STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
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DOVER, DELAWARE 19903

SHAILEN P. BHATT
SECRETARY

MEMORANDUM

TO: Sean McEvilly, Johnson, Mirmiran & Thompson, Inc.

FROM: Troy Brestel, Project Engineer TEB

DATE: September 20, 2011

SUBJECT: **CVS – Landers Lane**
Results of Traffic Operational Analysis Review

We have reviewed the traffic operational analysis (TOA) for the proposed CVS pharmacy in New Castle County, prepared by Davis, Bowen & Friedel, Inc. (DBF) dated June 2, 2011. The analysis evaluates the traffic impacts of the commercial development, proposed to be located on the southwest corner of the intersection of Delaware Route 9 and Landers Lane. The proposed development would consist of a 13,281 square foot pharmacy with drive-through window. This proposal would replace the existing commercial use. Two access points are proposed for this project: one full access on Landers Lane and one rights-in / rights-out access on Delaware Route 9. Construction is expected to be complete by 2013.

Based on our review, we find that the intersections analyzed would operate at level of service (LOS) D or better during the a.m. and p.m. peak hours for both present and future conditions, and would meet the LOS criteria listed in New Castle County's Unified Development Code (UDC).

Should the developer choose to develop the property per the proposed land use listed above, we offer the following comments:

1. The developer should construct a yield-controlled eastbound right-turn lane at the intersection of Delaware Route 9 and Landers Lane. The length of this right-turn lane will need to be determined by DelDOT's Subdivision and Traffic Sections during the site plan review process.

2. The existing access points along Delaware Route 9 should be eliminated, and a new rights-in, rights-out access on Delaware Route 9 should be constructed near the southern boundary of the property. The developer should contact DelDOT's Subdivision Secrtion to determine the exact placement of this access.

3. The existing access points along Landers Lane should be eliminated, and a new full access on Landers Lane should be constructed almost adjacent to the Rite-Aid access. The developer should contact DelDOT's Subdivision Section to determine the exact placement of this access.

4. The developer should contact DelDOT's Subdivision and Traffic Sections in regards to bicycle, pedestrian and transit issues prior to submittal of the site plan.

Please note that this analysis generally focuses on capacity and level of service issues. Level of Service tables for the existing and future cases are attached with this memorandum.

TB:km
cc: D.J. Hughes, Davis, Bowen & Friedel, Inc.
John Janowski, New Castle County Department of Land Use
Owen Robatino, New Castle County Department of Land Use
Theodore G. Bishop, Assistant Director, Development Coordination
T. William Brockenbrough, Jr., County Coordinator, Development Coordination
J. Marc Cote', Subdivision Engineer, Development Coordination
Joshua Schwartz, Subdivision Manager, Development Coordination
Peter Haag, Traffic Engineer, Traffic, DOTS

Table 1
PEAK HOUR LEVELS OF SERVICE (LOS)
CVS – Landers Lane TOA
Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection[1]	**LOS per TOA**		**LOS per DelDOT**	
Landers Lane / Rite-Aid Access / Site Entrance	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2013 with development				
Eastbound Landers Lane Left-Turn	A (7.9)	A (7.7)	A (7.9)	A (7.8)
Westbound Landers Lane Left-Turn	A (8.4)	A (8.5)	A (8.2)	A (8.6)
Northbound Site Access[2]	C (16.4)	B (12.8)	C (16.8)	B (12.3)
Southbound Rite-Aid Entrance[2]	C (16.0)	C (15.8)	B (16.1)	C (19.2)

[1] The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.
[2] Please note that the intersections would actually be offset; however, for purposes of this study, they were analyzed as a four-way intersection.

Table 2
PEAK HOUR LEVELS OF SERVICE (LOS)
CVS – Landers Lane TOA
Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection[1]	**LOS per TOA**		**LOS per DelDOT**	
Delaware Route 9 / Site Entrance	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2013 with development				
Eastbound Site Entrance	B (11.2)	B (11.5)	B (11.3)	B (11.7)

[1] The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 3
PEAK HOUR LEVELS OF SERVICE (LOS)
CVS – Landers Lane TOA
Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection[1]	**LOS per TOA**		**LOS per DelDOT**	
Landers Lane / Colwyck Elementary School Access	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2011 existing				
Westbound Landers Lane Left-Turn	A (8.1)	A (7.8)	A (8.0)	A (7.7)
Northbound School Access[2]	C (15.2)	B (11.8)	B (14.9)	B (14.2)
2013 without development				
Westbound Landers Lane Left-Turn	A (8.2)	A (7.8)	A (8.0)	A (7.7)
Northbound School Access[2]	C (15.4)	B (11.9)	C (15.2)	B (14.6)
2013 with development				
Westbound Landers Lane Left-Turn	A (8.2)	A (7.8)	A (8.0)	A (7.7)
Northbound School Access[2]	C (15.7)	B (12.1)	C (15.4)	B (15.0)

[1] The numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.
[2] Please note that there are two site entrances to the school; however, for purposes of this study, they were combined and analyzed as one intersection.