




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: April 5, 2012
SUBJECT: **2530 Concord Pike
Results of Traffic Operational Analysis Review**

We have reviewed the traffic operational analysis (TOA) for the proposed 2530 Concord Pike fast-food restaurant in New Castle County, prepared by VanDemark & Lynch, Inc. (VDL), dated February 17, 2012. The analysis evaluates the traffic impacts of the fast-food restaurant, proposed to be located on Delaware Route 202 (Concord Pike) opposite of Woodrow Avenue. Delaware Route 26 opposite Whites Neck Road. A rights-in site entrance and rights-out site exit are proposed on Delaware Route 202, with interconnection to the existing Charcoal Pit restaurant to the north. Construction is expected to be complete in 2014.

Based on our review, we find that all intersections analyzed in the study currently operate at level of service (LOS) D or better, and are projected to remain as such under the 2014 conditions with or without construction of the proposed land use. There is an exception for the eastbound site exit during the future 2014 with development a.m. peak hour scenario. However, traffic volumes along this approach are very light and projected traffic queues are minimal. The failing LOS can be attributed to the comparatively heavier through traffic volumes on US Route 202, which would not be delayed at all.

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

- 1) The developer should pursue a cross-access easement with the parcel to the north to establish an interconnection with the existing Charcoal Pit restaurant so that site traffic may utilize the signal located at the intersection of US Route 202, Woodrow Avenue, and the Charcoal Pit entrance.

- 2) The developer should construct sidewalk along the site frontage in a manner consistent with the site plan discussed with Mr. Marco Boyce, of Statewide and Regional Planning, on January 17, 2012, as stated in the text of the analysis.
- 3) The developer should coordinate with the Delaware Transit Corporation on potential transit improvements that could be made to the site, as well as on any unresolved issues that may exist in regards to those improvements.
- 4) The developer should coordinate with Pavement Management on the planned pavement rehabilitation project for US Route 202 to discuss the timing and coordination of efforts between the development of the site and the project.

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.

It should be noted that there are several differences in the level of service results between the TOA and DelDOT's review of it. General items which lead to those differences include incorrect signal cycle lengths, signal phasing, yellow and red timings, lane configurations, traffic volumes, arrival types, and heavy vehicle percentages. A detailed list of the differences can be provided on request.

TB:km

cc: Stephen Johns, VanDemark & Lynch, Inc.
Mark Russo, VanDemark & Lynch, Inc.
John Janowski, New Castle County Department of Land Use
Owen Robatino, New Castle County Department of Land Use
Cleon S. Cauley, Sr., Deputy Director, Development Coordination
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Semia Hackett, Service Development Planner, Delaware Transit Corporation
Joshua Schwartz, Subdivision Manager, Development Coordination
Peter Haag, Traffic Engineer, Traffic, DOTS

Table 1
 PEAK HOUR LEVELS OF SERVICE (LOS)
 2530 Concord Pike - TOA
 Prepared by VanDemark & Lynch, Inc.

Unsignalized Intersection ¹	LOS per Analysis			LOS per DelDOT		
	Weekday AM	Weekday PM	Saturday Mid-day	Weekday AM	Weekday PM	Saturday Mid-day
US Route 202 / Site Exit						
2014 with development (Case III)						
Eastbound Site Exit	C (15.4)	B (13.0)	B (14.3)	F (75.7)	D (26.8)	D (27.9)

¹ For signalized and unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 2
 PEAK HOUR LEVELS OF SERVICE (LOS)
 2530 Concord Pike - TOA
 Prepared by VanDemark & Lynch, Inc.

Signalized Intersection ¹	LOS per Analysis			LOS per DelDOT		
	Weekday AM	Weekday PM	Saturday Mid-day	Weekday AM	Weekday PM	Saturday Mid-day
US Route 202 / Woodrow Avenue						
2012 Existing (Case I)	E (55.4)	F (80.5)	D (35.9)	B (16.7)	A (7.6)	A (7.9)
2014 without development (Case II)	E (63.0)	F (89.3)	D (37.6)	B (17.5)	A (8.2)	A (8.0)
2014 with development (Case III)	E (70.1)	F (89.0)	D (38.8)	C (22.0)	B (11.5)	B (18.0)

¹ For signalized and unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.