



To: Mr. Nasser Rahimzadeh

From: Jonathan Guy, P.E., PTOE

Date: August 17, 2021

**RE: *Gateway West Development, Clemmons, NC  
Transportation Analysis***

At the request of the Village of Clemmons, Kimley-Horn has conducted a review of the proposed Gateway West Development located off Culler Road in Clemmons, NC. The proposed development consists of 70 low-rise multifamily units. The proposed development would take access off Culler Road near the intersection of Lewisville-Clemmons Road. Two access driveways are anticipated along Culler Road.

This memo outlines our observations regarding the proposed development.

**OBSERVATIONS**

The following observations are offered based on a review of the Ramey Kemp traffic impact memo date August 16, 2021.

- The proposed development generates 488 daily, 34 AM peak hour, and 43 PM peak hour trips
- NCDOT requires a TIA that generates more than 3,000 daily trips
- The intersection of Culler Road and Lewisville-Clemmons Road is projected to operate at level of service (LOS) B in all three scenarios analyzed for the crucial intersection movement – eastbound (EB) right.
- The capacity analysis examined mitigation at the subject intersection of Lewisville-Clemmons Road and Hanesbrook Circle to mitigate the AM eastbound approach change in LOS and increase in delay by more than 25%.
- The eastbound approach of the intersection of Hanesbrook Circle is projected to operate at LOS D in the AM peak hour, LOS D in the 2023 No Build, and LOS E in the 2023 Build. For the PM peak hour, the eastbound approach operates at LOS F for all three scenarios analyzed.
- In the AM peak hour, the westbound approach of the intersection of Hanesbrook Circle is projected to operate at LOS D for the existing, LOS D for the 2023 No Build Scenario. With the introduction of site traffic, the approach is projected to operate at LOS E.
- For the PM peak hour, the westbound approach is projected to operate at LOS F for the existing, 2023 No Build, and 2023 Build scenarios.
- The traffic memo outlines the consideration of a westbound right-turn lane at Hanesbrook Circle. The memo indicates a delay reduction of 1 second in the AM peak hour and 4 seconds in the PM peak hour.

## CONCLUSIONS

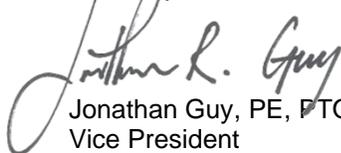
The proposed development as presented in the current traffic impact analysis will generate a measurable impact on the adjacent roadway network. The TIA does recommend mitigation per the NCDOT driveway manual but does not recommend mitigation for implementation. Justification for not recommending mitigation is based on the lack of warranting or justification for the turn lane at Hanesbrook Circle and Lewisville-Clemmons Road. It is important to note that the delay is high at this intersection because it is a full movement intersection that allows all movements. With the high volume of traffic on Lewisville Clemmons Road (see figure 8 in the tech memo), delay on the side street, even with just a few vehicles turning left will be long in the peak hours. The tech memo notes this and the analysis supports this.

The TIA analyzed 45% of the entering traffic and 65% of the exiting traffic to use the Lewisville-Clemmons Road and Culler Road intersection. When considering the concentration of traffic at this intersection, the high volumes heading southbound on Lewisville-Clemmons Road (875 AM/956 PM), and the undulation (topography) along the southbound approach, a right-turn lane at Culler Road would improve the operational safety of the intersection. This would allow right-turning traffic to slow down outside the through lane, reducing the potential for rear end collisions.

Based on the data provided it is recommended that a southbound right-turn lane with a minimum of 50 feet of storage and appropriate taper be installed at Culler Road and Lewisville-Clemmons Road. This mitigation is recommended in lieu of mitigation at Lewisville-Clemmons Road and Hanesbrook Circle.

Please contact me at (704) 488-3055 or [jonathan.guy@kimley-horn.com](mailto:jonathan.guy@kimley-horn.com) should you have any questions regarding this analysis.

Sincerely,



Jonathan R. Guy  
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Vice President