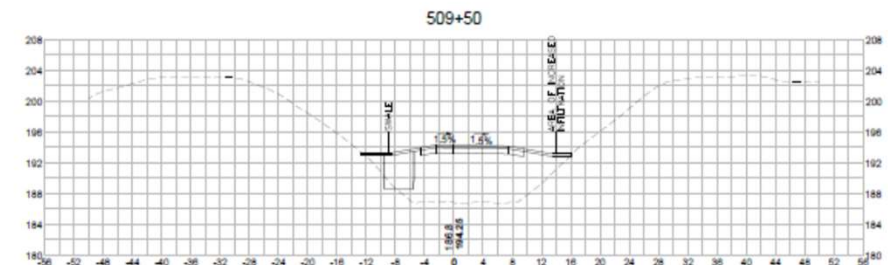
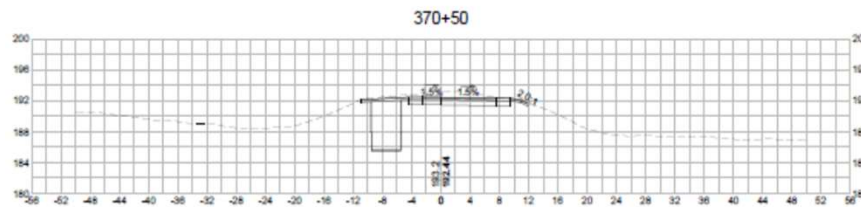
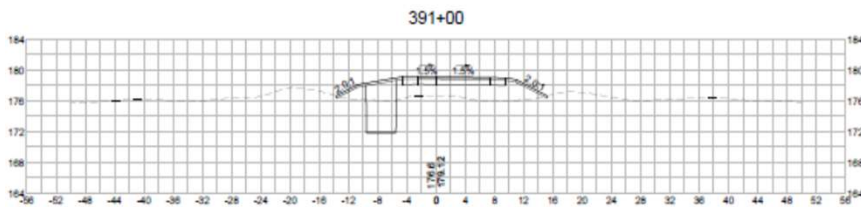
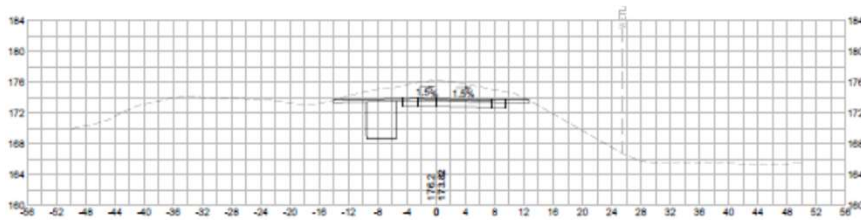
# Earth Removal Standards and Bylaw Compliance (cont'd)

|                                |   |
|--------------------------------|---|
| Permanent/Temp Drainage        | <ul style="list-style-type: none"><li>• Drainage and stormwater management plans for the project have been reviewed and approved by the Sudbury Planning Board (Stormwater Management Permit, issued January 27, 2021, SWMP #20-07) and the Sudbury Conservation Commission (Order of Conditions, issued February 4, 2021, DEP File #301-1287).</li></ul> |
| Disposition of Boulders/Stumps | <ul style="list-style-type: none"><li>• Will be taken offsite to the contractor's laydown yard and then disposed of at an approved/licensed facility.</li></ul>   |
| Replacement of Loam            | <ul style="list-style-type: none"><li>• Clean loam free of invasive plant species will be placed in the restored areas outside of the 10-foot-wide paved MCRT.</li></ul>  |
| Plantings and Cover            | <ul style="list-style-type: none"><li>• All disturbed areas will be fully restored following completion of construction.</li><li>• See filing and plan set for detailed list of plantings established in coordination with the Sudbury Conservation Commission and Sudbury Planning Board.</li></ul>  |

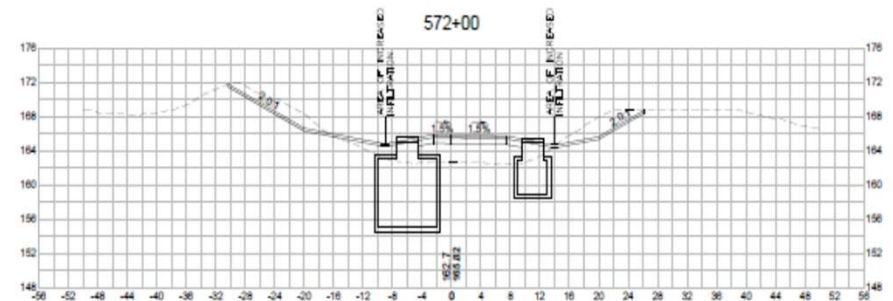
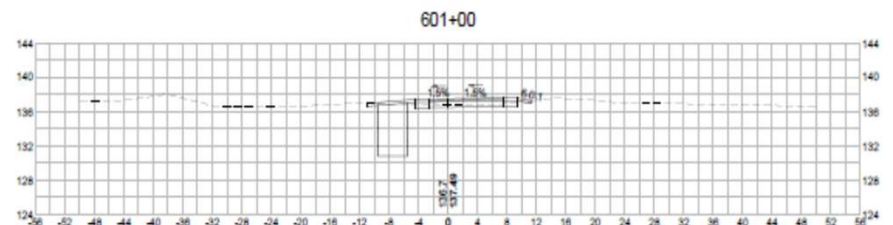
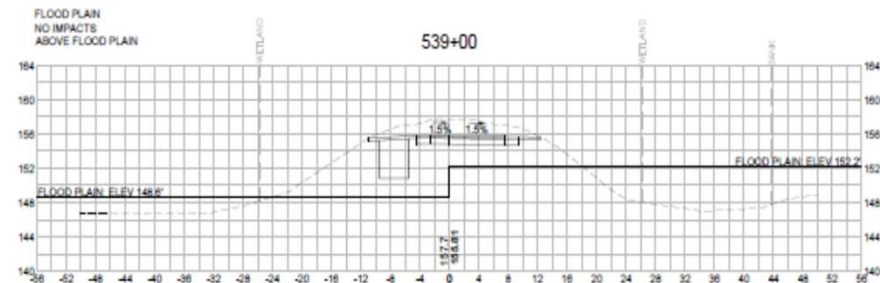
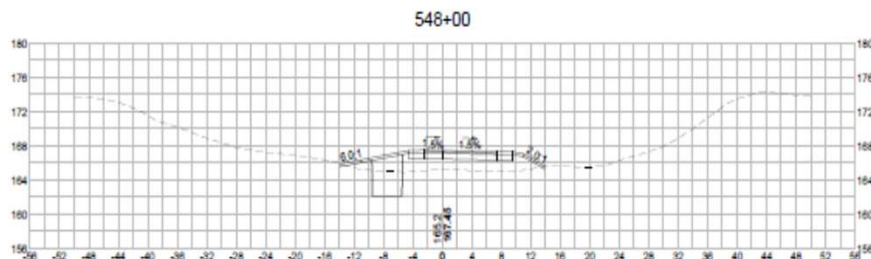
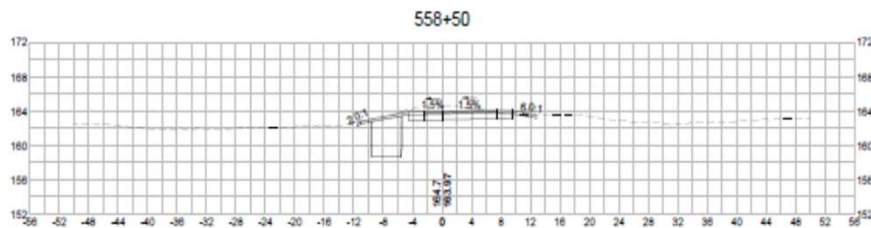
# Earth Removal Standards and Bylaw Compliance (cont'd)

|                                |  |
|--------------------------------|--|
| Inspection by Board or its Rep | <ul style="list-style-type: none"><li>• A representative of the Board or its representative may inspect the premises.</li><li>• Reasonable notice is required so any representative visiting the site can comply with the health and safety protocols and procedures established by Eversource, DCR and their contractors.</li></ul>   |
| Soil Testing                   | <ul style="list-style-type: none"><li>• Eversource conducted a due diligence investigation to determine if there were any areas of potential soil contamination either from former railroad operations on the ROW or from properties adjacent to the ROW that might be encountered during the project excavation.</li><li>• Followed the Massachusetts Department of Environmental Protection's "Best Management Practices for Controlling Exposure to Soil during the Development of Rail Trails".</li><li>• Soil sampling conducted at select locations did not identify any potential contamination that would require implementation of special measures.</li><li>• A Soil and Groundwater Management Plan ("SGMP") will be developed in coordination with the selected contractor to establish protocols for evaluation and response if any soil conditions are encountered during the work where visual or olfactory observations indicate that soil may be impacted significantly by oil or hazardous materials subject to M.G.L. c. 21E.</li></ul> |

# Cross Sections



# Cross Sections (cont'd)



# Cross Sections (cont'd)

