



FIELD REPORT

Nitsch Project #: 12808 Date: April 21, 2021

Client: Pine Hill Village, LLC Time: 9:00 AM EST

Project: Pine Hill Development Location: Harvard, Massachusetts

Weather: 35°F + Sunny

Present: Gavin Graham – Nitsch Engineering

The purpose of this site visit was to observe general site condition, observe general construction activities, and to observe erosion and sedimentation control measures.

The following was noted:

- 1) The constructed wetland has visible sediment in the water. It is clear sediment is entering the system via piping and overland flow from uphill on the site.
- 2) The Contractor has placed hay wattles at inlet/outlet locations in an attempt to address the previous recommendation to minimize sedimentation into drainage systems. It appears this is not sufficient as there is still visible sedimentation in the constructed wetland and in drainage structures.
- 3) The site is not stabilized as is visible in the runoff and sedimentation noted in this report. This soil is washing downhill and entering the constructed wetland and the intermittent stream. Nitsch Engineering recommends that the Contractor install additional erosion controls prior to the constructed wetland to minimize sedimentation into drainage systems and the constructed wetland.



Sediment is visible in the constructed wetland.

Pine Hill Village, LLC: Nitsch Project #12808 April 21, 2021

Page 2 of 4



The Contractor has placed hay wattles at outlet locations.



A closeup of hay wattle placed in an outlet of the closed drainage system.



Raised ground towards the back of the site with no stabilization measures to prevent sediment runoff into surrounding wetlands. Nitsch Engineering recommends erosion control fence to be placed behind raised ground surface to avoid sediment runoff.

Pine Hill Village, LLC: Nitsch Project #12808 April 21, 2021 Page 3 of 4



Visible siltation at intermittent stream crossing. Nitsch Engineering recommends establishing a suitable substrate at the crossing.



Visible siltation at intermittent stream crossing. Nitsch Engineering recommends establishing a suitable substrate at the crossing.



Swale has sediment buildup in the bottom of the channel. Nitsch Engineering recommends that this sediment be removed and disposed of properly prior to planting/seeding.

Pine Hill Village, LLC: Nitsch Project #12808 April 21, 2021 Page 4 of 4

Past Recommended Items to be Completed:

- 1. The Contractor to install erosion controls prior to the constructed wetland to minimize sedimentation into drainage systems and the constructed wetland.
- 2. Extending discharge pipe (that drains to constructed wetland adjacent to road) toward the wetland basin and covering the channel so that it makes a level slope (2% slope) to the roadway shoulder.
- 3. The Contractor to provide erosion control measures along the non-stabilized slopes at the top and midslope of exposed surfaces to minimize erosions.
- 4. The sediment in swale be removed and disposed of properly prior to planting seeding.

New Recommended Items to be Completed:

- 1. Erosion control fence to be placed behind raised ground surface to avoid sediment runoff.
- 2. Establish a suitable substrate at stream crossing.

Ongoing Recommendations:

- 1. The Contractor to maintain stabilized construction entrance.
- 2. The Contractor to maintain erosion control barriers.

Gavin Graham Project Designer

Gavin Graham

GNG/SV/ajc

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