



FIELD REPORT

Nitsch Project #: 12808 Date: April 23, 2020

Client: Pine Hill Village, LLC Time: 4:00 PM EST

Project: Pine Hill Development Location: Harvard, Massachusetts

Weather: Sunny, 50°F

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. This site visit satisfies the weekly site visit requirement by Nitsch Engineering. The developer has been working on the drainage system for the first 820 feet of roadway, while continuing subgrade of the road.

The following was noted:

1. At approximately station 2+00 (low point) the 12" RCP pipe connected to flared ends was observed in the ground. The riprap was not observed in place and it is unclear how water will flow from the low point to the designed bioretention cell. Nitsch Engineering recommends the contractor confirm pipe invert and compare it to bioretention grades such that water flows as intended. See Pictures 1 and 2 below:







Picture 2

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Pictures 3 and 4 show where the bioretention cell is, however, there is not a path of travel for stormwater exiting the pipe to flow into the cell.





Picture 3 Picture 4

2. The large boulder encountered in the constructed wetland appears to have been broken down per conversation on March 9, 2020. Standing water was observed at time of site visit (Pictures 5 and 6). The last recorded rainfall event in the area was two (2) days prior (0.4").





Picture 5 Picture 6

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3. Pine Bank area is at a rough sub-grade. See Picture 7 below:



Picture 7

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4. Drainage pipe leading to the bioretention area along the roadway has been installed. See Pictures 8, 9, and 10 below:





Picture 8

Picture 9



Picture 10

Past Recommended Items to be Completed:

1. N/A

New Recommended Items to be Completed:

1. At bioretention cell near entrance on Stow Road, contractor to confirm pipe invert and compare it to bioretention grades such that water flows as intended.

Ongoing Recommendations:

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

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Gavin Graham Project Designer

cc: Steven Ventresca, Project Manager

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<u>Disclaimer:</u> Nitsch Engineering performed this site visit in compliance with the guidelines and requirements of the Commonwealth of Massachusetts COVID-19 Guidelines and Procedures for All Construction Sites and Workers at All Public Work dated March 2020 (COVID-Construction Safety Guidance) and with the COVID-19 guidelines and requirements issued by the CDC and OSHA. However, Nitsch Engineering's services DO NOT include observations for compliance of the general contractor and/or the construction site with the COVID-19 Construction Safety Guidance and with the COVID-19 guidelines and requirements issued by the CDC and OSHA. Jobsite/worker safety duties belong with the general contractor who has control of the jobsite and responsibility for constructing the project, including the implementation and compliance of the COVID-19 Construction Safety Guidance. Neither the professional activities of Nitsch Engineering, nor the presence of Nitsch Engineering or its employees and subconsultants at a construction/project site, imposes any duty on Nitsch Engineering, nor relieve the General Contractor of its obligations, duties and responsibilities including health or safety precautions required by any regulatory agencies.