

April 20, 2020

Mr. Jeremy B. Ginsberg
Planning and Zoning Director
Darien Town Hall
2 Renshaw Road
Darien, Connecticut 06820

Subject: **Traffic Peer Review – Ox Ridge Elementary School, 395 Mansfield Avenue
Darien, Connecticut**

Dear Mr. Ginsberg:

As requested, we have completed a review of the Traffic Impact Study prepared by Tighe & Bond, dated March 20, 2020. Our review is limited to the Traffic Study, Site Plan and a School Campus field review; however, while Schools were closed. Due to the current School closure, actual observations during the School arrival and dismissal were not possible. However, we have conducted many School Traffic Studies and understand School traffic patterns for Elementary Schools both for typical arrivals and dismissal time periods.

Project Understanding

The proposal is to demolish the existing Ox Ridge Elementary School and construct a new building, with related parking and separate parent and School bus drop-off and pick-up loop drives.

The current building comprises 58,344 square feet and the proposal is to construct a new building comprising 110,000 square feet of floor area. The current enrollment is 393 students in a Kindergarten through 5th grade Elementary School and includes an additional 23 Early Learning Program (ELP) students. The proposal is to construct a larger building to accommodate 578 students, which includes 428 students Kindergarten through 5th grade an additional 150 students for the ELP. For planning purposes the new School is expected to be in full operation for the Fall opening in 2022.

Traffic Comments

The following comments are based on and referenced sections in the Traffic.

2.3 Traffic Volumes

The traffic counting program completed for the School arrival and dismissal time periods were limited to 7:00 to 9:00 A.M. and again from 3:00 to 6:00 P.M. However, these time periods did not count for the ELP arrival and departure periods. This would have been very helpful to better understand traffic patterns after the typical School arrival and prior to the typical School dismissal for the Elementary School grades. Since this new School will add a significant number of students to the other time periods after the typical School arrival and prior to the typical School departure time a baseline condition would have been very helpful for comparison purposes. However, this information cannot be obtained at this time; therefore, we will limit our comments to the typical School arrival patterns and volumes for the Elementary School, which represent the School peak hours.

2.4 *Traffic Operations Review*

This information is very helpful to better understand actual patterns at this Elementary School at the beginning of the School day and at dismissal. Based on discussions with the Traffic Consultant and their observations and this information, it is apparent that the existing traffic signal operation at the School Campus access drive to Mansfield Avenue results in short-term delays prior to the beginning of the School day and typically at the end of the School day.

Motorists typically experience this short-term delay on Mansfield Avenue in both directions and more on the southbound approach due to traffic volumes, as they relate to not only School arrival patterns during the morning peak period; however, related to commuter traffic using Mansfield Avenue. During the afternoon dismissal time period for the Elementary School there is little or no commuter traffic and; therefore, traffic conditions along Mansfield Avenue result in less congestion and delays.

On Campus, there are the typical delays with parents arriving and entering the one School driveway into the Campus and waiting to drop-off and leave the Campus. Further, the operation of the traffic signal actually results in additional delays due to the current phasing and operational characteristics.

Traffic Volume Conditions

5.1 *Capacity and Queuing Analyses*

The results of the analyses provided in the traffic report indicate that the signalized intersection at the School Campus driveway to Mansfield Avenue operates at an overall Level of Service "E" and "C" during the School arrival peak periods during the morning and the peak dismissal time period in the afternoon. A further review of the analysis results indicates the southbound approach on Mansfield Avenue operates at Level of Service "F"

during the morning peak period and Level of Service "C" during the afternoon dismissal peak hour.

Under a future traffic conduction the signalized intersection will continue to operate at the same Levels of Service since there is a minimal amount of additional traffic during the typical Elementary School arrival and dismissal peak hour volumes. However, the Applicant recommends modifying the traffic signal timing operation, which will result in a significant improvement to the intersection so that it operates at an overall Level of Service "C" and "B" during the weekday morning arrival peak hour and the afternoon dismissal peak hour, respectively. The modification to the timing plan also indicates that the Level of Service "F" for the southbound approach during the morning peak hour on Mansfield Avenue will improve to a Level of Service "D."

We agree with these proposed traffic signal modifications. Since the Town owns and operates this traffic signal, as per the Traffic Consultant to the School, these modifications can be made, with consultation with the Connecticut Department of Transportation (CTDOT).

As noted above, it would have been helpful to better understand the traffic patterns and volumes associated with the 150 students arriving and departing for the ELP. However, if the one signalized intersection included in the analysis will operate at acceptable Levels of Service, with the proposed traffic signal modifications for the full Elementary School traffic, the 150 student related traffic can be accommodated with the same improvement. It is important to note that the background traffic volumes on Mansfield Avenue are likely lower during the peak hour conditions related to the ELP peak time periods, since it does not occur during typical commuter time periods and it is not related or overlapping with the Elementary School traffic.

Site Plan Comments

We have reviewed the Site Plan prepared by SLAM for the proposed new Elementary School building, parking areas, travel lanes and aisles and the parent and School bus drop-off areas.

This plan separates the School bus activity with the parent drop-off activity, which is essential in any new School or renovations of an existing School. We generally agree with the layout, as shown; however, we do have the concern that the parent drop-off loop drive could potentially backup vehicles to the main driveway from Mansfield Avenue into the Campus and block School bus activity, which occurs at the rear of the new parking area. To address these concerns, it is likely that the School Staff will have representatives both at the parent drop-off and School bus drop-off areas during the morning peak period, as well as dismissal. This is needed to ensure that drop-off and pick-up activities are conducted in an orderly fashion and the curb side drop-off and

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pick-up is maximized, with students and parents/School buses using the entire sidewalk area, as designed, to move students.

The plans prepared by the Applicant do not show School bus or emergency vehicle turning templates for the access terminus to Mansfield Avenue. This information should be provided to ensure that arriving and departing School buses do not travel over the double yellow centerline either on Mansfield Avenue or the School Campus access drive.

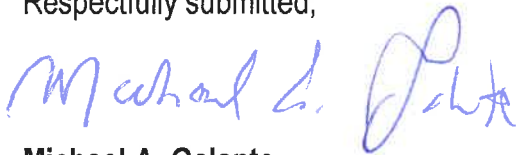
The plans do indicate STOP sign and STOP bar locations; however, a more detailed traffic control signing plan, which includes NO PARKING/NO STANDING signs and directional signs should be provided for review. For example ONE WAY and DO NOT ENTER signs are needed at the appropriate locations to control traffic flow and directional flow in the School bus and parent drop-off and pick-up areas.

Findings

Based on a review of the traffic report presented by the Applicant's Traffic Consultant and the Site Plan, as presented to the Town, we are in agreement that the new School layout as it relates to traffic and pedestrian circulation is appropriate to accommodate the anticipated number of students in both the Elementary School and the ELP program.

If the Applicant can provide the information noted above, we will review in a timely fashion and offer any additional comments, if necessary.

Respectfully submitted,



Michael A. Galante
Director of Traffic
Hardesty & Hanover, LLC

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