




STATE OF DELAWARE  
DEPARTMENT OF TRANSPORTATION  
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SHAILEN P. BHATT  
SECRETARY

MEMORANDUM

**TO:** Sean McEvelly, Johnson, Mirmiran & Thompson, Inc.  
**FROM:** Troy Brestel, Project Engineer   
**DATE:** November 9, 2012  
**SUBJECT:** **Limestone Crossing  
Results of Traffic Operational Analysis Review**

We have reviewed the traffic operational analysis (TOA) for the proposed Limestone Crossing commercial development, prepared by VMI Maris (VMI) dated September 21, 2012. The analysis evaluates the traffic impacts of the proposed development, to be located on the west side of Limestone Road (Delaware Route 7), south of Valley Road, in New Castle County. The proposed development would consist of a 6,960 square foot shopping center. Two access points are proposed for this project: one rights-in / rights-out access on Limestone Road via interconnection with the Community News development north of the property, and one full access at the intersection of Limestone Road / Lantana Drive via interconnection with the WSFS Bank south of the property. Construction is expected to be complete by 2014.

Based on our review, we find that the intersections of Limestone Road / Community News entrance and Limestone Road / Lantana Drive / WSFS Bank entrance would operate at level of service (LOS) D or better during the weekday morning, weekday evening, and Saturday mid-day peak hours for both present and future conditions, and would meet the LOS criteria listed in our Standards and Regulations for Subdivision Streets and State Highway Access.

Please note that this analysis generally focuses on capacity and level of service issues. Any safety and operational issues not identified or addressed in this review may be discussed during our Subdivision plan review process. Level of Service tables for the existing and future cases are attached with this memorandum.

TB:km

cc: Michael Maris, VMI Maris  
Michael Kaszyski, Duffield Associates, Inc.  
John Janowski, Land Use, New Castle County  
Owen Robatino, Land Use, New Castle County  
J. Marc Cote<sup>2</sup>, Assistant Director, Development Coordination  
T. William Brockenbrough, Jr., County Coordinator, Development Coordination  
Todd J. Sammons, Subdivision Engineer, Development Coordination  
Ahmed Abdelmoteleb, Traffic Engineer, Traffic, DOTS  
Joshua Schwartz, Subdivision Manager, Development Coordination



Table 1  
 PEAK HOUR LEVELS OF SERVICE (LOS)  
 Limestone Crossing TOA  
 Prepared by VMI Maris

Unsignalized Intersection <sup>1</sup>	LOS per Analysis			LOS per DelDOT		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
Limestone Road / Community News Entrance						
2012 Existing						
Site Entrance - Northbound	B (12.0)	B (13.7)	B (13.8)	B (12.9)	B (13.9)	B (14.2)
2014 without development						
Site Entrance - Northbound	B (12.9)	B (14.5)	B (14.3)	B (12.9)	B (14.7)	B (14.7)
2014 with development						
Site Entrance - Northbound	B (12.8)	B (14.5)	B (14.4)	B (12.9)	B (14.7)	B (14.7)

<sup>1</sup> The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 2  
 PEAK HOUR LEVELS OF SERVICE (LOS)  
 Limestone Crossing TOA  
 Prepared by VMI Maris

Signalized Intersection <sup>1</sup>	LOS per Analysis			LOS per DelDOT		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
Limestone Road / Lantana Drive / WSFS Bank Entrance <sup>2</sup>						
2012 Existing	C (25.1)	C (26.7)	C (26.5)	B (17.3)	C (26.6)	C (26.3)
2014 without development	C (26.3)	C (28.7)	C (27.2)	B (18.2)	C (28.1)	C (27.4)
2014 with development	C (26.2)	C (28.7)	C (27.1)	B (18.6)	C (28.8)	C (28.4)

<sup>1</sup> The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

<sup>2</sup> In the review of the TOA, DelDOT used a cycle length of 120 seconds, whereas a cycle length of 100 seconds was used by the consultant in the TOA. Additionally, DelDOT optimized the signal timings. These changes largely account for the differences in the LOS results.