

Ref: 9449

October 17, 2022

Mr. Michael B. Silveira
Senior Planner
Town of Hingham
210 Central Street
Hingham, MA 02043

Re: Traffic Engineering Peer Review
Vineyard Lane Definitive Subdivision – 261 Gardner Street
Hingham, Massachusetts

Dear Michael:

Vanasse & Associates, Inc. (VAI) has completed a review of the materials submitted on behalf of Joseph Cincotta (the “Applicant”) in support of the proposed Vineyard Lane Definitive Subdivision that has been proposed for the property located at 261 Gardner Street in Hingham, Massachusetts (hereafter referred to as the “Project”). The Applicant is requesting approval of a Definitive Plan for the Project. Our review focused on the following specific areas as they relate to the Project: i) vehicle and pedestrian access and circulation; ii) Massachusetts Department of Transportation (MassDOT) design standards; iii) Town Zoning requirements as they relate to access, parking and circulation; and iv) accepted Traffic Engineering and Transportation Planning practices. The Applicant has submitted the following supporting materials which are the subject of this review:

1. *Form C, Application for Approval of Definitive Plan*, Joseph Cincotta; July 26, 2022;
2. *Certificate of Action, Preliminary Subdivision*; Owner: Allan & Rena Foley; Applicant: Joseph Cincotta; Property: 261 Gardner Street, Hingham, MA 02043; May 26, 2022;
3. *Definitive Subdivision Plan for Vineyard Lane*, 261 Gardner Street, Hingham, MA 02043; Civil Design Group, LLC; July 22, 2022, last revised September 30, 2022; and
4. List of Major Changes, Vineyard Lane – Definitive Subdivision, 261 Gardner Street, Hingham, MA 02043; Civil Design Group, LLC; October 4, 2022.

In addition, VAI reviewed the site locus in order to validate the existing conditions context of the Project and to observe factors that could impact the design and location of the access to the Project site and potential off-site improvements.

Based on our review of the materials that have been submitted in support of the Project, we have determined that the materials were prepared in a professional manner and following the applicable standards of care. That being said, we have provided comments that the Applicant should address in a subsequent submission.

PROJECT DESCRIPTION

The Project entails the creation of a five (5) lot subdivision on approximately 4.31± acres of land located at 261 Gardner Street in Hingham, Massachusetts. The proposed subdivision will allow for the construction of three (3) new single-family homes on Lots 2, 3 and 4, with Lot 1 to contain the existing single-family home located at 261 Gardner Street and Lot 5 to contain the subsurface infiltration system for the drainage system. The existing home to the rear of the property at 265 Gardner Street will be retained at its current location. The Project site is improved with two (2) single-family homes located at 261 and 265 Gardner Street with associated driveways, outbuildings and appurtenances. Access to Lots 2 through 5 and the existing home at 265 Gardner Street will be provided by way of a new roadway to be known as Vineyard Lane that will intersect the south (west) side of Gardner Street at the location of the existing driveway that serves 265 Gardner Street; the existing home at 261 Gardner Street that will continue to be accessed from its driveway that intersects the south (west) side of Gardner Street. The new subdivision roadway will consist of a 22-foot wide traveled-way constructed within a 40-foot wide right-of-way between Gardner Street and the proposed cul-de-sac within the development, where the traveled-way is increased to 30-feet within a 65-foot wide right-of-way.

On-site parking will be provided for a minimum of two (2) vehicles per unit in attached garages, with additional parking provided in the driveways leading to the garages. The parking supply complies with the requirements of Section V-A, *Off-Street Parking Regulations*, of the Town of Hingham Zoning By-Law, which requires that two (2) parking spaces per unit be provided for a residential use.

COMMENTS

1. Using trip-generation statistics published by the Institute of Transportation Engineers (ITE)¹ for single-family homes, the Project (three (3) new single-family homes) is expected to produce 40 new vehicle trips on an average weekday (20 vehicles entering and 20 exiting), with 3 to 4 new vehicle trips expected during the peak commuter hours. These increases would not result in a material increase in motorist delays or vehicle queuing over existing conditions.
2. Sheet 9, "Fire Apparatus Plan" illustrates that the fire truck design vehicle is able to access and maneuver within the traveled-way; however, portions of the vehicle (front bumper and aerial extension) off-track beyond the edge of pavement on the north (east) side of Gardner Street. In order to accommodate fire truck access, on-street parking should be prohibited along Vineyard Lane and the area along the north side of Gardner Street opposite Vineyard Lane will need to be maintained such that no objects, including snow accumulations (windrows), are located within this area that would inhibit fire truck maneuvering. These accommodations should be added to the Definitive Subdivision Plan.
3. The driveway to Lot 1 should be relocated to Vineyard Lane pursuant to Section 4.B(2)(a) of the Hingham Subdivision Rules and Regulations.
4. A sidewalk should be added along at least one side of Vineyard Lane and should extend to Gardner Street.
5. Americans with Disability Act (ADA) compliant wheelchair ramps should be provided where pedestrian crossings are proposed.

¹*Trip Generation*, 11th Edition; Institute of Transportation Engineers; Washington, DC; 2021.



6. Pursuant to Section 4.B(3)(b) of the Hingham Subdivision Rules and Regulations, a sight distance analysis (intersection and stopping sight distance) should be completed for the intersection of Vineyard Lane with Gardner Street following American Association of State Highway and Transportation Officials (AASHTO)² standards and using the higher of the measured 85th percentile vehicle travel speed along Gardner Street or the posted speed limit.
7. The sight triangle areas for the Vineyard Lane should be added to the Definitive Subdivision Plan along with a note to indicate: “Signs, landscaping and other features located within sight triangle areas shall be designed, installed and maintained so as not to exceed 2.5-feet in height. Snow accumulation (windrows) located within sight triangle areas that exceed 3.5-feet in height or that would otherwise inhibit sight lines shall be promptly removed.”
8. A note should be added stating: “All Signs and pavement markings to be installed within the Project site shall conform to the applicable specifications of the Manual on Uniform Traffic Control Devices (MUTCD).³”

This concludes our review of the materials that have been submitted to date in support of the Project. If you should have any questions regarding our review, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.

Jeffrey S. Dirk
Jeffrey S. Dirk, P.E., PTOE, FITE
Managing Partner

Professional Engineer in CT, MA, ME, NH, RI and VA

JSD/jsd

²*A Policy on Geometric Design of Highway and Streets*, 6th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2011.

³*Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, DC; 2009.

