



November 21, 2024

Mr. Zachary McBride, Chair
Sherborn Zoning Board of Appeals
Town Hall
19 Washington Street
Sherborn, MA 01770

**Re: The Pines Residences Multifamily Residential Development – Comprehensive Permit
Engineering Peer Review - Traffic
41 North Main Street
Sherborn, Massachusetts**

Dear Mr. McBride:

Tetra Tech (TT) has performed a review of the specific submittal materials for the above-referenced Project as they relate to transportation to assist the Town of Sherborn Zoning Board of Appeals (Board) in its Comprehensive Permit review of the proposed The Pines Residences multifamily development (the Project). The Project is located at 41 North Main Street (Route 27) in Sherborn, Massachusetts. The Applicant proposes the construction of twenty-eight (28) single-family attached homes.

TT is in receipt of the following materials:

- A site plan titled "Exhibit 1, Proposed Site Plan, Proposed Multi-Family Residential Development, 41 North Main Street, Sherborn, MA", dated September 27, 2024, prepared by Highpoint Engineering (Highpoint).
- A truck turning plan titled "Exhibit 3, Fire Truck Turn Plan (Entrance), Proposed Multi-Family Residential Development, 41 North Main Street, Sherborn, MA", dated September 27, 2024, prepared by Highpoint Engineering (Highpoint).
- A truck turning plan titled "Exhibit 4, Fire Truck Turn Plan (Exit), Proposed Multi-Family Residential Development, 41 North Main Street, Sherborn, MA", dated September 27, 2024, prepared by Highpoint Engineering (Highpoint).
- A Traffic Study titled "Transportation Impact Assessment, The Pines Residences, 41 North Main Street (Route 27), Sherborn, Massachusetts" dated October 2020, Prepared by Vanasse & Associates Inc. (VAI).
- A Traffic Study Update titled "Transportation Impact Assessment Update, The Pines – 41 North Main Street (Route 27), Sherborn, Massachusetts" dated August 23, 2024, Prepared by Vanasse & Associates Inc. (VAI).
- An Intersection Modification Memorandum titled "North Main Street (Route 27) at Elliot Street (Route 16) Improvement Plan, The Pines – 41 North Main Street (Route 27), Sherborn, Massachusetts" dated October 23, 2024, Prepared by Vanasse & Associates Inc. (VAI).

Tetra Tech has reviewed the above-mentioned materials for conformance with standard professional practices in the Commonwealth of Massachusetts for the preparation of traffic impact studies for Projects of the size and nature of the proposed development. The Project was also reviewed for good engineering practice and overall site circulation.

The August 2024 TIA Update indicates that the Project's revised building program of 28 residential units will result in a reduction in vehicle trip generation compared to the trip generation estimates used for analysis in the original traffic study prepared for the Project in October 2020 (60 residential units) and, therefore, only an updated capacity analysis of the signalized Route 27/Route 16 intersection was provided. While Tetra Tech agrees that

the reduced vehicle trips may result in a lesser impact to regional roadways as compared to a 60-unit development, the site access modifications to include two additional full-access driveways including the addition of a fourth leg under traffic signal control at the North Main Street (Route 27)/Eliot Street (Route 16) intersection are expected to have a notable impact on local traffic operations. Furthermore, the traffic volume data used as the basis of the October 2020 TIA and the October 2024 Intersection Modification Memo prepared for the Project is eight years old (2016 historical traffic volume data was used due to the pandemic-related traffic impacts at the time the TIA was prepared). This exceeds industry-standard guidelines as well as the Massachusetts Department (MassDOT) Traffic Impact Assessment guidelines which indicate that traffic count data should be collected within two years of report preparation.

Given how much time has passed since the October 2020 TIA analyses were conducted and the significant intersection improvements proposed by the Applicant at the Route 27/Route 16 intersection to support the Project, Tetra Tech recommends that the Applicant provide a new TIA prepared in accordance with MassDOT and Town of Sherborn guidelines for the currently proposed Project to include but not be limited to updated traffic count data, crash analyses and future traffic growth assumptions for the Project (e.g. trip generation and trip distribution) as well as planned area background developments. Tetra Tech recommends that the Applicant prepare a Traffic Scoping Letter for the Town's review to ensure that the scope of the TIA is consistent with Town guidelines.

Tetra Tech also offers the following comments related to the site plan and truck turning analyses:

1. The sight lines along the Route 27 southbound approach to the intersection with Route 16 may be impeded by the crest vertical curve along Route 27. Additionally, the horizontal curve along the Route 16 westbound approach may impede sight lines for vehicles approaching from the east. Tetra Tech recommends that the Applicant conduct a stopping sight distance evaluation at each approach to the intersection to confirm that motorists have adequate sight lines to see the traffic signal indicators. The sight lines should exceed minimum American Association of State Highway Transportation Officials (AASHTO) guidelines as outlined in *A Policy on Geometric Design of Highways and Streets, 7th Edition* (2018).
2. The site plan evaluated in the October 2020 TIA included 60 multifamily residential units to be served by one full-access driveway via Powderhouse Lane and one, gated emergency access only driveway via Hunting Lane. The August 2024 Updated TIA discussed a reduced building program of 28 multifamily residential units served by three full-access driveways – one each via Powderhouse Lane, Hunting Lane and the Route 27/Route 16 traffic signal. Given the reduced building program and significant improvements proposed at the Route 27/Route 16 intersection, Tetra Tech recommends that the Applicant consider reducing or restricting (emergency vehicles only) site access.
3. Tetra Tech recommends that the Applicant conduct a sight distance analysis of the proposed site access roadway intersection with Hunting Lane and the de facto site driveway along Powderhouse Lane at its intersection with Route 27. Additionally, Tetra Tech recommends that the sight distance plans and profiles for the site access driveway on Hunting Lane be added to the site plans to confirm that adequate sight distance will be provided at the Hunting Lane/Proposed Site Driveway intersection. Any existing vegetation or other obstructions required to be removed to provide adequate sight lines should be identified for the Town's review. Additionally, the Applicant should ensure that all proposed landscaping and signage internal to the site (where vehicle conflicts may occur) will not impede sight lines.
4. Tetra Tech recommends that the Applicant review the site access and circulation with the Fire Department to confirm that the Town's largest emergency apparatus can adequately access the site.
5. The site abuts an existing Conrail rail line. Tetra Tech recommends that the Applicant consider implementing measures (i.e., fencing, vegetation, etc.) between the property and the railroad, to the extent feasible, to discourage pedestrian activity between the property and the railroad.
6. The August 2024 Updated TIA does not appear to commit the Project to designing, funding and constructing the Route 27/Route 16 intersection improvements evaluated. Tetra Tech recommends that the Applicant confirm their specific commitments to the traffic mitigation necessary to support the Project.

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7. Tetra Tech recommends that vehicles exiting the Project site be placed under Stop-sign control and that all signs and pavement markings installed within the Project site be consistent with the Manual on Uniform Traffic Control Devices (MUTCD).
8. Tetra Tech recommends that the Applicant coordinate with the Dover-Sherborn Public School department to identify appropriate the pick-up location(s) within the site.
9. The westerly driveway serving the Pine Hill Elementary School is located at the proposed merge point of Route 27 northbound right turns, Route 27 southbound left-turns and proposed Project site driveway eastbound through movements at the Route 27/Route 16 intersection as shown in the Project's Conceptual Improvement Plan. Under Existing conditions, there is no merge point (the turning movements occur within the existing traffic signal at Route 27 and Route 16). This will create additional potential conflicts at the westerly school driveway's intersection with Route 16. Furthermore, the plan shows the school driveway as having a Stop bar for exiting vehicles. While there is a Stop bar under Existing Conditions, the driveway is signed as restricted to entering-vehicles only. Tetra Tech recommends that the Applicant coordinate with the Town Department of Public Works and School Department to confirm the geometry, traffic control and signage that should be provided where the school driveway intersects Route 16 and identify any potential concerns that the Town has regarding this proposed change in traffic operations.

These comments are offered as guides for use during the Town's review and additional comments may be generated during the course of review. The Applicant shall be advised that any absence of comment shall not relieve them of the responsibility to comply with all applicable local, state and federal regulations for the Project. If you have any questions or comments, please feel free to contact us at (508) 786-2200.

Very truly yours,



Courtney E. Sudak, P.E.
Project Manager

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