

November 25, 2019

Christopher Wider, Chairman
Town of Norfolk – Zoning Board of Appeals
One Liberty Lane
Norfolk, MA 02056

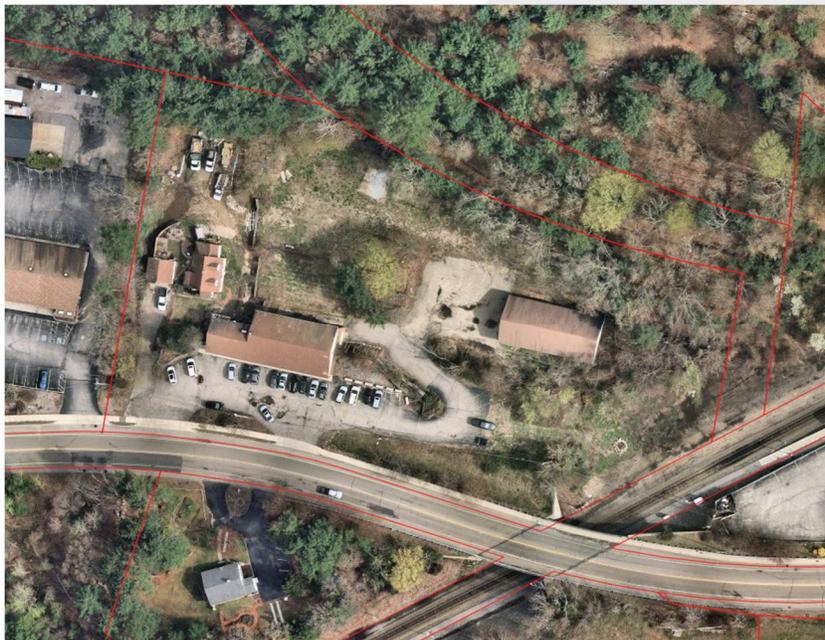
Re: Norfolk, MA – The Residences at Norfolk Station,
194 Main Street
Traffic Assessment Review

Dear Chairman Wider:

BETA Group, Inc. (BETA) has reviewed the *Residences at Norfolk Station, Traffic Assessment* letter dated November 8, 2019 by Green International Affiliates, Inc. (Green). The letter provides a limited traffic assessment of the proposed residential development at 194 Main Street, in Norfolk, Massachusetts, including a summary of existing conditions, trip generation, and sight lines. This letter provides a summary of comments related to the Traffic Assessment. Where referenced, the term “Applicant” refers to either the Applicant itself or its design consultants.

Existing Conditions

1. The existing site, as shown below, provides a commercial building, a single-family home, and a garage. The site is located approximately 625 feet east of Boardman Street and 650 feet west of Independence Drive. Access is provided by two driveways to a parking lot with approximately 25 parking spaces. The residence and garage are accessed by additional internal driveways connected to the main parking facility.



Source: Nearmap (April 2019)

2. Main Street is an urban minor arterial under Town of Norfolk jurisdiction. However, the bridge over the commuter rail track abutting the project site to the east is under MassDOT jurisdiction.
3. Pedestrians are accommodated by a five-foot wide cement concrete sidewalk, separated from the roadway by a small landscape strip, along the north side of Main Street. The sidewalk connects the site to the downtown district and provides access to the nearby MBTA Commuter Rail Station (± 0.3 Miles).
4. Bicycle infrastructure is not provided on Main Street, though the roadway provides wide (4-6 foot) shoulders on each side of the roadway that can accommodate bicycle travel.
5. The roadway is posted with 30 mile per hour (mph) speed limit signs in the area of the site.

Comment: Speed Data was not collected to validate travel speeds on Main Street. We recommend that the Applicant provide speed data to confirm actual (85th%) speeds.

Proposed Conditions

1. The proposed site intends to provide a three-floor residential building with 60 rental units/apartments. The building will provide a mix of 1, 2, and 3-bedroom non-age restricted units developed under the Chapter 40B state statute. The existing eastern driveway will be closed, and the western driveway will be reconfigured as dedicated site access. A total of 108 parking spaces, including 60 internal (first level) spaces and 48 exterior spaces, will be provided. Four interior and two exterior spaces are intended to be accessible, in accordance with the Massachusetts Architectural Access Board (AAB) regulations. The site will provide a ratio of 1.80 spaces per unit.

Comment: Parking supply exceeds Town of Norfolk by-law requirements and exceeds average rates set forth in the Institute of Transportation Engineers (ITE) *Parking Generation Manual, 5th Edition*.

Trip Generation

1. Project related trips were estimated for Land Use Code (LUC) 220 – Multi-Family Housing (Low Rise) from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. Based on ITE data, the site is estimated to generate approximately 414 trips per day (207 in, 207 out), 29 trips in the morning peak hour (7 in, 22 out), and 37 trips in the evening peak hour (23 in, 14 out).

Comment: BETA notes that this site falls within ITE LUC 221 – Multi-Family Housing (Mid-Rise) given the building is intended to be three floors. The trip generation estimates based on LUC 221 are lower than those presented by the Applicant. As such, BETA finds the Applicant's analysis to be conservative.

2. This trip generation estimate does not take credit for the nearby Commuter Rail Station, and assumes all trips are vehicle (driving) trips. The Applicant notes that approximately 8% of Norfolk residents commute by public transit. In addition to commuter trips, "non-commute" walk or bike trips would be expected given the multitude of commercial, civic, and institutional land uses within one mile from the site.
3. The Applicant notes that the total daily vehicle trips could be reduced by 15 to 20 percent while the peak hours could be reduced between 8 and 15 percent given the proximity of the train station.

Comment: While BETA generally concurs that the Commuter Rail will reduce the number of vehicle trips to and from the site, no backup was provided for these estimated trip reductions. We recommend that the Applicant provide a source for the referenced potential trip reduction.

Assessment of Traffic Impact

1. The Traffic Assessment evaluated traffic impact by estimating and comparing the number of trips for full occupancy of the existing site, based on several Land Uses in the ITE's *Trip Generation Manual, 10th Edition*, with the projected trip generation for the proposed site.

Comment: While BETA finds this methodology to be acceptable when sites are currently vacant or otherwise not operating; the Applicant did not clearly specify the Land Uses and units (e.g. number of seats, square footage, etc.) used to estimate the number of Existing trips for the site. Please provide clarification to justify the estimates provided in Table 2 on Page 3 of the Traffic Assessment.

Sight Distances / Site Drive Visibility

1. Sight distances approaching and exiting the proposed site driveway were evaluated in accordance to the American Association of State Highway and Transportation Officials (AASHTO) guidelines based on travel speeds. Field reconnaissance by the Applicant revealed greater than 500 feet stopping sight distances from the west and 350 feet stopping sight distances to the east. These distances are greater than AASHTO's recommended 200 foot stopping sight distance for speeds of 30 miles per hour.

Comment: Sight distance requirements should be based on existing travel speeds, which were not provided. BETA evaluated the AASHTO table and found 350 feet to be adequate for 40 mph.

Comment: The above recommended distances assume a level roadway. Sight distance calculations should account for the approach grade of the roadway.

Applicant's Recommendations

1. The Traffic Assessment recommended four items:
 - a. The Site Plan shall include bicycle parking racks or cages within the garage to encourage bicycle usage amongst residents.
 - b. Install a STOP sign for the exit driveway
 - c. Install small internal signs along the site driveway to remind motorists to drive slowly and be aware of potential pedestrians and bicyclists.
 - d. Vegetation and signage shall be maintained at less than two feet high or set back sufficiently to maintain sight lines.

Comment: BETA supports recommendations A, B, and D.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.



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