

January 31, 2025

Ashland Zoning Board of Appeals  
Ashland Town Hall  
101 Main Street  
Ashland, MA 01721

Attn: John Trefethen, Chair

Subject: Transportation Consulting Services  
Proposed The Sanctuary at Ashland Mills (40B)  
10-60 Main Street, Ashland, MA

Dear Chair and Board Members:

MDM Transportation Consultants, Inc. (MDM) is pleased to provide you with the following initial transportation review comments for the above-referenced project. These comments have been prepared based on a site visit in January 2025, project coordination meeting with the Town of Ashland department heads on Monday, January 27, 2025 via Zoom, and a review of the documents identified below. To facilitate response by Proponent, review items requiring response are noted in ***Bold Italic***.

MDM finds that the Traffic Impact Assessment (TIA) has been prepared in general conformance with industry standards and reasonably quantifies existing/baseline traffic and safety conditions for the primary study intersections serving the Site. Requested clarifications and supplemental data/analysis are identified that include expanded analysis of the site driveway for sight lines and queue influence along Main Street; consideration of alternative driveway locations/design and/or restrictions to address identified safety concerns; shared parking analysis following industry standards to demonstrate parking adequacy; and general transportation-related site plan commentary.

### **Documents Reviewed**

MDM has reviewed the following documents to gain an understanding of the project and determine if industry standards have been applied in determining the potential impacts of the project. The following relevant documents were reviewed:

- *Traffic Impact Study, Proposed Mixed-Use Development, 10 – 60 Main Street, Ashland, Massachusetts*, prepared by Vanasse & Associates, Inc. dated August 2024.

- *Preliminary Site Plan Documents, 40B Development – “The Sanctuary at Ashland Mills, 50 Main Street, Ashland, Massachusetts, prepared by Bohler Engineering dated August 1, 2024.*
- *Architecture Plans, Preliminary Comprehensive Permit, The Sanctuary at Ashland Mills, Ashland, Massachusetts, prepared by Embarc dated August 1, 2024.*

MDM has also reviewed and considered the following supplemental material as part of its review and commentary:

- 10-60 Main Street SLV Ashland Presentation to ZBA\_1.7.2025 slides and video.

### **Proposed Development**

The proposed site development, as presented in the TIA and associated Site Plans, consists of a mixed-use development with 250-units of mid-rise residential housing and 15,565± sf of commercial space supported by 390 parking spaces (179 surface spaces and 211 garage spaces). Access to the Project will be provided by way of four (4) driveways configured as follows: the north driveway will intersect the east side of Myrtle Street at the location of the existing driveway that serves the Project site; the south driveway will intersect the east side of Main Street approximately 30 feet north of the existing driveway that serves CrossFit Synergistics and the southern portion of the Project site; and two (2) driveways that will intersect the east side of Main Street opposite the stop-line on the Main Street southbound approach to Pleasant Street and approximately 90 feet north of the stop-line, respectively, that will serve the short-term parking area for prospective tenants and delivery service providers.

### **Traffic Impact Study Comments**

#### Existing Conditions

1. *Study Area:* Study locations include:

- Myrtle Street at Raymond Marchetti Street
- Myrtle Street at the 10-60 Main Street Driveway
- Myrtle Street and Main Street at Water Street and the 10-60 Main Street Driveway
- Main Street at the LFX Enterprise Driveway
- Main Street at Pleasant Street
- Main Street at the CrossFit Synergistics Driveway
- Main Street at Front Street
- Main Street at Homer Avenue and Summer Street

*Comment 1: MDM concurs that the study locations along Myrtle Street and Main Street are appropriate primary study locations and in context with the likely traffic impacts for the Project. The intersection of Myrtle Street at Pine Hill Road should be considered as a secondary study location given the location of the site driveways and potential for residential traffic to use Pine Hill Road as an alternative travel route to Oak Street via Winter Street. This may also be a route that residents use during the upcoming Cordaville Road bridge replacement project which DPW indicates is to be advertised for 2028 construction.*

2. *Traffic Volumes:* Traffic volumes for study locations were conducted in February 2024 for the weekday morning (7:00 – 9:00 AM) and weekday evening (4:00 – 6:00 PM) peak periods. The TIA indicated that February is an average month based on MassDOT’s statewide traffic data collection; 2019 weekly seasonal factors; therefore, no adjustment (reduction) in volumes was required.

*Comment 2: MDM concurs that no Covid adjustment is required. However, a review of MassDOT’s statewide traffic data collection, 2019 weekday seasonal factors, Groups U4-7 indicate that all of the months besides December and January are at or above average which is contrary to seasonal data for MassDOT permanent count stations in the area. MDM has independently reviewed MassDOT permanent count station data for seasonal fluctuations; stations 307 and AET09 indicate that February is approximately 8 percent below average. The Proponent should review MassDOT permanent count station data for the area and update the analysis to reflect and appropriate average season condition.*

3. *Safety Analysis:* The TIA presents relevant crash data for the study intersections between 2017 and 2021 from MassDOT’s crash database; these data indicate that the study intersections have crash rates below MassDOT’s statewide and District average crash rates and that none of the intersections are listed as high crash locations (HSIP) by MassDOT. The TIA indicates that applicable AASHTO sight line criteria with the removal of the existing stockade fence that is located within the Project site and south of the Myrtle Street Project site driveway; the available lines of sight at the Project site driveway intersections are characterized as meeting the recommended minimum stopping sight distance (SSD) based on a 30 mph design speed along Myrtle Street and a 25 mph design speed along Main Street.

*Comment 3(a): MDM concurs with the speed data collected; 30 mph is appropriate for the sight line review of the norther driveway and 25 mph is appropriate for the sight line review of the other driveways. Independent measurement of travel speeds at decision points for each driveway by MDM are consistent with those used in the TIA assessment.*

*Comment 3(b): MDM has the following concerns upon review of the proposed driveway locations and the applicable sight line criteria from AASHTO:*

- *Myrtle Street Driveway. Left-turns exiting onto Myrtle Street will be severely limited by a proposed retaining wall and fence as well as proposed landscaping. Review of sight lines for the proposed site plan are limited to approximately 170 feet looking south (toward Main Street) by the proposed retaining wall, which has an elevation of more than 4 feet above driveway grade.*
- *Main Street Southern Driveway. Left-turns out of the driveway located south of the Pleasant Street signal will be severely limited by vehicle queues along Main Street that regularly extend to and past the driveway from the Pleasant Street signal, raising concern for conflict with oncoming (southbound) traffic. Likewise, landscaping features (trees) may also impede sight lines at this driveway location unless modified to avoid the driveway sight line triangle.*
- *Short Term Parking Driveways. The landscaping, as currently shown, may significantly limit the sight lines looking north and south from the short-term parking lot; Proponent should re-evaluate specific planting material and location to ensure that sight lines at driveways are unimpeded and meet applicable criteria.*
- *The Site Layout Plan should clearly indicate intersection sight line triangles for each site driveway including 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 for SSD and 2.5 in height for ISD. 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."*

#### Future Conditions

4. *Traffic Growth:* Future traffic volumes are projected in the TIA to a 7-year horizon using 1.0 percent per year compounded annual growth as well as projected trips associated with the proposed mixed-use development at 9-49 Homer Avenue.

*Comment 4: MDM concurs with the 7-year horizon, the general growth factor applied is consistent and conservative compared to area growth trends; we further note the inclusion of the proposed mixed-use project on Homer Avenue. Traffic from the nearby Chestnut Street apartments development should be considered for inclusion as a background project.*

5. *Trip Generation:* Trip estimates for the Project are appropriately based on characteristics published by the Institute of Transportation Engineers (ITE) in *Trip Generation* 11<sup>th</sup> Edition for Land Use Code (LUC) 221 – Multifamily Housing (Mid-Rise), LUC 822 Strip Retail Plaza (<40k), and LUC 932 High-Turnover (Site Down) Restaurant. The trips were then adjusted for internal trip activity following standard industry practices, pass-by trips drawn from the adjacent

roadway system, and for alternative travel modes (public transportation and walking/bicycle/work from home). The project (new traffic and pass-by) is estimated to generate approximately 178 vehicular trips (72 entering and 106 exiting) during a weekday morning peak hour, 179 vehicular trips (108 entering and 71 exiting) during a weekday evening peak hour, and 2,042 vehicular trips on a weekday.

The existing mill buildings (177,000± sf) include several commercial and retail uses, warehousing, and institutional and construction related uses which will be removed as part of the project. The trips for the existing uses were observed at 54 vehicle trips during the weekday morning peak hour and 90 vehicle trips during the weekday evening peak hour from the turning movement counts conducted in February 2024. Trip tracings for the removal of the existing traffic were provided in the TIA Attachments. The project will result in approximately 124 additional vehicle trips during the weekday morning peak hour and 89 additional vehicle trips during the weekday evening peak hour compared to the existing/historical use of the property.

*Comment 5: MDM concurs that the application of ITE trip rates and the methodology used in the TIA to estimate internal, pass-by, and historical trip generation present a reasonable basis of estimating peak hour trip characteristics of the proposed use.*

6. *Trip Distribution:* Trip patterns for Site traffic presented in the TIA are based on existing area travel patterns for the commercial traffic and Journey-to-Work data for residents of Ashland for the residential traffic.

*Comment 6: MDM generally concurs that the application of the methodology used in the TIA to estimate the trip distribution and assignment of the site generated traffic. Supporting trip distribution calculation sheets for the commercial and residential uses were not included in the Attachments; the Proponent should provide the calculation sheets for review and verification. As per Comment 1, the intersection of Myrtle Street at Pine Hill Road should be considered as a secondary study location given the location of the site driveways and potential for residential traffic to use Pine Hill Road as an alternative travel route to Oak Street via Winter Street.*

7. *Operations Analysis:* Operational analyses are presented in the TIA follow generally accepted traffic engineering practices and protocols. Field review of existing traffic operations at the signal are generally consistent with TIA analysis for existing conditions indicating (a) Main Street southbound queues extend to and at times through the Pleasant Street intersection; and (b) Main Street northbound left-turn queues at Pleasant Street that extend to and past the proposed driveway location for the site during peak hours. Vehicle queues along Main Street have a direct influence on the existing and proposed driveway locations, inhibiting movements to/from the driveway location. Queue impacts along Main Street are extensive when train crossings occur just south of the site. A review of the commuter rail schedule indicates the

frequency of the crossings at 4 to 6 crossings during the peak commuter periods; field observation indicates that train crossings halt Main Street traffic for approximately 2 to 2.5 minutes for each crossing. These frequent peak-period crossings are not specifically accounted for in the capacity analysis, during which time longer delays occur than modeled results indicate.

*Comment 7: MDM further notes that Ashland DPW confirms Main Street traffic signal equipment has been recently updated for “adaptive” operation that is in process of adjustment to optimize traffic flow during peak hour including train crossing activity. Nearby rail crossings on Main Street result in notable queue impacts to the proposed site driveway location. Even under “optimized” signal operation, extensive queues are likely to impact the proposed Main Street driveway on a regular basis during peak hours. Left-turns exiting the site driveway located south of the Pleasant Street signal will be severely limited by vehicle queues that regularly extend to and past the driveway from the Pleasant Street signal; this condition creates significantly impaired sight lines for oncoming southbound traffic that raises safety concerns. Likewise, Left-turn movements entering this driveway will also often be blocked by the Main Street queues, hindering through traffic and potentially impacting signal operations. Ideally, relocating the Main Street site driveway opposite Pleasant Street for signal control would address these issues. Proponent should therefore evaluate this potential solution as well as driveway alternatives and/or restrictions that address queue blockage and sight line issues including but not limited to relocating the driveway further south, restricting driveway operations to “right-in/right-out only” or “enter only”, placement of appropriate signs/markings such as “do not block the box” striping, etc.*

8. *Parking:* Proposed parking supply of 390 spaces represents a per-unit parking ratio of 1.56 per residential unit with shared parking for the commercial/restaurant space; however, no formal analysis of parking demand is provided in the application materials to support the proposed supply. The project will include approximately 211 garage spaces, 161 surface spaces in the main lot and 18 accessible, short-term spaces in the front entry lot. The parking garage will include approximately 211 spaces with a lower and upper floor with only a single means of access/egress in the rear of the site.

*Comment 8(a): MDM anticipates that the proposed parking supply may be “right-sized” to support the proposed uses based on parking ratios commonly provided for similar projects in the Commonwealth and the relatively low bedroom count for the residential building; however, we recommend that Proponent submit calculations of the hourly shared demand for the project based on ITE Parking rates and methodology to validate the proposed shared parking supply. It would be beneficial to identify the primary parking areas for the various uses on-site (residential, commercial, restaurant, public plaza space) to make sure that each use has an appropriate number of spaces in the vicinity of the individual building entryways.*

***Comment 8(b): Proponent should consider providing a secondary access/egress point for the garage given the sole garage access is within the flood zone of the property, the number of spaces served and to facilitate emergency egress.***

9. *Transportation Demand Management Programming:* A list of TDM measures for the project aimed at encouraging alternative modes of transportation to single occupant vehicles (SOV's) includes the following:

- A transportation coordinator should be designated for the Project, who may have other duties and responsibilities, to coordinate the elements of the TDM program;
- The transportation coordinator should facilitate a rideshare matching program for residents and employees to encourage carpooling;
- A "welcome packet" should be provided to new residents and employees detailing available public transportation services, bicycle and walking alternatives, and other commuting options;
- Information regarding public transportation services, maps, schedules, and fare information should be posted in a central location and/or otherwise made available to residents and employees;
- A pick-up/drop-off area has been provided at the front of the building for use by carshare and delivery service providers, as well as Amazon, UPS and FedEx;
- Specific amenities should be provided to discourage off-site trips, including providing one or more of the following: a breakroom equipped with a microwave and refrigerator; offering direct deposit of paychecks; on-site dry-cleaning pick-up; and other such measures to reduce overall traffic volumes and travel during peak traffic volume periods;
- Consideration should be given to providing electric vehicle (EV) charging stations for use by residents, employees and customers; and
- Secure bicycle parking should be provided at appropriate locations within the Project site.

***Comment 9: Proponent should consider the following additional TDM measures to facilitate and incentivize use of public transportation use by residents and employees, alternatives to auto use/ownership and alternative fuel vehicles:***

- *Transit Pass Subsidy: Offer a fare subsidy for MBTA and MWRTA passes for residents for the first month of residency. This program is intended to promote awareness and use of public transportation options serving the property to be provided at time of lease for new residents.*
- *Given the distance to the Ashland commuter rail station (approximately ¾ mile away) the Proponent should also consider “last mile” transportation alternatives including but not limited to a “bike share” program.*
- *Specific commitment to EV charging stations for both the residential and commercial uses with ability to expand EV charging infrastructure over time based on demand.*
- *Preferential Parking and Incentives for Low-Emission Vehicles. Preferential parking locations for residents who use low-emission vehicles.*
- *Unbundled Parking. Unbundling residential parking from tenant leases to provide an option for residents to rent fewer or no parking spaces with their unit, thereby encouraging lower vehicle ownership at time of lease.*

10. Mitigation: Based on a discussion with the Ashland DPW indicates that the study area traffic signals within the downtown area have recently been updated to include adaptive traffic signal operations. Said traffic signals have been designed to optimize traffic flow in the area with respect to vehicular demand and train crossings.

**Comment 10:** *MDM advises that Proponent conduct post-occupancy monitoring for traffic and operations at study intersections with commitment to modify/adjust Main Street signal operations working in coordination with Ashland DPW.*

11. *Transportation Monitoring Program: None identified by Proponent in filed materials.*

*Comment 11: The Proponent should commit to a post occupancy monitoring program with commitment to implement strategic mitigation actions such as driveway modifications or restrictions and traffic management based on actual driveway and study intersection operations and safety characteristics.*

*An initial traffic monitoring report should be provided within 6 months of achieving initial occupancy of the Project. Subsequent monitoring reports shall be conducted within 6 months of 80% occupancy of residential units and 80% occupancy of the commercial space. Monitoring should include the following elements for site driveways and study intersections included in the TIA:*

- *Performing manual turning movement and vehicle classification counts during the weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak periods;*
- *Evaluate traffic operations (crash history, levels of service, motorist delays and vehicle queuing) for the weekday morning and evening peak hours.*
- *Provide parking counts by zone to evaluate the effectiveness of the on-site parking to accommodate the site uses.*

*The results of the monitoring programs will be summarized in reports to be provided to the Town of Ashland for distribution and review/input by Planning, DPW, Police and Fire Departments. To the extent warranted, the reports should include specific recommendations to address identified traffic operational and/or safety issues including but not limited to driveway restrictions or modifications including supplemental signs, markings or traffic controls; signal timing adjustments; parking management practices; and modification/expansion of TDM programming. If directed by the Town, the Proponent should implement recommended improvements subject to receipt of all necessary rights, permits and approvals. Performance criteria for the monitoring report should be expressly identified including crash experience/trends at site driveways, trip generation and patterns for the site based on projections cited in the TIA; and parking demand projections to be determined during the course of local approvals and Proponent responses.*

## General Site Plan Comments

### 12. General Site Plan Comments (Transportation):

- (a) The driveways on Main Street should be designed to be consistent with recently built infrastructure in the downtown; specifically, this design eliminates the traditional ADA ramp designs and marked crossing with a continuous sidewalk with “tip-down” driveway to provide a continuous pedestrian sidewalk elevation through the driveway – therefore favoring pedestrian movements.*
- (b) Provide swept path analysis/modeling for the site using the current Fire Department tower vehicle/template dimensions. Modeling should include movements to/from each of the site driveways and circulation aisles as well as the front parking lot along Main Street that provides short-term parking as this is likely the main point of entry for emergency calls.*
- (c) Provide swept path analysis/modeling for refuse vehicles to/from designated dumpster areas and for service/delivery vehicles for the commercial building.*
- (d) Provide clarification of where tenant move-in/move-out trucks (typically SU-30 design vehicles or equivalent) can be staged/parked within the Site in a manner that does not impair circulation or impact parking spaces.*
- (e) skewed alignment of the proposed driveway at Myrtle Street may require adjustment to curb radii to accommodate delivery, move-in or service vehicles so as to avoid encroachment into southbound Myrtle Street traffic. Proponent to confirm or consider restriction on the use of this driveway by non-passenger vehicle types with appropriate signs and markings.*
- (f) Bicycle parking locations should be identified on the site plan to include covered and protected areas for residents and loop racks for visitors near the building entrances.*
- (g) The proposed retaining wall and fence to be situated proximate to the proposed public plaza will require modification and possible relocation within the Project site ensure sight line criteria are achieved.*
- (h) Landscaping and canopy trees should be modified were appropriate within the Project site so that sight line triangle areas for all driveways are not impacted. The current plan includes canopy trees set in a line that may impair sight lines.*

- (i) *The Site Design Plan should clearly indicate intersection sight triangles and 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."*
  
- (j) *The Project is proposing to extend the sidewalk on the eastern side of Myrtle Street between Water Street and the proposed site driveway. As there is no sidewalk on the eastern side of Myrtle Street to the north of the project, the sidewalk should likely continue into the site and not extend to the site driveway at this time. The proponent should coordinate with the DPW if a replacement existing guardrail is required in this area.*

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

Sincerely,



Robert J. Michaud, P.E.  
Managing Principal

MDM