



Town of Northborough

Conservation Commission

63 Main Street

Northborough, Massachusetts 01532-1994

(508)504-8776 Office conservation@town.northborough.ma.us

May 2, 2024

Mr. James Jackson, PE
Pare Corporation
8 Blackstone Valley Place
Lincoln, RI 02865

Re: New Northborough Fire Station, Stormwater Management and Land Disturbance Permit
65 West Main Street, Northborough, MA

Mr. Jackson:

I have reviewed the application package submitted on April 25, 2024, for the redevelopment of the 61 & 65 West Main Street properties. The work includes construction of a new Fire Station, with associated parking, utilities, and stormwater management systems. There are no wetland resource areas located on or within 100' of the property.

Please provide responses to the following comments/questions:

1. Sheet C1.1:
 - a. E&SC Notes:
 - i. #2 Submit SWPPP to ConCom for approval before the Pre-Construction Meeting.
 - ii. #5 Perimeter sediment controls need to be inspected and approved by ConCom before work can begin onsite.
 - iii. #14 Diversions must be stable and shall not scour.
 - iv. #17 and throughout the design: All references to "Hay" need to be changed to "Straw" to prevent invasive species introduction.
 - v. #23 Removal of E&SC devices requires ConCom approval.
 - b. Stormwater Management Notes:
 - i. The Contractor shall prevent any visibly turbid stormwater discharges from the site.
 - c. Underground Infiltration Notes:
 - i. #1 The owner shall maintain the system as specified in the Operation and Maintenance Plan.
 - ii. #4 Provide documentation for the JetVac maintenance described and include in O&M Plan if appropriate.
 - d. If it is not located on the plans already, please add a Construction Sequence as required in the regulations that includes a requirement for approval of the sediment control barriers by the Commission prior to the start of work.

2. Sheet C2.0:
 - a. Are SiltSacs proposed at the catch basins and how will the containment prevent turbid discharge through the curb inlets?
 - b. Please confirm the need for the 12" CFS up-gradient of the diversion swale/berms.
 - c. Confirm the stability of the diversion swale/berm in the steep areas.
 - d. Describe/show how all exiting traffic will pass over the minimum 50' Construction Exit. Entry into the site is not an issue for Land Disturbance.
 - e. The Temporary Sediment Traps shown in the legend are not visible on the plan, please confirm the sizing/locations needed for the anticipated altered areas. Please show temporary stabilization practices, swales/berms and temporary sediment traps on the plan such that it will confirm their capacity to capture at least 3,600 cf/acre of altered area (or other acceptable standard).

3. Sheet C4.0:
 - a. Is there adequate space to construct the west wall to be 28' high? Has the abutter been contacted to simply excavate to their wall and remove some of the proposed wall?
 - b. Note #6 refers to a basin berm, is it applicable?

4. Sheet C5.0:
 - a. Two deep observation tests and permeability tests of the soil are needed at the locations where infiltration is proposed.
 - b. What is meant by "2' Flat Pipes"? Level?
 - c. Are AD-14 and DMH-12 needed at the high point of the channel?

5. Sheet C7.1:
 - a. The minimum construction exit length in MA standard is 50'.
 - b. Temporary Sediment Trap should indicate what the marker levels indicate. Clean when band is not visible?
 - c. Where is the Temp. Inlet Protection proposed and how will it capture curb inlet flow?
 - d. Compost Filter Socks should NOT be stacked at the joint but overlap, and decide if it is to be cut and left or removed.
 - e. Where is the dewatering basin to be located? Size it based on the anticipated inflow.
 - f. Stockpile detail may only need containment on downhill side with access from uphill.

6. Sheet C7.5:
 - a. Outlet Hood detail needs to show minimum 4' sump per MA DEP Standards.

7. Sheet C7.6:
 - a. Where is the Typical Dry Swale Section proposed?
 - b. Is the Yard Drain intended to be the "AD" detail?

8. Sheet C7.7:
 - a. Precast CB Minimum 4' sump per MADEP Standards with a hooded outlet.

9. Sheet C7.8:

- a. Catch Basin Hood detail needs to be able to prevent petroleum products and hydrocarbons from entering the pipe to comply with MADEP Standard.

10. Sheet C7.9:

- a. More detail is needed to confirm that the Wall section can be constructed in the space available.
- b. The Outlet Control Structure detail is unclear. Maybe number the pipes in the plan view to match those listed in the table and add the structure numbers.
- c. Underground Infiltration System should include a table with the appropriate elevations and numbers of units listed for each system. Is the second section of notes intended for the Underdrain System? Watertight?

11. Sheet C7.10:

- a. Vault Detention Detail – please provide buoyancy calculations, documentation of soil bearing capacity, and a table as noted in 10.c above.
- b. Both Water Quality Unit details need to be enlarged to be readable and include tables as in 10.c above.

12. Sheet 1 of 3, Existing Conditions Plan:

- a. The catch basins in the street indicate a “drop inlet” at one of the inverts. Please explain.

13. Stormwater Management Report:

- a. P. 10 Table 2 indicates an increase in Peak Volume discharge at DP-2 East. How does this comply with Standard 2?
- b. Please provide third party testing to substantiate assumed removal efficiencies of the AquaShield products. I am not familiar with the calculation method used for TSS removal, but confirm that the 90% TSS and 60% Phosphorus are removed if being considered a “New Project”, and 80% TSS removal and 50% Phosphorus requirements for redevelopment projects are met for each watershed.
- c. Please provide a signed Illicit Discharge Compliance Statement.
- d. Show how the required 25% TSS pretreatment before discharge to the infiltration system is met for each location.
- e. The SWPPP needs to be submitted, but documentation and specifics for how the standards under the CGP are attained need to be provided, OR the SWPPP can be submitted as part of this application. The E&SC issues include operation and maintenance of perimeter controls, temporary sediment containment of at least 3,600 cf/acre of altered area, temporary stabilization within 14 days of no activity, inspection/reporting frequency, exit tracking, and 2-yr storm controls.
- f. Provide estimates for O&M costs including filter replacements and underground facility inspection requirements.
- g. Please provide a signed Illicit Discharge Statement.
- h. The noted minimum pipe velocity is significantly less than the 2.5 fps in the regulations.
- i. Has approval been granted for the drainage discharges into the State Highway drain?

- j. The soil logs are included, but I could not find a plan showing their locations.
- k. Channel Design calculations need to provide the formulas and define variables and consider stability before the fully-vegetated conditions exist. Also check the scour of the proposed temporary channel diversions, especially the eastern section.
- l. Provide evidence that the water quality criteria are met at each discharge point. This background information may help: 314 CMR 4.05(5)(c) states, "Nutrients – Shall not exceed the site-specific limits necessary to control accelerated or cultural eutrophication", and the EPA goal for total phosphorous concentration is 0.10 mg/L in flowing water.
- m. Was there documentation for the assumed TP & TSS removal efficiencies used for each BMP?
- n. Please provide a link to the program used and the basis for the numbers used in the groundwater mounding calculation sheet.

14. Stormwater System Operation and Maintenance Plan:

- a. This is intended to be a handbook for the O&M necessary for this site. The specifics of each system need to be included to confirm compliance. Not a copy of a manufacturer specification, write out what is expected. Filter replacement schedule?
- b. The Northborough bylaw requires an updated stand-alone Operation and Maintenance Plan after the close of the hearing so that it can be attached to the permit and recorded at the registry of deeds with the permit. Please provide an electronic version when approved.
- c. The catch basin maintenance should note that damaged hoods shall be replaced promptly.
- d. Quarterly inspections the first year is fine, but twice annually is more likely to occur.
- e. The summary on pp 1-3 is fine, but the site-specific maintenance requirements describing all the actions necessary for O&M should be submitted.
- f. Throughout the document it is noted that the owner or the contractor will develop items that are required to be submitted as part of the Land Disturbance Permit application. These include the actions needed for the proprietary products, inspection and maintenance schedule, erosion and sediment control plans, and SWPPP items.
- g. What are the qualifications/certifications needed of the person conducting the 'inspections'?
- h. What are the actions needed to be an 'inspection' of the infiltration and the detention facilities?
- i. The LTPPP deicing and salt storage item references Table G-1, but I could not find it. The snow storage item references sand filter and bioretention area, but I did not find them either. Is there a risk of hazmat contaminated equipment returning to this site or is that treated during the incident?
- j. Grass channel maintenance is not included.
- k. Please include a note that the owner shall submit an annual maintenance report electronically to the Northborough Conservation Commission by June 1 of each year.

15. Any slopes steeper than 3:1 will require special treatment. Please provide a detail of what is being proposed and where it will be located.

16. This site lies within the Town of Northborough Groundwater Overlay Protection District 3. Please contact the DPW to determine if impervious cover calculations need to be submitted to his office prior to the issuance of a building permit for this project.
17. Provide proof of mailing of the abutter notifications by certified mail with return receipts prior to or at the public hearing; PDF of the green cards by email is acceptable.

Please provide responses to these comments/questions. This application has been placed on the May 13, 2024 agenda of the Northborough Conservation Commission and a legal ad was placed in the Telegram & Gazette. The hearing will take place via Zoom. The agenda will be posted on the Commission and Town's website at least 48 hours prior to the meeting. Information to join the meeting will be included on the agenda.

Please call or email with any questions.

Sincerely,

Vincent Vignaly
Conservation Agent
Town of Northborough