



MassDOT Bruce Freeman Rail Trail Phase 2A (DOT Project #604532)

Westford, Carlisle, and Acton, MA, Massachusetts

MassDEP File No. 085-1149

Acton Order of Conditions Environmental Monitoring Report

Date of Inspection: July 27, 2016

Time: 9:30 AM to 4:00 PM

Weather: Sunny, Approx. 80°F.

Observer: Jeremy Fennell, Epsilon Associates, Inc.

Comments: I inspected the entire site by foot and vehicle. Erosion controls generally appear to be in good condition. On-site construction work I observed included the following:

- ◆ SPS New England, Inc. ("SPS") excavating soil and install pilings and retaining wall on both sides of trail and roll out gravel as road bed for trail just north of the Route 2A bridge crossing;
- ◆ SPS observed planning for forming of bridge structures at approximately Station 204 and paint bridge.
- ◆ SPS mobilizing of equipment away from Project area near Station 46 (Route 27) crossing.

The last significant rainfall event (>0.1 inch) was approximately 0.2 inches on July 19, 2016. The site appeared to have adequate drainage and no areas of significant water retention were observed. Erosion control compliance and other recommendations based on compliance with the Acton Order of Conditions ("OOC") are as follows:

- ◆ There was no Acton DEP sign that had the File #085-1149 observed. Also, I did not see a SWPPP sign for the NPDES Construction General Permit ("CGP"). See Section 1.5 of the CGP for further information assuming the sign is not posted https://www.epa.gov/sites/production/files/2015-10/documents/cgp2012_finalpermitpart1-9.pdf
- ◆ Equipment staging areas have remained unchanged since last inspection with the reasoning cited as a lack of convenient locations (e.g. near road crossings) that are outside the 100 buffer zone (See OOC Condition #10). The equipment staging areas do appear contained, with fuels and lubricants stored in job boxes or other closed containers that are labelled. The major equipment staging are still near road crossings at Concord Avenue and Route 2A and also across from 1000 Main Street Acton.
- ◆ Tree stump stockpiles have been removed near Station 46 and 82.
- ◆ Perimeter erosion controls on the whole were in good condition except repairs as follows:
 - On areas at all bridge crossings, recommend that erosion controls be installed to stop sediment from coming off the trail into the resource area directly below the bridge (i.e. erosion controls laterally across the trail) (see photos). SPS could move controls during day and return to complete erosion control barrier at the end of each workday. These controls are not shown on permit drawings, but are recommended in addition. Suggested movable erosion controls are weed-free straw wattles or strawbales.
 - Recommend that additional perimeter erosion controls be installed on toe of slope just south of Route 27 crossing (Station 48) on east side of trail to protect the adjacent wetlands from exposed soil on slope. These erosion controls were not on plan drawings, but should be installed given current conditions.
 - SPS has temporarily stockpiled soil near Station 179 that was excavated from wetlands on the opposite side of the Route 2A for the bridge crossing. Some sections of this stockpile are outside the perimeter erosion controls. These stockpiles should be removed as soon as possible, but at minimum, additional erosion controls should be put on the south side nearest the wetland adjacent to the stockpiles to avoid

sediment migrating into adjacent wetlands.

- Temporary perimeter erosion controls should be repaired generally in the work area near the Route 2A intersection, mostly restapling or replacing silt fence (see photo).
- In general, recommend that turtle control barriers (plywood) be augmented with a secondary control behind the barrier to make full ground contact (e.g. sand bag, straw wattle). The plywood barriers do not make full contact with the ground, leaving as much as a 2" gap due to uneven ground conditions. Thus, for small turtles, the plywood may not be an effective barrier alone.
- For the turtle control barrier at Sportsman's Club Road, the controls around the barrier should be repaired to restore its function (see photo).
- The turtle control barrier near Station 225 where I did not see any activity in area. I replaced barrier.
- Dried waste concrete should be removed near Station 144 bridge crossing, south side.

Please note that prior to the filing of this report, I spoke with Patrick Marion (MassDOT Resident Engineer), concerning these issues. He said he would work SPS to address them.

No discharges of sediment were observed into wetland or waterbodies. See photos below for more information.

Area on southeast side of Route 27 (Station 48) where additional erosion controls are recommended along the toe of slope. Red line is approximate wetland boundary. Additional erosion controls should tie into existing controls.



Bridge crossing near Station 58. Red lines approximately shows where additional erosion controls are recommended on both sides of bridge.



Turtle barrier at Sportsman's Club Road intersection where repairs are needed.



Bridge at Station 66 where additional erosion controls are recommended across trail and red lines show approximate locations.



South end of bridge rehabilitation near Station 254 and red line shows approximate location on south side where additional controls are recommended. Additional controls also recommended on north side of bridge (not depicted).



Turtle protection area barrier down at Station 225. I replaced barrier.



There are erosion controls laterally across trail on both sides of bridge near Station 204. Recommend using straw wattles or strawbales instead of silt fence here to make moving controls easier where working in area.



Equipment laydown and storage area just north of Concord Avenue intersection. Area is in 200 foot Riverfront Area and 100 foot buffer zone.



Erosion controls on west side of trail near Station 179 that have been overcome by temporary soil stockpile. Red shows approximate location of additional erosion controls needed.



East side of trail near Station 179 where soil stockpile has overcome perimeter erosion controls. Approximate additional control location shown in red that are needed.



Dried waste concrete that should be removed on south side of Station 144 bridge crossing.



Dewatering basin near Station 160 that consists of filter bag and secondary containment of jersey barrier overlaid with geotextile fabric. The filtered, clean water was discharged back to the wetland in a controlled manner. Discharge direction is shown in red. Area dewatered was the excavation for the Route 2A bridge abutment to the north.



View north of retaining wall work of west side of trail near Station 167. Silt fence and other perimeter erosion controls should be repaired in this area.



Another view north near Station 166 on east side of trail near Route 2A intersection where silt fence and other perimeter erosion controls should be replaced.

