tessera
TRANSPORTATION FOR VIBRANT COMMUNITIES

September 1, 2020

Mannarino Builders, Inc.
Robert Mannarino
400 Chapel Road, unit 3-F
South Windsor, Ct. 06074

RE: Trip Generation Summary
Abbe Road and Maskel Road – South Windsor, CT

Dear Rob,

Tessera Engineering has prepared this trip generation summary for the proposed housing development to be accessed via Abbe Road and Maskel Road in South Windsor, Connecticut.

Mannarino Builders proposes to construct 13 single-family homes on the subject property which currently contains one single-family home, for a total of 12 new single-family homes. Trip Generation for these homes was determined using the 10th edition of the Institute of Transportation Engineers' publication *Trip Generation*. This publication serves as the industry-standard reference for determining trip generation.

Land Use Code 210 (Single Family Detached Housing) was used to calculate the anticipated trips generated by the 12 additional single-family homes. A total of 13 trips (3 entering, 10 exiting) is anticipated during the morning peak hour of adjacent street traffic, and a total of 13 trips (8 entering, 5 exiting, is expected during the afternoon peak hour of adjacent street traffic.

Due to an increase in working from home and a general reduction in vehicle trips, traffic volumes during the COVID-19 pandemic are lower than usual. The trip Generation rates for Land Use Code 210 (Single-Family Detached Housing) were used as a conservative means to estimate volumes to and from the 38 existing single-family homes on Maskel Road. The anticipated trips generated by the existing and proposed single-family homes are summarized in the table below and in the attached Figures 1 and 2.

	Morning Peak Hour			Afternoon Peak Hour		
	Entering	Exiting	Total	Entering	Exiting	Total
12 New Single-Family Homes	3	10	13	8	5	13
38 Existing Single-Family Homes	8	24	32	25	15	40

The site generated trips were distributed to the network based on the assumption that most of the site traffic travels to and from the commercial development and highway

and access to Route 84 to the south. Land uses north of the site are primarily residential. Eighty percent of the trips to and from Maskel Road are assumed to use Garnet Lane to the south, and 20% are assumed to use the new Maskel Road extension to the north. The distribution is shown in the attached Figure 3.

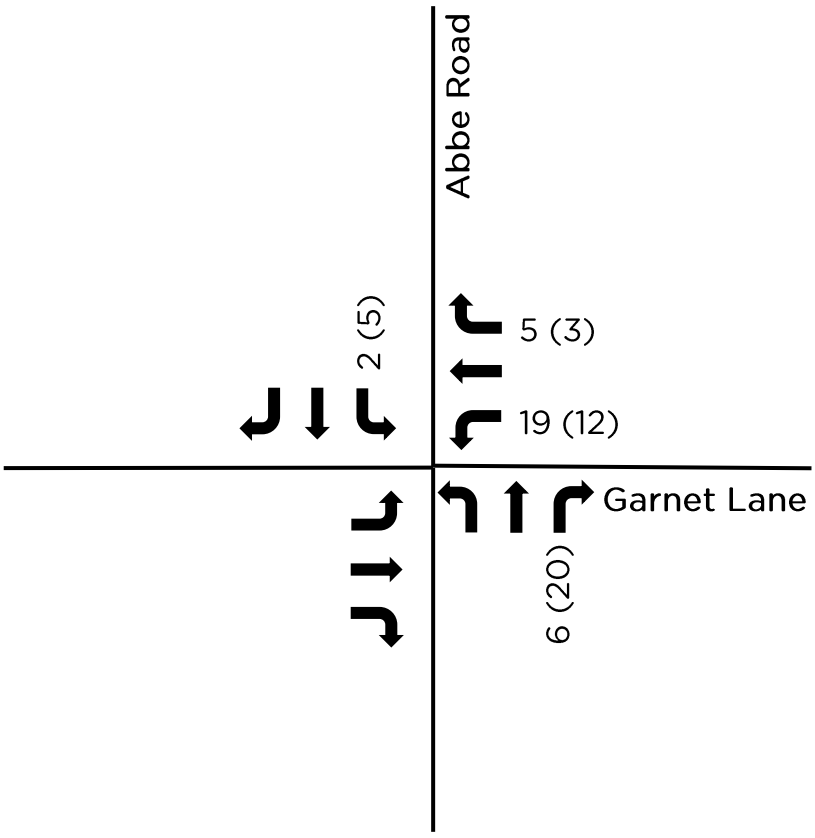
Existing traffic to and from Maskel Road accesses Abbe Road via Garnet Lane. With the extension of Maskel Road, vehicles traveling to and from the south will continue to use Garnet Lane. Vehicles traveling to and from the north will enter Maskel Road from its new intersection with Abbe Road. This is shown in the attached Figure 4. The combined trips from the existing and proposed single-family homes on Maskel Road are shown in Figure 5. With the addition of 12 single-family homes, approximately 10 vehicles are expected to use the Maskel Road extension during the morning peak hour, and 11 vehicles during the afternoon peak hour.

It is my professional opinion that with the proposed grading at the intersection of Abbe Road at Maskel Road to improve the sight distance to meet the required minimum, the addition of 12 single-family homes will not have a significant impact to traffic operations on the surrounding road network. If you have any questions or require further information, please contact me at (203) 583-2134 or tschwartz@tesseraengineering.com.

Sincerely,
Tessera Engineering

Theresa Schwartz

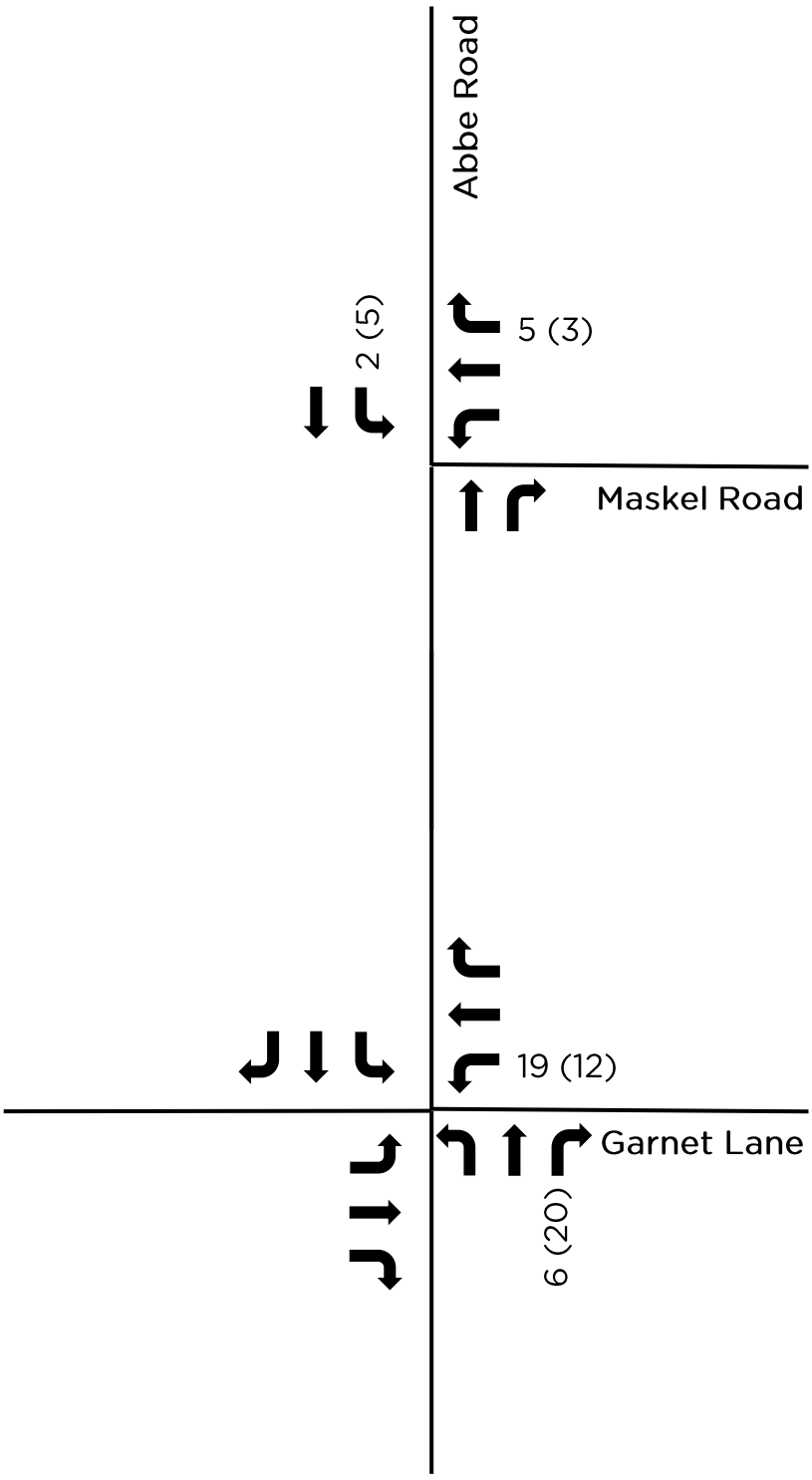
Theresa Schwartz, PE, PTOE
Principal



XX(XX) = AM Peak Hour (PM Peak Hour) Traffic Volumes

Existing Trips To and From Maskel Road Subdivision, Abbe Road and Maskel Road South Windsor, Connecticut

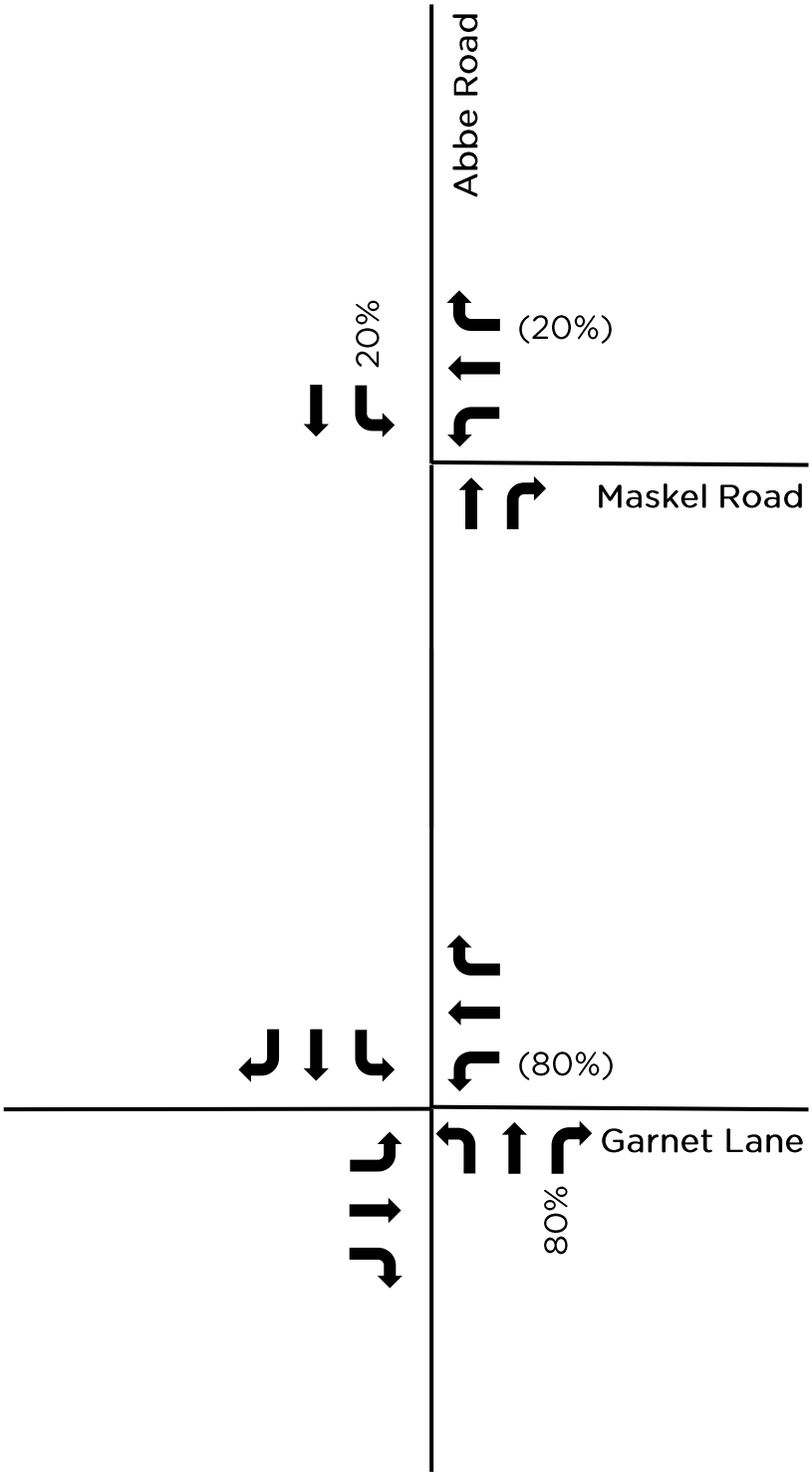
tessera
TRANSPORTATION FOR VIBRANT COMMUNITIES



XX(XX) = AM Peak Hour (PM Peak Hour) Traffic Volumes

Existing Trips Redistributed
Subdivision, Abbe Road and Maskel Road
South Windsor, Connecticut

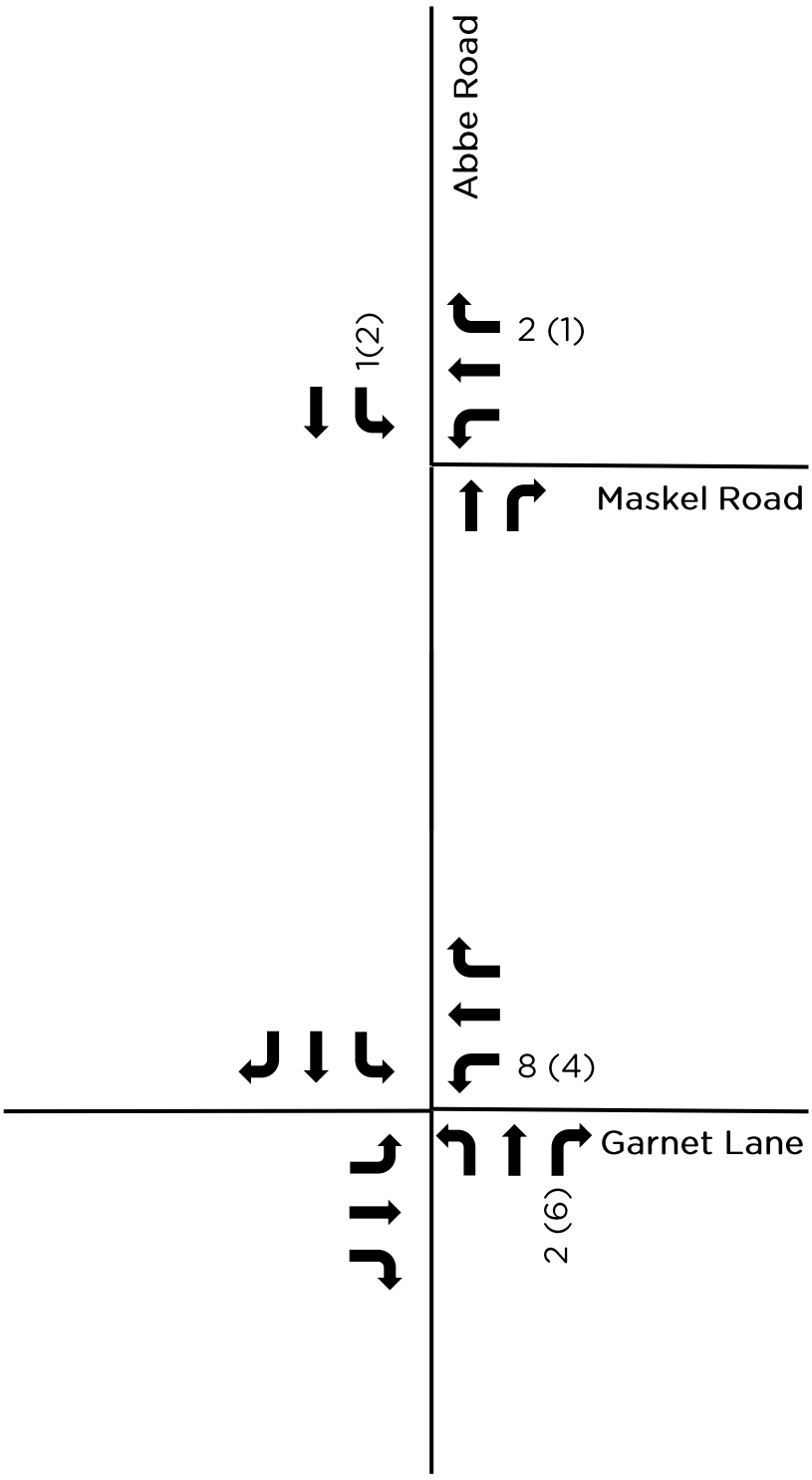
tessera
TRANSPORTATION FOR VIBRANT COMMUNITIES



XX(XX) = Entering (Exiting) Traffic Volumes

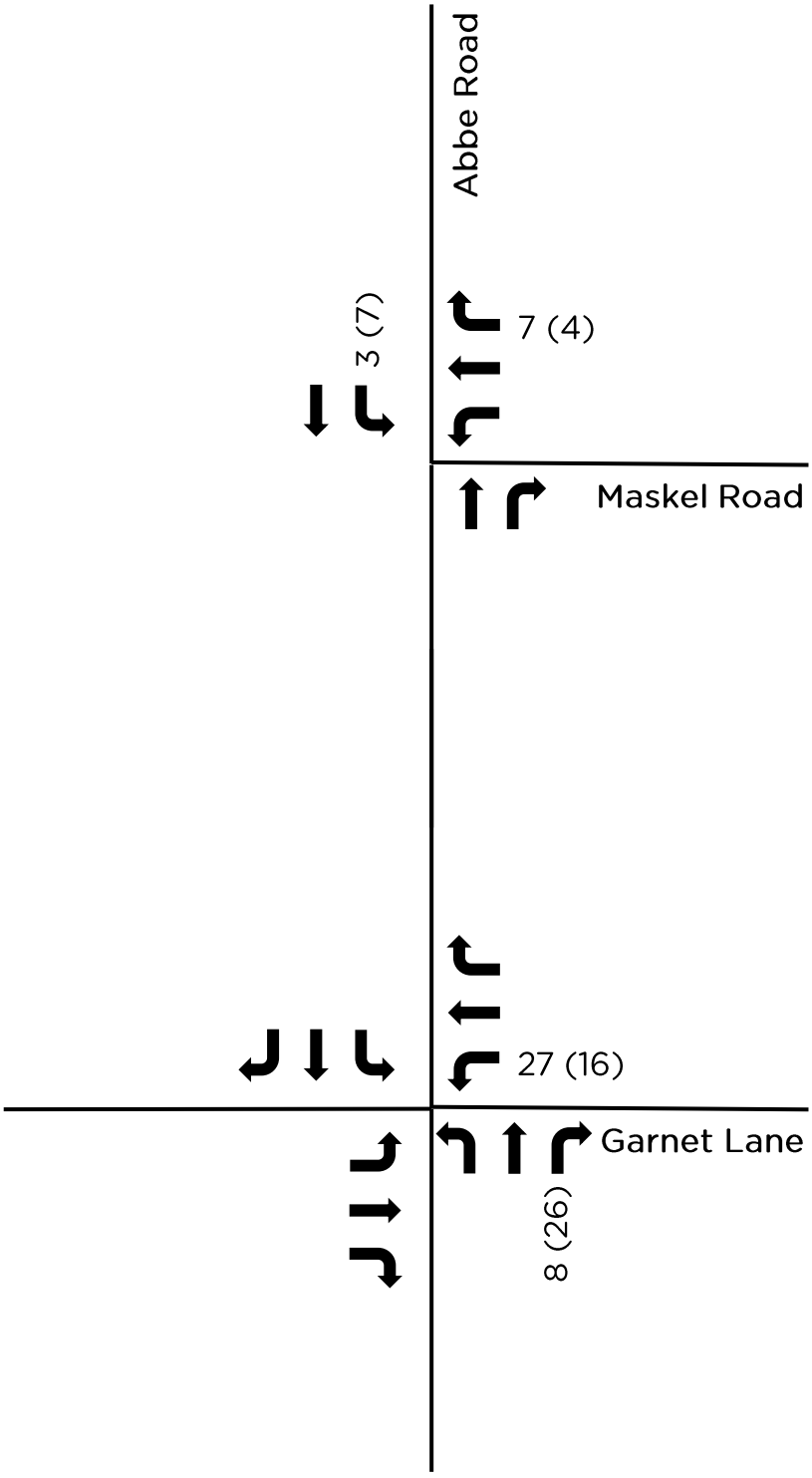
Trip Distribution
Subdivision, Abbe Road and Maskel Road
South Windsor, Connecticut

tessera
TRANSPORTATION FOR VIBRANT COMMUNITIES



XX(XX) = AM Peak Hour (PM Peak Hour) Traffic Volumes

New Site Trips
Subdivision, Abbe Road and Maskel Road
South Windsor, Connecticut



XX(XX) = AM Peak Hour (PM Peak Hour) Traffic Volumes

Build Condition Trips To and From Maskel Road
Subdivision, Abbe Road and Maskel Road
South Windsor, Connecticut

tessera
TRANSPORTATION FOR VIBRANT COMMUNITIES