

December 31, 2019

Bernard Cahill, Town Planner  
Town of Shrewsbury  
100 Maple Avenue  
Shrewsbury, MA 01545

Subject: Transportation Peer Review – Supplemental Applicant Responses  
Edgemere Crossing at Flint Pond  
Shrewsbury, MA

Dear Mr. Cahill:

MDM Transportation Consultants, Inc. (MDM) has reviewed supplemental Applicant correspondence dated December 19, 2019 that responds to our initial review comments of August 15, 2019; a subsequent meeting with the Applicant on October 3, 2019; and email correspondence from MDM of December 8, 2019.

It is the opinion of MDM that the Applicant's responses of December 19, 2019 adequately address each of our principal remaining comments as summarized below, recognizing that the Applicant will further engage the Town and neighborhood constituents to identify and implement appropriate transportation improvements along Purinton Street through the MassWorks plans currently being developed. Likewise, the Applicant commits to a refined and expanded traffic and safety monitoring program to ensure appropriate operational and/or safety countermeasures are implemented post-occupancy if necessary.

### **Documents Reviewed**

MDM has reviewed the following supplemental documents to determine if industry standards have been applied in determining the potential impacts of the project and to identify appropriate mitigation actions to address operational and/or safety impacts of the project:

- *Supplemental Response to Transportation Review Comments, Edgemere Crossing at Flint Pond, Shrewsbury, Massachusetts, prepared by VHB, dated December 19, 2019.*

- *Preliminary Design, Hartford Turnpike (Route 20), Shrewsbury Massachusetts, prepared by VHB as amended through December 6, 2019.*
- *DEIR Overall Site Plan, Edgemere Crossing and Flint Pond, Shrewsbury, Massachusetts, prepared by RJO'Connell Associates, dated December 11, 2019.*

## Transportation Comments

Principal remaining transportation issues identified in our email correspondence of December 8, 2019 included analysis and design alternatives for the Route 20/Purinton Street intersection; design modifications for the easterly Site driveway to reduce potential for illegal left-turn egress movements; and request for refined/expanded traffic and safety monitoring to ensure appropriate operational and/or safety countermeasures are implemented post-occupancy if necessary.

Applicant responses for each of the remaining identified issues are paraphrased below with commentary.

*Comment 1. Route 20 at Purinton Street: Applicant should expand the study locations to include Route 20/Purinton Street as per MassDOT comments. MDM advised that evaluation should consider means of addressing "cut-through" trips, travel speeds and improved accommodation for pedestrians and bicycles.*

The Applicant has included the requested supplemental analysis that confirms that Purinton Street processes a relatively modest traffic volume onto Route 20 and exhibits crash trends that fall below statewide averages. On this basis, the Applicant has identified a conceptual improvement that would close Purinton Street at Route 20 by means of a cul-de-sac, thereby addressing cut-through, travel speeds—and—providing options for pedestrian/bicycle accommodation between the Orchard Meadows neighborhood and the proposed multi-use path along Route 20 that connects to the Site. Further engagement with the Town and neighborhood constituents is planned in the near term to develop a consensus plan for improvements at Purinton Street, which plan shall be incorporated into the MassWorks improvements that are currently being developed.

MDM acknowledges the Applicant's commitment to implement an appropriate improvement plan for Purinton Street based on an ongoing community design consensus approach.

*2. Easterly Driveway Design Modifications: MDM recommends that the raised island feature (as may be modified per MassDOT review) incorporate a more restrictive design that physically precludes*

*illegal left-turn movements from the Site onto Route 20 given the high speed nature of travel and location near the "down-gradient" of westbound travel. As originally designed, there is some likelihood that patrons or residents parked closest to this driveway destined west could easily attempt an illegal left-turn rather than negotiate the Site to the main (signalized) driveway – particularly during "off-peak" hours.*

The Applicant has slightly modified the design of the easterly driveway in consultation with MassDOT to make the right-turn more pronounced so as to discourage illegal left-turn movements. However, more restrictive design modifications would require a full acceleration lane along Route 20 that is not supported by MassDOT at this time.

**The resulting driveway design does not physically preclude illegal turns from occurring along a high speed section of Route 20; accordingly, MDM advises close monitoring of this driveway following initial site occupancy to determine the need for supplemental traffic controls/features. The Applicant commits to this monitoring and implementation of potential countermeasures are may be required as identified in the Transportation Monitoring Program that will be memorialized in the local conditioned approval of the project and the Section 61 Finding to be memorialized following completion of the MEPA process. Such countermeasures may include use of scored concrete panels, delineating break-away stanchions, supplemental signs, modified markings or other such features as may be acceptable to MassDOT to achieve improved compliance with turn restrictions.**

*3. **Transportation Monitoring Program.** Post-occupancy monitoring should present comparison of actual Project performance against projected Site trip levels and patterns (distribution of trips) cited in the TIAS and TDM effectiveness. Such monitoring will provide a basis for adjusting signal timing/phasing, TDM programming or other mitigation actions to reflect actual Project performance. The Town should be a recipient/reviewer of these monitoring reports with commitment by Applicant to report on actual Site performance relative to TIAS projections and to identify and implement specific countermeasures such as signal timing/phasing adjustments to address operational conditions that fall below certain thresholds (for example, LOS D operations or queue extents that exceed lane storage capacity). The monitoring report should also document the effectiveness/participation in TDM measures with comparison to stated goal of 5 percent reduction from ITE-based trip generation estimates, with a commitment to augment or adjust TDM programming as appropriate to achieve this goal.*

The Applicant commits to a refined and expanded traffic and safety monitoring program to ensure appropriate operational and/or safety countermeasures are implemented post-occupancy if necessary. MDM concurs with the proposed monitoring program and structure, which should be memorialized in the local conditioned approval of the project and the Section 61 Finding to be memorialized following completion of the MEPA process. **The monitoring**

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**program should explicitly include reporting of the status of TDM programs to determine whether expansion or modification of the TDM program is appropriate to achieve the stated goal of 5 percent reduction in trips relative to ITE estimates as presented in the DEIR.**

MDM appreciates the opportunity to provide Transportation Planning & Engineering Services to the Town of Shrewsbury and look forward to discussing our findings at the upcoming Planning Board hearing. If you have any questions or concerns, please feel free to contact this office.

Sincerely,



Robert J. Michaud, P.E.  
Managing Principal

MDM