

April 26, 2022

Effingham Planning Board  
Attn: Theresa Swanick, Chair  
68 School Street  
Effingham, NH 03882

Subject: Engineering Review Letter  
Meena, LLC  
NH Route 25 & Leavitt Road  
Effingham, New Hampshire  
NPE Proj. No. 22026

Dear Board Members,

At the request of the Planning Board, Northpoint Engineering, LLC (Northpoint) has performed a technical review of the plans and material for the subject project that have been provided to us. We were informed that the subject site is located within the town's Groundwater Protection District and that the Town of Effingham Zoning Board of Adjustment (ZBA) has granted a Variance for the proposed use subject to conditions that the project prepare a Stormwater Management Plan and a Spill Prevention, Control and Countermeasure Plan. The Planning Board requested that our review focus only on the stormwater management design and the SPCC plan and that we provide any comments and recommendations that we deem appropriate. The application material and plan documents were reviewed to determine conformance with local regulations, state and Federal requirements as well as generally accepted engineering practices.

The material that we reviewed included, but was not limited to, the following items:

- Completed Site Plan Application & Checklist;
- UST Site Plan prepared by Christopher P. Williams, PE dated 11/05/20;
- Effingham ZBA Notices of Decision;
- Three Letters from Paul L. King, PE, all dated 10/03/21 and one dated 12/22/21;
- Site and Aerial Photographs;
- Letter from Mark McConkey dated 12/20/21;
- Spill Prevention Control and Counter Measure Plan prepared by Meena, dated 12/13/21;
- "Site Plan Review Plat," prepared by Jacob & Mark McConkey, dated 12/21/21;
- "Site Plan Review Plat 2 (Stormwater & Errosion Control Plan)," prepared by Jacob & Mark McConkey, dated 12/21/21;

We offer the following comments and recommendations:

### **Local, State and Federal Permits**

1. The project is very limited in size and does not appear to require any additional state or federal permitting, related to stormwater management or spill prevention and control. However, as discussed in the following comment, it does appear that the project is subject to a Special Use Permit from the Planning Board, in addition to the Site Plan application currently pending before the Board.

### **Zoning Ordinance**

2. As noted, the Effingham ZBA granted a Use Variance from Z.O. Article 22, Section 2207A(8) to permit the proposed gas station. However, Article 22 Groundwater Protection contains other sections that would appear to apply to this project, including Section 2208 which requires that the Planning Board grant a Special Use Permit for any use that will store, handle or use regulated substances in quantities exceeding 100 gallons. We are not aware that the applicant has applied for a Special Use Permit from the Planning Board but it would appear that one is needed. We recommend that the Applicant submit a formal Special Use Permit application to the Planning Board. Section 2208 outlines the application process and requirements for a Special Use Permit including, but not limited to, the following items:
  - A. The project must demonstrate that it is meeting the Performance Standards of Section 2210, (further discussed in the following comment)
  - B. Identification of all stormwater infiltration practices and depths to the average seasonal high water table;
  - C. A narrative description of maintenance requirements that shall be recorded at the registry of deeds;
3. Section 2210 includes Performance Standards that “apply to all uses in the Groundwater Protection District.” The applicant has submitted material that appears to address some of the performance standards but it does not appear to fully comply with the requirements. We recommend that the applicant document how they have addressed the specific performance standards and/or supply additional material as necessary. The performance standards include, but are not limited to, the following items:
  - A. Develop a stormwater management and pollution prevention plan to address:
    - Setbacks between water supply wells and stormwater practices;
    - Source control plan to minimize release of regulated substances;
    - Maintain vertical separation between the bottom of a stormwater practice and the average seasonal highwater table;
  - B. All transfers of petroleum from delivery trucks and storage containers over five gallons in capacity shall be conducted over an impervious surface having a positive limiting barrier at its perimeter;
4. Section 2211 includes the specific requirements for a Spill Prevention, Control and Countermeasure (SPCC) Plan. The applicant has submitted an SPCC Plan that addresses

some of the requirements but does not fully comply. We recommend that the applicant revise the SPCC to address the specific criteria of this Section, including but not limited to, the following items:

- A. Facility diagram, including all surrounding surface waters and wellhead protection areas;
- B. Contact list and phone numbers for the facility response coordinator, cleanup contractors, and all appropriate regulators;
- C. A prediction of the direction, rate of flow, and total quantity of regulated substance that could be released where experience indicates a potential for equipment failure;
- D. The SPCC Plan needs to be approved by the Fire Chief;

### **Site Plan Regulations**

- 5. Section 6.4I of the Site Plan Regulations addresses the requirements for stormwater drainage and peak flows. The project is not increasing the impervious area of the site so it will not cause any increase in peak stormwater runoff.
- 6. Section 6.2B(14) discusses the need for spot elevations, where appropriate. Both the UST Site Plan and Site Plan Review Plat indicate general drainage arrows – although the two plans don't seem to match – but there is not sufficient data available on either plan to verify the actual drainage patterns of the paved area. We recommend that the applicant add additional spot elevations (existing and proposed) to the existing pavement area in order to ensure that that stormwater runoff will be drain in the intended direction.
- 7. The UST Site Plan is identifying a concrete gas dispensing pad at the fuel pumps and a separate concrete pad above the UST's. Presumably these are both proposed concrete pads that will be added to the site by cutting out some of the existing pavement. However, it is unclear on either Site Plan how this will be accommodated and what the grades of the concrete pads will be. Given that the paved area appears relatively flat, we would recommend that the applicant confirm the limits of pavement that will need to be removed and the limits of any regrading that is necessary – as part of the above comment relative to spot elevations.
- 8. The applicant is proposing a shallow paved swale in the driveway – presumably to prevent stormwater runoff from draining to Leavitt Road. Similar to the above comments, additional spot elevations are needed to ensure that this swale will drain in the direction intended and without the need for any other areas of regrading.

### **General Comments - Stormwater Management Plan**

- 9. It is recognized that this project is not proposing a significant amount of land disturbance activities nor is it increasing the impervious area of the site. Therefore, there is no real concern relative to the peak flows or quantity of runoff being discharged from the site. However, the project is proposing to add gasoline fuel pumps and will be considered a

“high load area” – with regulated substances that could be exposed to precipitation and runoff – which will have a potential impact on the quality of stormwater runoff that is discharged from the site. Due to the fuel dispensing activity, the stormwater runoff from this site has the potential to generate higher concentrations of hydrocarbons than are found in typical stormwater. It is common industry practice for any high load area to be held to a higher standard when it comes to the quality of stormwater runoff. In this instance, the location of the site within the Groundwater Protection District only enhances the need to ensure that stormwater runoff is being properly treated before it is allowed to recharge back into the ground. As documented in one of the letters provided by Paul E. King, PE, it is noted that the runoff from the site drains to a “huge natural retention basin, between the site and Route 25.” We recommend that the applicant further elaborate on the nature of this retention basin to the extent that any stormwater runoff from the site – and particularly from the fuel dispensing areas - is being infiltrated into the ground, and what stormwater pre-treatment measures, if any, exist in place that will help to remove hydrocarbon pollutants from the stormwater prior to infiltration. And furthermore, to consider the ability of adding any additional stormwater treatment facilities for the stormwater runoff prior to it being infiltrated or otherwise discharged from the site.

10. The proposed silt socks shown the plans would appear provide adequate temporary erosion control for the limited amount of site work anticipated. These are temporary bmp’s (best management practices) that are utilized during construction and should be removed from the site once construction is complete and all disturbed areas are stabilized.
11. The UST Site Plan indicates that the concrete gas dispensing pad at the fuel pumps will be equipped with positive limiting barrier (PLB) which are grooves around the perimeter of the pad that will help to contain any small spills. However, the plan does not indicate that there will be any PLB around the concrete pad over the UST’s. We recommend that the plan be revised to indicate a PLB at all locations that could be subject to spills.

### **General Comments – SPCC Plan**

12. Although the project may not be subject to the US EPA’s SPCC Rule, it is required to implement an SPCC Plan per Section 2211 of the Zoning Ordinance and per the ZBA’s notice of decision. An SPCC Plan and/or a Source Control Plan are considered industry standards for a high load area that is located within an aquifer or groundwater protection area. The Tier 1 SPCC template from US EPA is effectively the industry standard for this type of project and it can be downloaded from the EPA’s website. The SPCC Plan submitted by the applicant addresses many of the typical items that we would expect to see in an SPCC Plan for a small gas station. However, we would recommend that the following items be added to the plan or that the plan be revised to follow the format of the EPA template:
  - A. We recommend that the Plan contain a certification signed by either the owner/applicant (i.e. self-certification) or by the professional who prepared the plan;
  - B. We recommend that the plan list each storage container, including type and capacity;

- C. We recommend a discussion of potential flow pathways for uncontained discharges, including proximity to waterbodies and other receptors (wells, etc.);
  - D. We recommend that emergency procedures be included in the plan, as well as contact information for emergency notifications;
13. As noted above, we recommend that the SPCC plan be revised to include all items required by Section 2211 of the Zoning Ordinance and that it be approved by the Fire Chief, if that has not already occurred.

This completes our initial review of the submitted items. If you have any questions please feel free to reach out to me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. W. Lewis', with a stylized flourish at the end.

Jeffrey W. Lewis, PE  
Principal Engineer  
Northpoint Engineering, LLC