



July 31, 2019

Ref: 14400.01

Mr. J. Randolph Becker, Chair
Zoning Board of Appeals
Town of Wellesley
525 Washington Street
Wellesley, MA 02482

Re: Transportation Peer Review
Proposed Residential Development
3 Burke Lane
Wellesley, Massachusetts

Dear Mr. Becker and members of the Zoning Board of Appeals:

VHB/Vanasse Hangen Brustlin, Inc. (VHB) has performed a technical 'peer' review of the Traffic Impact and Access Study and associated site plans for the proposed residential development to be located at 3 Burke Lane in Wellesley, Massachusetts. The project known as "Cedar Place" is a proposed development consisting of a renovated residential building and the construction of a three-story multifamily residential building which will house 15 units for a total of 16 residential units on the site. The parcel will be serviced by 26 parking spaces on a site located off Burke Lane and adjacent to the Route 9 eastbound on-ramp from Cedar Street. As part of this review effort, VHB reviewed the following documents:

Traffic Impact Memorandum "Transportation Impact Assessment, Cedar Place Residential Development – 2 & 3 Burke Lane, Wellesley Massachusetts; dated March 14, 2019 prepared by Mr. Jeffrey S. Dirk, PE, PTOE, FITE of Vanasse & Associates, Inc.

"Site Plans for 3 Burke Lane in Wellesley, MA"; dated April 16, 2019 and revised June 11, 2018 (sic) prepared by Guerriere & Halnon, Inc.

VHB also visited the project site on July 9, 2019 and to review and observe the traffic conditions in and around the project site and to verify and compare the results presented in the report with what was occurring in the field.

Preface

For the purposes of this review, it was assumed that the project meets the eligibility criteria for a comprehensive permit and VHB therefore does not provide commentary on this subject matter. VHB does not offer commentary on the actual site plan, other than how it relates to transportation-related issues. It

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is assumed that another firm and/or Town staff will focus on reviewing the application for typical site/civil engineering purposes (utilities, drainage and grading, environmental, etc.). The focus of this review is exclusively on the engineering and technical merits of the traffic study as well as the driveway and roadway plans submitted in support of the Comprehensive Permit application.

MassDOT Oversight

According to the MassDOT Roadway Jurisdiction Classification GIS portal, the Worcester Street eastbound on-ramp to Route 9 is under the jurisdiction of MassDOT. However, since no portion of Burke Lane is designated as State Highway Layout and the Project Site physically does not abut the State Highway Layout, no MassDOT involvement is anticipated unless changes to the on-ramp are required or proposed.

Review of the Transportation Information

In general, the traffic report and supporting plans have been prepared in a professional manner that is generally consistent with standard engineering practices. As part of this effort, VHB has conducted a detailed, point-by-point evaluation of the study and its supporting documentation. In summary, it is our professional opinion that the information contained in the report is both technically accurate and portrays the likely impacts of the project on the surrounding roadway system.

VHB has identified several informational needs that focus on the existing conditions, site circulation and access, and the Project's commitments. The expectation is that these requests will provide the opportunity to clarify inconsistencies, provide additional insight, and/or address technical issues raised during the course of this review. The applicant should be prepared to address, discuss, and/or respond to these topics as they all have to do with either public safety and/or site design considerations.

Detailed Discussion of Findings on the Traffic Study

The following comments are provided to the Board for their consideration as they relate to the Applicants Traffic Study. This evaluation follows the headings of each of the chapters in the Study for clarity.

VHB offers technical comments after each section and, if additional information is needed or requested, the comment may also include **bold text** stating why and what information would be helpful to the Board.

1.0 Project Description

As noted in the Traffic Study, the site will be redeveloped to include a total of 16 residential units and will provide 26 parking spaces, all of which will be surface spaces located adjacent to the two structures on the site. In reviewing the site plans, there appear to be only 24 designated parking spaces marked on the plans and two garage spaces. It is not clear from the plan where these two garage spaces are located. The Study notes that this ratio is within range of the parking rates provided by the Institute of Transportation Engineers (ITE) for an apartment community in a suburban setting.

Comment #1 (PARKING): *Generally, a parking ratio of 1.5-2.0 is desired for a residential project such as the one being proposed. The applicant's ratio of 1.62 spaces/unit is on the lower end of this range for a development of this type and would warrant a more aggressive parking management*



program and Transportation Demand Management (TDM) plan to minimize the demand for parking at the site. The Applicant should provide a brief summary of how parking will be managed at the site, including a summary of how parking spaces will be assigned to each unit and how many are designated for visitor usage. VHB notes that on-street parking is not permitted in this area of Burke Lane so there no available public off-site parking in the immediate vicinity of the site.

2.0 Study Methodology

The study methodology notes that the project's traffic study was performed in accordance with MassDOT standards, the Town of Wellesley's PSI standards, and within the standards of the normal Traffic Engineering and Transportation Planning profession. VHB concurs that the study was done in a professional manner and is consistent with these guidelines.

3.0 Existing Conditions

The Study identified one intersection that would likely be impacted by the project of any note along with the Project's Site Driveways. VHB has reviewed these locations and the distribution of Project-related traffic on the roadway network. Given the minimal projected volumes expected to be generated by the development and the likely distribution of traffic onto the surrounding roadways, it is VHB's opinion that the study area selected appears to be reasonable and within industry standards. Note that any future changes to site access may result in this assumption being revisited.

Comment #2 (STUDY AREA): *The intersection of Burke Lane at the Worcester Street (Route 9) Eastbound On-Ramp is appropriately analyzed and the driveway to the Project Site is also included.*

Traffic Volumes were gathered in January 2019 at a time when public schools were in session and were analyzed over two peak hour periods; morning (7-9am) and evening (4-6pm) commuter peak periods. Traffic volumes in January are typically lower than most months, so the observed traffic volumes were increased by 12 percent to reflect typical average month traffic conditions. Ultimately, the study found that Burke Lane carries approximately 160 vehicles per day along its length with between 11 and 16 vehicles per hour using the section close to the Route 9 on-ramp during peak hours.

Comment #3 (TRAFFIC VOLUMES): *The manner in which the data was collected and summarized is consistent with industry standards and reflects the observations of VHB Staff during our site visit in early July.*

Pedestrian and bicycle facilities in and around the Project Site are present, but not immediately located in or along Burke Street in any sort of formalized manner. While some of the resources are not compliant with the Americans with Disabilities Act (ADA), there are sidewalks in relatively close proximity to the Site. Lastly, the study does note that the generally low volume of vehicles along Burke Street allows for the shared use of bicycle with vehicles.

Comment #4 (PEDESTRIAN AND BICYCLE ACCOMODATONS): *The presence of pedestrian connections in and around the Project Site are accurately portrayed and reflect their usage.*



The study noted speed measurements along Burke Lane at the Project site driveway. While there is no posted speed limit signs along Burke Lane, the assumed speed limit for this roadway is 30 mph. The results of the speed observations conducted by the Proponent note that the 85th percentile speeds in the general vicinity of the Project Site are on the order of 27-28mph, below that of the assumed speed limit for the area.

Comment #5 (SPEED OBSERVATIONS): *The speed data was collected using typical observations and reflects the speeds observed by VHB in early July near the Project Site driveway.*

Transit options in the vicinity of the site include the MWRTA's Bus Route 1 which picks up and drops off passengers at the intersection of Cedar Street and the Route 9 Eastbound Ramps and eventually connects to the Woodland stop of the MBTA's Green Line. This bus stop is an approximate 3-minute walk from the Project site.

Comment #6 (TRANSIT): *The presence of transit options nearby will potentially help to reduce the number of vehicular trips to and from the site. VHB has some questions about how the pedestrian route between the Project Site and the existing pedestrian network will be implemented (see Comment 10 later), but considers this bus stop an amenity for the site.*

Motor vehicle crash data was also provided and summarized in the technical memorandum. The data suggests that the intersection of the Route 9 Eastbound On-Ramp with Burke Lane experienced 9 crashes over the five-year period analyzed. While less than 2 crashes per year generally appears to be a low statistical number, the low volume of traffic entering and exiting Burke Lane actually highlights this intersection a higher-than-average crash location when compared to other locations.

4.0 Future Conditions

The Study indicates that the 2019 Existing Conditions volumes were projected seven-years to year 2026, which is consistent with typical planning horizons for traffic impact studies.

The 2026 No Build traffic conditions were developed by assigning the background traffic growth a 2.0% rate per year and assumes that this conservative rate will account for seven potential developments near the Project Site. The study goes on to note that there are no roadway project that will be taking place in the Study Area which might impact roadway capacity/operations.

The traffic study determined project-related trips using procedures consistent with Institute of Transportation Engineers (ITE) guidelines. Based on ITE trip projections, the project would be expected to generate approximately 86 daily, 6 morning peak hour, and 8 evening peak hour vehicle trips using the ITE's Trip Generation¹. Table 2 of the Traffic Study highlights this information in tabular form.

Trip Distribution was developed using journey-to-work data and was refined based on existing travel patterns during the commuter peak periods. Figure 5 of the Traffic Study reflects the results of this evaluation.

¹ *Trip Generation*, 10th Edition; Institute of Transportation Engineers; Washington DC; 2017



Comment #7 (FUTURE TRAFFIC VOLUMES): *VHB concurs with the manner in which all the above data is presented. The information is consistent with the recommended practices of the ITE and the resulting predicted automobile trips appear to be accurately presented.*

5.0 Intersection Capacity Analysis

Utilizing the observed roadway geometry, the traffic volumes – both existing and projected – and the appropriate traffic control at each location; the Study analyzed the impacts of the Project at the study area intersections. The Study utilizes the most appropriate version of the highway capacity software and presents an accurate description of the Level of Service terms.

Comment #8 (INTERSECTION ANALYSIS): *In reviewing the operational analysis, the resulting impacts at the study area intersection and site driveway appear to accurately reflect the likely (minimal) impacts of the Project. No movements would be expected to operate with any noticeable additional delay.*

In addition to level of service result, Table 3 of the report documents the expected (calculated) vehicle queuing at each of the study area intersections. VHB observed typical vehicle delays and queuing and visually confirmed that queuing is minimal along Burke Lane during the morning and evening commuter hours.

6.0 Sight Distance Evaluation

Table 4 from the Traffic Study presents the sight distance information for the intersection of Burke Lane at the Project Site Driveway. The text notes that the sight distance exceeds the recommended minimum AASHTO sight distances for a 30mph speed along Burke Lane for the Stopping Sight Distance measurements. The Intersection Sight Distance minimum is met looking to the south from the Project Site Driveway but notes that it currently DOES NOT meet the measurements looking to the North. The study notes that the existing retaining wall that exists along the Project frontage would need to be removed in order to meet the standards for this sight line.

VHB confirmed these distances are accurate and agrees with the recommendation to eliminate the retaining wall.

Comment #9 (SIGHT DISTANCE): *The applicant illustrates on Sheet 3 of 7 of the site plans a sight triangle area for the Project Site driveway. The lines should be annotated and any structures, vegetation, or other obstructions within this sight line should be adjusted if it represents an obstruction to the sight lines. The sight triangle should note on the Site Plans indicating: "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 windrows located within sight triangle areas that exceed 3.5-feet in height or that would otherwise inhibit sight lines shall be promptly removed."*



7.0 Summary

VHB has reviewed the traffic study's conclusions and generally concurs that the project in-and-of itself will not likely result in a significant impact (increase) on motorist delays or vehicle queuing either on the site or along Burke Road. The Study makes a number of recommendations with respect to Project Access and Traffic Demand Management for the site. VHB has reviewed all the Project recommendations and offers the following commentary:

There are multiple bulleted recommendations presented in this section of the Traffic Study on Pages 12 & 13. VHB agrees with each of the recommendations and notes the following:

- **Comment #10 (SIDEWALK):** The Applicant makes a recommendation to connect a new sidewalk that runs along the frontage of the Project Site with a sidewalk planned along the front of 7 Burke Lane, ultimately connecting to the sidewalk along the Route 9 Eastbound On-Ramp. *Please confirm which entity(ies) are responsible for the entirety of this sidewalk connection from the Project Site driveway all the way to, and integrating it into, the Route 9 ramp sidewalk. VHB strongly advocates for this sidewalk to be constructed prior to occupancy of this Project.*
- **Comment #11 (SCHOOL BUS WAITING AREA):** *The Applicant should provide a summary of how and where students will wait for school buses on the Site Plan.*
- **Comment #12 (SAFETY STUDY):** The Applicant notes that they will participate in the Town and MassDOT's assessment of potential safety-related improvements at the intersection of Burke Lane and the Route 9 Eastbound On-Ramp. *Please confirm that this is an activity that will be initiated and sponsored by the Applicant. If the intention is otherwise, please clarify.*
- **Comment #13 (TDM PLAN):** Given the limited parking on the site, the Applicant should be expected to implement an aggressive parking management plan and take part in an effective TDM program on the site. *The TDM program noted in the Traffic Study is an excellent resource. The Applicant should provide a summary of which of these recommendations they are committed to implementing at the site.*

8.0 Additional Comments

In addition to the specific comments on the traffic study, VHB offers the following comments for consideration:

- **Comment #14 (EV CHARGING STATIONS):** *The site plan notes that there will be at least one parking space that will provide an EV Charging Station on the site. The Applicant should provide information to the Board if the Project will consider the potential for additional electric vehicle charging station or will make any spaces EV-ready, should tenant demand warrant them within the site.*
- **Comment #15 (BICYCLE PARKING):** *The TDM section of the study recommends secure bicycle parking be provided at the site; however, it is not clear on the plans where this parking area will be located. The Applicant should identify where bicyclists can find secure, weather protected, bicycle parking spaces.*
- **Comment #16 (VEHICLE TRACKING):** *The plans should provide Vehicle Tracking© which demonstrate access for the largest vehicle expected to access the site (minimum WB-40) truck. This tracking should also summarize how access to the trash and recycling pad will be achieved from the typical garbage*



truck. The Applicant should identify where on the site plan loading vehicles will park and where delivery vehicles would be directed to wait as they make visits to the site.

- **Comment #17 (TENANT MOVE IN/OUT STAGING):** *The Applicant should be prepared to summarize how tenant move-in/out plans will be managed so that multiple trucks don't arrive at the same time.*
- **Comment #18 (CONSTRUCTION STAGING):** *The Applicant should provide a brief and simple narrative as to how the contractor intends to stage the construction of the facility given that no on-street parking is allowed along Burke Lane.*

Please call if you have any questions or require additional information on any of the requests or comments noted above. Once responses to the comments noted above have been received and reviewed, VHB will respond to this information as appropriate. VHB will also suggest potential conditions that the Board may want to consider in their review and deliberations as they relate to transportation elements of the proposed project.

I will be available at the next Zoning Board of Appeals hearing on August 6, 2019 to discuss in greater detail these findings if needed. The applicant should be prepared to address as many of these comments as reasonably possible at the upcoming Zoning Board of Appeals hearing and incorporate them into revised traffic and site plan based on the outcome of the meeting.

Sincerely,

Vanasse Hangen Brustlin, Inc.

Robert L Nagi, PE

Principal