



Memorandum

To: Ms. Alison Manugian
Community Development Director
Town of Dracut Town Hall
62 Arlington Street
Dracut, MA 01826

Date: January 13, 2025

Project #: 16273.00

From: Michael A. Santos, PE, PTOE
Vinod K. Kalikiri, PE, PTOE

Re: Proposed Multi Family Residential Development
Murphy's Farm – 231 Wheeler Street

Dracut, Massachusetts

Transportation Peer Review #3

On behalf of the Town of Dracut, Vanasse Hangen Brustlin, Inc. (VHB) has reviewed responses prepared by Vanasse & Associates, Inc. (VAI) in a letter dated December 23, 2024 that address comments in VHB's second peer review letter dated September 12, 2024.

The Applicant provided satisfactory technical responses and additional information to the comments related to the traffic analysis and off-site impacts and improvements. Additionally, the Applicant has also committed to mitigating impacts and addressing existing deficiencies that were not identified in the initial Traffic Impact Assessment submitted for the Project. However, in relation to VHB's comments on the Site Plan, the Applicant noted that the responses will be provided by others under a separate cover.

The Applicant should address the site plan related comments in the next site plan submission. We recommend that the Applicant also provide written documentation that directly responds to the site plan related comments in the September 12, 2024 second peer review letter to ensure that all comments have been addressed. For ease of reference, the outstanding site plan comments are provided at the end of this document in a bulleted list.

One key item that VHB would like to reiterate for the Town's attention is regarding the implementation of the off-site traffic improvements. In the September 12, 2024 comment letter, VHB noted that the improvements should be implemented by the Applicant prior to the issuance of a Certificate of Occupancy for the Project. The Applicant responded that they would be willing to provide a fair share cost contribution for the implementation of improvements. However, it is unclear as to how the improvements, which are intended to address the impacts of the Site traffic turning from the Methuen section of Route 113 (under MassDOT jurisdiction) to the Dracut section of Wheeler St (Dracut jurisdiction), would be implemented prior to occupancy of the Project and who else would fund the improvements. VHB recommends that, independent of the cost sharing formula and ultimately, the responsible party for the design and construction of the improvements, that it be required that the improvements be substantially in place prior to the issuance of a Certificate of Occupancy for the Project. For reference, approximately 40% of the Project related "entering trips" is estimated to turn left at the intersection.

The following summarizes VHB's remaining comments and the Applicant's transportation-related commitments for the off-site improvements.

Pedestrian Connectivity

The Applicant noted that they will discuss the need for improving existing pedestrian accommodations on Elizabeth Drive and Poppy Lane with the Town of Dracut. VHB recommends that the Applicant coordinate with the Town to improve the connectivity of the sidewalk infrastructure along both roadways. Specifically, connectivity should be provided between the existing asphalt sidewalks on Poppy Lane and Rinzee Road and the existing asphalt sidewalks

on Elizabeth Drive and Wilshire Circle. The updated site plans should also clearly show how the on-site pedestrian facilities connect with the existing sidewalks on Elizabeth Drive and Poppy Lane. The specific terms of the agreement for implementing the pedestrian improvements should be codified in the Conditions of Approval for the Project.

Route 113 at Wheeler Street Improvements

In response to prior comments, the Applicant prepared a collision diagram for the intersection of Route 113 at Wheeler that indicates the predominant types of collisions in the westbound direction on Route 113 are rear-end crashes. The Applicant also conducted a left-turn lane warrant analysis at the intersection for the Route 113 westbound left-turn movement, which indicates that a left-turn lane is warranted under future No-Build and Build conditions. The Applicant stated that they will undertake the following improvements at the intersection, subject to obtaining the necessary rights, permits, and approvals:

- › Intersection ahead warning signage will be installed on the Route 113 approaches to indicate the presence of Wheeler Street.
- › Vegetation will be trimmed and/or removed within sight triangle areas of the intersection within the public right of way.
- › Remove the stop-sign along the Wheeler Street northbound approach that is currently located on a utility pole and install a new sign on a break-away signpost and a new marked stop-line.
- › Provide a "fair-share" cost contribution for the design and construction of capacity related improvements at the intersection such as the installation of a westbound left-turn lane, widening of Wheeler Street northbound to accommodate left and right-turn lanes, and/or a traffic signal (if warranted). The contribution will be based on the predicted increase in traffic volumes generated by the Project at the intersection over No-Build conditions. The Town of Dracut and City of Methuen should determine if the fair-share cost contribution is acceptable in lieu of the Applicant funding and constructing the improvements.

Based on the findings of the crash evaluation and the left-turn warrant analysis, VHB recommends that at least an exclusive left-turn lane be installed along Route 113 westbound. The analysis indicates that this movement currently exceeds the volume thresholds to justify an exclusive left-turn lane and that there are existing safety deficiencies that could be exacerbated by adding Project-related traffic to the left turn movement.

VHB notes that the intersection of Route 113 at Wheeler Street is located within the City of Methuen and is under MassDOT jurisdiction. Any improvements at the intersection will be subject to their review and approval. Additionally, the Applicant should review the findings of the analysis with the City of Methuen and MassDOT to seek their input relative to next steps and report back to the Town of Dracut on the feedback that is received.

Wheeler Road at Wilshire Circle and Paddock Lane Improvements

The Applicant should design and construct the following improvements prior to the issuance of a Certificate of Occupancy for the Project, as outlined in the response letter:

- › Install new 12-inch wide, high-visibility stop-lines on the Wilshire Circle and Paddock Lane approaches
- › Replace and relocate the stop sign on the Wilshire Circle approach adjacent to the stop line
- › Install a stop sign on the Paddock Lane approach adjacent to the stop line
- › Install intersection ahead signs on the Wheeler Road eastbound approach to the intersection

Wheeler Road at Wilshire Circle (East Location) Improvements

The Applicant should design and construct the following improvements prior to the issuance of a Certificate of Occupancy for the Project, as outlined in the response letter:

- › Install a new 12-inch wide, high-visibility stop-line on the Wilshire Circle approach

The Applicant should also coordinate with the Town of Dracut and the adjacent property owners to establish sight line easements to allow for the maintenance of adequate sight lines at the intersection.

Wheeler Street at Rinzee Road Improvements

The Applicant should design and construct the following improvements prior to the issuance of a Certificate of Occupancy for the Project, as outlined in the response letter:

- › Install a new stop sign and a new 12-inch wide, high-visibility stop-line on the Rinzee Road approach

The Applicant should also coordinate with the Town of Dracut, the City of Methuen, and adjacent property owners at the intersection to establish sight line easements to allow for the maintenance of adequate sight lines at the intersection.

Wilshire Circle at Elizabeth Drive Improvements

The Applicant should design and construct the following improvements prior to the issuance of a Certificate of Occupancy for the Project, as outlined in the response letter:

- › Install a new stop sign and a new 12-inch wide, high-visibility stop-line on the Elizabeth Drive approach

As noted above, the Applicant should also coordinate with the Town to provide pedestrian connectivity between the sidewalks along Elizabeth Drive and Wilshire Circle.

Rinzee Road at Poppy Lane Improvements

The Applicant should design and construct the following improvements prior to the issuance of a Certificate of Occupancy for the Project, as outlined in the response letter:

- › Install a new stop sign and a new 12-inch wide, high-visibility stop-line on the Elizabeth Drive approach

As noted above, the Applicant should also coordinate with the Town to provide pedestrian connectivity between the sidewalks along Elizabeth Drive and Wilshire Circle.

Wheeler Street at Wheeler Road Improvements

The Applicant should coordinate with the Town to trim and/or remove vegetation within the sight triangle areas at the intersection to provide the required stopping sight distances along Wheeler Street. The Applicant should also coordinate with the Town to determine the need for regrading the embankment along the west side of Wheeler Street north of Wheeler Road. The specific improvements to address sight line deficiencies at the intersection should be codified into the Conditions of Approval for the Project.

Route 110 at Wheeler Street

The Applicant should design and construct the following improvements prior to the issuance of a Certificate of Occupancy for the Project, as outlined in the updated Traffic Impact Assessment:

- › Reapply the pavement markings for the stop line on the Wheeler Street approach, the crosswalk across Wheeler Street, and the centerline pavement markings along the Wheeler Street approach for a distance of 100 feet

The Applicant conducted a traffic signal warrants analysis (TSWA) at the intersection of Route 110 at Wheeler Street and indicated that based on existing traffic volumes, a traffic signal may be warranted. Traffic volumes collected in October 2024 meet the thresholds for Warrants 1, 2, and 3 (the eight-hour, four-hour, and peak-hour traffic volume warrants). The Applicant noted that they are willing to provide a fair-share contribution based on the overall Project-related increase in traffic volumes for funding the design and construction of a traffic signal at this location, should MassDOT determine that a traffic signal is needed at this location. VHB also notes that this intersection is located within a larger reconstruction project along Route 110 that is being undertaken by MassDOT and there are no plans for signalization as part of this project. VHB recommends that future traffic volumes and the need for a traffic signal at this intersection be reviewed as part of a post-construction traffic monitoring program.

Post-Construction Traffic Monitoring Program

The Applicant committed to conducting a post-development traffic monitoring study six months after the Project reaches 50 percent occupancy and three months after 100 percent occupancy. VHB recommends that the scope and timing of the post-construction monitoring study be developed in consultation with the Planning Department prior to initiating the study such that any operational or safety/circulation issues that may be evident after the Project opens could be incorporated into the scope of the study.

Site Plan Comments

The Applicant indicated that updated site plans and responses to VHB's site plan related comments will be provided by others under separate cover. VHB recommends that the Applicant provide written response to the site plan related comments in the September 12, 2024 comment letter to supplement the updated site plans. The following list summarizes the outstanding site plan related items listed in the September 12, 2024 letter.

- › Incorporate recommendations listed in the July 2024 TIA update into the site plans.
- › Show the location of electric vehicle charging stations, bicycle storage facilities, and pedestrian facilities.
- › Consideration should be given to an internal roadway layout that allows more than one access/egress point for some of the development areas within the site.
- › Confirm with the Town of Dracut fire and police departments that adequate emergency access is available throughout the site.
- › Show stop signs and stop lines along the minor approaches at internal intersections on the site, where appropriate.
- › Consider installing traffic calming measures on the site in areas where the geometry may promote increased vehicular speeds. Traffic calming measures should also be considered to discourage motorists from using the internal side roadways as a cut-through route between Wheeler Street and Wheeler Road.
- › Lighting along the main driveway should consider the illumination needs at internal intersections and pedestrian crossings.

- › Pedestrian facilities and connectivity should be shown on the plan with the location and dimensions of sidewalks, crosswalks, and curb ramps. Connectivity to the existing pedestrian infrastructure along Elizabeth Drive and Poppy Lane should be shown on the plans.
- › Adequacy of parking for various portions of the site should be discussed and how it relates to the number of nearby residential units. Pedestrian routing to/from remote parking areas should be identified.
- › Vehicle turning analyses should be prepared for the largest emergency vehicle for the Town of Dracut. Consideration should be given to accommodating City of Methuen emergency vehicles, should the City of Methuen also provide support to the site.
- › Provide an update on coordination with the Dracut School Department and show the locations of bus stops that will serve the Project.
- › Snow storage areas should be shown on the site plans.
- › The parking spaces near Buildings 1A and 2A should be reviewed to determine if there are alternate configurations that can reduce conflicts between parking maneuvers and vehicles traveling along the main driveway.

A review of the updated site plans should be undertaken by the Town when new plans are made available to confirm that all applicable peer review comments have been incorporated through plan edits.

This memorandum concludes VHB's review of the traffic analysis and off-site transportation commitments for the Project. If you should have any questions regarding this review, please contact VHB.