

## MEMORANDUM

Date: October 30, 2019

To: Terry Henry, Waveny LifeCare Network

From: Georges Jacquemart, P.E., AICP  
Contact Information: g.jacquemart@bfjplanning.com

Subject: Traffic Impact Analysis of Proposed Continuing Care Retirement Community on Oenoke Ridge Road in New Canaan, CT – Correction to October 22, 2019 memo

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*Note: This memo corrects the traffic numbers in Figure 4 of the October 22 memo. As the result, the traffic increases projected on Oenoke Ridge Road south of the Inn Driveway will be 3.6 percent in the AM peak hour instead of 7.8 percent, and 5.3 percent in the PM peak hour instead of 7.4 percent.*

### Introduction

The purpose of this memorandum is to provide updated traffic data and analysis of the traffic impacts of the proposed Continuing Care Retirement Community (CCRC) project on Oenoke Ridge in the Town of New Canaan, CT. Traffic count data collected on Tuesday, October 15<sup>th</sup>, 2019 are presented here as an update to data collected on July 9<sup>th</sup> and 10<sup>th</sup>, 2019.

### Updated Traffic Counts

Figure 1 shows the October 2019 morning and afternoon peak hour traffic movements through the intersection of The Inn's driveway and Oenoke Ridge Road. Oenoke Ridge Road south of The Inn Driveway carries about 490 vehicles in the morning peak hour (8:00 to 9:00 AM) and about 450 vehicles during the PM peak hour (4:30 to 5:30 PM).

Both morning and afternoon peak hour traffic volumes were higher in October as compared to July. The total AM peak hour volume was 13.6 percent higher and the total PM peak hour volume was 12.2 percent higher.

### Traffic Impacts of Proposed Oenoke Ridge CCRC Based on October 2019 Counts

To estimate the traffic impacts of the proposed CCRC development on local traffic conditions we first project the 2019 traffic peak hour traffic volumes to the build year for the CCRC, i.e. 2021. It is assumed that traffic volumes would increase by 1 percent per year.

Figure 2 shows the 2021 peak-hour traffic volumes for the Oenoke Ridge/The Inn intersection for the future no-build condition. Figure 3 shows the peak-hour traffic volumes added by the proposed CCRC and Figure 4 shows the future traffic volumes with the CCRC traffic.

Table 1 compares traffic conditions at the intersection of Oenoke Ridge Road and The Inn Driveway as they are projected to exist in 2021 without the proposed CCR and in 2021 with the proposed CCRC based on October counts.

**Table 1: Oenoke Ridge & The Inn Driveway Level of Service Analysis Summary**

Movements	AM Peak Hour				PM Peak Hour			
	Future No Build		Future Build		Future No Build		Future Build	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Southbound Left-turn	8	A	8	A	7.7	A	7.8	A
Westbound Left-turn	13.2	B	13.3	B	11.4	B	12	B

As seen in Table 1, the peak-hour traffic conditions are good in the sense that all movements through this intersection operate with short delays and will continue to operate at about the same conditions as today. Peak-hour traffic volumes on Oenoke Ridge Road south of the project site are projected to increase by 3.6 percent in the AM peak hour and by 5.3 percent in the PM peak hour as the result of the proposed CCRC project. Further south the CCRC traffic will use either Park Street or Main Street, thus further diluting the impacts. In addition the base volumes on Park and on Main Street are higher. The traffic impacts of the proposed CCRC will therefore not be noticeable on Park Street and on Main Street in downtown New Canaan.

Comparing the Level of Service Analysis Summary generated from July counts versus October counts, the LOS remained the same for each movement during both the AM and PM peak hours. The delay time nearly remained the same for the southbound left-turn in both the AM and PM peaks whereas the westbound left-turn generally increased slightly, primarily during the AM peak hour for the westbound left-turn (~ two seconds).

#### **Sight Distances at The Inn Driveway**

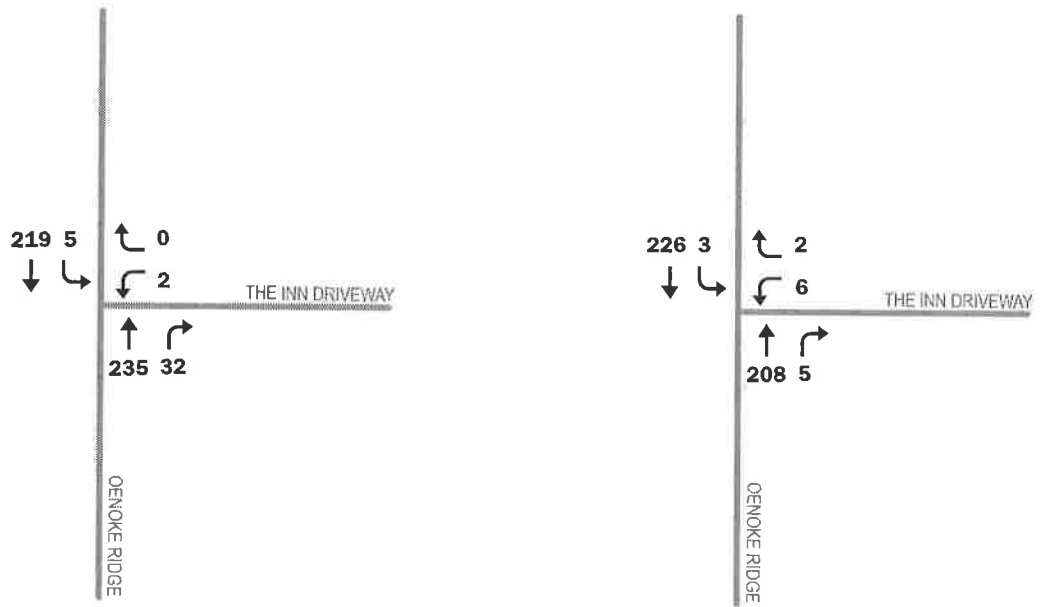
Sight distances from The Inn's Driveway were verified based on Google Earth maps. Location information was mapped and measured in Google Earth to identify a sight distance for northbound vehicles of 410 feet and a sight distance for southbound vehicles of 1,215 feet. The posted legal speed limit in this area is 25 MPH and there is a posted 15 MPH advisory sign at the Oenoke Ridge road curve south of Oenoke Lane.

For a 25 MPH speed the recommended stopping distance is 155 feet as per the AASHTO 2011 policy on Geometric Design of Highways and Streets Table 3-1 page 3-4. For both northbound and southbound traffic, the available sight distance exceeds the required sight distance for 25 MPH on a level roadway. Refer to Figure 5. The stopping sight distance from The Inn's driveway for Northbound traffic on Oenoke Ridge is sufficient for vehicles traveling at a speed of up to 45 MPH, whereas the stopping sight distance for southbound vehicles is sufficient for vehicles traveling at a speed of up to 80 MPH.

#### **Conclusions**

The above analysis has shown that the proposed CCRC is a relatively low traffic generator due to the nature of the residents and the fact they will be provided with shuttle services. The employees working at the CCRC are a more important component to the traffic generation compared to the residents. The intersection of Oenoke Ridge Road and The Inn driveway will continue to operate at good conditions with delays for the turning movements out of the driveway not exceeding 14 seconds per vehicle. The impacts on Main Street and Park Street in downtown New Canaan will be "de minimus" and will not be noticeable. Available sight distances at The Inn Driveway exceed the required stop sight distances.

Figure 1: Existing Conditions

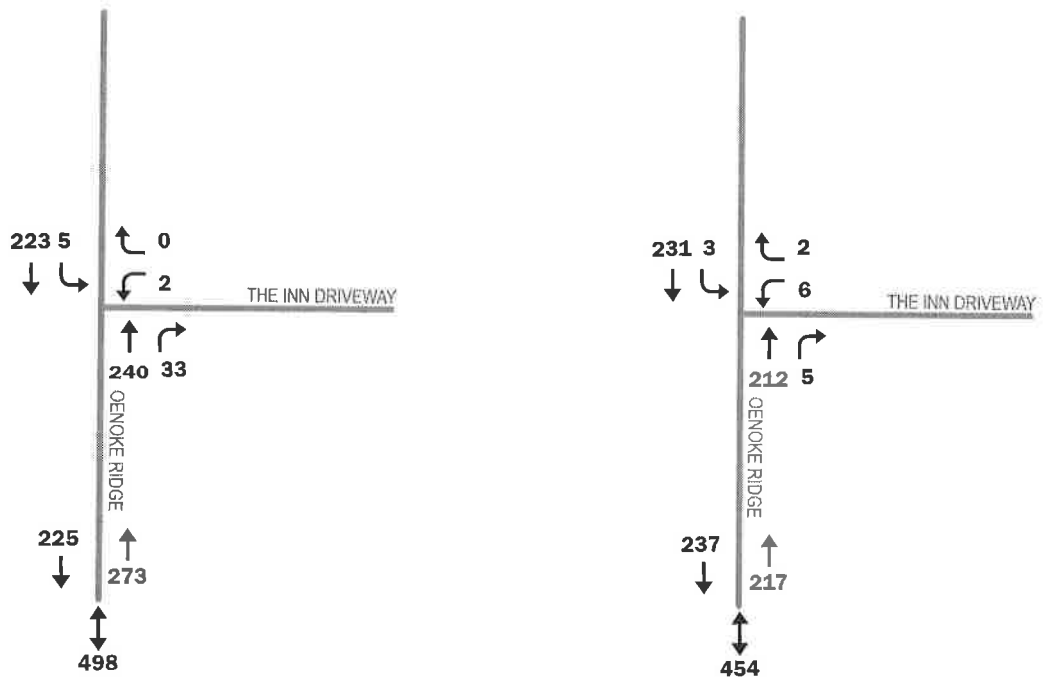


AM Peak Hour

PM Peak Hour

Existing Conditions based on October 15th, 2019 counts

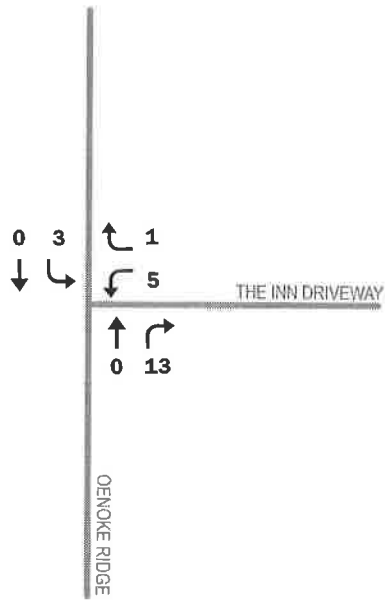
Figure 2: Future No Build Condition



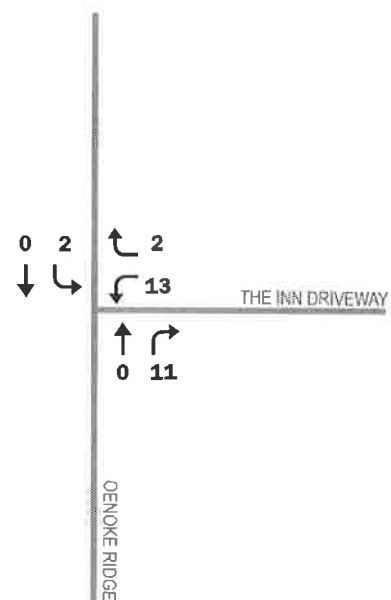
AM Peak Hour

PM Peak Hour

Figure 3: Project Generated Traffic

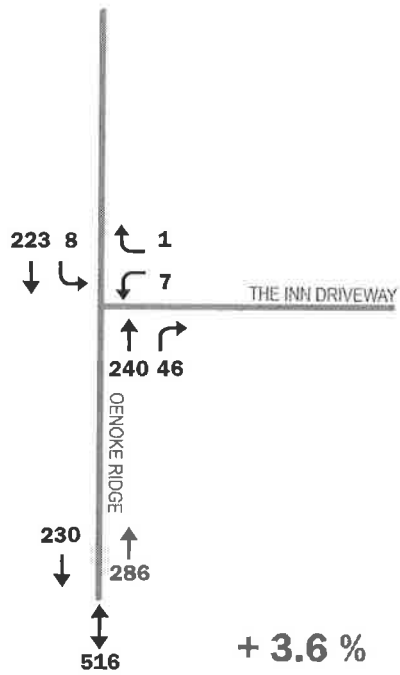


AM Peak Hour

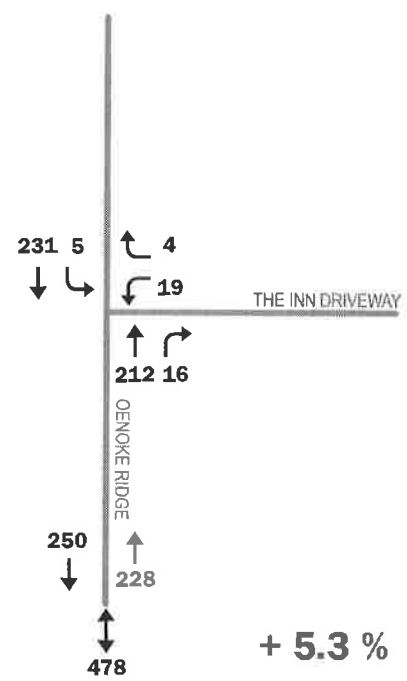


PM Peak Hour

Figure 4: Future Build Condition

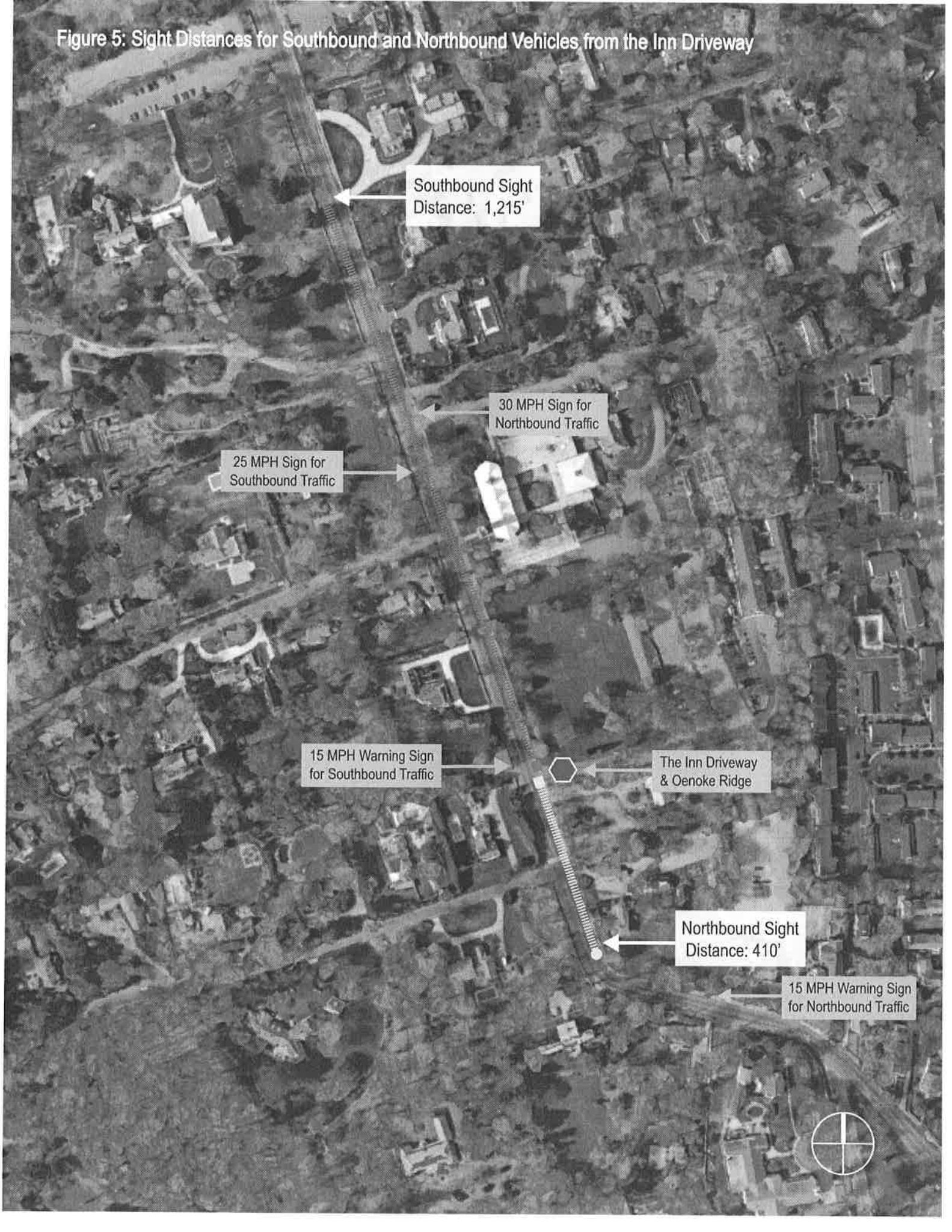


AM Peak Hour



PM Peak Hour

Figure 5: Sight Distances for Southbound and Northbound Vehicles from the Inn Driveway



Southbound Sight Distance: 1,215'

30 MPH Sign for Northbound Traffic

25 MPH Sign for Southbound Traffic

15 MPH Warning Sign for Southbound Traffic

The Inn Driveway & Oenoke Ridge

Northbound Sight Distance: 410'

15 MPH Warning Sign for Northbound Traffic