

**Environmental Monitor Construction Site Inspection Report  
MassDOT Project #608164 Construction Contract # 119678  
EM Report #44**

Project Description: Bruce Freeman Rail Trail Right-of-Way  
Permit Description(s): Order of Conditions (MGL Chapter 131, Section 40 and 310 CMR 10.00, Mass DEP File No. 301-1362); 2022 EPA NPDES General Permit for Discharges from Construction Areas; U.S. Army Corps of Engineers Permit No NAE-2021-01975.

**I. General Project Information**

Project Name:	Bruce Freeman Rail Trail - Phase 2d - Sudbury
Date of Inspections:	1/15/2025
Bi Weekly/ Monthly Period Covered:	January Weekly Inspection #3
Inspector's Name(s):	Anna Haznar
Inspectors' Contact Information:	<a href="mailto:ahaznar@beta-inc.com">ahaznar@beta-inc.com</a>

**II. Weather Information**

	Inspection #1	Inspection #2	Inspection #3	Inspection #4	Inspection #5	Inspection #6
<a href="#">WeatherUnderground</a>	Inspector: Jonathan Niro 1/2/2025	Inspector: Anna Haznar 1/9/2025	Inspector: Anna Haznar 1/15/2025	Inspector:	Inspector:	Inspector:
Type of Inspection (i.e. non-storm event, pre-storm event, during-storm event or post-storm event):	Post-storm	Non-storm	Non-storm			
Number of days since last rain event greater than .25"	1					
Has there been a storm event since the last inspection?	Yes	No	No			
If yes, please provide storm start date, storm duration, and approx amount of precipitation:						
Storm 1:	January 1st (7 hours 1.5")					
Storm 2:						
Storm 3:						
Storm 4:						
Weather at the time of inspection (i.e. clear, overcast, cloudy, rain, sleet, fog, snow, windy):	Clear	Overcast with snow flurries	Clear			
Temperature:	36	22	29			
Unusual Conditions (drought, severe storm):			Approximately 2" of snow cover			
Have any discharges occurred since the last inspection report?	No	No	Yes			
If yes, please describe:			Erosion of exposed soils has resulted in a discharge to the stream at Station 216+50			

Note: Inspections should only be conducted on days during work hours while RE or ARE is onsite. The EM should contact the RE to address any immediate corrective actions.

**III. General Description of Construction Status**

1/2/2025 - At the time of the Site visit, no work was occurring.

1/9/2025 - At the time of the Site visit, no work was occurring.

1/15/2025 - At the time of the Site visit, no work was occurring.

**IV. Status of Existing BMPs**

Control Measure (These are examples; list measures specific to the project)	Cleaning or Repair Needed (yes no n/a)	Comments/Recommendations from the EM
Perimeter Controls	Yes	Perimeter erosion and sedimentation control measures were installed at the commencement of the Project and are in varying conditions across the Site; however, they were generally observed to be degraded. Perimeter controls were generally in degraded condition along culverts, streams, and cattle crossings. New perimeter controls were added on 6/27/2024 at Stations 310+00 through 311+00 as requested. New erosion controls have been installed between the path and the crushed stone shoulders at Station 216+00 to 217+50. Areas that still require stabilization do not appear to be at risk for erosion due to surrounding vegetation upgradient of Resource Areas, with the exception of the slopes along the stream at Station 215+00 to 217+00.
Inlet Protection Measures	No	
Stabilized Construction Entrances	No	
Stockpile Protections	No	
Dust Control	No	
Street Sweeping	Yes	Crushed stone was observed on the path throughout the Project in varying volumes.
Dewatering Controls	No	
Construction Equipment and Material Storage	No	
Construction and Domestic Waste Storage and Collection	No	
Location of Sanitary Waste Facilities	No	
Washout Areas	No	
Fertilizers, Herbicides, and Landscape	N/A	
Stabilization of Exposed Soil	Yes	Varying degrees of stabilization are present within areas that were constructed/graded as part of the Project. Seed has been applied to multiple locations of exposed soil throughout the path. Erosion control blankets have been installed on the slope near Station 165+00 to 167+00 and Station 217+45. Loam that was applied to the streambank at Station 215+00 to 217+00 requires further stabilization. and erosion has occurred in this location. Due to the time of year, non-vegetative stabilization (i.e. erosion control netting) is recommended.
Overall Adherence to Environmental Permits	Yes	As noted in Action Items 41 and 42, it appears that work has been conducted beyond the limits of work approved under the Order of Conditions. These areas will require coordination amongst the Project Team to confirm if any restoration is required. A Site walk was conducted with BETA staff, MassDOT staff and the Conservation Agent on 11/19/2024 to discuss potential resolutions for compliance issues.

*Note: Use station numbers, wetland ID or other means to determine locations of BMP's that need repairs.*

V. Compliance Table - Compliance Action Items

V. 1. Compliance Action Items Observed During the One Month Reporting Period Ending [January 31, 2025].

Current Open and Closed Compliance Action Items Observed During the Reporting Period Ending [June 30, 2024]. For those items within the most current two week period, color the Item in blue, as shown on lines 48-50 as an example. RED text indicates that the item is outstanding. Once item is resolved, place resolution date in 'Recommended Resolution/Resolution Date' column, convert to BLACK text, and move to the bottom of the Action Item list. Place resolution date on TOP of resolution action. Each Compliance Action Item is assigned a unique number only to be used to reference that item for the duration of the project. Separate but related Action Items will be labeled in an "Item Number-1 and Item Number-2" manner or similar. Completed action items can be removed once they have appeared in the Bi-Weekly Report to MassDEP

"Urgent" - Needs to be completed immediately, "High" - Needs to be completed in < 7 days due to site conditions, proximity to resource areas, anticipated weather, etc., "Medium" - Needs to be completed within 7 days and has short-term potential to impact resource areas, "Low" - Needs to be completed within 7 days with minimal potential to impact resource areas

Item	Location/ Description	Observation Date	Resolution Due Date	Recommended Resolution / Resolution Date	Comments/Updates
62	Loam and seed was applied to the streambank at Station 216+00 to 217+00 and requires further stabilization <b>Priority: High</b>	11/25/2024	12/2/2024	An erosion control blanket should be installed along this slope.	12/2/2024 - Loam and seed have been applied to the streambank at Station 215+00. Stabilization is required at Stations 215+00 to 217+00. 12/6/2024 - Observation remains. See previous update. 12/12/2024 - Observation remains. Rill erosion was observed within the loam applied to this area from Station 215+00 to 216+00. 12/20/2024 - Observation remains. Loam has begun to erode, resulting in a discharge to the stream at Station 216+50. 12/26/2024 - Observation remains. No further discharge was observed in this location. 12/31/2024 - Observation remains. Additional loam has eroded resulting in a discharge to the stream at Station 216+50. 1/2/2025 - Observation remains. No further discharge was observed in this location. 1/9/2025 - Observation remains. Straw was observed to have been placed along portions of the streambank; however, this area should be stabilized using an erosion control blanket. 1/15/2025 - Observation remains. Erosion causing a discharge of loam and straw into the stream was observed at Station 216+50.
53	Stone was observed requiring removal from the swale on the east side of the trail at Station 172+00 to 173+00 <b>Priority: High</b>	7/29/2024	8/6/2024	Remove stone from the swale.	8/5/2024 - Observation remains. 8/7/2024 - Observation remains. 8/12/2024 - Observation remains. Material was observed to have migrated within the swale to Station 173+50. 8/16/2024 - Stone is still present within the swale. 8/20/2024 - Observation remains. Crushed stone has migrated further down the swale to Station 171+50. 8/27/2024 - Observation remains. Stone is still present within the swale. 9/3/2024 - Observation remains. 9/10/2024 - Observation remains. Stone is still present within the swale. 9/16/2024 - Observation remains. The contractor indicated that the stone within the swale would be hand removed. 9/23/2024 - Observation remains. 9/27/2024 - Observation remains. It appears as though some stone has migrated further south down the swale. 10/4/2024 - Observation remains. Stone is still present within the swale. 10/8/2024 - Observation remains. 10/15/2024 - Observation remains. Stone is covered with vegetation in some areas. 10/22/2024 - Observation remains. Stone is covered with vegetation in some areas. 10/29/2024 - Observation remains. 11/5/2024 - Observation remains. 11/12/2024 - Leaf litter has completely covered the stone in this location. The Contractor should indicate if stone has been removed from this location. 11/19/2024 - See previous update. 11/22/2024 - Observation remains. Stone is still present within the swale and requires removal. Leaf litter is currently covering a majority of the stone. 11/25/2024 - Observation remains. Leaf litter is covering a majority of the stone. 12/2/2024 - Observation remains. Stone is present within the swale under leaf litter. 12/6/2024 - Observation remains. See previous update. 12/12/2024 - Observation remains. Stone is present within the swale under the leaf litter. 12/20/2024 - Observation remains. Stone is present within the swale under the leaf litter. 12/26/2024 - Observation remains. Stone is present within the swale under the leaf litter and snow. 12/31/2024 - Observation remains. Stone is present within the swale under the leaf litter. 1/2/2025 - Observation remains. Stone is present within the swale under the leaf litter. 1/9/2025 - Observation remains. Stone is present within the swale under the leaf litter. 1/15/2025 - Observation remains. Further stone has discharged into the swale at this location, and stone is still present under leaf litter.

47	Slope stabilization required due to condition of compost filter tubes at Station 265+50 and 273+00 <b>Priority: High</b>	6/7/2024	6/14/2024	Stabilize the slope with the approved seed mixture and provide interim stabilization such as straw mulch.	<p>6/14/2024 - Observation remains.  6/17/2024 - Observation remains.  6/24/2024 - Observation remains.  6/27/2024 - Observation remains.  7/8/2024 - Observation remains.  7/15/2024 - This area could not be assessed due to paving operations ongoing during the inspection.  7/22/2024 - Observation remains.  7/29/2024 - Observation remains.  8/5/2024 - Observation remains.  8/7/2024 - Regrowth of vegetation has been observed in this area. This item will remain open until the area is fully stabilized.  8/12/2024 - Observation remains.  8/16/2024 - Observation remains.  8/20/2024 - Application of the approved seed mixture is required at this location.  8/27/2024 - Observation remains.  9/3/2024 - Observation remains.  9/10/2024 - Observation remains. Application of the approved seed mixture if required at this location.  9/16/2024 - Observation remains.  9/23/2024 - Observation remains.  9/27/2024 - Observation remains. The contractor indicated hydroseed will be applied here soon.  10/4/2024 - Observation remains. Hydroseed has not been applied to this area.  10/8/2024 - Observation remains. Hydroseed has not been applied to this area.  10/15/2024 - Observation remains. See previous update.  10/22/2024 - Observation remains. No germination has been observed.  10/29/2024 - Observation remains. No germination has been observed.  11/5/2024 - Observation remains. Some germination has been observed but the area is not considered stabilized.  11/12/2024 - Observation remains. See previous update.  11/19/2024 - Observation remains. See previous updates.  11/22/2024 - Observation remains. See update from 11/5/2024.  11/25/2024 - Observation remains.  12/2/2024 - Observation remains.  12/6/2024 - Observation remains.  12/12/2024 - Observation remains.  12/20/2024 - Observation remains.  12/26/2024 - Observation remains.  12/31/2024 - Observation remains.  1/2/2025 - Observation remains.  1/9/2025 - Observation remains.  1/15/2025 - Observation remains.</p>
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34	<p>Sediment is eroding downhill from behind the cemented stone masonry wall at Station 217+45  <b>Priority: Low</b></p>	5/28/2024	6/4/2024	<p>Apply seed and temporarily stabilize the soils along the slope with straw, jute netting, etc.</p>	<p>5/31/2024 - Observation remains.  6/7/2024 - Observation remains.  6/14/2024 - Observation remains.  6/17/2024 - Observation remains.  6/24/2024 - Observation remains.  6/27/2024 - Rills were raked, loam was added, and hydroseed was applied.  7/8/2024- Observation remains. Grass was observed to be germinating at this location. Comment will remain open until stabilization is complete.  7/8/2024 - See previous update.  7/15/2024 - Additional hydroseed is required due to washouts.  7/22/2024 - Observation remains.  7/29/2024 - Observation remains.  8/5/2024 - Observation remains.  8/7/2024 - Regrowth of vegetation has been observed in this area. This item will remain open until the area is fully stabilized.  8/12/2024 - Observation remains. Regrowth has stabilized a portion of this hill; however, reseeded and additional temporary stabilized measures are recommended on the section that is currently unvegetated.  8/16/2024 - Observation remains.  8/20/2024 - Application of the approved seed mixture is required at this location.  8/27/2024 - Observation remains.  9/3/2024 - Vegetation that is present in this location generally consists of lady's thumb smartweed (<i>Persicaria maculosa</i>), a non-native species. Removal of non-native species and application of the approved seed mixture is required at this location.  9/10/2024 - Observation remains. See previous update.  9/16/2024 - Observation remains. See update from 9/3/2024.  9/23/2024 - Observation remains. See update from 9/3/2024.  9/27/2024 - Observation remains.  10/4/2024 - Observation remains. See update from 9/3/2024.  10/8/2024 - Observation remains. See update from 9/3/2024.  10/15/2024 - Observation remains. See update from 9/3/2024.  10/22/2024 - Observation remains. See update from 9/3/2024.  10/29/2024 - Observation remains. No additional seed has been applied to this location and the slope is generally vegetated by non-native species. See update from 9/3/2024.  11/5/2024 - Observation remains. Erosion control and seed has been applied to part of this slope, no germination has been observed.  11/12/2024 - Observation remains. No germination has been observed in this location.  11/19/2024 - Observation remains.  11/22/2024 - Observation remains. No germination has been observed in this location.  11/25/2024 - Observation remains. No germination has been observed in this location.  12/2/2024 - Observation remains. No germination has been observed in this location.  12/6/2024 - Observation remains. No germination has been observed in this location.  12/12/2024 - Observation remains. Some germination has been observed within this location. Observation will remain open until stabilization is complete.  12/20/2024 - Observation remains. See previous update.  12/26/2024 - Observation remains. See update from 12/12/2024.  12/31/2024 - Observation remains. See update from 12/12/2024.  1/2/2025 - Observation remains. See update from 12/12/2024.  1/9/2025 - Observation remains. See update from 12/12/2024.  1/15/2025 - Observation remains.</p>
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32	<p>Soil and organic debris has been placed within the wetland between wetland flagging WF#23-119 and WF#23-118 at Station 224+00  <b>Priority: High</b></p>	5/21/2024	5/28/2024	<p>Remove all material and provide stabilization of the area with the approved wetland seed mixture. Straw should also be placed for interim stabilization.</p>	<p>5/28/2024 - Observation remains.  5/31/2024 - Observation remains.  6/7/2024 - Observation remains.  6/14/2024 - Observation remains.  6/17/2024 - This area has been hydroseeded multiple times, but the debris should also be removed from the downgradient wetland.  6/24/2024 - Observation remains.  6/27/2024 - Observation remains. The area was hydroseeded again.  7/8/2024 - Germination was observed and the area will be monitored for stabilization.  7/15/2024 - See previous update.  7/22/2024 - Observation remains.  7/29/2024 - Observation remains.  8/5/2024 - Observation remains.  8/7/2024 - Regrowth of vegetation has been observed in this area. This item will remain open until the area is fully stabilized. Debris is still present in wetland and requires removal.  8/12/2024 - Observation remains.  8/16/2024 - Observation remains.  8/20/2024 - Debris is still present within the wetland.  8/27/2024 - Observation remains.  9/3/2024 - Debris is still present in the wetland and slopes upgradient of the wetland require stabilization.  9/10/2024 - Observation remains.  9/16/2024 - Debris has been removed from the wetland; however, soils require stabilization.  9/23/2024 - Observation remains. Soils require stabilization at this location.  9/27/2024 - Observation remains. The contractor indicated hydroseed will be applied to this area soon.  10/4/2024 - Observation remains. Hydroseed has not been applied to this area.  10/8/2024 - Observation remains. Hydroseed has not been applied to this area.  10/15/2024 - Observation remains. Hydroseed has not been applied to this area.  10/22/2024 - Observation remains. Hydroseed has not been applied to this area.  10/29/2024 - Observation remains. Hydroseed has not been applied to this area.  10/29/2024 - Observation remains. Hydroseed has not been applied to this area.  11/5/2024 - Observation remains. Hydroseed has not been applied to this area.  11/12/2024 - Observation remains.  11/19/2024 - Hydroseed has been applied to this location. Once the area has become stabilized this action item will be closed.  11/22/2024 - Observation remains. No germination has been observed in this area.  11/25/2024 - Observation remains. No germination has been observed in this area.  12/2/2024 - Observation remains. No germination has been observed in this area.  12/6/2024 - Observation remains. No germination has been observed in this area.  12/12/2024 - Observation remains. Some germination has been observed within this location. Observation will remain open until stabilization is complete.  12/20/2024 - Observation remains. See previous update.  12/26/2024 - Observation remains. See update from 12/12/2024.  12/31/2024 - Observation remains. See update from 12/12/2024.  1/2/2025 - Observation remains. See update from 12/12/2024.  1/9/2025 - Observation remains. See update from 12/12/2024.  1/15/2025 - Observation remains.</p>
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43	<p>Overtopped compost filter tubes and exposed soils beyond the limits of work at Station 105+00  <b>Priority: High</b></p>	6/7/2024	6/14/2024	<p>Stabilize the area with the approved seed mixture and provide interim stabilization such as straw mulch.</p>	<p>6/14/2024 - Observation remains.  6/17/2024 - Observation remains.  6/24/2024 - Observation remains.  6/27/2024 - Observation remains.  7/8/2024 - Observation remains.  7/15/2024 - Observation remains.  7/22/2024 - Observation remains.  7/29/2024 - Observation remains.  8/5/2024 - Observation remains.  8/7/2024 - Observation remains.  8/12/2024 - Observation remains. Some material has migrated off of the compost filter tubes due to erosion.  8/16/2024 - Observation remains.  8/20/2024 - Application of the approved seed mixture is required at this location.  8/27/2024 - Observation remains.  9/3/2024 - Observation remains.  9/10/2024 - Observation remains. Application of the approved seed mixture is required at this location.  9/16/2024 - Observation remains.  9/23/2024 - Observation remains.  9/27/2024 - Observation remains.  10/4/2024 - Hydroseed has been applied here; however, the contractor should provide an update on long-term slope stabilization plans.  10/8/2024 - Observation remains. Germination has not been observed.  10/15/2024 - Observation remains. Germination has not been observed.  10/22/2024 - Observation remains. Some germination has been observed but the area is not considered stabilized.  10/29/2024 - Observation remains. No further germination has been observed since the last inspection.  11/5/2024 - Observation remains. Some germination has been observed but the area is not considered stabilized.  11/12/2024 - Observation remains. Seed has stabilized the area.  11/19/2024 - The area adjacent to the path has become stabilized; however, exposed soil is still present next to the culvert past the limit of work.  11/22/2024 - Observation remains. See previous update.  11/25/2024 - Observation remains. See update from 11/19/2024.  12/2/2024 - Observation remains. See update from 11/19/2024.  12/6/2024 - Observation remains. See update for 11/19/2024.  12/12/2024 - Observation remains. See update from 11/19/2024.  12/20/2024 - Observation remains. See update from 11/19/2024.  12/26/2024 - Observation remains. See update from 11/19/2024.  12/31/2024 - Observation remains. See update from 11/19/2024.  1/2/2025 - Observation remains. See update from 11/19/2024.  1/9/2025 - Observation remains. See update from 11/19/2024.  1/15/2025 - Observation remains. Exposed soils are still present next to the culvert past the limit of work.</p>
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6	Exposed sediment slope at Station 172+00 to 175+00 <b>Priority: High</b>	5/8/2024	5/15/2024 <b>Resolved: 1/2/2025</b>	Install temporary sediment controls along the slope such as jute netting and/or straw following the application of seed.	<p>5/16/2024 - Observation remains.</p> <p>5/21/2024 - Observation remains.</p> <p>5/28/2024 - Partial germination was observed.</p> <p>5/31/2024 - See previous update.</p> <p>6/7/2024 - Further earthwork has occurred and soils require stabilization.</p> <p>6/14/2024 - Observation remains.</p> <p>6/17/2024 - Observation remains.</p> <p>6/24/2024 - Observation remains.</p> <p>6/27/2024 - The area has been regraded and loam has been spread. New trees have been planted upgradient of the swale. Stabilization is still required.</p> <p>7/8/2024 - Jute netting has been installed over the applied seed, and the area will be monitored for germination.</p> <p>7/15/2024 - See previous update.</p> <p>7/22/2024 - Observation remains.</p> <p>7/29/2024 - Observation remains.</p> <p>8/5/2024 - Observation remains.</p> <p>8/7/2024 - Regrowth of vegetation was observed in this location. This item will remain open until stabilization has been completed.</p> <p>8/12/2024 - Observation remains.</p> <p>8/16/2024 - Observation remains.</p> <p>8/20/2024 - Application of the approved seed mixture is required at this location.</p> <p>8/27/2024 - Observation remains.</p> <p>9/3/2024 - Vegetation that is present in this location generally consists of lady's thumb smartweed, a non-native species. Removal of non-native species and application of the approved seed mixture is required at this location.</p> <p>9/16/2024 - See previous update.</p> <p>9/23/2024 - Observation remains. See 9/3/2024 update.</p> <p>9/27/2024 - Observation remains. The contractor reached out hydroseed has been applied to this area.</p> <p>10/4/2024 - Hydroseed has been applied to this area; the hydroseed was observed to have been applied over the erosion control blanket that is located in this area. Once vegetation has sufficiently stabilized this area the item will be closed. The contractor should provide the tag from the seed mix that was used to the Conservation Commission to ensure that the required native seed mix was used per the design plans.</p> <p>10/8/2024 - Observation remains. See update from 10/4/2024.</p> <p>10/15/2024 - Observation remains. See update from 10/4/2024.</p> <p>10/22/2024 - Observation remains. See update from 10/4/2024.</p> <p>10/29/2024 - Observation remains. No germination has been observed in this location since the application of hydroseed. See update from 10/4/2024.</p> <p>11/5/2024 - Observation remains. Some germination has been observed but the area is not considered stabilized.</p> <p>11/12/2024 - Observation remains.</p> <p>11/19/2024 - Germination has been observed in this location but it has not fully stabilized.</p> <p>11/22/2024 - Observation remains. See previous update.</p> <p>11/25/2024 - Observation remains. See update from 11/19/2024.</p> <p>12/2/2024 - Observation remains. See update for 11/19/2024.</p> <p>12/6/2024 - Observation remains. See update for 11/19/2024.</p> <p>12/12/2024 - Observation remains. Some germination has been observed within this location. Observation will remain open until stabilization is complete.</p> <p>12/20/2024 - Observation remains. See previous update.</p> <p>12/26/2024 - Observation remains. See update from 12/12/2024.</p> <p>12/31/2024 - Observation remains. Some germination has been observed within this location. Observation will remain open until stabilization is complete.</p> <p>1/2/2025 - A combination of seed germination, windblown leaf litter, and jute netting has sufficiently stabilized this area.</p>
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V.2. On Going (Longer-Term) Compliance Items

Typically, these items require coordination with MassDEP. If so, remove once approval is obtained from MassDEP

Item	Location/ Description	Observation Date	Resolution Due Date	Recommended/Discussed Resolution	Comments/Updates
61	<p>Invasive vegetation including Japanese knotweed (<i>Reynoutria japonica</i>), bittersweet (<i>Celastrus orbiculatus</i>), bush honeysuckle (<i>Lonicera</i> spp.), burning bush (<i>Euonymus alatus</i>), purple loosestrife (<i>Lythrum salicaria</i>), glossy buckthorn (<i>Frangula alnus</i>) and garlic mustard (<i>Alliaria petiolata</i>) have been observed throughout the path. Priority: High</p>	10/22/2024	10/29/2024	<p>Invasive Species should be removed by manual and/or chemical removal methods</p>	<p>10/29/2024 - Invasive species are present throughout the trail both within upland and Resource Areas. Populations of glossy buckthorn and purple loosestrife are present within the wetland replication area. 11/5/2024 - Observation remains. See update from 10/29/2024. 11/12/2024 - Observation remains. Invasive species are still present throughout the trail. Some invasives have been observed with no leaves due to winter die back. 11/19/2024 - Observation remains. Further invasive species management will be required during the next growing season. 11/22/2024 - Observation remains. 11/25/2024 - Observation remains. 12/2/2024 - Observation remains. 12/6/2024 - Observation remains. This action item has been moved to the Long-Term Compliance Items section because it can only be resolved during the next growing season. 12/12/2024 - Observation remains. 12/20/2024 - Observation remains. 12/26/2024 - Observation remains. 12/31/2024 - Observation remains. 1/2/2025 - Observation remains. 1/9/2025 - Observation remains. 1/15/2025 - Observation remains.</p>
57-1	<p>Japanese hops (<i>Humulus japonicus</i>) has been observed throughout the Project and requires removal Priority: High</p>	10/22/2024	10/29/2024	<p>The Contractor should manage remaining Japanese hops by hand pulling and the application of herbicide.</p>	<p>10/22/2024 - This Action Item has been reopened due to observations of both dead and living Japanese hops in select locations along the Project. BETA and MassDOT will coordinate further with the Sudbury Conservation Agent to clarify the extents of remaining living vegetation as removal efforts progress. 10/29/2024 - Plants that were observed as alive along Route 117 during the last inspection were observed to be wilting due to winter die back. 11/5/2024 - Observation remains. See update from 10/29/2024. 11/12/2024 - See update from 10/29/2024. 11/19/2024 - Observation remains. See update from 10/29/2024. Management of Japanese hops should occur during the next growing season. 11/22/2024 - Observation remains. 11/25/2024 - Observation remains. 12/2/2024 - Observation remains. 12/6/2024 - Observation remains. This action item has been moved to the Long-Term Compliance Items section because it can only be resolved during the next growing season. 12/12/2024 - Observation remains. 12/20/2024 - Observation remains. 12/26/2024 - Observation remains. 12/31/2024 - Observation remains. 1/2/2025 - Observation remains. 1/9/2025 - Observation remains. 1/15/2025 - Observation remains.</p>

59	Multiple locations of exposed soils along the Project corridor require stabilization <b>Priority: High</b>	9/3/2024	9/10/2024	The contractor should apply the approved seed mixture to areas of exposed soils and place straw.	<p>9/3/2024 - Herbicide application caused multiple areas along the path to be no longer stabilized. If thatch is present in these locations the thatch should be removed before seeding occurs. A location near Station 320+50 has been cleared outside of the limit of work and requires stabilization. Other areas along the path where seed did not germinate should be reseeded with the approved seed mix and straw should be placed on the areas of exposed soil.</p> <p>9/10/2024 - Observation remains, see previous update. A few locations along the trail have been hydroseeded but a majority of the locations of exposed soil require seed and stabilization.</p> <p>9/16/2024 - Observation remains. The contractor indicated areas of bare soil will be hydroseeded.</p> <p>9/23/2024 - Observation remains. It does not appear as though any hydroseeding has been done since the last inspection. Areas throughout the trail require removal of thatch and application of seed for stabilization.</p> <p>9/27/2024 - Observation remains. The contractor reached out and indicated all areas of exposed soils south of Hudson Road were hydroseeded after the inspection occurred.</p> <p>10/4/2024 - All areas south of Hudson Road were not seeded using hydroseed; hydroseed was applied in a few locations, but there are still large areas of exposed soil both south and north of Hudson Road that require seeding. Thatch was not removed in any areas before hydroseed was applied. The contractor should provide the tag from the seed mix that was used to the Conservation Commission to ensure that the required native seed mix was used per the design plans. Once vegetation has sufficiently stabilized, this item will be closed.</p> <p>10/8/2024 - Observation remains. See update from 10/4/2024. No additional hydroseed has been applied since the last inspection.</p> <p>10/15/2024 - Observation remains. See update from 10/4/2024. No additional hydroseed has been applied since the last inspection. No germination has been observed in areas where hydroseed was applied.</p> <p>10/22/2024 - Observation remains. See update from 10/4/2024. No additional hydroseed has been applied since the last inspection. Some germination has been observed in a few locations where hydroseed was previously applied.</p> <p>10/29/2024 - Observation remains. No additional hydroseed has been applied since the last inspection. If additional hydroseed is applied leaf litter and thatch should be removed so the seed can make contact with the soil. See update from 10/4/2024.</p> <p>11/5/2024 - Seed and erosion control blankets have been applied to part of the slope at Station 217+45 and seed has been applied to the exposed soil around a newly installed interpretive sign at Station 181+75. The contractor should provide the tag from the seed mix that was used to the Conservation Commission to ensure that the required native seed mix was used per the design plans. Exposed soil with little to no vegetation is still present throughout the trail.</p> <p>11/12/2024 - Observation remains. Loam and seed have been placed on an area where crushed stone had migrated off of the path at 181+00. No additional hydroseed has been applied.</p> <p>11/19/2024 - Observation remains. Hydroseed has been applied to multiple locations along the path; however, multiple locations of exposed soil were still observed. The contractor should provide the tag from the seed mix that was used to the Conservation Commission to ensure native seed mix was used per the design plan. Seeded areas will continue to be monitored to ensure stabilization occurs before the action item is closed.</p> <p>11/22/2024 - Observation remains. No germination from the recently applied hydroseed has been observed. See previous update.</p> <p>11/25/2024 - Observation remains. Multiple locations along the path require the application of seed and no germination has been observed from recently applied hydroseed. See updated from 11/19/2024.</p> <p>12/2/2024 - Observation remains. See previous update.</p> <p>12/6/2024 - Observation remains. See update from 11/25/2024.</p> <p>12/12/2024 - Observation remains. See update from 11/25/2024.</p> <p>12/20/2024 - Observation remains. See update from 11/25/2024.</p> <p>12/26/2024 - Observation remains. See update from 11/25/2024.</p> <p>12/31/2024 - Observation remains. See update from 11/25/2024.</p> <p>1/2/2025 - Observation remains. See update from 11/25/2024.</p> <p>1/9/2025 - Observation remains. See update from 11/25/2024.</p> <p>1/15/2025 - Observation remains. See update from 11/25/2024.</p>
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58	<p>Crushed stone used for the dense graded crush stone shoulders has been observed as migrating both onto the path, off the sides of the path, and into the adjacent Resource Areas throughout the Project  <b>Priority: High</b></p>	8/7/2024	8/14/2024	<p>Remove all crushed stone from Resource Areas and develop a plan to cease discharges of stone.</p>	<p>8/12/2024 - Crushed stone is still present in varying amounts throughout the path and on the sides of the path.  8/16/2024 - Observation remains.  8/20/2024 - Crushed stone has been removed from some adjacent resource areas but is still observed as migrating onto and off of the path in multiple locations throughout the Project.  8/27/2024 - Crushed stone has been observed as migrating from the shoulders throughout the path.  9/3/2024 - Crushed stone was observed as migrating both onto the path and off the side of the path in multiple locations. Stone was observed to have discharged to the cattle crossing at Station 190+50 and within the streambed at Station 215+00 to 216+00. Crushed stone was observed to have been placed on the root system of a fallen tree at Station 310+00 near Bank flag #BF4-108.  9/10/2024 - Observation remains. Crushed stone is still present within the cattle crossing, the streambed, and on the root system of the fallen tree. Crushed stone continues to migrate on to and off of the path.  9/16/2024 - Observation remains. The contractor indicated the locations where crushed stone has migrated off the path will be hand removed and crushed stone will be swept off the path prior to the opening of the trail.  9/23/2024 - Observation remains. It does not appear as though crushed stone that has migrated onto or off of the path has been removed in any location along the Project. More crushed stone has migrated onto the path throughout significant portions of the path.  9/27/2024 - Observation remains. Crushed stone is still located on the side of the path and on the path in varying amounts.  10/4/2024 - Crushed stone has been removed from multiple locations along the trail but was still observed on and on the sides of the trail in several locations.  10/8/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path.  10/15/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path.  10/22/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path. The crushed stone shoulders along Station 1000+00 to 1003+00 has been moved back into the shoulders and regraded.  10/29/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path.  11/5/2024 - Observation remains. See previous update.  11/12/2024 - Observation remains. Crushed stone is still present on the side of the path in multiple locations, within the streambed and drainage swale and within the cattle crossing at Station 190+50.  11/19/2024 - Crushed stone was removed from the cattle crossing at Station 190+50. Further removal of stone is required in multiple locations along the path that are currently covered with leaf litter.  11/22/2024 - Observation remains. See previous update.  11/25/2024 - Observation remains. See update from 11/19/2024.  12/2/2024 - Observation remains. Stone is covered with leaf litter in multiple locations along the path.  12/6/2024 - Observation remains. Crushed stone is located both on and off of the trail in multiple locations throughout the path.  12/12/2024 - Observation remains. Crushed stone is located both on and off of the trail in multiple locations throughout the path.  12/20/2024 - Observation remains. Crushed stone is located both on and off of the trail in multiple locations throughout the path.  12/26/2024 - Observation remains. See previous update.  12/31/2024 - Observation remains. Crushed stone is located both on and off of the trail in multiple locations throughout the path.  1/2/2025 - Observation remains. Crushed stone is located both on and off of the trail in multiple locations throughout the path.  1/9/2025 - Observation remains. Crushed stone is located both on and off of the trail in multiple locations throughout the path.  1/15/2025 - Observation remains. Crushed stone is located both on and off of the trail in multiple locations throughout the path.</p>
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42	<p>Riprap slope extends beyond limits of work along the WF1 Series wetland near flags 103 to 107  <b>Priority: High</b></p>	5/28/2024	6/4/2024	<p>The Contractor should confirm if this work was permitted by the Conservation Commission, as it does not appear to be a part of the approved plans/impacts. MassDOT should be consulted on next steps regarding notification and potential restoration.</p>	<p>5/31/2024 - Observation remains.  6/7/2024 - Observation remains.  6/14/2024 - Riprap slope has been altered and active construction is repairing the area.  6/17/2024 - During this inspection, additional work in support of the repair/potential replacement of an underlying pipe has been ongoing. It is recommended that the contractor confirm that they have coordinated with the Conservation Commission for this work and provide a restoration plan for the area once work is complete.  6/24/2024 - During this inspection, BETA was informed that the existing cast iron pipe was replaced with a new concrete 12-inch reinforced concrete pipe. It appears that riprap was replaced along the side slopes to mirror conditions observed prior to this inspection.  6/27/2024 - During this inspection, the area was observed to have been rolled and prepared for paving. Hydroseed was applied and plantings were installed.  7/8/2024 - Germination was observed and the area will be monitored for stabilization. See previous updates regarding Conservation Commission coordination.  7/15/2024 - This area could not be assessed due to paving operations ongoing during the inspection.  7/22/2024 - See previous updates regarding Conservation Commission coordination.  7/29/2024 - Observation remains.  8/5/2024 - Observation remains.  8/7/2024 - Observation remains.  8/12/2024 - Observation remains. Regrowth of vegetation has been observed in this area and will continue to be monitored.  8/16/2024 - Observation remains.  8/20/2024 - Observation remains.  8/27/2024 - Observation remains.  9/3/2024 - Observation remains.  9/10/2024 - Observation remains.  9/16/2024 - Observation remains.  9/23/2024 - Observation remains.  9/27/2024 - Observation remains.  10/4/2024 - Observation remains.  10/8/2024 - Observation remains.  10/15/2024 - Observation remains.  10/22/2024 - Observation remains.  10/29/2024 - Observation remains.  11/5/2024 - Observation remains.  11/12/2024 - Observation remains. The timber fence has been installed upgradient of this area.  11/19/2024 - Observation remains. As discussed with the Conservation Agent in the field, an as-built should be prepared for this area to quantify any additional impacts that may be addressed through a permit amendment.  11/22/2024 - Observation remains. See previous update.  11/25/2024 - Observation remains. See update from 11/19/2024.  12/2/2024 - Observation remains. See update from 11/19/2024.  12/6/2024 - Observation remains. See update from 11/19/2024.  12/12/2024 - Observation remains. See update from 11/19/2024.  12/20/2024 - Observation remains. See update from 11/19/2024.  12/26/2024 - Observation remains. See update from 11/19/2024.  12/31/2024 - Observation remains. See update from 11/19/2024.  1/2/2025 - Observation remains. Leaf litter that was previously observed at the bottom of the slope has blown away and it appears that exposed soil with no observable germination is present.  1/9/2025 - Observation remains. See update from 1/2/2025 and 11/19/2024.  1/15/2025 - Observation remains. See update from 1/2/2025 and 11/19/2024.</p>
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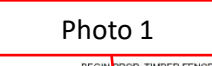
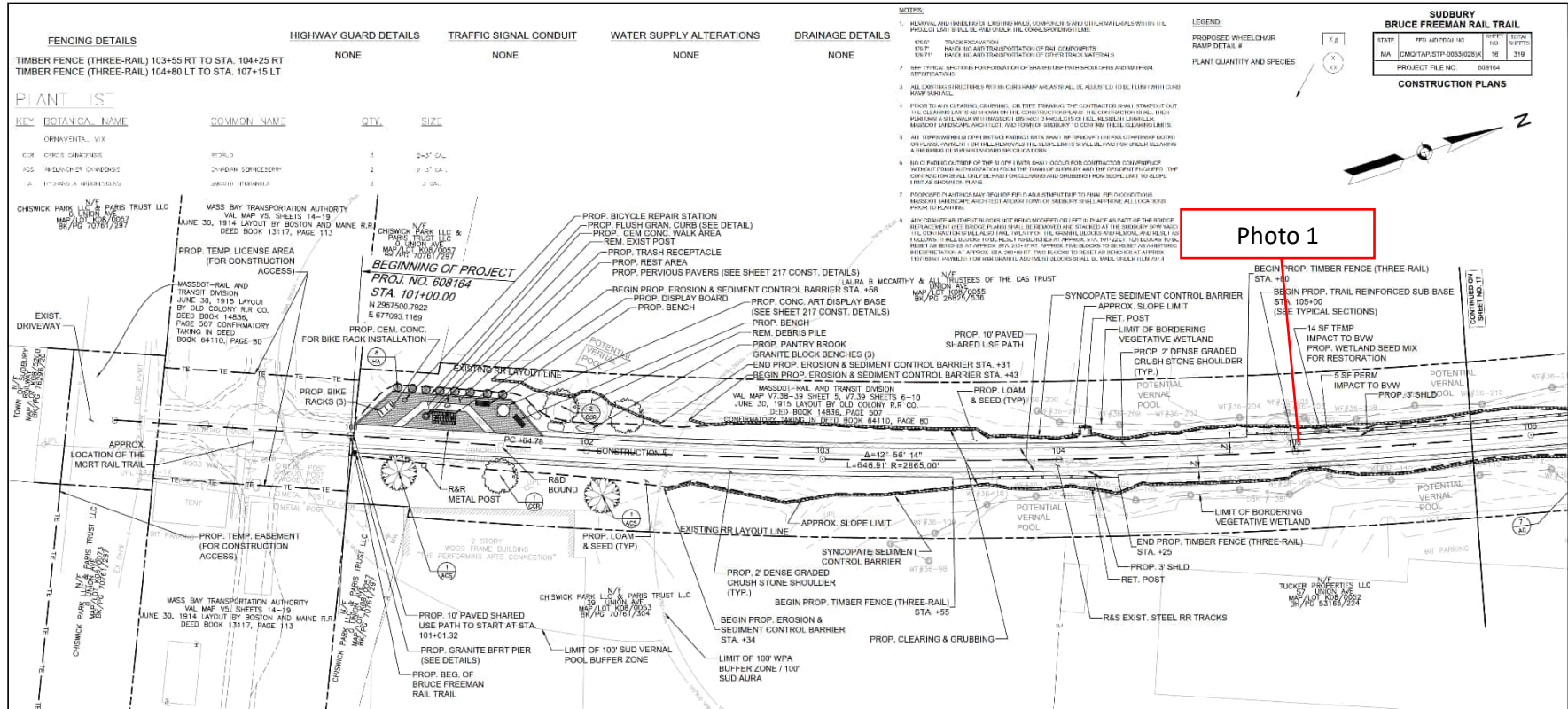
41	Stream Bank has been regraded beyond the limit of work at Station 216+00 Priority: High	5/28/2024	6/4/2024	;0.].	<p>5/31/2024 - Observation remains.  6/7/2024 - Observation remains.  6/14/2024 - Observation remains.  6/17/2024 - Observation remains.  6/24/2024 - Observation remains.  6/27/2024 - Observation remains.  7/8/2024- Observation remains.  7/15/2024 - This area could not be assessed due to paving operations ongoing during the inspection.  7/22/2024 - Crushed stone and sediment continue to be discharged to the stream between Stations 215+00 and 217+00 due to overtopped and undermined compost filter tubes.  7/29/2024 - Observation remains.  8/5/2024 - Observation remains.  8/7/2024 - Observation remains.  8/12/2024 - Observation remains. Crushed stone is still present in the streambed at this location.  8/16/2024 - Observation remains.  8/20/2024 - Stone has been removed; however, additional alteration to Resource Areas beyond the limit of work continue.  8/27/2024 - Observation remains.  9/3/2024 - Observation remains.  9/10/2024 - Observation remains. Stone has been observed as discharging into the streambed in this location again.  9/16/2024 - Observation remains.  9/23/2024 - Observation remains. Stone is still present within the streambed at this location.  9/27/2024 - Observation remains.  10/4/2024 - Observation remains.  10/8/2024 - Observation remains.  10/15/2024 - Observation remains. Stone is still present within the streambed at this location.  10/22/2024 - Observation remains. Stone is still present within the streambed at this location.  10/29/2024 - Observation remains. Stone is still present within the streambed at this location.  11/5/2024 - Observation remains. The PVC pipe that was installed at this location was observed to be covered with stone and is no longer visible near Station 215+00. Stone is still present within the streambed at this location.  11/12/2024 - Observation remains. The streambed in this location is covered with leaf litter. See previous update.  11/19/2024 - Observation remains. As discussed with the Conservation Agent in the field, further coordination between the Town and MassDOT will be required to clean/repair the culvert, as the degraded condition of the culvert prompted the contractor to armor the stream banks. Further coordination will also be required for restoration of banks.  11/22/2024 - Observation remains. See previous update.  11/25/2024 - Observation remains. See update from 11/19/2024.  12/2/2024 - Observation remains. See update from 11/19/2024.  12/6/2024 - Observation remains. See update from 11/19/2024.  12/12/2024 - Observation remains. See update from 11/19/2024.  12/20/2024 - Observation remains. See update from 11/19/2024.  12/26/2024 - Observation remains. See update from 11/19/2024.  12/31/2024 - Observation remains. See update from 11/19/2024.  1/2/2025 - Observation remains. See update from 11/19/2024.  1/9/2025 - Observation remains. See update from 11/19/2024.  1/15/2025 - Observation remains. See update from 11/19/2024.</p>
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**VI. Agency Submittals (Note: only filled out for monthly report)**

Submittal	Date Submitted	Description	Status

**VII. Attachments (#3 only attached with monthly report)**

1. Field Sketch
2. Photographic Documentation
3. 3 Week Look ahead schedule



### PROJECT SUMMARY PLANT LIST IN SUDBURY

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE
<u>VEGETATION SPECIES</u>				
AV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	20	1-2" HIL
V	VIBURNUM PRIBLIIANUM	HORSERAIN TREE	286	3" CAL
S	LEUCOJUNONUS	BARBERY	246	3" CAL
TS	FRAXINUS STROBUS	EASTERN WHITE PINE	02	1-2" HIL
AC	ABIES CONCOLOR	WHITE FIR	62	3-6" HIL
<u>EROSION CONTROL MIX</u>				
SS	CATCH POLY-DWARF	ROUNDLEAF SEDGE	246	7.0" L
CS	CORNUS SPICATA & SALS. SP.	DODGEWOOD AND HULLOR	22	1" CAL
<u>ORNAMENTS - MIX</u>				
CS	CORNUS SPICATA	DOGWOOD	48	2-3" CAL
AC	ABIES CONCOLOR	WHITE FIR	9	2-3" CAL
IA	IRIDIODENDRON	WAXY TERNSTROM	70	3" CAL

### PROJECT SUMMARY PLANT LIST IN SUDBURY (continued)

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE
<u>SHRUBS</u>				
AS	ACTINOPHYLLON	SUGAR WAX	-	2-3" CAL
TA	TILIA AMERICANA	AMERICAN LINDEN	-	2-3" CAL
QU	QUERCUS RUBRA	NORTHERN RED OAK	2	2-3" CAL
SV	HELIOPSIS	SCOUT PINE	2	2-2.5" CAL
<u>WILD VEGETATION MIXES</u>				
TV	FALCATA MISC.	SWITCHGRASS	13	FLUG
SL	SILPHIUM	WILD GINGER	11	FLUG
AT	ASTRAGALUS	WINTER WAX	1	FLUG
AL	ASTRAGALUS	SWAMP ASTER	12	FLUG
CF	COMPOSITA	SWAMP ASTER	17	FLUG
<u>SEED MIX</u>				
SM	MIXED SEED MIX	MIXED SEED MIX	8,542	50 LIT
MS	MIXED SEED MIX	MIXED SEED MIX	203	50 LIT
MS	MIXED SEED MIX	MIXED SEED MIX	2,300	50 LIT
MS	MIXED SEED MIX	MIXED SEED MIX	4,180	50 LIT

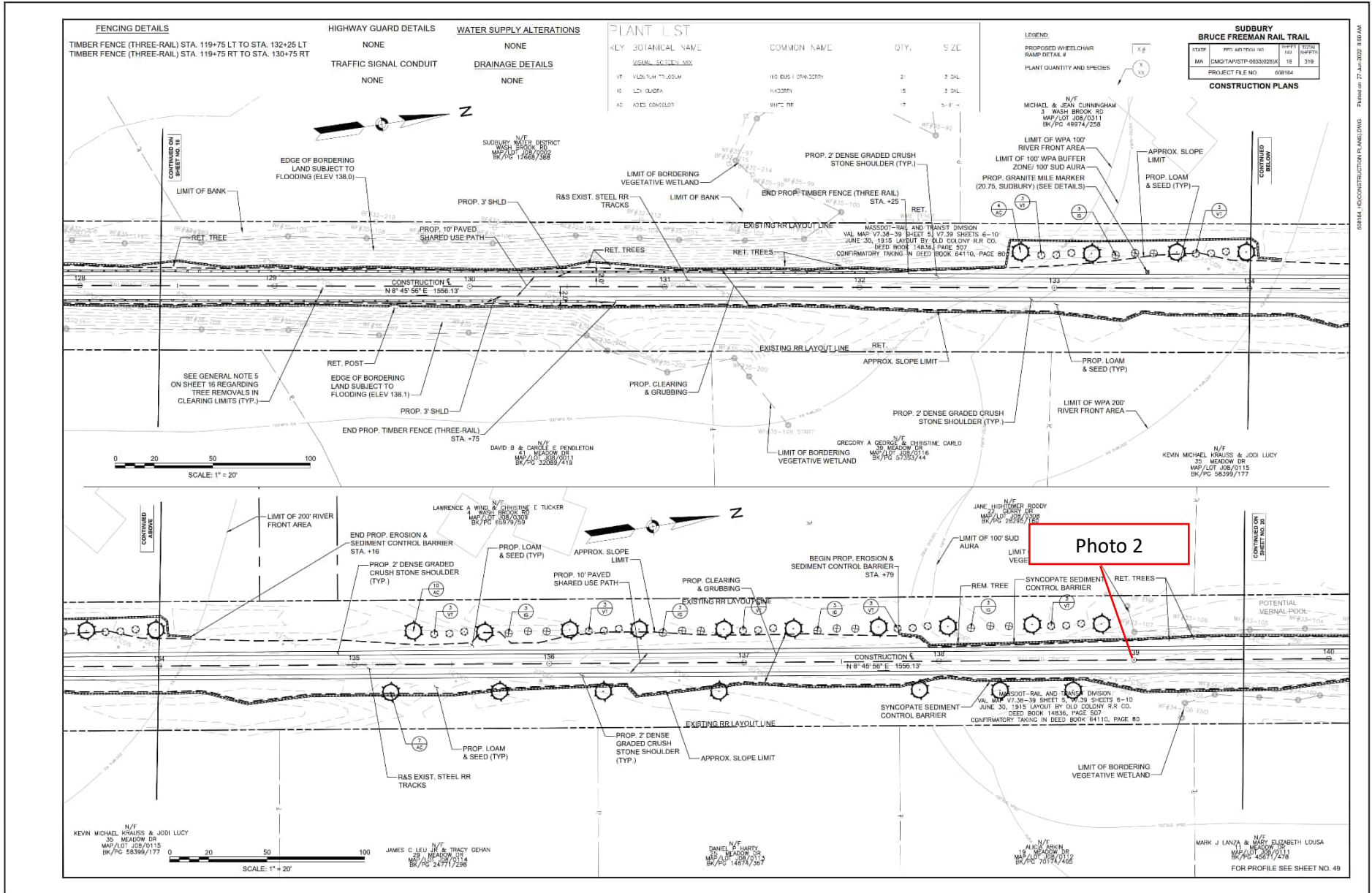
**SEED MIX NOTES:**

1. THE OFFICIAL SEED MIX FOR THIS PROJECT IS THE MIXED SEED MIX APPROX. MIX (8,542) LISTED IN THE PLANT LIST.
2. THE WETLAND SEED MIX IS FOR USE IN PROPOSED WETLAND RESTORATION AREAS WITH ANCESTRAL WETLAND CHARACTERISTICS.
3. THE SHADY FOREST SEED MIX IS FOR USE AT THE PROPOSED FOREST RESTORATION AREAS SOUTH OF HULLOR WHERE BATTLE PLANTS WILL REPLACE NATIVE SPECIES.
4. THE TRAIL SEED MIX IS FOR USE AT HIGH TRAFFIC ZONES ALONG THE TRAIL WHERE THE TRAIL IS ADJACENT TO HIGH TRAFFIC ZONES.

FOR PROFILE SEE SHEET NO. 48

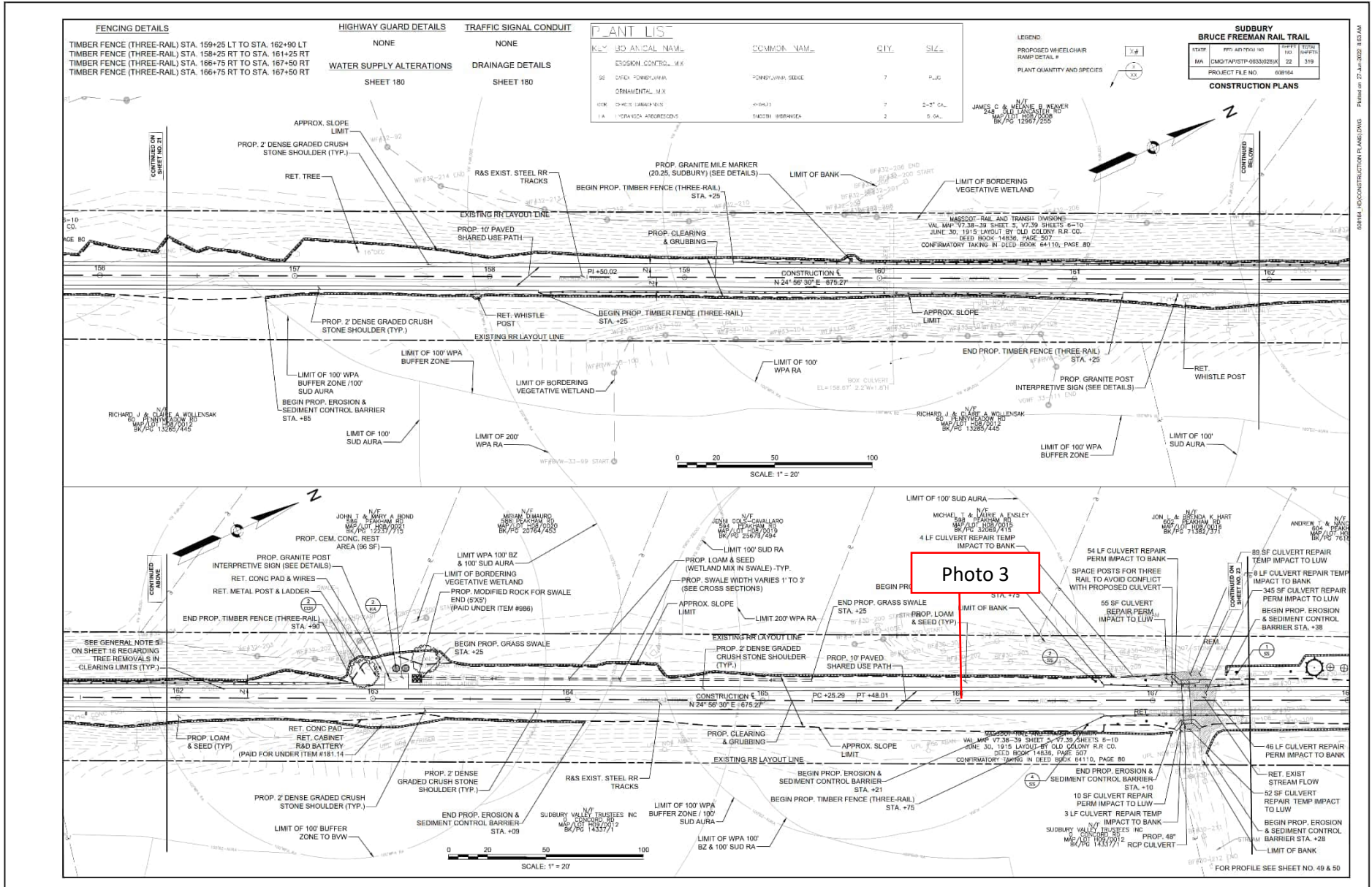
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FOR PROFILE SEE SHEET NO. 49

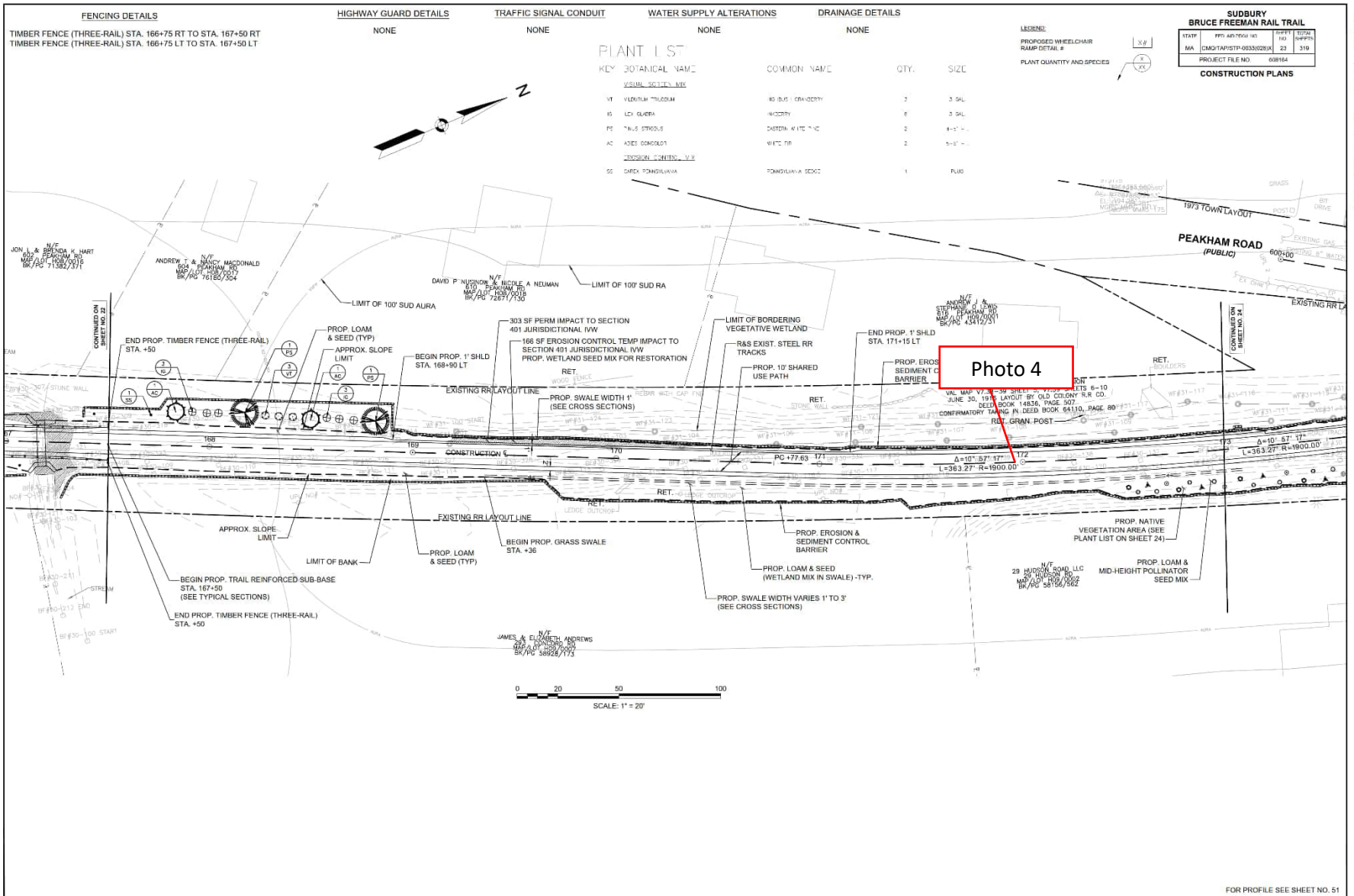


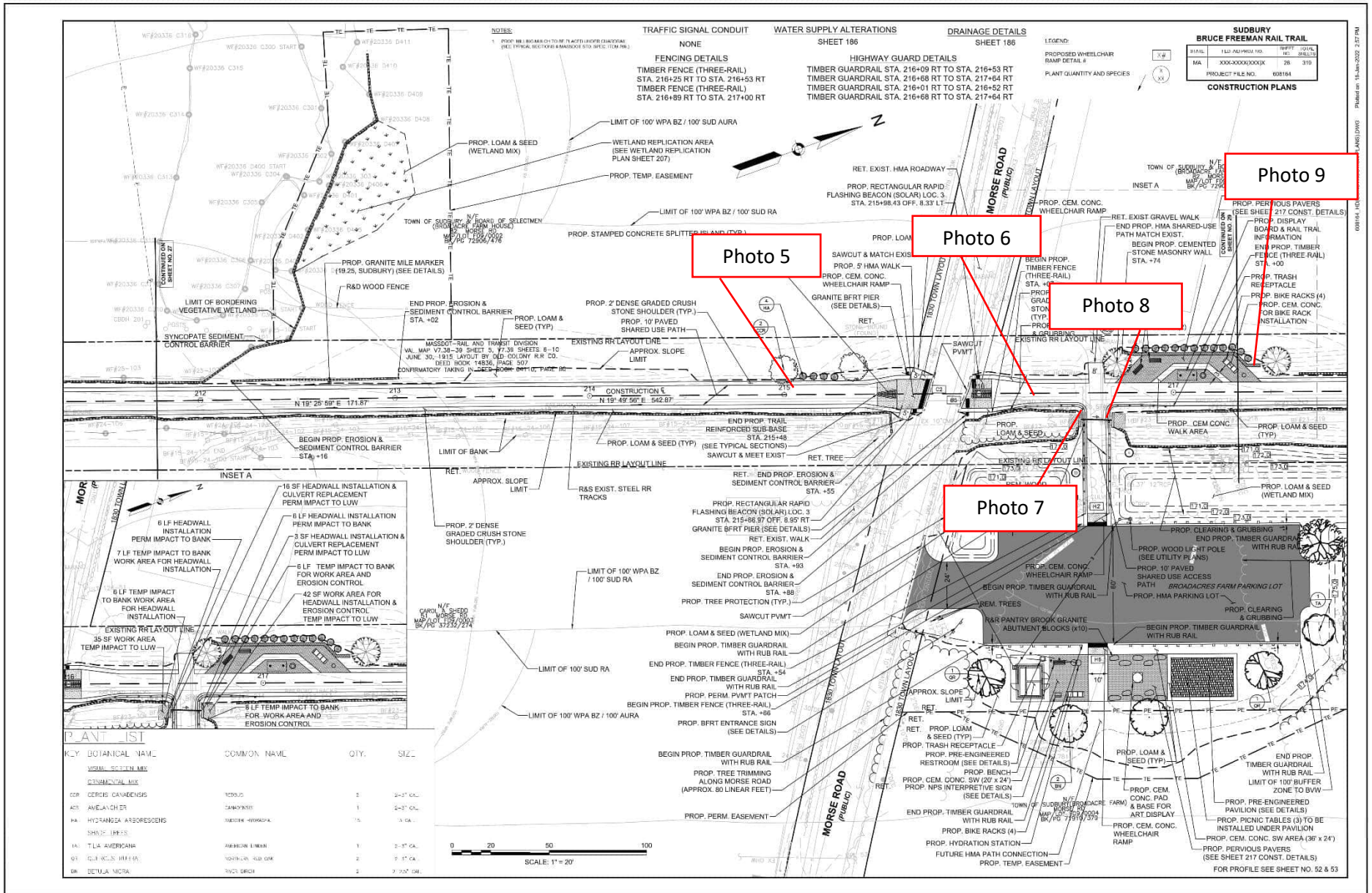
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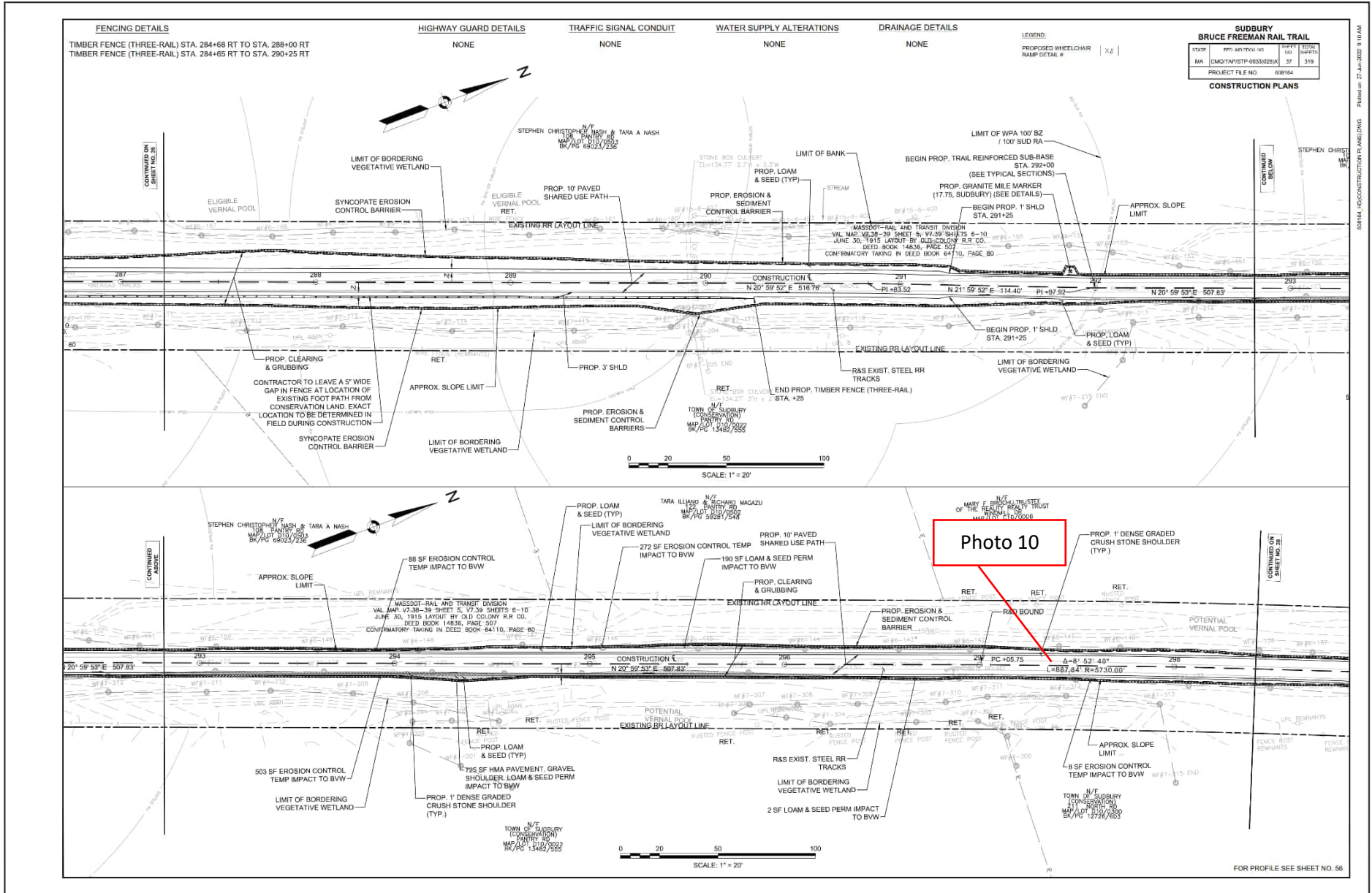


03/14/25 (CONSTRUCTION PLANS) DWG | Printed on: 27-Jan-2025 10:33 AM

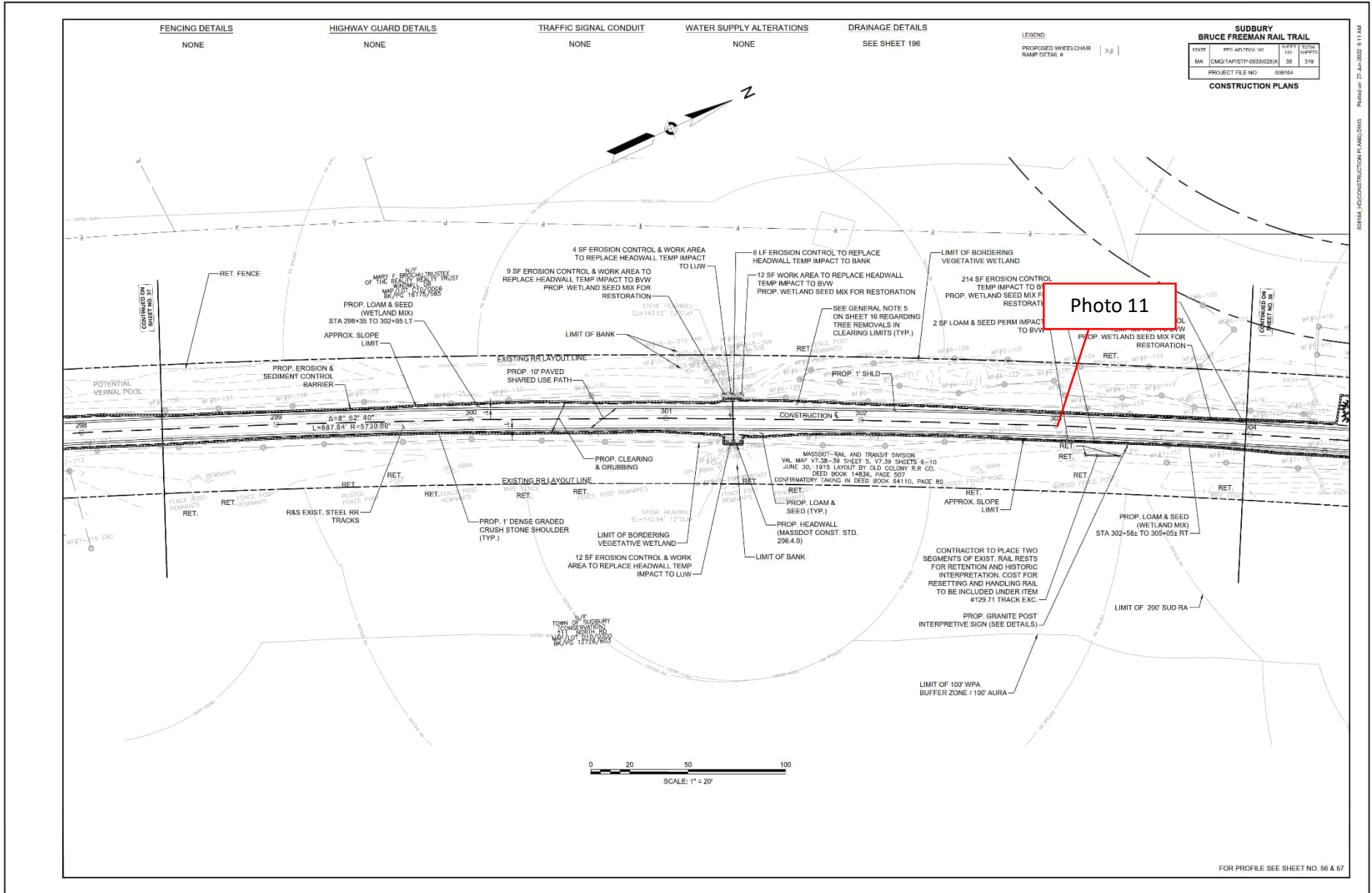


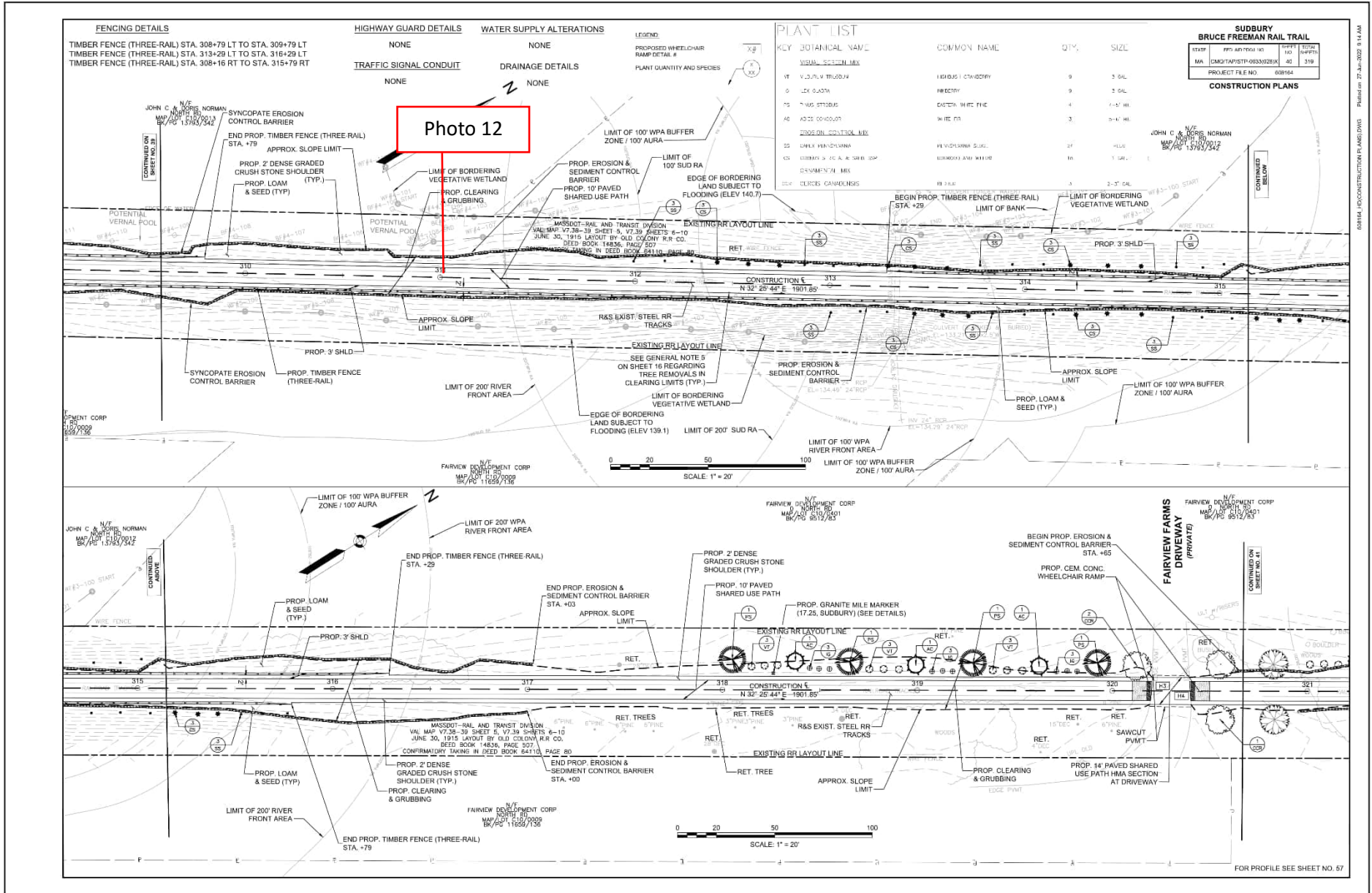






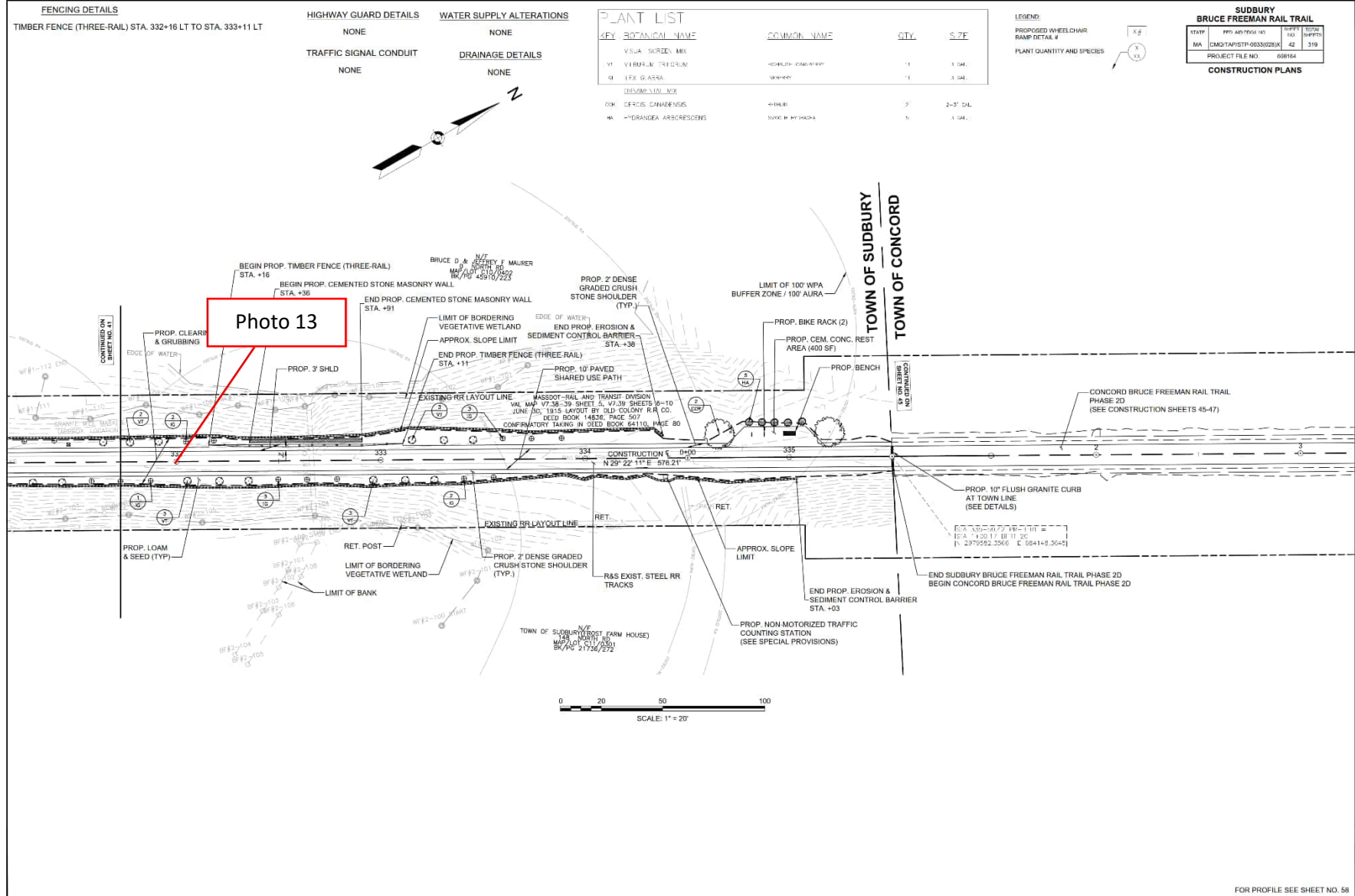
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03/14/25 10:00 AM CONSTRUCTION PLANS.DWG





03/14/25 CONSTRUCTION PLANS.DWG | Printed on 27-Jan-2025 9:16 AM

<b>Site Location</b> Bruce Freeman Rail Trail Right-of-Way	<b>BETA Project No.</b> 24.10326.23
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**Photo No. 1**    **Date:**  
1/15/2025

**Direction Photo Taken:**  
  
Toward the North

**Description:**  
  
View of the overtopped compost filter tube and exposed soils beyond the limits of work at Station 105+00 per Compliance Action Item 43.



**Photo No. 2**    **Date:**  
1/15/2025

**Direction Photo Taken:**  
  
Toward the North

**Description:**  
  
View of exposed soil at Station 139+00 that requires stabilization per Long Term Compliance Action Item. Note exposed soil is covered with snow.





<b>Site Location</b> Bruce Freeman Rail Trail Right-of-Way	<b>BETA Project No.</b> 24.10326.23
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<b>Photo No. 3</b>	<b>Date:</b> 1/15/2025	
<b>Direction Photo Taken:</b>  Toward the South		
<b>Description:</b>  View of exposed soil at Station 165+00 that requires stabilization per Long Term Compliance Action item 59. Note exposed soil is covered with snow.		

<b>Photo No. 4</b>	<b>Date:</b> 1/15/2025	
<b>Direction Photo Taken:</b>  Toward the South		
<b>Description:</b>  View of crushed stone within the swale at Station 172+00 per Compliance Action item 53. Note stone is covered with leaf litter.		



<b>Site Location</b> Bruce Freeman Rail Trail Right-of-Way		<b>BETA Project No.</b> 24.10326.23
<b>Photo No. 5</b>	<b>Date:</b> 1/15/2025	
<b>Direction Photo Taken:</b>  Toward the South		
<b>Description:</b>  View of loam that requires stabilization at Station 215+00 per Compliance Action Item 62. Note straw has been placed on the streambank in this location.		
<b>Photo No. 6</b>	<b>Date:</b> 1/15/2025	
<b>Direction Photo Taken:</b>  Toward the East		
<b>Description:</b> View of the location where loam and straw that were placed on the streambank have eroded into the streambed at Station 216+50, resulting in a discharge per Compliance Action Item 62.		



<b>Site Location</b>	Bruce Freeman Rail Trail Right-of-Way	<b>BETA Project No.</b> 24.10326.23
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**Photo No. 7**     **Date:**  
1/15/2025

**Direction Photo Taken:**  
  
Toward the West

**Description:**  
View of the location where the stream bank has been regraded beyond the limits of work and stabilization of loam is required at Station 216+00 per Long Term Compliance Action Item 41 and 62. Note straw has been placed on the streambank in this location.





**Photo No. 8**     **Date:**  
1/15/2025

**Direction Photo Taken:**  
  
Toward the West

**Description:**  
  
View of loam that requires stabilization at Station 217+00 per Compliance Action Item 62.





<b>Site Location</b> Bruce Freeman Rail Trail Right-of-Way		<b>BETA Project No.</b> 24.10326.23
<b>Photo No. 9</b>	<b>Date:</b> 1/15/2025	
<b>Direction Photo Taken:</b>  Toward the North		
<b>Description:</b>  View of the slope where hydroseed was applied and some germination has occurred at Station 217+45 per Compliance Action Item 34.		
<b>Photo No. 10</b>	<b>Date:</b> 1/15/2025	
<b>Direction Photo Taken:</b>  Toward the North		
<b>Description:</b>  View of an area of exposed soil at Station 297+50 per Long Term Compliance Action Item 59.		



<b>Site Location</b> Bruce Freeman Rail Trail Right-of-Way	<b>BETA Project No.</b> 24.10326.23
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**Photo No. 11**    **Date:**  
1/15/2025

**Direction Photo Taken:**  
  
Toward the East

**Description:**  
  
View of crushed stone that requires removal from the swale at Station 303+00 per Long Term Compliance Action Item 58. Note stone is currently covered in snow.



**Photo No. 12**    **Date:**  
1/15/2025

**Direction Photo Taken:**  
  
Toward the West

**Description:**  
  
View of placed loam that requires stabilization at Station 311+00 per Long Term Compliance Action Item 59.





<b>Site Location</b> Bruce Freeman Rail Trail Right-of-Way		<b>BETA Project No.</b> 24.10326.23
<b>Photo No. 13</b>	<b>Date:</b> 1/15/2025	
<b>Direction Photo Taken:</b>  Toward the South		
<b>Description:</b>  View of the riprap slope that extends beyond the limit of work along the WF1 Series wetland at Station 332+00 per Long Term Compliance Action Item 42.		