

Ref: 9568

January 26, 2024

Mr. William Andrews, Chair  
Zoning Board of Appeals  
Town of Upton  
1 Main Street, P.O. Box 163  
Upton, MA 01568

Attn: Mr. Michael Antonellis, Director of Land Use and Inspectional Services

Re: Response to Traffic Impact Assessment Peer Review  
Proposed Multifamily Residential Development – 47 Main Street (Route 140)  
Upton, Massachusetts

Dear Chair Andrews and Members of the Zoning Board of Appeals:

Vanasse & Associates, Inc. (VAI) is providing responses to the comments that were raised in the November 9, 2023 *Traffic Impact Assessment Peer Review* memorandum prepared by Stantec concerning their review of the June 15, 2023 *Transportation Impact Assessment* (the “June 2023 TIA”) that was prepared by VAI in support of the proposed multifamily residential development to be located at 47 Main Street (Route 140) in Upton, Massachusetts (hereafter referred to as the “Project”). This response letter is intended to supplement the January 23, 2024 updated TIA that has been prepared by VAI in support of the Project (the “January 2024 Updated TIA”) to document the responses to the specific comments that were raised by Stantec in the subject memorandum which have also been incorporated into the January 2024 Updated TIA. Listed below are the comments that were identified by Stantec in their November 9, 2023 memorandum followed by our response on behalf of the Project proponent.

### **Existing Conditions**

**Comment:** *Stantec recommends VAI revise the table [Table 1] to include the following intersections:*

- *Main Street (Rte. 140) at Fiske Avenue*
- *Main Street (Rte. 140) at Proposed Site Driveway*

*This revision is expected to provide description of the existing facilities at two study intersection closer to and immediate to the site access driveway.*

**Response:** Table 1 of the January 2024 Updated TIA includes a description of the requested intersections.

### **Pedestrian and Bicycle Facilities**

**Comment:** *While VAI provided a general overview of the existing pedestrian and bicycle facilities within the overall study area, Stantec recommends VAI provide additional detail to the existing pedestrian facilities at the proposed site driveway access onto Main Street. There is an existing curb cut at the location where the new driveway is tying into Main Street.*

**Response:** The January 2024 Updated TIA includes a detailed description of the existing pedestrian and bicycle facilities at the proposed site driveway location.

**Comment:** *Stantec also recommends that VAI include descriptions of the proposed pedestrian and bicycle improvements specific to the site access driveway planned through MassDOT's Resurfacing, Roundabout Construction, and Related Work on Route 140 (MassDOT Project No. 608490).*

**Response:** The January 2024 Updated TIA includes a description of the proposed pedestrian and bicycle improvements along Route 140 at the location of the proposed site driveway that are associated with MassDOT Project No. 608490.

**Comment:** *Stantec recommends VAI update the pedestrian and bicycle facilities review with the inclusion of Main Street at Fiske Avenue when available.*

**Response:** The January 2024 TIA Update includes a description of pedestrian and bicycle facilities at the Route 140/Fiske Avenue intersection.

#### **Background Volumes / No-Build Volumes / Project-Generated Traffic / Build Volumes**

**Comment:** *Stantec reviewed VAI's analysis of the existing traffic volumes, projected future no-build volumes, project-generated trips (utilizing the ITE Trip Generation Manual, 6<sup>th</sup> Edition), trip distribution, and project future build volumes and has no comments for the intersection volume diagrams and evaluations provided.*

**Response:** No response required.

**Comment:** *Stantec recommends VAI update the traffic volume networks and associated analyses with the inclusion of Main Street at Fiske Avenue when available.*

**Response:** The January 2024 TIA Update provides updated traffic volume networks and associated capacity analyses inclusive of the Route 140/Fiske Avenue intersection.

**Comment:** *VAI's trip generation analysis and ITE land use code projects a daily trip generation from the proposed site at about 310 vehicles per day. This number of new trips does not exceed the threshold of 2,000 new average daily trips (ADTs) for an Environmental Notification Form (ENF) review or 3,000 new ADTs for an ENF and Environmental Impact Report (EIR) prescribed by MassDOT's Transportation Impact Assessment (TIA) Guidelines.*

**Response:** No response required.

#### **Crash Data Analysis**

**Comment:** *Stantec reviewed MassDOT's IMPACT Crash Data Portal to confirm the crash data findings provided by VAI. Stantec concurs with the crash data findings and evaluations related to the intersections of Main Street at Mendon Street and Main Street at School Street and Pleasant Street.*



**Response:** No response required.

**Comment:** *However, Stantec identified two crashes within 200 feet to the east of the proposed site driveway and within the timeframe reviewed. Both of which involved injury crashes. Since these crashes occurred well within the analyzed stopping sight distance (SSD) and intersection sight distance (ISD) of the proposed site driveway, Stantec recommends VAI include these crashes within the proposed site driveway intersection evaluation and include the information on Table 4 for the Route 140 at Project Site Driveway column.*

**Response:** Table 4 of the January 2024 TIA Update includes the motor vehicle crashes identified by Stantec that occurred in the vicinity of the proposed Project site driveway and incorporates motor vehicle crash data for the Route 140/Fiske Avenue intersection. Consistent with the findings of the June 2023 TIA and as expanded to include the Route 140/Fiske Avenue intersection, the Project site driveway intersection with Route 140 and the Route 140/Fiske Avenue intersection were found to have motor vehicle crash rates that are *below* both the MassDOT statewide and District average crash rates for similar intersections for the MassDOT Highway Division District in which the intersections are located (District 3).

### **Traffic Operations Analysis**

**Comment:** *Stantec reviewed VAI's traffic operations analysis of the existing, projected future no-build, and projected future build scenarios and concurs with their findings that the project does not appear to contribute concerning levels of vehicle delays, vehicle queueing, or general level-of-service reductions to the site access location or the other intersections evaluated in the study.*

**Response:** No response required.

**Comment:** *Stantec recommends VAI update the traffic operations analysis and associated reporting for the Appendix and reporting tables within the body of the TIA with the inclusion of Main Street at Fiske Avenue when available.*

**Response:** The traffic operations analysis and the associated summary table (Table 6) presented in the January 2024 TIA Update incorporate the Route 140/Fiske Avenue intersection.

### **Sight Distance Assessment**

**Comment:** *Stantec reviewed VAI's sight distance assessment, including the SSD and ISD calculations and concurs with the results.*

**Response:** No response required.

### **(TIA) Summary**

**Comment:** *Stantec generally concurs with VAI's findings from their evaluations and recommends any revisions to these findings if required from differing results with the inclusion of the Main Street at Fiske Avenue intersection into the TIA study.*



**Response:** Based on the results of the updated analyses that are presented in the January 2024 TIA Update and inclusive of the Route 140/Fiske Avenue intersection, the recommendations that were presented in the June 2023 TIA continue to be valid for the Project.

### **Recommendations**

**Comment:** *Stantec generally concurs with VAI's recommendations derived from their evaluations and recommendations for inclusion in the project site plan. However, the signing and pavement markings, most notably the site access driveway's approach to Main Street, do not appear on the Site Plans.*

**Response:** Updated site plans inclusive of the recommendations from the January 2024 TIA Update will be submitted by others under separate cover.

**Comment:** *Stantec recommends VAI coordinate with MassDOT and incorporate descriptions and analysis of improvements proposed along Main Street with MassDOT Project No. 608490 specifically impacting the proposed site access driveway. If this coordination has already occurred, Stantec recommends VAI incorporate the results within the TIA.*

**Response:** The January 2024 TIA Update includes a description of the proposed improvements along Route 140 that are associated with MassDOT Project No. 608490 as provided by MassDOT. The planned improvements are expected improve pedestrian and bicycle safety and mobility along the corridor and are not intended to increase the capacity of the roadways or intersections that are the subject of the January 2024 TIA Update.

**Comment:** *Any revisions to these recommendations may be required with the inclusion of the Main Street at Fiske Avenue intersection supplement to the TIA study.*

**Response:** Based on the results of the updated analyses that are presented in the January 2024 TIA Update and inclusive of the Route 140/Fiske Avenue intersection, the recommendations that were presented in the June 2023 TIA continue to be valid for the Project.

### **Site Plan – Traffic Elements**

#### **Site Access**

**Comment:** *VAI's TIA recommended the installation of a STOP sign (R1-1) and stop line pavement marking for the exiting approach from the development. Stantec concurs with this recommendation. However, the site plans reviewed did not provide portray these in the set provided. Stantec recommends the applicant's engineer provide these at a location per the most current edition of the Manual of Uniform Traffic Control Devices (MUTCD), also recommended within VAI's TIA.*

**Response:** Updated site plans inclusive of the recommendations from the January 2024 TIA Update will be submitted by others under separate cover.

**Comment:** *The STOP sign and stop line locations should also correspond to VAI's measurement location for intersection sight distance (ISD), to meet the desirable distance of 385 feet east of the proposed site driveway and 445 feet west of the proposed driveway. This*



*includes the removal and/or limitation of obstructions and potential landscaping that could encroach on the ISD sight triangle from the stopped position. Stantec recommends providing a detail of this sight distance measurement from the stop approach for both directions and a corresponding cross-section to verify that these minimum thresholds are met.*

**Response:** Topographic information within the sight triangle area was not obtained as a part of the survey. As such, VAI has prepared a sight triangle plan to include: i) photographs of the features that are located within the sight triangles, none of which present a continuous obstruction to the available sight lines; and ii) a note stating the following:

*“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.”*

### **Site Driveway Pedestrian Crossing**

**Comment:** *The existing linework for the site plans show existing “handicap ramps” with what could be assumed to be detectable warning fields, based on the linework. This does not appear to be an existing condition that matches with field reviews of the proposed site access driveway.*

**Response:** Response to be provided by D&L Design Group under separate cover.

**Comment:** *The applicant should review the existing pedestrian crossing for conformance to the ADA and if they will be impacted by the change in grading and drainage due to the construction of the new driveway. It is unclear from the plans if the proposed crossing is intended to replace the existing pedestrian crossing within the right-of-way.*

**Response:** Response to be provided by D&L Design Group under separate cover.

**Comment:** *There also appears to be an existing manhole adjacent to the west transition ramp of the existing pedestrian crossing that does not appear on the plans.*

**Response:** Response to be provided by D&L Design Group under separate cover.

**Comment:** *Stantec recommends coordination with MassDOT regarding Project No. 608940 regarding the proposed work at the immediate roadway, sidewalk, and pedestrian crossing located at Main Street.*

**Response:** The Proponent has been and will continue to coordinate with MassDOT as a part of the State Highway Access Permit process to ensure that the design and construction of the Project site driveway is reflective of the improvements that will be associated with the MassDOT roadway improvement project.

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We trust that this information as reflected in the January 2024 TIA Update is responsive to the comments that were identified in the November 9, 2023 *Traffic Impact Assessment Peer Review* memorandum prepared by Stantec concerning the Project. If you should have any questions or would like to discuss our responses in more detail, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.

A handwritten signature in black ink that reads "Jeffrey S. Dirk".

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

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

JSD/dcl

Attachments

Transportation Impact Assessment - Proposed Multifamily Residential Development - Upton, Massachusetts

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