

May 1, 2018

Mr. David R. Consigli
Zoning Board of Appeals
Town of Milford
Town Hall
52 Main Street
Milford, MA 01757

RE: Transportation Peer Review

Dear Mr. Consigli:

BSC Group has been retained as a sub-contractor to Comprehensive Environmental Inc., to provide peer review services regarding traffic and transportation impacts for the proposed residential development entitled "Residences at Stone Ridge". The Proponent proposes to construct 272 residential apartment units as a replacement for 160,000 sf of previously permitted office space. The project site is at 200-300 Deer Street in Milford, Massachusetts.

BSC Group has performed the peer review based on the following information:

- Stone Ridge Development (EOEA # 14127) Phase I - Milford, Massachusetts – Traffic Impact Memorandum, by TEC, Inc. (TEC) March 12, 2018
- Comprehensive Permit Plans by SMMA dated March 9, 2018
- Stone Ridge Comprehensive Permit Application dated March 15, 2018, by The Gutierrez Company
- Various letters from Town of Milford representatives in response to the Comprehensive Permit Application:
 - Engineering Office
 - Planning Board
 - Planning Office
 - Police Department
- Field visit performed in April 2018

BSC offers the following comments on the Traffic Impact Memorandum:

Existing Conditions

1. The Traffic Impact Memorandum (Traffic Memo) evaluated two intersections under existing and future conditions: Cedar Street (Route 85) / I-495 NB Ramps, and Cedar Street / Deer Street. A review of site generated trips shows that more than half of the site generated traffic would travel south through the Cedar Street / I-495 NB Ramps towards Cedar Street / I-495 SB Ramps. BSC recommends that the Proponent should evaluate the impacts of the project trips on traffic operations at the Cedar Street / I-495 SB

Engineers

Environmental
Scientists

Custom Software
Developers

Landscape
Architects

Planners

Surveyors



Ramps.

Traffic Volumes

2. Turning movement counts were collected in May 2017 during the weekday morning (7-9AM) and afternoon (4-6PM) commuter peak hours. These times are consistent with standard procedures. No seasonal adjustments were made to the traffic counts; BSC concurs with the Proponent's explanation.

Crash History Analysis

3. The Traffic Memo provides crash information for study area intersections and notes that the I-495 Interchange is a Highway Safety Improvement Program (HSIP) location. TEC stated that through phone conversations with MassDOT District 3 Traffic section, no additional review was necessary since the Section 61 Findings for the Stone Ridge Project only required traffic signal timing modification. BSC recommends that detailed crash analysis should be performed under future phases of the project.

Future Conditions

4. The future conditions were projected under a seven-year planning horizon. BSC concurs with this timeline, which is consistent with current MassDOT standards.
5. Future No Build conditions were estimated by applying a one-percent annual growth rate and adding vehicle trips from specific known developments in the area. BSC concurs with this methodology.

Trip Generation

6. Table 2 summarizes the estimated number of vehicle trips for the proposed development. Trips for the proposed development were estimated using rates from the Institute of Transportation Engineers (ITE) Trip Generation, and empirical data for the Restaurant Depot.
7. The Traffic Memo notes that the daily trips generated by the current project will be approximately 12% higher than the originally permitted Phase 1 daily trips. The current project will however have less peak hour trips than the original project. BSC agrees with this assertion, but notes that residential uses have different trip characteristics than office uses. For example, during the morning peak hour, more vehicles would leave the site under the proposed residential /Restaurant Depot development (146 trips exiting) compared to 31 trips under the office development. This pattern of travel is reversed during the evening peak hour. BSC recommends that the Proponent should evaluate how the change in the peak direction of the project trips affect traffic signal timings at Cedar Street / I-495 NB Ramps. The Proponent should also evaluate the impacts to the roadway network especially at Cedar Street / I-495 SB Ramps.

Trip Distribution

8. BSC Group generally concurs with the methodology used to estimate the trip distribution patterns.



Site Access

9. Access to the project site is via Deer Street off of Cedar Street. The provision of a singular access/egress to the proposed residential development is a concern. The Proponent should explore additional access options for emergency purposes.
10. BSC recommends the installation of devices such as the Rectangular Rapid Flash Beacon to warn drivers of the presence of non-motorized trail users.

Sight Distance Analysis

11. The proposed driveway is currently under construction and BSC did not perform any independent sight distance measurements in the field.

Traffic Operations Analysis

12. Tables 5 and 6 indicate that the overall delay at the study area intersections operated at acceptable levels of service. The detailed analyses show that Peak Hour Factor (PHF) inputs applied in the analysis were based on the overall intersection, instead of each intersection approach, as stated in the MassDOT Traffic Impact Analysis Guidelines. Traffic analysis outcomes are sensitive to peak hour factors; therefore, we recommend that the Proponent revise the analysis and use the appropriate PHF for each approach.

Pedestrian Safety

13. Deer Street crosses the Upper Charles Trail. It was not clear from the plans reviewed what treatments were proposed at this crossing to alert drivers to the presence of non-motorized trail users. If warranted, the Proponent should install signs and Rectangular Rapid Flash Beacons (RRFB) to enhance pedestrian and bicycle safety at this trail crossing with Deer Street.

Please do not hesitate to contact our office with any inquiries you may have.

Sincerely,

BSC Group, Inc.

Sam Offei-Addo, P.E., PTOE
Senior Project Manager/Senior Associate