

September 24, 2025

Ms. Alison Manugian, Community Development Director
Dracut Planning Board
62 Arlington Street
Dracut, MA 01826

Subject: Transportation Peer Review Services
Beaver Brook Mill Redevelopment
88, 91, 101 Mill Street, Dracut, MA

Dear Board Members:

MDM Transportation Consultants, Inc. (MDM) is pleased to provide you with the following supplemental transportation review comments for the above-referenced project. These summarized comments have been prepared based on a review of the documents identified below. Only those comments for which a response was originally requested are included in this letter. To facilitate response by Applicant, review items requiring further consideration, response or clarification are noted in ***Bold Italic***.

MDM finds the Applicant's submitted materials satisfactorily address the comments issued in our August 20, 2025 review letter, noting recommended design review/approval of proposed sign, pavement marking and pedestrian crossing improvements by Applicant (Comments 13c and 13(d)).

Supplemental Documents Reviewed

MDM has reviewed the following documents as provided by the Applicant's engineering consultants in response to requested materials cited in our August 20, 2025 review letter:

- *Response to Transportation Peer Review Comments – August 20, 2025, Beaver Brook Mill Redevelopment, Dracut, Massachusetts*, prepared by Greenman-Pedersen, Inc. dated September 17, 2025.
- *Overview Plan, Residences at the Beaver Brook, Dracut, Massachusetts*, prepared by Greenman-Pedersen, Inc. revised September 19, 2025.
- *Fire Truck Turn Plan, Residences at the Beaver Brook, Dracut, Massachusetts*, prepared by Greenman-Pedersen, Inc. dated September 19, 2025.
- *Delivery Truck Turn Plan, Residences at the Beaver Brook, Dracut, Massachusetts*, prepared by Greenman-Pedersen, Inc. dated September 19, 2025.

Supplemental Document Comments

Existing Conditions

Original Comment 4: Specific crash records for the study area intersections were not provided in the Technical Appendix of the TIAS. It appears that the summarized crashes were obtained through the "Spatial Search" feature of the statewide Crash Query and Visualization page of the MassDOT Crash Data Portal using a single selection point rather than the "Area" selection tool. This limited search is likely undercounting the amount of crashes experienced at the intersection and its approaches. MDM performed an inquiry of the Lakeview Avenue at Mammoth Road intersection using a single selection point with a 100-foot diameter buffer over the same 2017 through 2021 time period. This expanded search area included a total of 33 crashes recorded, resulting in a crash rate of 0.85, which is above the statewide and district average rates. This buffer area does not include the channelized right turn lane, which MDM concurs is appropriate to omit based on the traffic volume observations. Copies of the crashes, the crash rate calculations and a summary table are provided as an attachment.

MDM has also previously prepared a Road Safety Audit (RSA) for the Lakeview Avenue at Mammoth Road intersection; the RSA has been submitted to the Town and MassDOT and provides guidance on potential safety countermeasures for the intersection. A copy of this RSA is attached for reference.

MDM requests the proponent update the crash history at the study area intersections and describe potential safety enhancements at any above-average intersections, as appropriate including consideration of the previously conducted RSA for the Lakeview Avenue at Mammoth Road intersection.

Applicant Response: The summarized crashes in the TIAS were obtained through the "Spatial Search" using the "Area" selection tool. As a result of the search, 32 crashes were originally queried; the search result is enclosed with this letter. It should be noted that those 32 crashes were reviewed as part of the TIAS effort, and any crashes that met all three of the following criteria were eliminated; 1) geolocated at the address of 1198 Mammoth Road (Dunkin'), 2) traffic control device type defined as "No controls", and 3) roadway junction type defined as "Not at junction". If all three criteria were met, then the crash was eliminated from the intersection, as these crashes were assumed to be related to the Dunkin' driveway and were not related to the traffic signal. There were 10 crashes that were eliminated, resulting in the 22 crashes reported in the TIAS.

The crash data provided by the MassDOT Crash Data Portal is limited in terms of details of each crash. The RSA is typically based on more detailed crash data, directly from the police crash reports. Accordingly, in an effort to re-evaluate the crashes at the signalized intersection of Lakeview Avenue at Mammoth Road to respond to Comment #4, the 10 crashes that were originally eliminated were reviewed on the RSA collision diagram provided by MDM. They are highlighted in red on the attached pages from the RSA. As a result, it is confirmed that eight of the crashes can continue to be excluded from the signalized intersection, while two of the

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crashes should have been included (crash #48 and #61). The updated crash rate worksheet indicating 24 crashes is attached to this letter. The updated crash rate for the intersection (0.62 c/mev) remains below the statewide average (0.78 c/mev) and district-wide average (0.73 c/mev) for signalized intersections.

There are no changes to the crash history at the other study area intersections, and all crash rates are below the statewide and district-wide (District 4) average of 0.57 c/mev.

Supplemental Comment 4: MDM acknowledges the methodology described and offers no further comment.

Original Comment 5: MDM suggests the Proponent install radar-equipped speed feedback signs along Lakeview Avenue in an effort to reduce vehicle travel speeds in the vicinity of the Site. If equipped with data collection capability, speed data could be available to the Dracut Police Department to identify times when targeted speed enforcement may be appropriate. MDM notes that radar-equipped speed feedback signs are currently installed along Mammoth Road, south of Mill Street.

Applicant Response: The Applicant is amenable to a voluntary contribution up to twenty-thousand dollars (\$20,000.00) to the Town of Dracut to be used for installation of the specified radar-equipped speed feedback signs at locations along Lakeview Avenue, as deemed most appropriate by Town staff and/or their traffic peer review consultant.

Supplemental Comment 5: The proposed contribution appears reasonable and will likely have a positive impact on reducing motorist speeds. In lieu of financial contribution, Town may wish to consider implementation of the radar-equipped speed feedback signs by Applicant at locations to be established in consultation with DPW.

Conclusions

Original Comment 12: As noted earlier, MDM requests the Proponent revisit the crash analysis methodology to ensure all crashes that can be attributed to operations at the intersections are included in the analysis. Proponent should identify appropriate safety countermeasures at locations that exhibit an above-average crash rate. Additionally, as described under Comment 5 the Proponent should implement radar-equipped speed feedback signs to help reduce the predominant travel speeds along Lakeview Avenue. MDM concurs that no specific operational improvements are required to accommodate the redevelopment of the Site.

Applicant Response: The crash analysis, safety countermeasures, and speed feedback signs have been addressed in Responses 4 and 5.

Supplemental Comment 12: Acknowledged; no further comment.

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General Site Plan Comments

Original Comment 13 (a): Provide swept path analysis/modeling for the site using the current Dracut Fire Department tower vehicle/template dimensions for Dracut Fire Department review. Modeling should include movements navigating the dead-end parking bays adjacent to Buildings B1; B2; C; D; and E.

Applicant Response: Requested swept path analysis has been provided for the Dracut ladder vehicle.

Supplemental Comments 13 (a): Acknowledged; no further comment. MDM defers to the Dracut Fire Department for any special requirements for fire access/circulation.

Original Comment 13(b): Provide swept path analysis/modeling for the site based on the largest anticipated service/delivery vehicle expected (assumed to be a SU-30 vehicle at a minimum).

Applicant Response: Requested swept path analysis has been provided for the SU-30 design vehicle at site access points and along the circulation aisle within the site.

Supplemental Comments 13 (b): MDM acknowledges that aisles and site entry point are sufficient so support service vehicle swept paths. Specific loading bays and dumpster units were not modeled; however, it appears that sufficient area is available with the understanding that backing maneuvers are required within circulation aisles and within Mill Street to properly access loading docks and/or dumpster units.

Original Comment 13 (c): The Proponent should consult with the Town on the implementation of pavement markings, including solid white edge lines, centerlines, crosswalks, and MUTCD compliant signage along Mill Street to promote positive driver guidance and establish motorist right of way in this area.

Applicant Response: Site plans are updated to include a note that reads "THE DEVELOPER SHALL COORDINATE WITH THE TOWN OF DRACUT TO IMPLEMENT PAVEMENT MARKINGS, INCLUDING SOLID WHITE EDGE LINES, CENTERLINES, CROSSWALKS, AND MUTCD COMPLIANT SIGNAGE ALONG MILL STREET FROM LAKEVIEW AVENUE TO WATER STREET".

Supplemental Comment 13 (c): MDM recommends that the Board include a condition requiring submittal and review/approval of the engineering plans showing specific sign and pavement marking improvements along Mill Street to ensure compliance with MUTCD requirements and ADA compliance; these improvements should be in place prior to occupancy.

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Original Comment 13 (d): An MUTCD-compliant crosswalk should be provided across the Lakeview Avenue driveway to define the pedestrian right-of-way.

Applicant Response: Site plans includes a crosswalk at the Lakeview Avenue driveway to be built to Town standards.

Supplemental Comments 13 (d): Proposed crosswalk details including grading, tactile warning strips and ADA-compliant ramps should be provided to Town for review to ensure compliance with applicable standards.

Original Comment 13 (e): The site plan should include a note citing that "Signs, landscaping and other features located within sight triangle areas shall be designed, installed, and maintained so as not to exceed 2.0-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."

Applicant Response: Applicable note has been added to updated site plans.

Supplemental Comments 13 (e): Acknowledged; no further comment.

MDM appreciates the opportunity to provide Transportation Planning & Engineering Services to the Town of Dracut and look forward to discussing our findings at an 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

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