Memorandum

To: Pascal Rettig
Planning Board Chair
City of Amesbury
62 Friend Street
Amesbury, MA 02913

Date: December 5, 2025

Project #: 201067.000

From: Patrick Dunford, P.E.
Senior Project Manager

Re: Proposed 2-3 Family, Multi-Family Residential Development
Clarks Road, Amesbury, Massachusetts
Transportation Engineering Peer Review

As requested by the City of Amesbury, VHB conducted an independent peer review of the transportation engineering aspects of the proposed 27.5 and 29 Clarks Road Residential Development (the "Project"). This Project will be located within the East End Smart Growth Overlay District (EESGOD) in Amesbury, Massachusetts (the "Site"). The proposed Project involves a new multi-family residential development with associated site improvements.

This review considers the transportation engineering elements of the Project applicant's submittal material and how it complies with the requirements of Amesbury's Zoning Bylaws, industry standards for the preparation of Transportation Impact Assessments, and standard engineering practice.

A separate memorandum summarizing VHB's civil engineering and stormwater review was provided to the Amesbury Planning Board on December 2, 2025 under separate cover.

Proposed Project

The project proposes the construction of a 152-unit multi-family residential development at 27.5 and 29 Clarks Road within the East End Smart Growth Overlay District (EESGOD) in Amesbury, Massachusetts. The development consists of three residential buildings with associated driveways, parking areas, utilities, grading, landscaping, and stormwater management systems.

Vehicular access is proposed to be provided via a single full access curb cut on Clark's Road. A total of 203 parking spaces area proposed within the Site. This includes approximately 97 surface parking spaces and 103 parking spaces to be provided in a subsurface garage beneath Building C.

The findings of our review are presented in the following sections.

Scope of Review

The focus of this peer review was on the following material which was provided to VHB for review by the Amesbury Planning Board:

- Transportation Impact Assessment prepared by Vanasse & Associates Inc. (VAI) dated October 2025; and
- Site Development Plans prepared by The Morin-Cameron Group, Inc., dated September 29, 2025.

These documents were reviewed for consistency and general compliance with the following:

- Amesbury Subdivision Rules and Regulations (June 29, 2020, revised January 7, 2025);
- Amesbury Zoning Ordinance and Map (adopted April 12, 1971 with revisions through April 30, 2025);
- Amendment - Zoning Ordinance 2023-01: East End Smart Growth Overlay District; and

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› *Transportation Impact Assessment (TIA) Guidelines*, Massachusetts Department of Transportation, March 13, 2014.

Transportation Impact Assessment review

VHB has reviewed the Transportation Impact Assessment (TIA) prepared by VAI relative to the regulations and standards noted above. Overall, the study was thorough and well-prepared and follows appropriate, accepted analysis procedures. The following comments and requests are being provided using the same general order and format of the study provided. VHB may provide additional comments related to the site plan and/or TIA following the review of any additional material which may be provided in response to this letter, or other items discussed at subsequent Project meetings.

Existing Conditions

1. **Study Area** – The study area evaluated appropriately considers the key roadway and intersections most likely to experience any impacts as a result of the Project. The roadway inventory descriptions and subsequent Figure 2 graphic accurately depict current roadway conditions and existing traffic control. No expansion or modification of this study area is required.

2. **Traffic Volumes** – The underlying peak period turning movement counts (TMCs) for the TIA analysis were conducted in July 2023, with the exception of the weekday TMCS for the Route 110 (Macy Street)/Elm Street/Clark's Road intersection which were conducted on April 30, 2025. While no seasonal adjustments were required, the counts were appropriately increased using an annual growth rate to reflect 2025 existing conditions. [For consistency, these same 2023 TMCs were used for the traffic study[1] for the nearby proposed Rocky Hill Residential Development also prepared by VAI. However, as that study was prepared in 2024, July 2023 TMCs also were used for Saturday conditions in that study.] The peak hour traffic volumes are balanced between arriving and departing intersection volumes except for the Route 110 (Macy Street) segment between its intersections with Carriagetown Marketplace and Elm Street/Clark's Road. That is attributable to the presence of commercial driveways along that segment, which does not require any adjustments to the volumes. VHB compared the recent 2025 counts at the Route 110 (Macy Street) Elm Street/Clark's Road intersection to prior 2023 counts (from the Rocky Hill Residential Development study noted earlier) and found that there were no major differences in volumes beyond normal fluctuations.

3. **Pedestrian and Bicycle Facilities** – the TIA provides descriptions of current pedestrian and bicycle accommodations in the study area. This discussion should be expanded to include the observed pedestrian and bicycle volumes. While existing volumes appear to be low, any notable existing patterns should be noted along with any likely future desire lines associated with expected residential growth in the area.

4. **Public Transportation** – the TIA provides an appropriate inventory of existing MeVA public transportation accommodations within the area.

5. **Crash Analysis** – The study provides a comprehensive crash analysis which indicates a relatively low crash experience in recent years within the study area. Notwithstanding the low crash history, a Roadway Safety Audit (RSA) was conducted in June 2025 on behalf of the nearby Rocky Hill Residential Development project. That RSA evaluated both the intersections of Route 110 with Elm Street/Clark's Road and Merrill Street/Rabbit

[1] "Draft Environmental Impact Report – Rocky Hill Residential Development, Elm Street, Amesbury, Massachusetts – EEA#16837, VAI (Andover, Massachusetts), November 2024.

Road (within the Town Salisbury). VHB understands that the proponent of that project has committed to implementing the short-term, low-cost measures identified in the RSA. If that project should not proceed in a timely manner (to be defined by the Planning Board, ideally before Project occupancy) then that mitigation responsibility, for the Route 110 (Macy Street)/Elm Street/Clark's Road intersection only, should be assumed by this Project's proponent. While the intersection issues pre-date this Project, the additional traffic added to this intersection by the Project could exacerbate existing deficiencies.

6. **Vehicle Speeds** – The data collection for the study indicates that the current "85th percentile speed" on Clark's Road is 19 miles per hour (mph) heading northbound and 20 mph heading southbound. Both are lower than the posted 25 mph speed limit on this roadway. The exact location of these speed measurements is not identified. As speeds along this roadway may vary depending on the precise location, additional speed measurements should be conducted at an alternate location that would not be influenced by roadway curvature of proximity to Route 110 (Macy Street). The Project also should explore implementing traffic calming measures along Clark's Road between the Site driveway and Route 110 (Macy Street) to help maintain appropriate speeds within the neighborhood setting. These could include speed humps, speed feedback signs, or other measures. Additional potential sidewalk improvements are discussed in the Conclusion section of this memorandum.

Future Conditions

1. **Future Traffic Growth** – the TIA appropriately considers potential future traffic growth based on typical background growth and site-specific traffic generated by other planned development projects in the area. VHB agrees with both the 1.5-percent annual traffic growth rate identified and the list of six nearby development projects. Traffic assignment for the background project was done following accepted industry practices.

2. **Planned Roadway Improvements** – VHB agrees with the inclusion of both the planned Starbuck's Clark's Road mitigation and the recently award MassWorks grant improvements at the Route 110 (Macy Street)/Elm Street/Clark's Road intersection as being significant future projects

3. **Project-Generated Traffic** – Trip generation for the proposed 152-unit residential development was calculated appropriately based on the most recent version of the "Trip Generation Manual[2]" published by the Institute of Transportation Engineers (ITE). This database includes studies of several comparable residential developments and use of the ITE data is the accepted industry standard for estimating trip generation.

4. **Trip Distribution and Assignment** – The regional assignment of Project trips was based on U.S. census data and observed travel patterns. VHB agrees with this methodology. The resulting regional trip distribution is consistent with that used in the Rocky Hill Residential Development study noted earlier. However, Clark's Road also connects to Main Street to the south, which can be used to travel to/from other destinations to the east and west. To determine potential use of this road by the Project, VAI should conduct TMCs at the nearby Birchwood Pointe Condominium development. This information can be used to identify the north/south distribution of that site's trips, which should be similar to that of the Project.

5. **Future Traffic Volumes – Build Condition** – VHB agrees with the documentation presented which indicates that the Project should result less than one-percent increase in traffic volumes compared to the 2032 No-Build

2 Trip Generation Manual (12th Edition), Institute of Transportation Engineers (Washington, DC), 2025.

condition. The Clark's Road increases should be revisited based on the trip distribution sensitivity analysis discussed under the previous comment.

6. **Parking Generation** – The potential parking demand for the Project was estimated using standard ITE parking data[3] based on the 213 bedrooms proposed within the proposed 152-unit development. The ITE data reflects the parking demand for both residents and visitors at the sites in its database. The 85th percentile weekday parking demand would be 187 parked vehicles, which could be accommodated by the proposed parking supply. [The parking supply shown on the Project Site plans is shown as 203 spaces, and not the 209 spaces referenced in the TIA.] While not shown in the report, the estimated 85th percentile demand on a typical Saturday would be 164 spaces based on the number of bedrooms (though Saturday ITE data is limited to only one study). If parking generation was instead based on the proposed number of units and not bedrooms, the resulting weekday 85th percentile parking demand would be 220 spaces. As this slightly exceeds the proposed parking supply, this should be discussed further by the applicant. VHB expects that the actual parking demand may be lower based on other industry sources, but documentation of this should be provided. The use of compact spaces also should be reconsidered as they generally are less efficient while only resulting in a minimal number of additional spaces within the overall Site.

Sight Distance Evaluation

1. **Sight Distance** – both the stopping sight distance and intersection sight distance measurements were compared to industry standards[4] based on the regulatory 25 mph speed limit for Clark's Road. This results in a conservative analysis as the actual travel speeds measured during the study's data collection were at or below 20 mph in both directions. The measured stopping sight distance exceeds requirements. The intersection sight distance looking to the south falls slightly below desirable levels. However, this should not pose safety concerns as the sight line still significantly exceeds the required stopping sight distance. VAI should confirm that any walls, plantings, or other potential visual obstructions do not impede the reported sight lines. Also, sight distance should be evaluated at the proposed garage exit within the Site to confirm that the retaining walls adjacent to the exit ramp do not impede visibility. If sight distance is constrained, mitigating measures should be proposed.

Traffic Operations Analysis

1. **Analysis Results** – The TIA analysis indicates that the Project will have a negligible impact at the Route 110 (Macy Street)/Carriagetown Marketplace signalized driveway. This is consistent with the relatively low volumes of Site traffic expected to pass through this intersection. Likewise, the Project should have a negligible impact on the Route 110 (Macy Street)/I-95 South ramps intersection under its future signalized condition. The critical movement at the Route 110 (Macy Street)/I-95 North unsignalized intersection is expected to operate at LOS F under future conditions with or without the Project in place. The additional four to eleven Project peak hour trips added to this ramp approach will only be increase the projected ramp queues by a maximum of two vehicles. Regardless, delays on that approach already are projected to be excessive. This should be discussed further.
2. **Route 110 (Macy Street)/Elm Street/Clark's Road analysis results** – The TIA 2032 No-Build and 2032 Build conditions analysis reflect the planned MassWorks improvements for the Route 110 (Macy Street)/Elm

3 Parking Generation Manual (6th Edition), Institute of Transportation Engineers, Washington D.C., 2023.
4 A Policy on the Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 2011.

Street/Clark's Road intersection. The capacity analysis indicates that the Project will not change the reported level of service (LOS) for any intersection movements. [Note: Table 9 mistakenly shows the Elm Street southbound left-turn movement degrading to LOS F, while it actually remains unchanged at LOS E.] The northbound Clark's Road left-turn movement is expected to operate at LOS E during each peak hour under the 2032 Build condition. The adjacent northbound through-/right-turn movement is projected to operate at LOS B, LOS A, and LOS B during the respective weekday morning, weekday evening, and Saturday midday peak hours. The Project is expected to increase peak-hour vehicle queues on this approach by no more than one vehicle. These impacts should not require mitigation beyond the improvements already planned in this area.

The maximum queue on the northbound Clark's Road approach (194 feet during the weekday evening peak hour) will extend beyond the roughly 150-foot segment having at least a 20-foot width as it approaches the signal. As the planned Clark's Road roadwork extends less than 100 feet to the south of the signalized intersection this condition will not change. Accordingly, the northbound left-turn queue will likely extend beyond the available storage and block access to the adjacent through-/right-turn lane. This only will occur with the 95th percentile queue under peak hour conditions, and not with the average queue length. The estimated queues will not extend to the Burger King parcel driveway or Starbucks driveway, both of which are located at least 220 feet to the south of Route 110 (Macy Street).

Independent of this Project, it may be beneficial for "DO NOT BLOCK INTERSECTION" pavement markings to be installed at the Starbucks driveway to help avoid southbound left-turns from being able to turn into that site.

3. **Clark's Road/Proposed Site driveway** – the TIA did not include capacity analysis for the intersection of Clark's Road with the proposed Site driveway. Peak hour volumes on Clark's Road are expected to range from 424 to 554 vehicles. While exiting Site traffic almost entirely would be turning right, likely with low delays, expected operating conditions should be documented by VAI in the form of unsignalized capacity analyses for this location.

Conclusion

In addition to the analysis revisions requested above, the proponent should consider the following mitigation measures beyond those currently proposed:

1. In the event that the proposed Rocky Hill Residential development should not proceed in a timely manner for any reason, this Project's proponent should commit to implementing the short-term, low-cost measures identified in the RSA conduct on behalf of that project. That mitigation would be limited to the Route 110 (Macy Street)/Elm Street/Clark's Road intersection only.
2. The Project should explore implementing traffic calming measures along Clark's Road between the Site driveway and Route 110 (Macy Street) to help maintain appropriate speeds within the neighborhood setting.
3. The concept plans submitted with the MassWorks grant application for the Route 110 (Macy Street)/Elm Street/Clark's Road intersection noted that the sidewalk along the east side of Clark's Road should be extended to the Project Site driveway. However, the subsequent 25% design plans reviewed by MassDOT did not depict this. Discussion of the status of that potential sidewalk work should be provided. If these potential sidewalk improvements did not proceed for any reason (which appears unlikely with the grant having been secured), this work should be undertaken by the Project. This work would be limited to sidewalk improvements that could be implemented within the Clark's Road right-of-way.

The City is currently planning for improved sidewalks for the full length of Clark's Road. Potential future work to be undertaken by the City would include a new sidewalk along the westerly side of the road from Main Street to the Birchwood Pointe Condominium complex area. Whether the sidewalk work along the easterly side of the road to the north is undertaken by the MassWorks improvements or by the Project, that sidewalk should continue to the condominium development's westerly driveway. A new raised crosswalk should be provided at that location connecting to the City sidewalk project on the opposite side of the road. Any new sidewalks should be approximately eight feet wide (as allowed by available right of way) in light of the increased residential population in this area. Any new sidewalks should be positioned to allow for potential roadway widenings which may be required in the future so that the new sidewalk would not need to be replaced.

Project Site Plans

This memorandum also includes a technical review of the transportation aspects of the Project Site plans prepared by The Morin-Cameron Group, Inc., dated September 29, 2025. VHB's December 2, 2025 civil engineering and stormwater review memorandum already provided comments regarding several transportation-related elements of the Site plans. VHB also is providing the following additional comments for consideration:

1. As noted in the TIA, the applicant should commit to not having any walls, plantings, or other potential visual obstructions near the Site driveway impeding the reported sight lines. Also, sight distance should be evaluated at the proposed garage exit within the Site to confirm that the retaining walls adjacent to the exit ramp do not impede visibility.
2. A crosswalk should be installed across the proposed garage ramp driveway at its intersection with the east/west parking lot circulation aisle.
3. VHB's civil engineering/stormwater review memorandum provided comments regarding the proposed 40-foot long loading space. In addition to responding to those comments, the applicant also should provide any expected operational measures which may be required to accommodate residents moving in or out of the development. These could include requiring some parking spaces temporarily being blocked off to allow for moving activities, or other temporary measures.
4. The Project's parking management should be discussed in terms of if parking stickers or other means will be provided to control parking. Consideration should be given to unbundling parking from the leasing of units so that any residents choosing not to own a vehicle would not have to lease a space. Discussion should be provided regarding if any parking spaces will specifically be designated for visitors, or if an open parking supply would be preferred.