August 1, 2025

Ref: 22675.00

Brian T. Egan, Esq
Village Counsel
Village of Head of the Harbor
500 NY-25A
St. James, NY 11780

Re: Traffic Engineering Review
Application of Nissequogue Farm, LLC
650 NY Route 25A
Village of Head of the Harbor, NY

Dear Mr. Egan:

At your request, VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. (VHB) has conducted a review of the above-referenced application with regard to traffic and transportation-related operations. The application involves the legalization of the existing operating nursery located at 650 NY 25A, also known as Ogden's Design and Planting, Inc. The nursery is currently open and operating but requires a special permit from the Village to continue operations. It should be noted that the nursery does not provide retail services; instead, it functions as a boutique, growing plants and offering design services, materials and installation for clients with landscaping projects.

To conduct our review, VHB was provided with the Proposed Site Plan prepared by John Cunniffe, Architect, recently dated March 21, 2024. As depicted on that plan, the site is accessed via a driveway located on NY 25A. Within the property, there are multiple buildings, including a home that is partially used as an office for the nursery, as well as numerous greenhouses and fields for growing purposes. Our review includes an evaluation of the current access point on NY 25A regarding its suitability for the site's use, as well as an assessment of the internal traffic circulation and adequacy of parking provided on the property. Additionally, reviews of area traffic volumes and crash experience were also conducted. The details of our review are included in our letter below.

Site Access

As stated above, the site is accessed via a single driveway on the south side NY 25A. To determine the adequacy of this access, the available sight distance was evaluated and traffic observations were performed to determine the operating parameters of the intersection.

Sight Distance Analysis

To determine whether there is adequate sight distance at the driveway for drivers entering and exiting to safely detect oncoming vehicles, and vice versa, measurements were taken to assess the available sight distance in both

directions of travel along NY 25A. These measurements were then compared to the relevant standards detailed in the American Association of State Highway and Transportation Officials (AASHTO) publication, "A Policy on Geometric Design of Highways and Streets." For the purposes of this analysis, a design speed of 40 miles per hour (posted speed limit plus 5 miles per hour) was used. This evaluation revealed the following:

> **NY 25A at Site Driveway:** Using guidelines set forth in the American Association of State Highway and Transportation Officials (AASHTO) *A Policy for the Design of Highways and Streets* the *critical stopping sight distance for a 40 mph roadway is 305 feet.* Based upon our measurements, the available sight distance extends approximately 500 feet to the west and 360 feet to the east. Therefore, adequate stopping sight distance is provided at this intersection with respect to the relevant standards and the position of the access drive to the sight is appropriate relative to the geometry of NY 25A.

Traffic Operations and Area Traffic Volumes

To evaluate the operation of the site access drive, traffic counts were conducted on NY 25A at the site on Friday, April 25, 2025, from 4:30 PM to 6:30 PM to represent a typical weekday p.m. peak hour, and on Saturday, April 26, 2025, from 11:00 AM to 2:00 PM to represent a typical Saturday midday peak hour. These time periods were selected to represent the expected peak periods of operation for the use (based on the hours of operation) relative to the peak periods for area traffic. Based on the count data, the peak hour of traffic during the weekday p.m. period occurred from 4:30 PM to 5:30 PM, while the peak hour of traffic during the Saturday midday period occurred from 12:45 PM to 1:45 PM. The volume diagram of these peak hours and full turning movement counts are shown in Attachment A to this letter.

To analyze these results, capacity analyses were performed using the traffic analysis software Synchro (Version 12), a computer program developed by Trafficware Ltd. Synchro is a comprehensive software package for modeling and optimizing traffic operations. This analysis methodology was used to evaluate the ability of an intersection or roadway to efficiently handle the number of vehicles using the driveway during a particular peak hour. The Synchro analysis determined the delay and Level of Service (LOS) for the peak hours at the site access drive. The LOS definitions and capacity analysis worksheets are included in Attachment B. The results are shown in Table 1.

Table 1 Synchro Capacity Analysis

Intersection	Approach	Lane Group	Weekday PM Peak Hour		Saturday Midday Peak Hour	
			Delay[a]	LOS[b]	Delay	LOS
NY 25A at Site Driveway (Unsignalized)	EB	TR	0.0	A	0.0	A
	WB	LT	0.0	A	0.0	A
	NB	LR	17.7	C	38.7	E

EB, WB, NB = Eastbound, Westbound, or Northbound approach
L, T, R = Left-turn, Through, or Right-turn movement
a Average delay in seconds per vehicle
b Level of service

Based on the results in Table 1, the volume of traffic entering was minimal during the peak hours and therefore did not experience any delay during either peak hour. The exiting approach experiences delays associated with an LOS C during the weekday PM period and a LOS E during the Saturday Midday period. Because this is a minor approach to a major state arterial highway in the form of NY 25A, this level of delay is typical of entry to a highway of this nature and acceptable in that the operation of the driveway does not interrupt traffic flow on the state highway, nor does it create undue hazard or deleterious conditions.

Based on the observations, it is noted that the peak number of trips observed during a single peak hour entering or exiting the property was 5 vehicles. To understand how this volume relates to area traffic conditions, it was compared to the level of background traffic in this area. This background traffic level was determined by reviewing data available from the New York State Department of Transportation (NYSDOT) Traffic Data Viewer, which includes historical automatic traffic recorder counts for the study area, including the traffic volume on NY 25A. The most recent area count was conducted in March 2023, during which the peak two-way traffic volume occurred from 5:00 p.m. to 6:00 p.m. on an average weekday, recording 1,703 vehicles on the roadway. Comparing this to the 5 vehicles generated by the nursery, the nursery represents only 0.3 percent of the total volume of traffic on NY 25A during the peak hour. Because this is well below the average daily fluctuation in area traffic volumes, which is approximately 5%, it can be stated that the operation of the nursery does not have any significant impact on area traffic operations.

Crash Experience

A review was conducted of the crash experience on NY 25A in the vicinity of the property. The aim was to determine if there are any underlying patterns of crashes in the area that could be influenced by the operation of the site access drive. For this analysis, crash data was obtained for the most recent three-year period available (September 2021 through August 2024) for the portion of NY 25A from Gate Road to Mill Pond Road. The full crash data detail is included in Attachment C, and the data is summarized in Table 2.

Table 2 Three-Year Area Crash Data Summary

Intersection	Accident Severity				Total	Accident Type															
	Fatality	Injury	Property Damage	Non-Reportable		Rear End	Overtaking	Right Angle	Left Turn	Right Turn	Fixed Object	Head On	Sideswipe	Pedestrian	Bicycle	Parked Vehicle	Backing	Run Off The Road	Animal	Other	Unknown
NY 25A from Gate Road to Mill Pond Road	0	6	7	0	**13**	1	1	3	1	1	0	0	1	0	0	0	0	0	0	5	0

Of the 13 collisions that occurred on this section of NY 25A, six involved an injury while seven involved property-damage only. The most common collision type was right-angle collision, which primarily had the apparent contributing factor of a driver failing to yield the right-of-way. The five "other" collisions consisted of two collisions with animals, one collision with a tree, one collision with a motor vehicle, and one unknown collision. From a review of the data it is noted that none of the reported collisions occurred at the site access drive itself.

Overall, given the traffic volume on NY 25A, as well as the underlying geometry of the roadway and various points of access from other surrounding properties and roadways, the level of crash activity is not unusual. Based on this, there does not appear to be an underlying safety hazard and the operation of the site access drive for the nursery does not appear to impact the crash experience in the vicinity of the site.

Site Circulation and Parking

The property is accessed via a single drive off NY 25A; this access drive is approximately 20 feet wide and transitions from asphalt pavement (where it meets the state highway) to a gravel drive aisle leading to the interior of the site. Given the low level of traffic generated by this use, this access drive is adequate to accommodate the types of vehicles that access the site.

Interior drive aisles and parking areas are generally made up of gravel pavement, with only smaller areas made up of asphalt paving. Observations indicate that the types of vehicles that traverse the interior portions of the site generally do not have any trouble navigating throughout on these areas. It is noted that the widths of these aisles are variable, often providing adequate dimensions to accommodate only one vehicle. However, given the low level of site-generated traffic and the types of vehicles present, this does not present an undesirable condition, and the site can adequately accommodate the volume and type of traffic generated.

Gravel parking areas are also provided in some areas of the property where vehicle activity is present, such as the buildings utilized for offices and the residence. Based on the low level of traffic generated by the use, these areas are adequate to accommodate the activity generated.
Overall, given the low level of activity and the nature of the nursery use, the site is well-designed to accommodate the traffic associated with the existing operation.

Conclusions

VHB has conducted a transportation engineering review for the application to legalize the existing nursery use located at 650 NY 25A in St. James, New York.

- Because the nursery is not primarily utilized for retail services, the use experiences relatively low levels of peak period traffic activity., The current access drive operates with acceptable levels of delay and does not impact the flow of traffic on NY 25A
- There is adequate sight distance provided at the driveway to the property to safely detect oncoming vehicles before exiting and vice versa.

- The site is well designed for the level of and type of traffic present and provides adequate parking for the use. Overall, the layout of the site provides for good internal circulation.
- The crash review shows that the traffic associated with the development does not have a significant impact on the rate of crash occurrence within the Study Area.

Based on the above, it is our opinion that the operation of the existing nursery does not result in any deleterious impacts to area traffic conditions and this element is not an impediment to the issuance of a special use permit. Please call with any questions regarding the above evaluation.

Sincerely,

VHB Engineering, Surveying, Landscape Architecture and Geology, P.C.

Aaron Machtay

Aaron Machtay, PE
Transportation Project Manager

AM/ba