

**Environmental Monitor Construction Site Inspection Report
MassDOT Project #608164 Construction Contract # 119678
EM Report #23**

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:	9/16/2024
Bi Weekly/ Monthly Period Covered:	September Weekly Inspection #3
Inspector's Name(s):	Anna Haznar
Inspectors' Contact Information:	ahaznar@beta-inc.com

II. Weather Information

	Inspection #1	Inspection #2	Inspection #3	Inspection #4	Inspection #5	Inspection #6
	Inspector: Anna Haznar 9/3/2024	Inspector: Anna Haznar 9/10/2024	Inspector: Anna Haznar 9/16/2024	Inspector:	Inspector:	Inspector:
74						
Type of Inspection (i.e. non-storm event, pre-storm event, during-storm event or post-storm event):	Non-storm	Non-storm	Non-storm			
Number of days since last rain event greater than .25"						
Has there been a storm event since the last inspection?	No	No	No			
If yes, please provide storm start date, storm duration, and approx amount of precipitation:						
Storm 1:						
Storm 2:						
Storm 3:						
Storm 4:						
Weather at the time of inspection (i.e. clear, overcast, cloudy, rain, sleet, fog, snow, Temperature:	Clear 68	Clear 75	Clear 74			
Unusual Conditions (drought, severe storm):						
Have any discharges occurred since the last inspection report?	Yes	No	No			
If yes, please describe:	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.					

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

9/3/2024 - At the time of the Site visit, no work was occurring.

9/10/2024 - At the time of the Site visit, no work was occurring.

9/16/2024 - At the time of the Site visit, the yellow center line and roadway pavement marking were being painted on the trail at multiple intersections throughout the trail.

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. While areas upgradient of degraded controls are temporarily stabilized at some locations, several discharges of sediment beyond the limits of work were observed including at Stations 172+00 to 173+00, with the cattle crossing at Station 190+50, within the streambed at Station 215+00 to 216+00 and multiple other locations along the path. It is recommended that the contractor repair erosion and sedimentation control measures where breaches are occurring and where stabilization has not been achieved. Areas where stabilization has commenced should be monitored for germination, as replacement of erosion controls may not be required if stabilization is achieved. 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.
Inlet Protection Measures	No	
Stabilized Construction Entrances	No	
Stockpile Protections	No	
Dust Control	No	
Street Sweeping	Yes	Sweeping of stone dust is required on the path at Station 297+00 to 298+00 and at Station 308+00. 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. Stabilization efforts are required at Station 105+00 to 106+00, Stations 172+00 to 175+00, Station 217+45, Station 265+50 to 273+00, and along the driveway to the parking lot near Station 216+50. Stabilization has commenced via application of hydroseed at the majority of these locations and should be monitored for successful establishment. Multiple areas throughout the path have been observed as no longer stabilized due to herbicide application, seed should be spread in these locations to stabilize the areas.
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.

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 [August 31, 2024].

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
53	Stone was observed requiring removal from the swale on the east side of the trail at Station 172+00 to 173+00 Priority: High	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.
52	Slopes along the driveway to the parking lot at Station 216+50 requires stabilization Priority: Medium	7/29/2024	8/6/2024	Install erosion control blanket and place seed.	8/5/2024 - Observation remains. 8/7/2024 - Observation remains. 8/12/2024 - Observation remains. 8/16/2024 - Observation remains. 8/20/2024 - Observation remains. Erosion controls have been installed between the slope and the downgradient stream, but seed is still required. 8/27/2024 - Observation remains. 9/3/2024 - Observation remains. 9/10/2024 - Slopes have been hydroseeded. Item will remain open till stabilization occurs. 9/16/2024 - Observation remains. Some germination has been observed at this location.
43	Overtopped compost filter tubes and exposed soils beyond the limits of work at Station 105+00 Priority: High	6/7/2024	6/14/2024	Stabilize the area with the approved seed mixture and provide interim stabilization such as straw mulch.	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.

44	Slopes require stabilization / additional seed due to lack of compost filter tubes at 105+00 and 106+00 Priority: High	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 - Observation remains. 7/22/2024 - Observation remains. 7/29/2024 - Regrowth of vegetation has been observed in this area. This item will remain open until the area is fully stabilized. 8/5/2024 - Observation remains. 8/7/2024 - Regrowth of vegetation has been observed but the area is not yet 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 - Vegetation has partially stabilized this area; however, seed should be applied. 9/3/2024 - Observation remains. 9/10/2024 - Observation remains. Application of the approved seed mixture is require at this location. 9/16/2024 - Observation remains.</p>
47	Slope stabilization required due to condition of compost filter tubes at Station 265+50 and 273+00 Priority: High	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.</p>

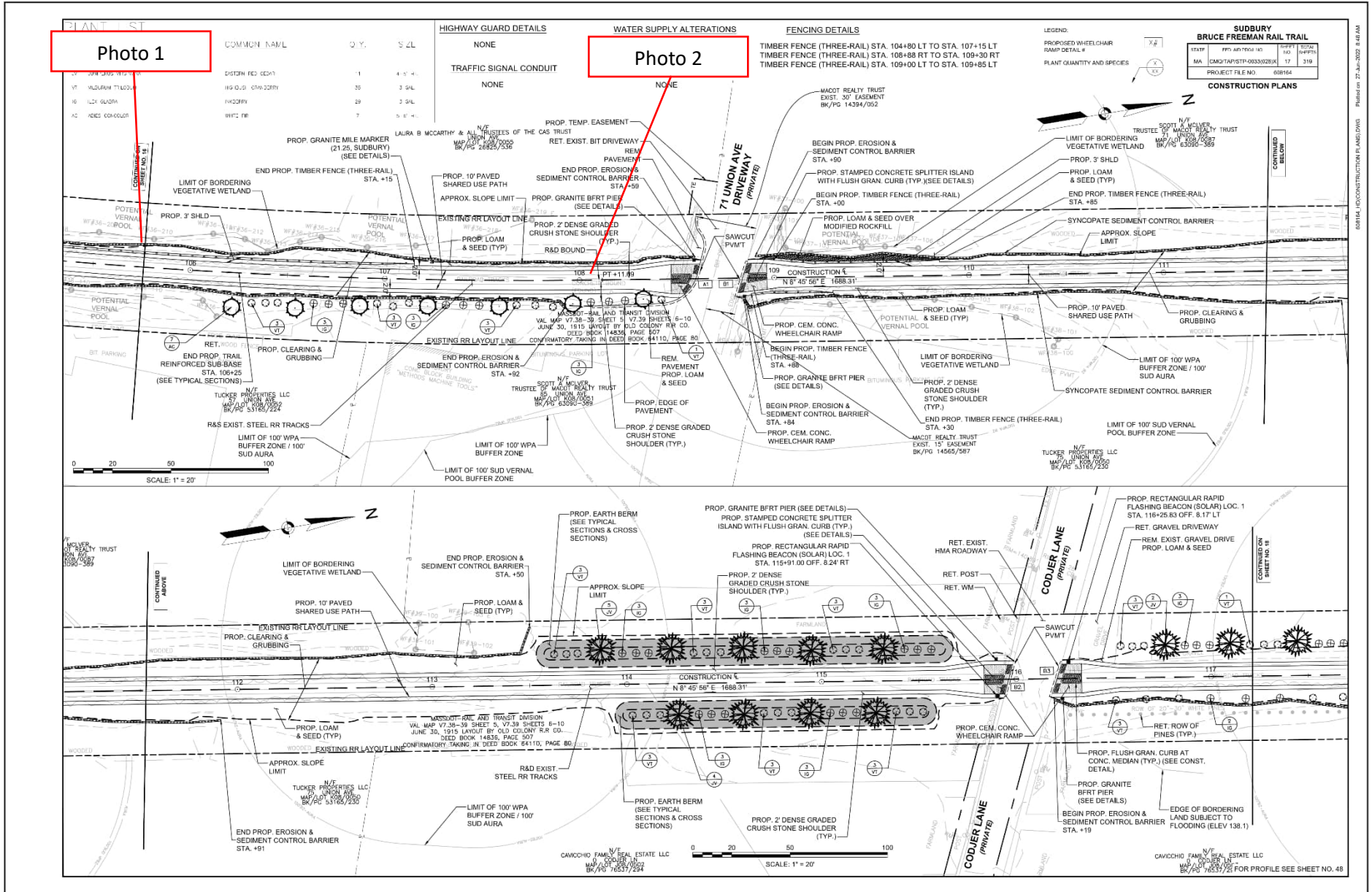
34	<p>Sediment is eroding downhill from behind the cemented stone masonry wall at Station 217+45 Priority: Low</p>	5/28/2024	6/4/2024	<p>Apply seed and temporarily stabilize the soils along the slope with straw, jute netting, etc.</p>	<p>5/31/2024 - Observation remains. 6/7/2024 - Observation remains. 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.</p>
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 Priority: High</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.</p>

6	Exposed sediment slope at Station 172+00 to 175+00 Priority: High	5/8/2024	5/15/2024	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. 5/21/2024 - Observation remains. 5/28/2024 - Partial germination was observed. 5/31/2024 - See previous update. 6/7/2024 - Further earthwork has occurred and soils require stabilization. 6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 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. 7/8/2024 - Jute netting has been installed over the applied seed, and the area will be monitored for germination. 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 was observed in this location. This item will remain open until stabilization has been completed. 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 - 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. 9/16/2024 - See previous update.</p>
57	Japanese hops (<i>Humulus japonicus</i>) has been observed throughout the Project and requires removal Priority: High	8/5/2024	Resolved: 9/16/2024 8/12/2024	The Contractor should perform varying removal approaches including herbicide treatment and hand pulling to remove the vegetation throughout the Project and reseed areas that are no longer stabilized due to herbicide application.	<p>8/5/2024 - Removal methods, including herbicide work and hand pulling have been observed to remove the plant throughout the Project. 8/7/2024 - Japanese hops and other invasives appear to be wilting due to herbicide application. Multiple areas along the trail appear to have not been treated and seed heads have appeared on some of the plants that were not treated. A second application of herbicide and pulling of plants with seedheads is recommended to ensure spreading does not continue. 8/12/2024 - Herbicide application on the Japanese hops and other invasives was occurring at the time of the inspection. Plants that have been previously treated appear to be dead or wilting. 8/16/2024 - A majority of the Japanese hops were observed as wilting, while some plants do not appear to have been treated (i.e., near Station 1003+00). 8/20/2024 - Multiple areas throughout the Project where herbicide application was performed have been observed as no longer stable due to herbicide killing grass and other vegetation. These areas include but are not limited to Station 137+00 to Station 145+00 and Station 223+00 to Station 240+00. These areas should be reseeded to ensure stabilization. 8/27/2024 - Observation remains. Areas that are no longer stabilized due to herbicide application should be reseeded. There are multiple locations along the path where hops are present with seed heads and should be retreated. 9/3/2024 - Observation remains. Japanese hops that were treated with herbicide appear to be dead. Japanese hops are still present along the path in varying amounts, with a large population with seed heads present near Station 1002+00. Areas that are no longer stabilized due to herbicide application are further discussed in Long Term Compliance Action Item 59. 9/10/2024 - Observation remains. It does not appear as though further removal of the Japanese hops has occurred since the last inspection. 9/16/2024 - Japanese hops along the trail have been controlled. Vegetation along the trail will continue to be monitored.</p>
51	Stone dust requiring sweeping was observed within and to the east of the trail at Station 297+00 to 298+00 and 308+00. Priority: High	7/29/2024	Resolved: 9/3/2024 8/6/2024	Sweep stone dust from trail and sides of trail.	<p>8/5/2024 - Observation remains. 8/7/2024 - Observation remains. Crushed stone was observed in the path throughout the Project in varying volumes and requires sweeping. 8/12/2024 - Crushed stone was observed on the path throughout the Project. 8/16/2024 - Crushed stone is still present. 8/20/2024 - Observation remains. 8/27/2024 - Observation remains. 9/3/2024 - Stone dust is no longer present on the trail in this location, but is still present on other locations along the trail. See Long Term Compliance Action Item 58 for crushed stone removal requirements.</p>

56	Concrete requiring removal was observed from the side of the path adjacent to the Pantry Road intersection Priority: High	8/20/2024	Resolved: 9/3/2024 8/27/2024	Remove and properly dispose of concrete	8/27/2024- Observation remains. 9/3/2024 - Concrete has been removed.
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
59	Multiple locations of exposed soils along the Project corridor require stabilization Priority: High	9/3/2024	9/10/2024	The contactor should apply the approved seed mixture to areas of exposed soils and place straw.	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. 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. 9/16/2024 - Observation remains. The contactor indicated areas of bare soil will be hydroseeded.
58	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 Priority: High	8/7/2024	8/14/2024	Remove all crushed stone from Resource Areas and develop a plan to cease discharges of stone.	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.

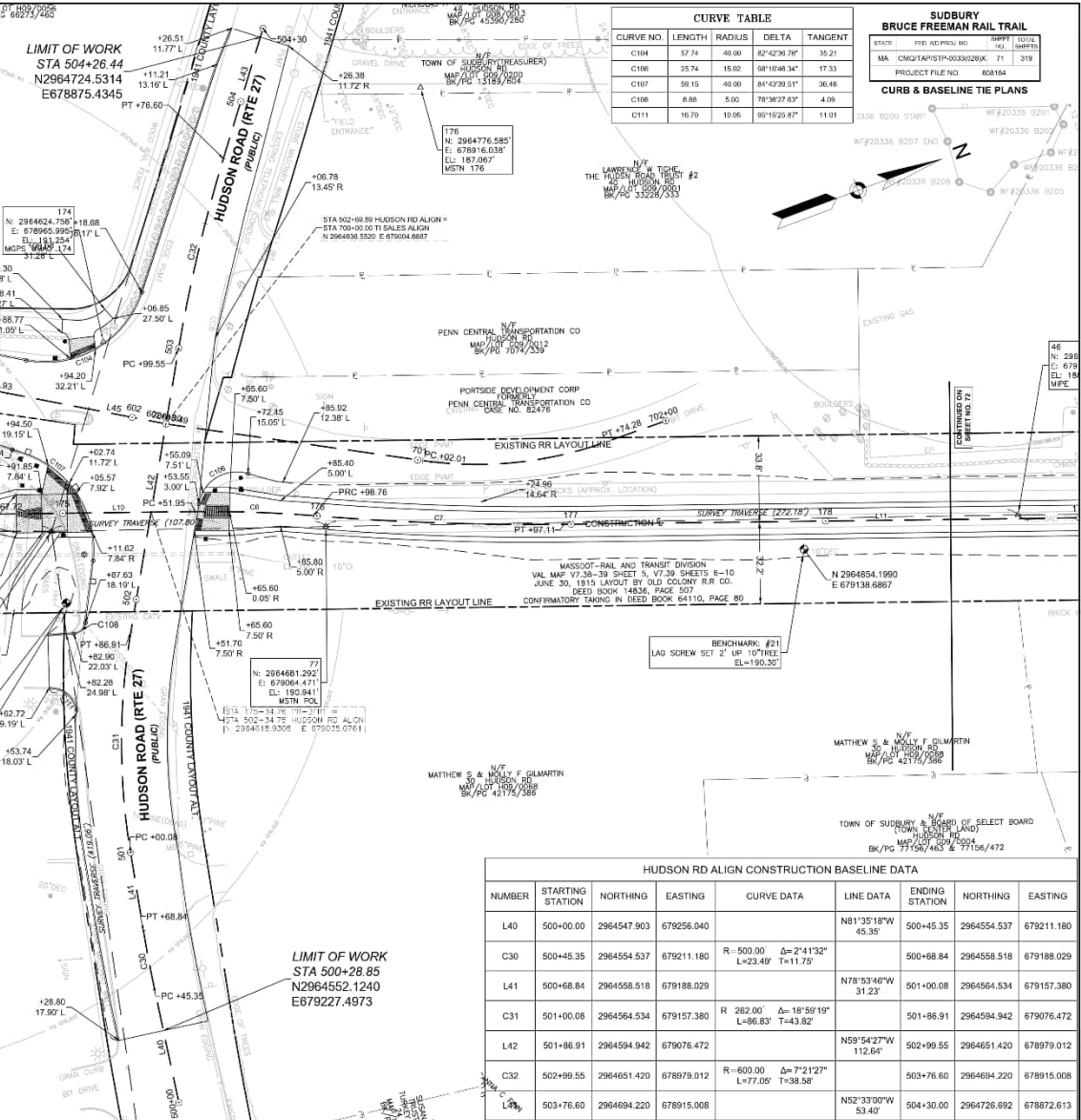
42	Riprap slope extends beyond limits of work along the WF1 Series wetland near flags 103 to 107 Priority: High	5/28/2024	6/4/2024	The Contractor should confirm if this work was permitted by the Conservation Commission, as it does not appear to be a part of the approved plans/impacts. MassDOT should be consulted on next steps regarding notification and potential restoration.	<p>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.</p>
41	Stream Bank has been regraded beyond the limit of work at Station 216+00 Priority: High	5/28/2024	6/4/2024	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>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.</p>

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			



08/14/24 CONSTRUCTION PLANS.DWG | Printed: 27-Jun-2025 8:48 AM

PR-BFRT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C4	170+77.63	2964187.619	678885.721	R=1900.00 Δ=10°57'17" L=363.27° T=182.19°		174+40.91	2964630.189	679004.642
C5	174+40.91	2964530.189	679004.642	R=250.00 Δ=6°08'42" L=26.81° T=13.42°		174+67.72	2964555.854	679012.359
L10	174+67.72	2964555.854	679012.359		N19°48'24"E 84.23'	175+51.95	2964635.105	679040.901
C6	175+51.95	2964635.105	679040.901	R=500.00 Δ=5°21'48" L=46.81° T=23.42°		175+98.76	2964678.335	679058.797
C7	175+98.76	2964678.335	679058.797	R=1050.00 Δ=5°22'01" L=98.36° T=49.21°		176+97.11	2964769.179	679096.401
L11	176+97.11	2964769.179	679096.401		N19°48'11"E 225.92'	179+22.94	2964981.648	679172.907

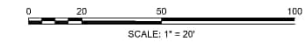


CURVE TABLE				
CURVE NO.	LENGTH	RADIUS	DELTA	TANGENT
C104	57.74	40.00	82°42'36.78"	35.21
C106	25.74	15.00	98°10'48.34"	17.33
C107	58.15	40.00	84°42'39.51"	36.48
C108	6.86	5.00	78°36'27.83"	4.09
C111	16.70	10.00	95°19'25.81"	11.01

SUDBURY RAIL TRAIL			
STATE	FED. AID PROJ. NO.	SHRPT	DATE
MA	CNGTAP/STP-003026X	71	319
PROJECT FILE NO.		606184	
CURB & BASELINE TIE PLANS			

Photo 4

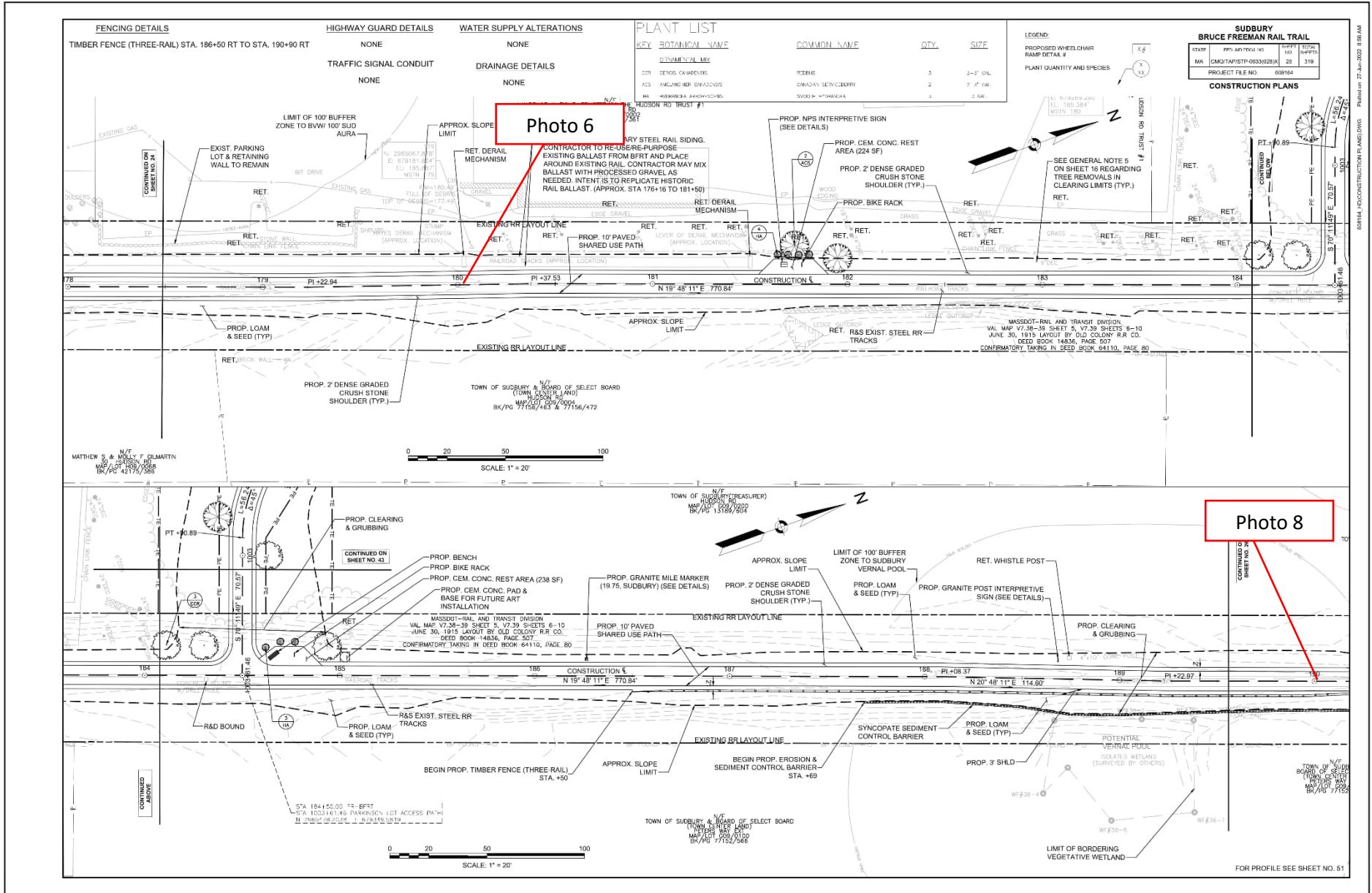
Photo 5



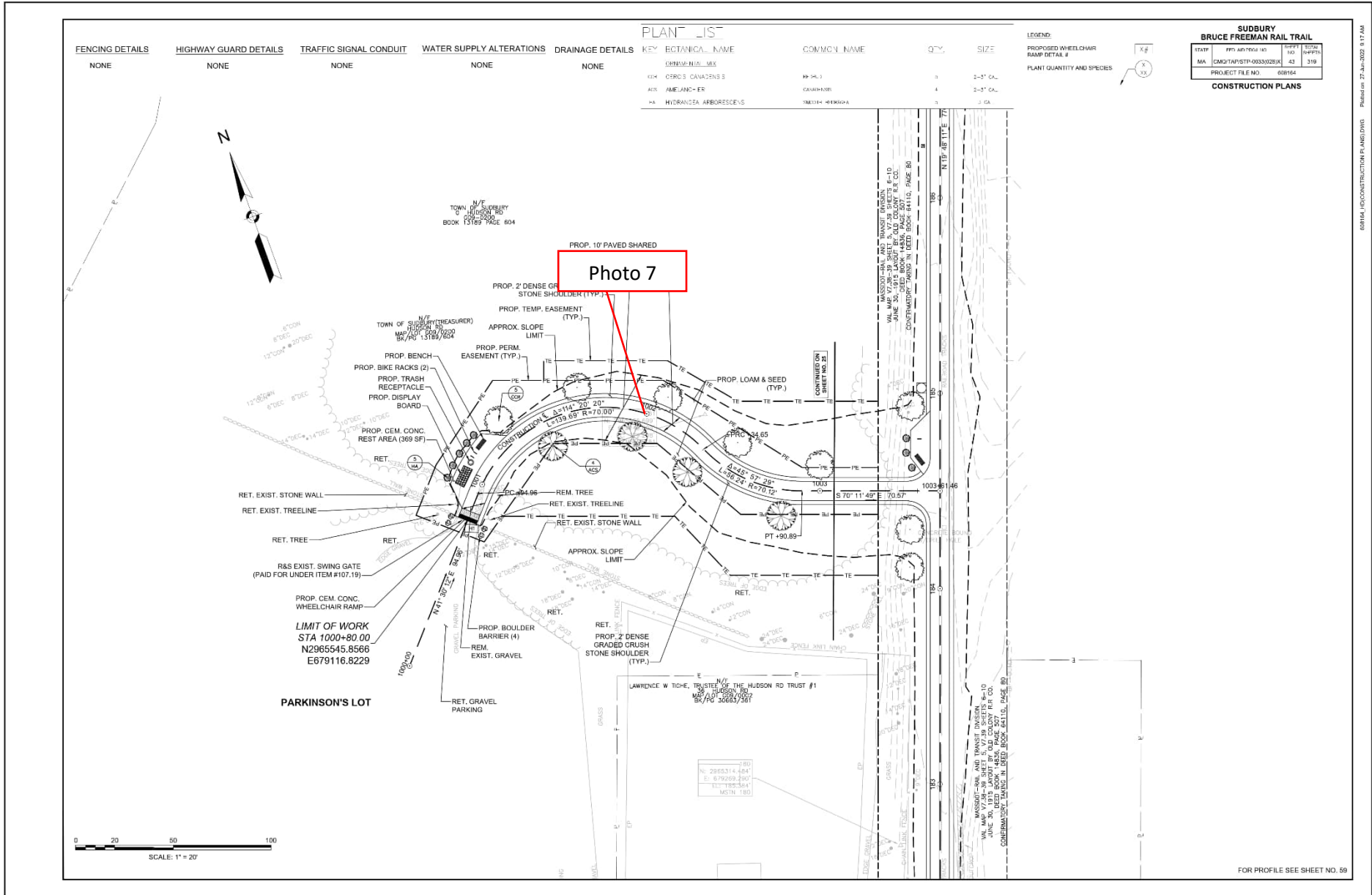
PEAKHAM CL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L44	600+00.00	2964455.986	678890.793		N32°49'51"E 111.19'	601+11.19	2964549.437	678951.050
C33	601+11.19	2964549.437	678951.050	R=1000.00 Δ=1°21'36" L=23.74° T=11.87°		601+34.93	2964569.536	678963.675
L45	601+34.93	2964569.536	678963.675		N31°27'15"E 78.56'	602+13.49	2964636.552	679004.669

HUDSON RD ALIGN CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L40	500+00.00	2964547.903	679256.040		N81°35'18"W 45.36'	500+45.35	2964554.537	679211.180
C30	500+45.35	2964554.537	679211.180	R=500.00 Δ=2°41'32" L=23.49° T=11.72°		500+68.84	2964558.518	679188.029
L41	500+68.84	2964558.518	679188.029		N78°53'48"W 31.23'	501+00.08	2964564.534	679157.380
C31	501+00.08	2964564.534	679157.380	R=282.00 Δ=18°55'18" L=86.63° T=43.82°		501+86.91	2964594.942	679076.472
L42	501+86.91	2964594.942	679076.472		N59°54'27"W 112.64'	502+99.55	2964651.420	678979.012
C32	502+99.55	2964651.420	678979.012	R=600.00 Δ=7°21'27" L=77.05° T=38.58°		503+76.60	2964684.220	678915.008
L43	503+76.60	2964684.220	678915.008		N52°33'00"W 53.40'	504+30.00	2964726.692	678872.613

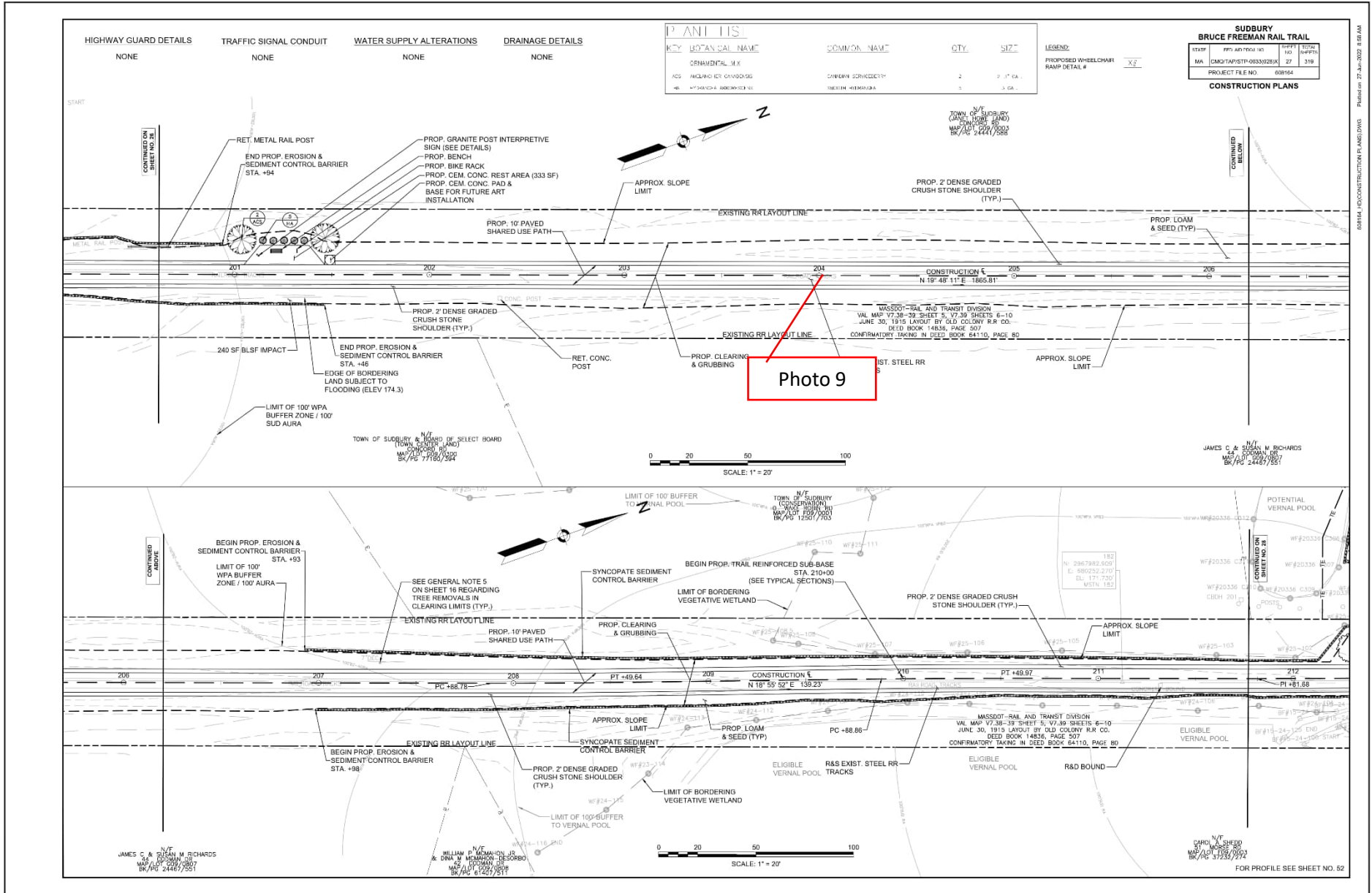
606184 - PEAKHAM & BASELINE TIE PLANS.DWG



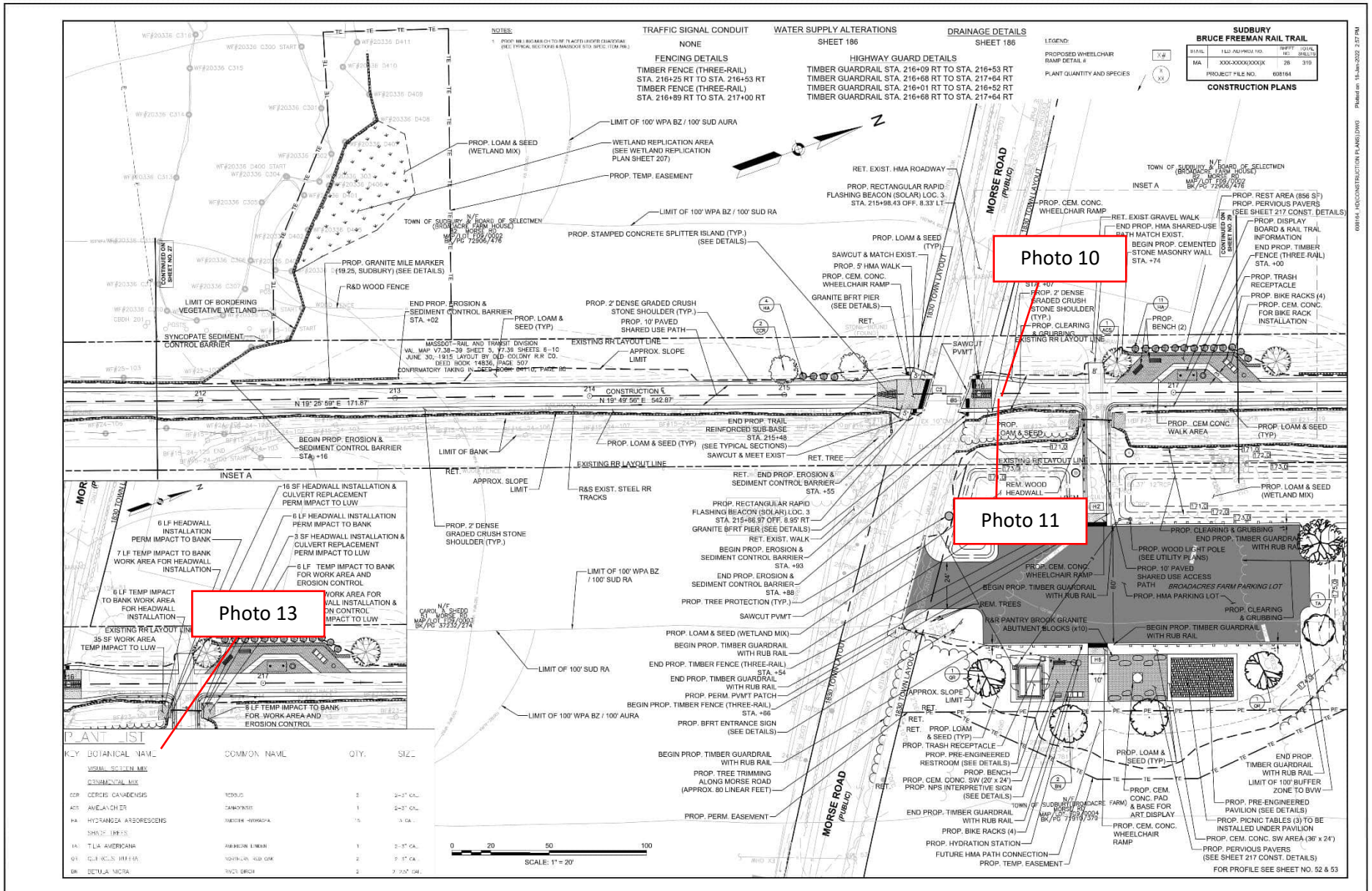
B08141-10-CONSTRUCTION PLANS.DWG | Published: 27-Jun-2024 8:56 AM

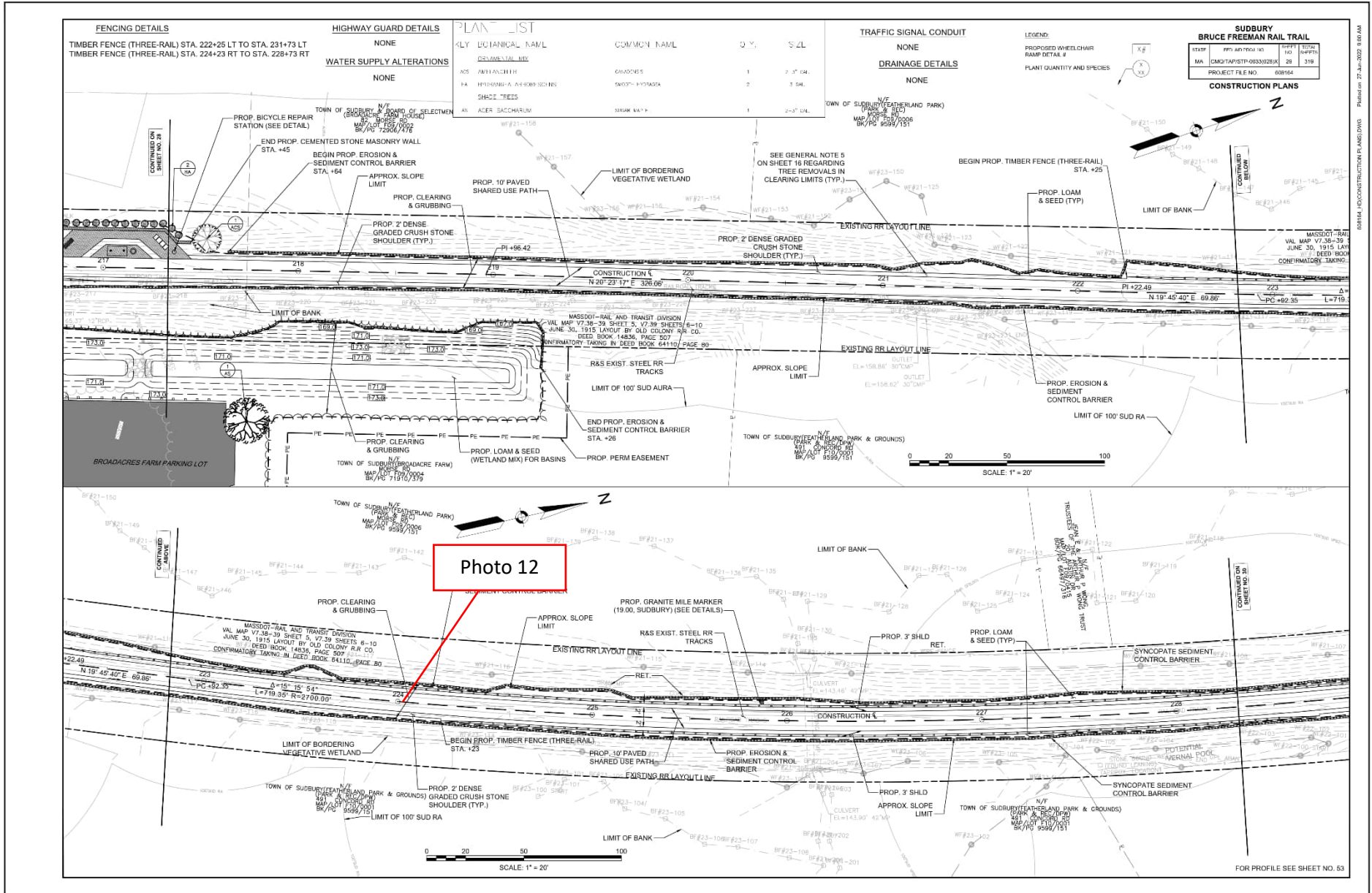


608164_I05.CONSTRUCTION PLANS.DWG | Pinned on 7/24/2025 9:17 AM

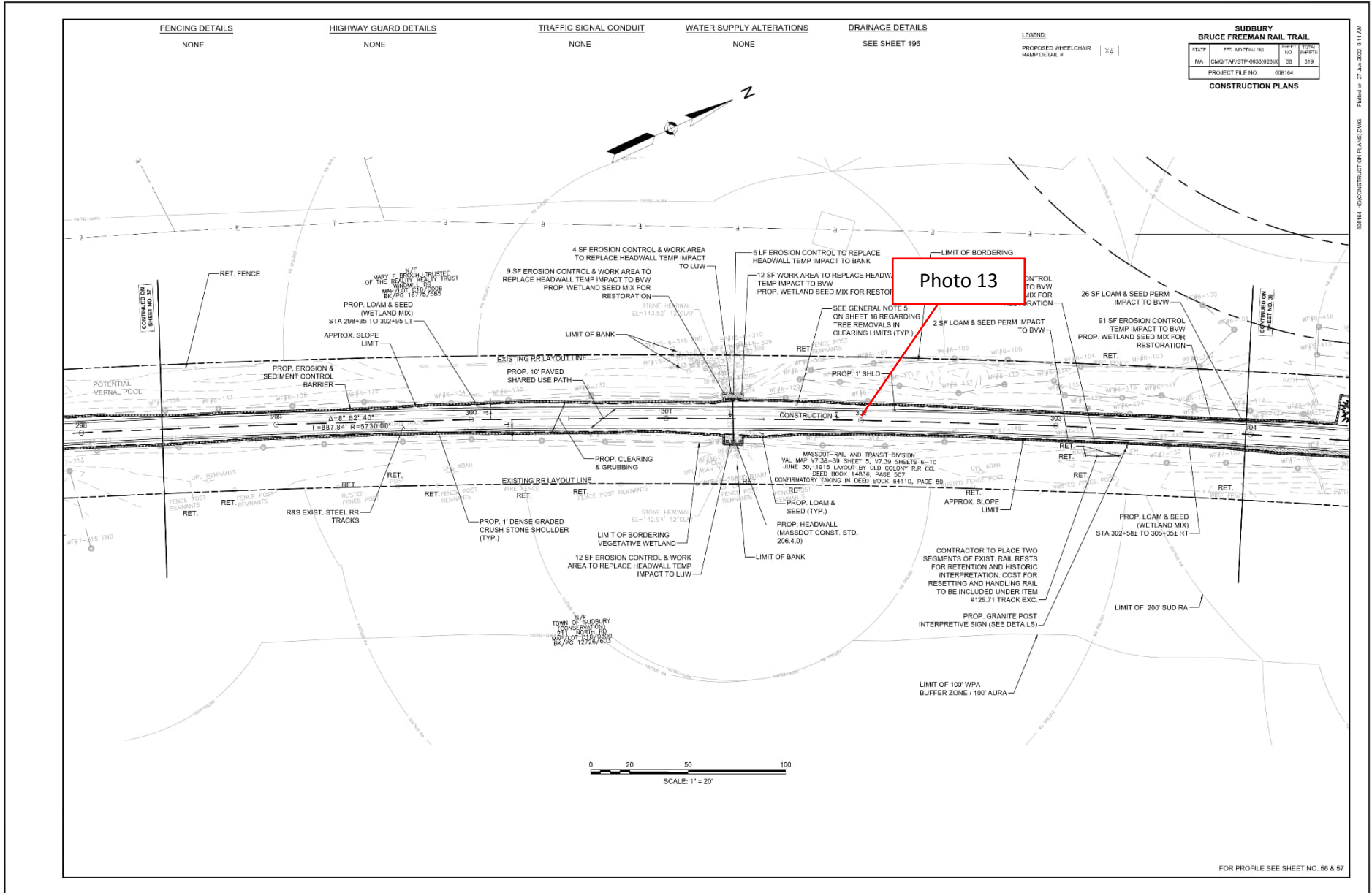


008164-10-CONSTRUCTION PLANS.DWG | Printed on: 27-Jun-2025 8:58 AM





08/14/24 CONSTRUCTION PLANS.DWG | PUBLISHED: 27-JUN-2025 9:00 AM



FENCING DETAILS

NONE

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

NONE

DRAINAGE DETAILS

SEE SHEET 196

LEGEND

PROPOSED WHEELCHAIR RAMP DETAIL # | X# |

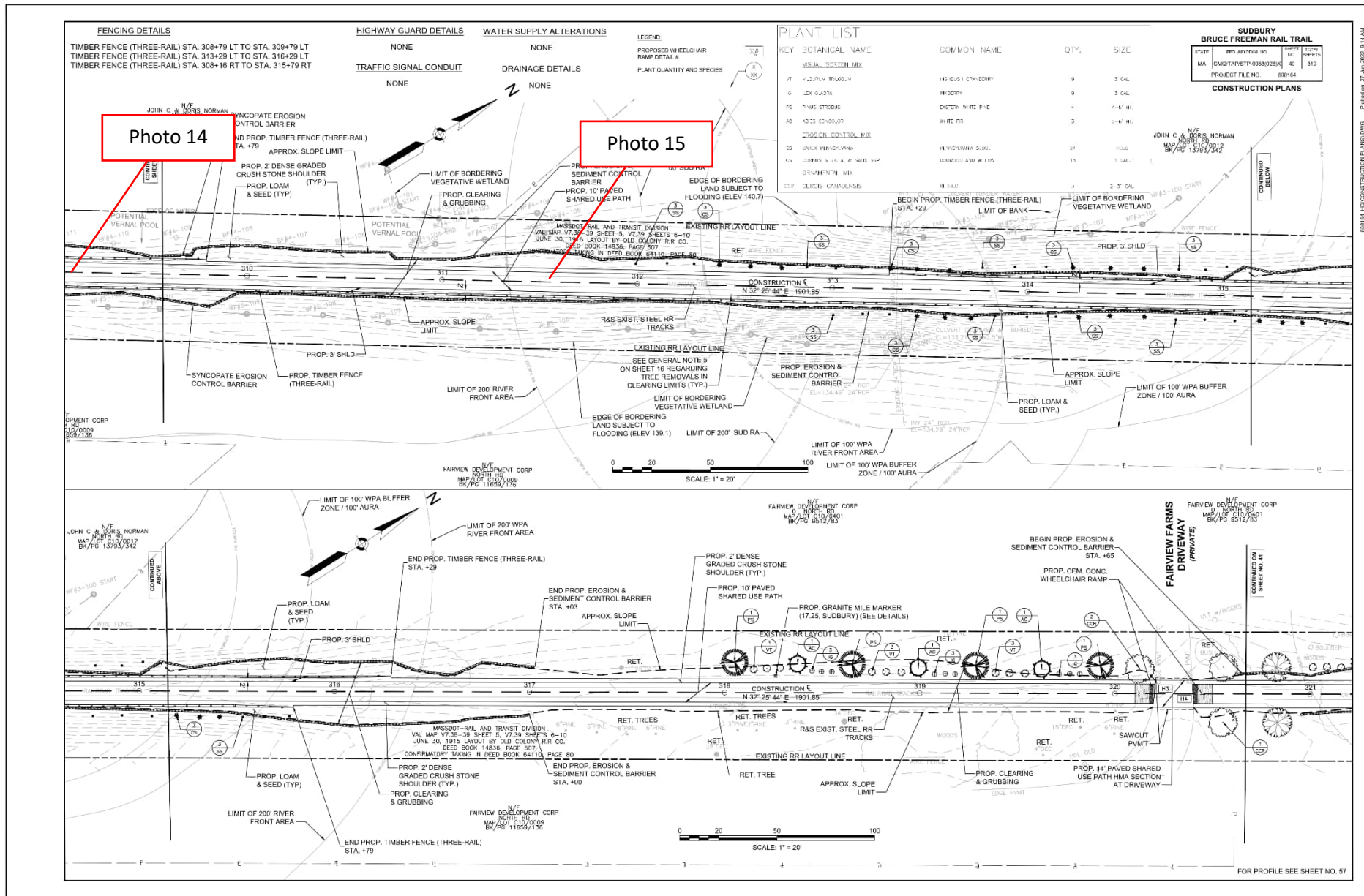
SUDBURY BRUCE FREEMAN RAIL TRAIL			
STATE	PROJ. NO.	DATE	SCALE
MA	CMG2/TAP/STP-0033/0228X	10/2023	3/8" = 1'-0"
PROJECT FILE NO.		608164	
CONSTRUCTION PLANS			

Photo 13

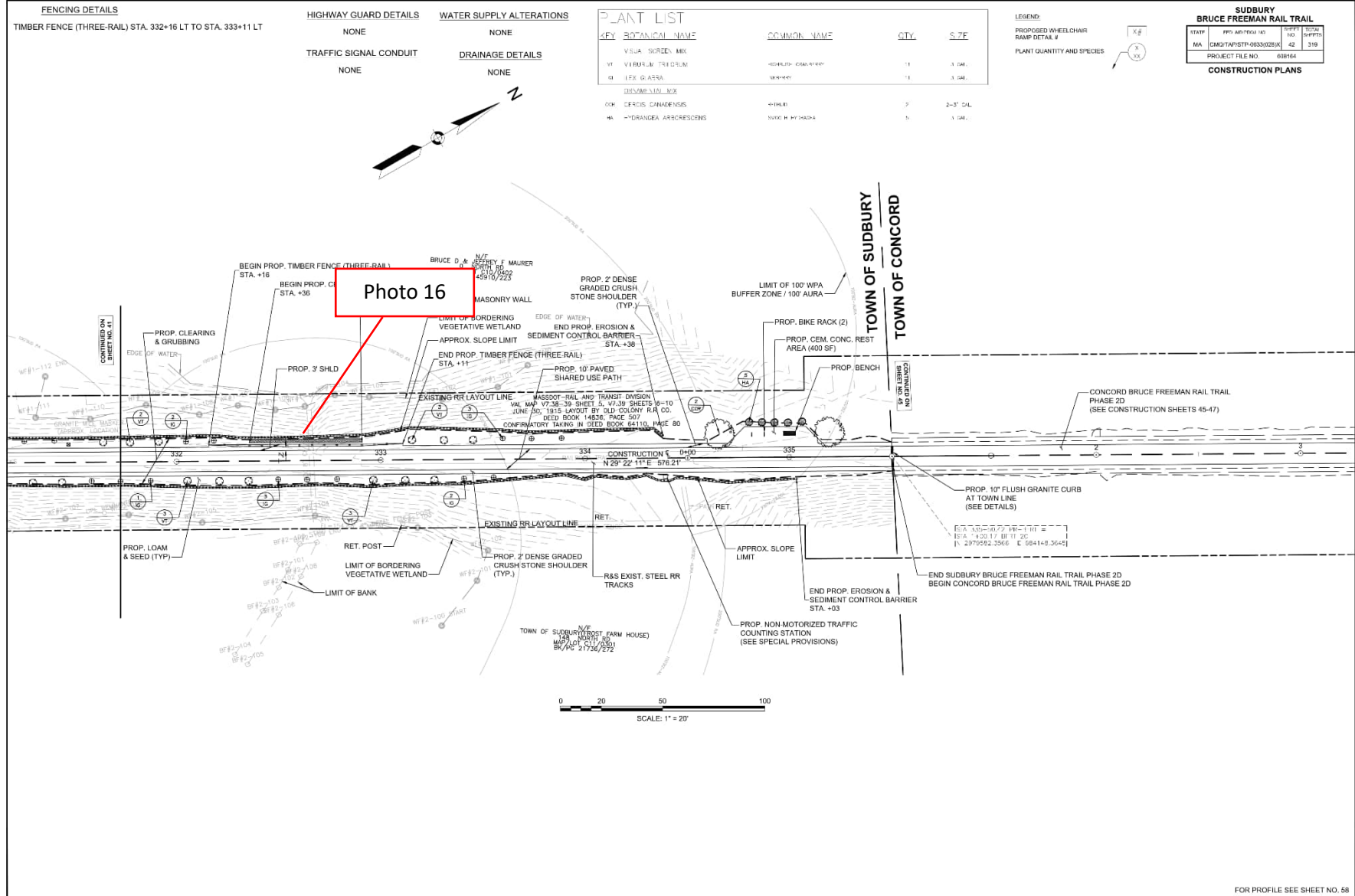
0 20 40 60 80 100
SCALE: 1" = 20'

FOR PROFILE SEE SHEET NO. 56 & 57

08/14/24 CONSTRUCTION PLANS.DWG | Printed on: 27-Jun-2025 9:11 AM



BETA, INC. CONSTRUCTION PLANS.DWG | Released: 27-Jun-2025 9:14 AM



FENCING DETAILS

TIMBER FENCE (THREE-RAIL) STA. 332+16 LT TO STA. 333+11 LT

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

NONE

DRAINAGE DETAILS

NONE

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE
V1	VISUA SCREEN MIX			
V2	VERBENA TRI-DUM	MEDICINAL HERB	1	3 GAL.
G1	GEX G. ALBA	ORNAMENTAL MIX	1	3 GAL.
ORNAMENTAL MIX				
O1	OFCUS CANADENSIS	HYDRANGEA	2	2-3' DIA.
H1	HORANDEA ARBORESCENS	HYDRANGEA	5	3 GAL.

LEGEND

PROPOSED WHEELCHAIR RAMP DETAIL #
PLANT QUANTITY AND SPECIES

SUDBURY BRUCE FREEMAN RAIL TRAIL

STATE	FPS	APR	7500	40	DIFF	12724
MA	CMG2/TAP/STP-0033/0228X			100		42 319
PROJECT FILE NO. 608154						

CONSTRUCTION PLANS

008154_CONSTRUCTION PLANS.DWG | Pinned: 27-Jun-2025 9:16 AM

FOR PROFILE SEE SHEET NO. 58

Site Location Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
------------------------------------------------------------	----------------------------------------

Photo No. 1 **Date:**
9/16/2024

Direction Photo Taken:

Toward the North

Description:

View of the overtopped compost filter tube beyond the limits of work at Station 105+00 per Compliance Action Item 43.



Photo No. 2 **Date:**
9/16/2024

Direction Photo Taken:

Toward the North

Description:

Typical view of the center line and roadway markings that have been painted at all of the intersections along the path; this photo shows the intersection at 71 Union Ave Driveway (Station 108+50).



Site Location Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
------------------------------------------------------------	----------------------------------------

Photo No. 3 **Date:**
9/16/2024

Direction Photo Taken:

Toward the North

Description:

View of an area that is no longer stabilized due to herbicide application at Station 140+00 per Long Term Compliance Action Item 59 and 57.

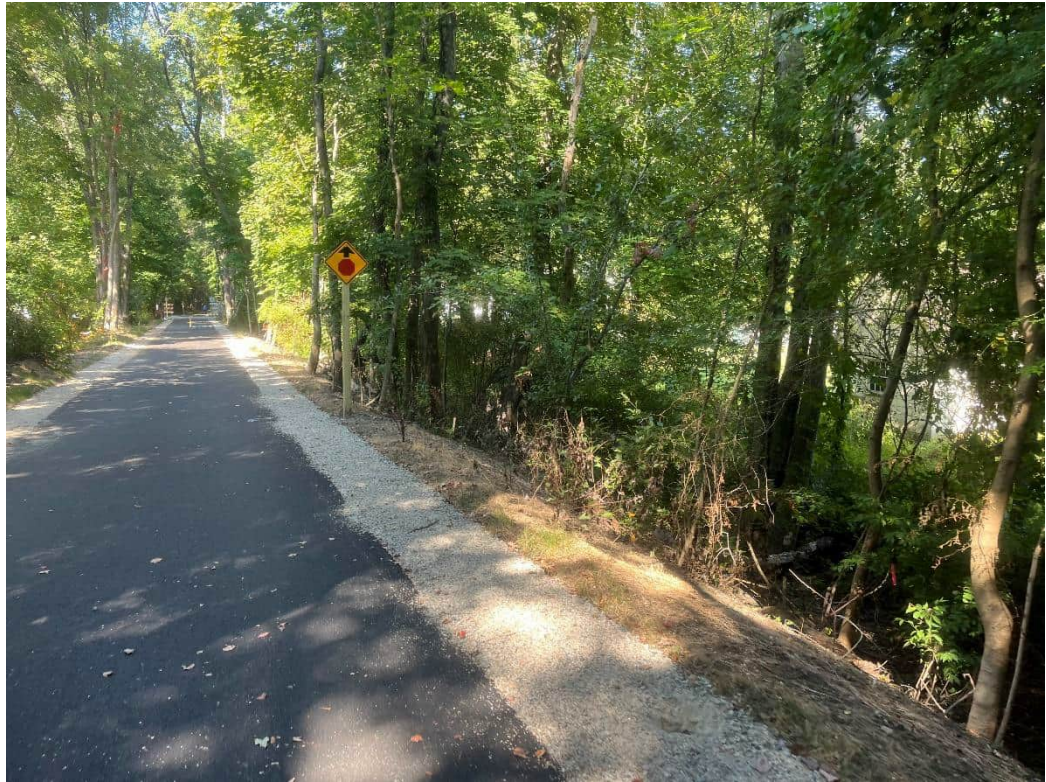


Photo No. 4 **Date:**
9/16/2024

Direction Photo Taken:

Toward the Northeast

Description:

View of crushed stone requiring removal from the swale at Station 172+00 per Compliance Action Item 53.



Site Location Bruce Freeman Rail Trail Right-of-Way		BETA Project No. 24.10326.23
Photo No. 5	Date: 9/16/2024	
Direction Photo Taken: Toward the East		
Description: View of slopes requiring stabilization at Station 172+00 to 175+00 per Compliance Action Item 6.		
Photo No. 6	Date: 9/16/2024	
Direction Photo Taken: Toward the East		
Description: View of a location where crushed stone has migrated off of the shoulders at Station 180+00 per Long Term Compliance Action Item 58.		

Site Location Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
------------------------------------------------------------	----------------------------------------

Photo No. 7 **Date:**
9/16/2024

Direction Photo Taken:

Toward the West

Description:

View of a location where crushed stone has migrated off of the shoulders at Station 1002+00 per Long Term Compliance Action Item 58.



Photo No. 8 **Date:**
9/16/2024



Direction Photo Taken:

Toward the East

Description:

View of the crushed stone that has discharged into the cattle crossing at Station 190+50 per Long Term Compliance Action Item 58.



Site Location Bruce Freeman Rail Trail Right-of-Way		BETA Project No. 24.10326.23
Photo No. 9	Date: 9/16/2024	
Direction Photo Taken: Toward the North		
Description: View of another area that is no longer stabilized due to herbicide application at Station 204+00 per Long Term Compliance Action Item 59.		
Photo No. 10	Date: 9/16/2024	
Direction Photo Taken: Toward the East		
Description: View of crushed stone within the streambed and the location where the stream bank has been regraded beyond the limits of work at Station 216+00 per Long Term Compliance Action Items 41 and 58.		

Site Location Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
------------------------------------------------------------	----------------------------------------

Photo No. 11 **Date:**
9/16/2024

Direction Photo Taken:

Toward the South

Description:

View of the center line and roadway markings being painted at the intersection of Morse Road at Station 217+00.



Photo No. 12 **Date:**
9/16/2024

Direction Photo Taken:

Toward the Southwest

Description:

View of the location where organic debris has been removed from the wetland and exposed soils require stabilization at Station 224+00 per Long Term Compliance Action Item 59.



Site Location Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
------------------------------------------------------------	----------------------------------------

Photo No. 13 **Date:**
9/16/2024

Direction Photo Taken:

Toward the East

Description:

View of the location where crushed stone has migrated off of the path at Station 302+00 per Long Term Compliance Action Item 58.



Photo No. 14 **Date:**
9/16/2024

Direction Photo Taken:

Toward the North

Description:

View of a location where crushed stone is present on the path at Station 309+00 per Long Term Compliance Action Item 58.



Site Location Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
------------------------------------------------------------	----------------------------------------

Photo No. 15 **Date:**
9/16/2024

Direction Photo Taken:

Toward the North

Description:

View of the location where crushed stone has been placed on the roots of a fallen tree at Station 311+50 per Long Term Compliance Action Item 58.



Photo No. 16 **Date:**
9/16/2024

Direction Photo Taken:

Toward the North

Description:

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.

