

Ref: 7154

March 16, 2016

Ms. Jean Delios
Assistant Town Manager
Town of Reading
16 Lowell Street
Reading, MA 01867

Re: Response to Peer Review Comments
Proposed Reading Village Residential Development – 2 Prescott Street and 39 Lincoln Street
Reading, Massachusetts

Dear Ms. Delios:

Vanasse & Associates, Inc. (VAI) is providing responses to the comments that were raised in the March 10, 2016 letter from Green International Affiliates, Inc. (Green) concerning their review on behalf of the Town of Reading of the October 2015 *Transportation Impact Assessment* (the “October 2015 TIA”) and the associated Site Plans prepared in support of the proposed Reading Village residential development to be located at 2 Prescott Street and 39 Lincoln Street in Reading, Massachusetts (hereafter referred to as the “Project”). Listed below are the comments that were raised in Green’s letter followed by our detailed response on behalf of the Applicant.

October 2015 Transportation Impact Assessment

Comment 1. *The October 2015 Transportation Impact Assessment (TIA) was generally prepared in a professional manner, consistent with industry standards. However, the study was not stamped and signed by the Professional Engineer in responsible charge for the preparation of the document as required pursuant to Massachusetts General Law. A letter should be provided by the Professional Engineer attesting to their oversight in preparing the document and providing their Massachusetts Professional Engineer Registration number and discipline.*

Response: This letter shall certify that the October 2015 TIA was prepared under the direct supervision and responsible charge of Jeffrey S. Dirk, P.E., PTOE (Massachusetts P.E. No. 38871, Civil; Professional Traffic Operations Engineer (PTOE) Certificate No. 993).

Comment 2. *The TIA included the following three study intersections:*

- *Prescott Street/Washington Street*
- *Lincoln Street/Prescott Street*
- *Lincoln Street/Washington Street/Minot Street*

Response: *The study area included in the TIA is reasonable for a project of this size.*
No response required.

Comment 3. *Traffic data were collected on typical weekdays in October 2015 while public schools were in regular session. The traffic study demonstrated that data collected in the month of October represents above-average conditions, and therefore the traffic volumes were not adjusted for seasonal variation in order to provide a conservative analysis condition. The seasonal data that is referenced in the report is outdated; footnote 4 in page 8 of the TIA report mistakenly listed as " ... 2011 Weekday Seasonal Factors, ... ", while the seasonal variation data included in the study's appendix is from 2007. However, after a review of more recent seasonal variation of traffic volumes from three Mass DOT continuous count stations in the vicinity of the project, we concur that data collected in October represents above average conditions.*

Response: VAI acknowledges Green's comment concerning the oversight regarding inclusion of the 2007 MassDOT seasonal adjustment data in the appendix of the October 2015 TIA. As stated by Green, a review of more recent MassDOT seasonal adjustment data continues to indicate that data collected in October represents above-average conditions. No further response required.

Comment 4. *Crash data were presented from information provided by the MassDOT Highway Division Safety management/Traffic Operations Unit for the most recent five-year period available (2009-2013). During the five-year period that was examined, each study intersection only experienced one reported crash, and none of the study intersections exceeded the MassDOT District 4 average crash rate for unsignalized intersections.*

Response: No response required.

Comment 5. *Future traffic volumes were projected seven years to the year 2022, consistent with MassDOT's TIA Guidelines, and we concur with this methodology. The future traffic volume projections included traffic from two other specific development projects: Reading Woods residential project (424 units) and the Criterion Children Enrichment Facility, a proposed day care facility. An annual background growth rate of 1% was also applied to the existing traffic volumes to develop the future volume forecasts. We concur with this methodology for future traffic volume projections.*

Response: No response required.

Comment 6. *The Institute of Transportation Engineers (ITE) Trip Generation Manual was used to forecast the number of trips generated by the proposed project. In order to provide a conservative analysis of the impact of the proposed project, no reduction was taken to account for the likely use of public transportation services by the residents of the proposed site. We concur with the trip generation methodology and calculations.*

Response: No response required.



Comment 7. *The trip distribution for the site was based upon U.S. Census Journey-to-Work data (for persons residing in Reading) and existing traffic patterns. The methodology used appears to be reasonable. However, the corresponding Census data is not provided in the report or Appendix, and the travel patterns could not be verified.*

Response: The U.S. Census Journey-to-Work data for the census tract area that includes the Project site is attached.

Comment 8. *It is noted that all of the traffic volume figures (existing, no-build, project generated traffic, and build) mistakenly referenced "weekday evening peak hour", even when "weekday morning peak hour" data were displayed.*

Response: VAI acknowledges Green's comment and notes that Green has stated that the traffic volumes shown on the subject figures are correct as presented. No further response required.

Comment 9. *The minimum sight distances were calculated based upon criteria provided in the American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets, 6th Edition ("The Green Book"). We agree with the methodology and explanations provided for determining sight distances. The measured sight distances at the proposed driveways exceed required the minimum criteria.*

Response: No response required

Comment 10. *The intersection capacity analyses were conducted using the Synchro 8 software and the methodology defined in the 2010 edition of the Highway Capacity Manual (HCM). The analysis methodology was consistent with current state guidelines and standard industry practice.*

Response: No response required.

Comment 11. *The TIA provided ten recommendations with respect to the design and operation of the site driveways. We concur with these recommendations, and the project applicant should demonstrate that the site plan is consistent with all of the recommendations.*

Response: The Site Plans will be updated to reflect the recommendations that were detailed in the October 2015 TIA and will be submitted by others under separate cover.

Comment 12. *The TIA did not discuss the number of off-street parking spaces provided on the project site for residents and guests, nor did the TIA provide any justification for a lower parking supply than required by the Town.*

Response: As currently proposed, the Project will provide 80 parking spaces to serve 77 apartment units, or a parking ratio of approximately 1.04 spaces per residential unit, where 1.5 spaces per residential unit are required pursuant to Section 9.1.1.7 of the Town Zoning Bylaw. The Applicant will provide parking demand data obtained from apartment communities with similar proximity to a commuter rail station to

substantiate the lower parking ratio for the Project. This information is being compiled and will be provided under separate cover as soon as it is available.

Site Plan/Zoning Compliance Comments

Comment 13. *Sheet 5 of 9 (proposed layout) indicates that a total of 80 spaces (including 2 accessible parking spaces), are provided. Per the Zoning Bylaw § 9.1.1.7, the minimum numbers of off-street parking spaces is 116 (1.5 spaces per unit) and the minimum number of off-street loading/unloading spaces required 4. However, the TIA did not discuss the number of parking spaces provided on the project site for residents and guests, nor did the TIA provide any justification for a lower parking supply than required by the Town. While it may be reasonable to provide a lower number of parking spaces, given the proximity of the MBTA Commuter Rail station, the applicant should provide justification in support of the lower parking, such as data from national studies and/or local examples of other residential projects in eastern Massachusetts in close proximity to commuter rail stations.*

Response: The Applicant will provide parking demand data obtained from apartment communities with similar proximity to a commuter rail station to substantiate the lower parking ratio for the Project. This information is being compiled and will be provided under separate cover as soon as it is available.

Comment 14. *In addition to providing data relative to on-site parking, we suggest the project applicant conduct an off-site parking utilization study to assess the likely impacts to off-street parking due to the reduced parking ratios. This off-street parking utilization study should take into consideration all existing parking restrictions in the vicinity of the project site when evaluating on-street parking, and should provide a discussion of guest parking at the proposed site.*

Response: The Applicant will conduct an off-site parking utilization study for the roadways in the vicinity of the Project site on both a weekday and Saturday in order to document parking utilization in the area. This information is currently being collected and will be provided under separate cover when complete.

Comment 15. *The dimensions of each parking space are consistent with the Town's Zoning Bylaw, however, we note that the 24 foot aisle widths for two-way circulation are less than the Town minimum of 26 feet. The applicant should provide vehicle turning movement templates on the plans to demonstrate that the 24 foot aisle widths are sufficient for two-way vehicle circulation.*

Response: The requested turning analysis will be provided by others under separate cover. In advance of receipt of the requested plan, we note that a 23-foot wide drive aisle behind an 18-foot deep, 90 degree parking space provides sufficient room for vehicle maneuvering.¹

¹*The Dimensions of Parking*, Fifth Edition; Urban Land Institute, Washington, D.C.; 2010.

Comment 16. *The proposed two-way driveway on Prescott Street is only 20 feet wide. The site plan should be revised to provide a 24 foot wide driveway for two-way circulation, consistent with the recommendations in the applicant's own Transportation Impact Assessment.*

Response: The Site Plans will be revised accordingly and will be submitted by others under separate cover.

Comment 17. *On plan sheet 5 of 9 (Proposed Layout), the 9 feet x 18 feet parking space at the northwest corner of the proposed parking lot appears restrict the two-way driveway width. It is recommended to move this parking space to align with other parking spaces, which may require a modification to the proposed building layout, or to move this parking space to a better location on the site.*

Response: The Site Plans will be revised accordingly and will be submitted by others under separate cover.

Comment 18. *On plan sheet 5 of 9 (Proposed Layout), the width of one of the aisles in the vicinity of the two-way driveways is measured 24 feet but is not dimensioned. The 39.8' dimension is labeled incorrectly and should be 42.0'.*

Response: The Site Plans will be revised accordingly and will be submitted by others under separate cover.

Comment 19. *On plan sheet 5 of 9 (Proposed Layout), only 2 accessible parking spaces are provided. Per § 208.2 of U.S Department of Justice "2010 ADA Standards for Accessible Design" and § 23.2.1 of the Massachusetts Architectural Access Board Requirements (521 CMR 23.00), at least 4 accessible parking spaces should be provided.*

Response: The Applicant will review the referenced standards and will revise the Site Plans as may be necessary to provide the required number of accessible parking spaces. The revised plans will be submitted by others under separate cover.

Comment 20. *The pedestrian paths within the parking lot and links to the proposed buildings and adjacent sidewalks along Prescott Street and Lincoln Street are undefined.*

Response: The pedestrian pathways will be detailed on the Site Plans and will be submitted by others under separate cover.

Comment 21. *The existing sidewalks along Prescott Street and Lincoln Street in the vicinity of the project site are in poor condition. It is recommended that the applicant commit to, at a minimum, reconstructing the sidewalks along the southeast side of Prescott Street and along the south side of Lincoln Street, including the area in front of 31 Lincoln Street (Brown's Auto Repair), where there are no existing sidewalks.*

Response: The Applicant will reconstruct the sidewalks along the Project site frontage in conjunction with the Project. This commitment includes constructing/defining a

sidewalk along the frontage of 31 Lincoln Street to the extent that such facilities can be constructed within the public right-of-way and subject to receipt of all necessary rights, permits and approvals.

Comment 22. *At the Prescott Street/Lincoln Street intersection, the existing crosswalks are faded, and no wheelchair ramps are provided. The ideal location of the pedestrian crosswalks should be evaluated to provide safe and convenient access to and from the commuter rail station. New accessible ramps should be provided, and Continental or ladder style crosswalks² should be provided to allow for convenient, safe, and accessible access between the project site and the MBTA Commuter Rail Station.*

Response: In conjunction with the Project and subject to receipt of all necessary rights, permits and approvals, the Applicant will construct ADA compliant wheelchair ramps for crossing the Prescott Street/Lincoln Street intersection where crosswalks are present, and will install ladder style crosswalks. The locations of the crossings will be determined in consultation with the Town of Reading Department of Public Works and will be situated so as to provide safe and convenient access to and from the MBTA Commuter Rail Station.

We trust that this information is responsive to the comments that were raised in Green's March 10, 2016 memorandum concerning the October 2015 TIA and the associated Site Plans prepared in support of the Project. If you should have any questions regarding our responses or would like to discuss this information in more detail, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.



Jeffrey S. Dirk, P.E., PTOE, FITE
Principal

JSD/jsd

cc: M. Zuker - NewMeadow Development LLC (via email)
G. Engler - SEB, LLC (via email)
J. Burke – DeCelle Burke & Associates, Inc. (via email)
File

²“Town of Reading Bicycle Network and Pedestrian Priority Plan”, Metropolitan Area Planning Council, July 2014.



2010 Journey to Work Data

Number	Residence		Workplace		North	South	West	North/East	
	MCD	County	MCD		Main Street via Washington Street	Main Street via Minot Street	West Street via Prescott Street	Lincoln Street	
2,028	Reading town	Suffolk County	Boston city		1041	1041			
1,973	Reading town	Middlesex County	Reading town		493	493	493	494	
804	Reading town	Middlesex County	Woburn city				804		
570	Reading town	Middlesex County	Cambridge city		285	285			
441	Reading town	Middlesex County	Burlington town				441		
424	Reading town	Middlesex County	Wilmington town		212		106	106	
371	Reading town	Essex County	Andover town		186		92	93	
362	Reading town	Middlesex County	Stoneham town		181	181			
340	Reading town	Middlesex County	Wakefield town		340				
330	Reading town	Middlesex County	Winchester town				330		
239	Reading town	Middlesex County	Medford city		120	119			
232	Reading town	Middlesex County	Lexington town				232		
230	Reading town	Middlesex County	Waltham city				230		
213	Reading town	Middlesex County	Somerville city		107	106			
208	Reading town	Middlesex County	North Reading town		104			104	
186	Reading town	Middlesex County	Billerica town				186		
147	Reading town	Essex County	Danvers town		147				
134	Reading town	Middlesex County	Newton city				134		
133	Reading town	Essex County	Lynn city		133				
132	Reading town	Essex County	Peabody city		132				
131	Reading town	Middlesex County	Watertown Town city				131		
130	Reading town	Middlesex County	Everett city		66	64			
129	Reading town	Essex County	Beverly city		32			97	
126	Reading town	Suffolk County	Chelsea city		63	63			
107	Reading town	Middlesex County	Hopkinton town				107		
106	Reading town	Middlesex County	Bedford town				106		
					3,642	2,352	3,392	894	10,280
					35%	23%	33%	9%	