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## FIELD REPORT

Nitsch Project #: 12808 Date: March 10, 2022

Client: Pine Hill Village, LLC Time: 10:00 am – 10:45 am

Project: Pine Hill Development Location: Harvard, Massachusetts

Weather: 46°F Sunny

Liz Allard – Conservation Agent / Town Planner

Donald Ritchie - Chair, Conservation Commission

Present: Steven Ventresca – Nitsch Engineering

Basel Alhadidi - Nitsch Engineering

The purpose of this site visit was to observe general site conditions for the Pine Hill Village project located off Stow Road in Harvard, MA. Nitsch offers the following observations:

1. As stated in previse report, the Contractor must continuously maintain the installed bio-retention systems at the project entrance by removing weed and overgrowth from adjacent vegetation. Any plants that are dead in the constructed bio-retention systems must be replaced in kind and the plants must last at least one (1) growing season prior to Homeowner's Association acceptance.





2. The Contractor shall continue to monitor, stabilize, and repair any on site erosion at the roadway shoulders and provide new wattles and bales being used for erosion control in stone swales and along grassed swales. Also, Contractor shall provide erosion control measures along the non-stabilized slopes near the Sun Rise area.

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3. The Contractor shall discuss how and when to remove sediment in the constructed wetland prior to final planting with the Conservation Agent. Also, Contractor to confirm if the splash pad for the construction wetland was re-established per the approved plans.





4. Nitsch noticed that some parts of the silt fence near the RG#10 and RG#11 were damaged. It was causing a sediment washout as shown in the photo below. Nitsch recommends replacing or resetting these damaged sections of sit fence.





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5. The installed street light does not match the light in the approved plan. The Contractor shall provide the lighting cut sheet which shall show that the light meets Dark Sky lighting requirements and request an administrative change with the ZBA. The Contractor shall confirm the lighting pole height matches or is lower than the approved plans and that the LED output matches a warmer tone between 2,700 to 3,000 Kelvin (K).



6. Swale next to the driveway has sediment and washout form the construction area, swale and check dams shall be cleaned of sediment and disposed of properly.





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7. Contractor shall remove Hay Bales and silt fence near the culvert so the stream could naturalize. Contractor to observed stream for any potential sedimentation during the remaining construction phases.





8. Contractor had built a bump or asphalt curb along the access road to the houses 5 and 7 to prevent stormwater and sediment from running in to the driveway. Contractor to provide a sketch approved by the design engineer, and a written statement to show how this solution is adequate in the interim construction condition and in the final condition. Also, it appears that the installed ramp had eroded in some area.





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9. The contractor to conform if the swale PS9 leading toward Rain Garden (RG) #22 still has a negative slope. The swale shall slope toward the bioretention system as per the approved plans.





## 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. The Contractor to provide erosion control measures along the non-stabilized slopes at the top and midslope of exposed surfaces to minimize erosion.
- 3. Maintain the installed bio-retention systems at the driveway entrance by removing weeds and replanting any dead shrubs or plantings that were part of the bio-retention system. This will be continuous maintenance task until the development is turned over to the HOA.
- 4. Contractor to re-establish the outlet rip rap to the constructed wetland per the approved detail which indicates a level spreader type splash pad, where there is a slight depression to pool water prior to discharge toward the wetland.
- 5. Contractor to provide a detail for review that indicates how drainage will be conveyed at the roadway entrance to the wetland so that it prevents sediment from entering the wetland and prevents ponding at the subdivision entrance with Stow Road.
- 6. Maintain the installed bio-retention systems at the driveway entrance by removing weeds and replanting any dead shrubs or plantings that were part of the bio-retention system. This will be continuous maintenance task until the development is turned over to the HOA.
- 7. Contractor to re-establish the outlet rip rap to the constructed wetland per the approved detail which indicates a level spreader type splash pad, where there is a slight depression to pool water prior to discharge toward the wetland.
- 8. Contractor to provide a detail for review that indicates how drainage will be conveyed at the roadway entrance to the wetland so that it prevents sediment from entering the wetland and prevents ponding at the subdivision entrance with Stow Road.

## New Recommended Items to be Completed:

- 1. Replace streetlight with new LED light and conform with Dark Sky requirements.
- 2. Provide sketch and narrative for driveway and parking area in comment #8.

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## Ongoing Recommendations:

1. The Contractor to sweep the roadway periodically and after rain events at or over 0.25-inches in 24-hours, to remove sediment and debris, which shall be disposed of properly.

Steven Ventresca, PE Senior Project Manager

SV/

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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.