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June 24, 2022

Ashland Conservation Commission
c/o Ms. Becca Solomon
Conservation Agent
Town of Ashland
101 Main Street
Ashland, MA 01721

RE: Nitsch Project #13609
Amended Order of Conditions
David Mindess School
Ashland, MA 01721

Dear Commissioners,

On behalf of the Applicant, the Town of Ashland, and the project Architect, Flansburgh, Nitsch Engineering is requesting an Amendment to the Order of Conditions for the David Mindess Elementary School project located at 90 Concord Street in Ashland, MA. An Order of Conditions (MassDEP File #95-958) was issued by the Ashland Conservation Commission on October 7, 2021.

Per the Order of Conditions dated October 7, 2021, the Applicant was to perform test pits within the footprint of Subsurface Infiltration System #4 (SIS#4) to observe the Estimated Seasonal High Groundwater Elevation (ESHGW) in this area. Test pits were requested in this area because the location of SIS#4 shifted throughout design and there were no test pits located within the final footprint of the system.

Test Pit Results - Estimated Seasonal High Groundwater

The original design was based on test pits to the south of the system performed by a licensed Soil Evaluator in December of 2020, where the elevation of ESHGW was determined to be 196.83.

On June 8, 2022, a licensed Soil Evaluator conducted two test pits within the footprint of SIS#4 which were witnessed by Becca Solomon, Town of Ashland Conservation Agent. Within the two test pits, ESHGW was determined to be at elevation 197.98 and 198.05. Nitsch Engineering is using elevation 198.05 for ESHGW within the footprint of SIS#4.

Updates to Subsurface Infiltration System #4

The bottom of stone for SIS#4 as it was permitted is at elevation 199.00 which does not maintain the required 2 feet of separation between ESHGW and the bottom of the infiltration system. In order to maintain the required separation, Nitsch Engineering is proposing to raise the bottom of the system to elevation 200.20.

In order to raise the bottom of the system, the footprint needs to shift to the north where the finished grade is higher to maintain adequate cover over the system. The system also had to be reconfigured to accommodate the proposed parking islands/trees and geothermal well system. Due to space restrictions, the system volume has been reduced from 12,124 CF to 10,250 CF.

The area to the north of the system and a portion of the proposed roof will continue to be collected, treated, and discharged into SIS#4. However, three catch basins to the south of the system will no longer be able to discharge into the infiltration system because they are too low in elevation. Stormwater runoff from these catch basins will be collected in deep-sump and hooded catch basins and treated by a water quality structure before they are discharged to the main in Concord Street. This is an approved treatment train that is used in other areas of the site where infiltration is not feasible.

Updates to Surface Infiltration Basins #1 and #2

The two recent test pits are not within the footprint of Infiltration Basin #1 (IB#1). They are in the same general area of the site and within approximately 300 feet of the original test pits done in 2020. Nitsch Engineering has taken a conservative approach to the design of IB#1 and has raised the bottom of the basin

to elevation 200. The grading of IB#1 and Sediment Forebay #4 has been adjusted to accommodate the new bottom elevation. Additionally, the overflow area drains and emergency spillway have also been adjusted to ensure compliance with the stormwater standards.

The overflow area drains at IB#2 have been adjusted to compensate for the reduced volume of SIS#4 and design updates to IB#1. No other changes were made to IB#2.

Updates to Subsurface Infiltration Systems #1 and #3

The horizontal configuration of SIS#1 and SIS#3 was adjusted to accommodate fence posts for the baseball fields. These fence posts need to be buried four feet below grade and would have conflicted with the systems. SIS#3 was also reconfigured to reduce cover over the system. The total storage volume, elevations, and outlet control structure design for each system did not change.

Massachusetts DEP Stormwater Standards

The proposed design will continue to meet the Massachusetts Department of Environmental Protection stormwater standards. Below is a summary for each of the ten standards, describing if there was any change to how the standard is met.

Standard 1: No New Untreated Discharges

Compliance with this standard was not impacted by the proposed design changes.

Standard 2: Peak Rate Attenuation

The proposed stormwater management system footprint (SS#4) and the elevations of Infiltration Basin #1 were adjusted as part of the proposed changes. The peak rates have been adjusted and continue to comply with the Stormwater Standards. Refer to the Stormwater Report for the proposed peak runoff rates.

Standard 3: Groundwater Recharge

The proposed stormwater management system footprint (SS#4) and the elevations of Infiltration Basin #1 were adjusted as part of the proposed changes. The provided recharge volumes were adjusted and continue to comply with the Stormwater Standards. Refer to the Stormwater Report for the proposed recharge volumes.

Standard 4: Water Quality Treatment

The proposed treatment trains were not impacted as part of these changes. The proposed stormwater management system will continue to remove greater than 80% average post-construction load of TSS.

Standard 5: Land Uses with Higher Potential Pollutant Loads

The project is not considered a LUHPPL and therefore, this standard is not applicable.

Standard 6: Critical Areas

The Project is not located within any critical areas. Therefore, this standard is not applicable.

Standard 7: Redevelopments

The Project is considered a mix of new and redevelopment under the MassDEP Stormwater Management Standards. The project is meeting Standards 2 through 10. The project is meeting Standard 1 for the new development portion of the site and meeting it to the maximum extent practicable for the redevelopment portion of the site.

Standard 8: Construction Period Pollution Prevention and Sedimentation Control

Compliance with this standard was not impacted by the proposed design changes.

Standard 9: Operation and Maintenance Plan

Compliance with this standard was not impacted by the proposed design changes.

Standard 10: Prohibition of Illicit Discharges

Compliance with this standard was not impacted by the proposed design changes.

The enclosed materials are hereby presented to the Commission for review, approval, and inclusion in the official record for the project:

1. Revised civil engineering and landscape architecture drawings showing the changes described above;
2. A revised Stormwater Report with updated calculations reflecting the latest design; and
3. A copy of the previously approved plans.

A certified abutters list has been requested from the Assessor's Office. Upon receipt, a copy of that list and abutter notification materials will be provided to the Commission.

Thank you for the opportunity to present this amendment request for your consideration. We look forward to presenting the project changes at the Conservation Commission meeting on July 11, 2022.

Very truly yours,

Nitsch Engineering, Inc.

Jared E. Gentilucci, PE, CPESC, LEED AP BD+C
Deputy Director of Civil Engineering

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