

MEMORANDUM

To: Connor Mok - City of Sandy Springs

From: Matt Dysko, P.E. - Kimley-Horn

Date: February 19, 2025

Subject: Long Island Drive at Mount Vernon Highway Traffic Data Analysis

Kimley-Horn was contracted by the City of Sandy Springs design intersection improvements for the intersection of Mount Vernon Highway at Long Island Drive/Arlington Cemetery. The design proposes a new traffic signal and geometry changes to better align the intersection and allow for additional northbound left turn storage. The installation of a traffic signal will address safety concerns by reducing poor intersection alignment, easing sight distance concerns, and provide for easier left turn movements.

Kimley-Horn previously completed a Traffic Engineering Study of this intersection in 2022.

A Public Information Open House (PIOH) was held on October 17th, 2024. Feedback was received at that meeting to verify certain aspects of the traffic operational analysis. The below summarizes this verification.

Arterial Analysis Comparison

Utilizing the previous study's data, an Arterial Analysis of Mount Vernon Highway was completed. The traffic model studies the cumulative travel time starting from approximately 1,100 feet west of Long Island Drive and ending approximately 1,400 feet east of Hammond Drive.

Table 1 below summarizes how the run times and subsequent travel times and arterial speeds change for EB Mount Vernon Hwy and WB Mount Vernon Hwy. There is a decrease in EB travel time (and increase in EB travel speed) during the AM peak hour, but there is also travel time increases (and subsequent travel speed decreases) for the EB direction during the PM peak hour. There are travel time increases (and subsequent travel speed decreases) for the WB direction during both peak hours.

Table 1: Arterial Analysis Comparison

Travel Metric	No-Build Conditions		Signalized Conditions		% Change	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Run Time – EB	35.8 s		37.7 s		5.31%	
Run Time – WB	38.8 s		49.5 s		27.60%	
Travel Time – EB	138.1 s	72.8 s	117.2 s	111.0 s	-15.10%	52.50%
Travel Time – WB	48.1 s	52.2 s	59.4 s	93.3 s	23.50%	78.70%
Arterial Speed – EB	7.8 mph	14.8 mph	9.2 mph	9.7 mph	17.90%	-34.50%
Arterial Speed – WB	24.2 mph	22.3 mph	24.1 mph	15.3 mph	-0.40%	-31.40%
Segment LOS – EB	F	D	F	F	-	-
Segment LOS – WB	B	C	B	D	-	-

Network Delay Comparison

The arterial analysis was layered with the completion of a Network Delay Comparison to help give a fuller analysis of the intersection impacts. The Network Delay Comparison is summarized in Table 2. During the AM peak hour, the overall network delay decreases by over 12%. There is a similar increase in network delay during the PM peak hour. The overall delays within the network are modest.

Table 2: Network Delay Comparison

Peak Hour	No-Build Conditions Network Delay	Signalized Conditions Network Delay	% Change
AM Peak	73.3 hr	64.1 hr	-12.60%
PM Peak	91.4 hr	101.9 hr	11.50%

For questions or more information please contact Matthew Dysko at 678-533-3905.

Sincerely,



Matt Dysko, P.E

Project Manager