

March 10, 2022

Mr. Earl Kurtz III
Chairman, Planning and Zoning Commission
Town of Cheshire
84 South Main Street
Cheshire, CT 06410

**Re: East Mitchell Residential Development
East Mitchell Avenue
Cheshire, Connecticut
SLR #15841.00001**

Dear Mr. Kurtz,

We are in receipt of a letter dated March 3, 2022, addressed to the Town of Cheshire DPW/Engineering, from Lawrence Rusiecki, PE of Wright-Pierce, and offer the following responses to the comments contained therein:

Traffic Impact Study/Report

C1. It is noted for both the Background and Combined 2023 conditions, the queueing of traffic at Highland Avenue / Maplecroft Plaza southbound through/left lane location is expected to back up beyond the East Mitchell Avenue Intersection. This condition along Route 10 is noted to not impact the operations of the Applicants studied intersections. The level of service reported does not change however, more vehicles will be on Route 10 as part of the 1% increase per ear detailed within the Report.

R1. Comment noted.

C2. Within the Existing Conditions portion of the Report, it is noted that Route 10 has a posted speed limit of 35 miles per hour. Within the Intersection Sight Distance Analysis portion of the Report, the design speed of 25 miles per hour has been analyzed in addition, the Report notes that vegetation within the clear sight triangles must be kept trimmed.

It appears that there is a conflict within the Report on the posted speed limit. W-P recommends that the posted speed limit of Route 10 be clarified. In addition, W-P recommends the ISD Analysis be provided for the actual speed limit of the roadway along with the 85th percentile speed which is typically 10 miles per hour over the posted speed limit.

W-P recommends that an ISD Exhibit to scale be compiled along with providing supporting photos if there is an existing issue with vegetation at the East Mitchell Avenue and Route 10 intersection.

R2. The Traffic Impact Study reviewed the intersection sight distances at the proposed driveways on East Mitchell Avenue. The posted speed limit on East Mitchell Avenue is 15 mph. There is no available speed data for East Mitchell Avenue. As such, to be conservative, a design speed of 25

mph was assumed in the Traffic Impact Study for the measurement of the intersection sight distances at the proposed driveways. As stated in the Traffic Impact Study; “For a design speed of 25 mph, 280 feet of sight distance is required for a passenger car turning left or right onto a two-lane facility without a median. There is adequate sight distance based on CTDOT minimum requirements at the proposed driveways on East Mitchell Avenue.”

The posted speed limit on Route 10 within the vicinity of East Mitchell Avenue is 35 mph. Traffic Monitoring Data (including speed data) from June 2019 for Highland Avenue (Route 10) North of Route 70 was obtained from the Connecticut Department of Transportation (CTDOT). The 85th percentile speed for vehicles traveling northbound was 30.5 mph and 35.2 mph for vehicles traveling southbound.

Per your request, intersection sight distances (ISD) were measured at the intersection of Highland Avenue (Route 10) and East Mitchell Avenue in accordance with criteria set forth in the 2003 CTDOT *Highway Design Manual*. For a design speed of 35 mph, 390 feet of sight distance is required for a passenger car turning left or right onto a two-lane facility without a median. The attached figure displays the required sight visibility triangles at the intersection. As shown in the figure, there is adequate sight distance based on CTDOT minimum requirements. Field measurements confirm that there are no visual obstructions within the sight line triangle and that actual sight distances exceed the minimum required to achieve ISD for the 85th percentile speeds.

Turning Movements

- C1. W-P requests the “modeled” design speed of the vehicle tracking exhibit be provided on the Exhibit. It appears that the “red” line vehicle tire paths are abrupt on Fig. 1, Fig. 3, Fig. 4, Fig. 5, and Fig. 6 which indicates that the modeled vehicle has come to a stop to make a turning movement.
- R1. The turning movements for the fire truck throughout the site have been updated to have a modeled vehicle design speed of 5 mph and can be seen on Figures A through C. The turning movement figures for the school bus are not included in the revised turning movement Figures due to the school bus company having a policy of not traveling down cul-de-sac roadways.
- C2. W-P notes there is no Fig. 2 provided within the PDF file for review. Clarify if there is a sequential order for the figures.
- R2. The naming nomenclature of the turning movement figures has been updated for clarity to Figures A through C for fire truck turning templates.

- C3. W-P notes modeled vehicle tire paths “touch” the curbs on Fig. 1, Fig. 3, Fig. 4, and Fig. 5. W-P recommend that updated figures be provided for further review.
- R3. The revised turning movement Figures A through C for the fire truck throughout the site have eliminated any touching of the tire paths to the curbs.**

Survey Worksheet

- C1. General comment related to the survey and ISD comment within the Traffic Study section above. W-P recommends survey to locate and physical site features, fence lines, shrubs, trees or obstructions if any adjacent to the intersection at Route 10.
- R1. No visual obstructions were found based on field observations that impede site lines from East Mitchell Avenue.**

Site Development Plans

- C1. A revision date to February 9, 2022, and “Layout Changes” description has been added to the Title Block. It is not clear, bubble clouded or highlighted on the Plan what changes have been made. W-P recommend the Applicant to provide a written memo to clarify the recent changes to the Plan.
- R1. Revision clouds have been added to the plans to indicate the portions of the site plans that have been changed.**

The main modification to the site plans compared to the original version submitted to Planning and Zoning Commission is the addition of several sidewalks connecting the parking lots to the cul-de-sac and the sidewalk running along East Mitchell Avenue to Route 10. The changes revision clouded on the Landscaping sheet are the additional plantings that have been added along the western property line and plantings that were shifted due to the addition of the sidewalk along East Mitchell Avenue to Route 10. The revision clouds on the Grading sheet are due to the addition of the sidewalk along East Mitchell out to Route 10 and associated grading along with the top of frame elevations changing on two catch basins. The recent changes on the Utilities sheet are minor changes to the location of several catch basins due to additional sidewalks and the size of the cul-de-sac being modified. Additionally, the water lines and meter vault for the westernmost building have been relocated to the parking lot and an additional fire hydrant has been added by the emergency access way at the request of the Fire Department.

If you have any questions or need anything further, please do not hesitate to contact either of the undersigned.

Sincerely,

SLR International Corporation



David G. Sullivan, PE
U.S. Manager of Traffic & Transportation Planning



Ryan McEvoy, PE
Principal Civil Engineer

15841.00001.m1022.ltr