



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
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JENNIFER COHAN
 SECRETARY

MEMORANDUM

TO: Susanne Laws, Sussex County Subdivision Coordinator

FROM: Troy Brestel, Project Engineer TEB

DATE: March 6, 2019

SUBJECT: Schooner Landing (f.k.a. Strawberry Ridge)
 Traffic Operational Analysis (TOA)

We have reviewed the traffic operational analysis (TOA) for the proposed Schooner Landing development (Tax Parcels 555-17.00-107.00 & 109.00) in Sussex County, prepared by Davis, Bowen & Friedel, Inc. (DBF) dated September 2018. The analysis evaluates the traffic impacts of the residential development, proposed to be located on the west side of Polly Branch Road (Sussex Road 386), north of Delaware Route 54. The proposed development would consist of 132 single-family detached houses. One full access point is proposed on Polly Branch Road. Construction is expected to be complete by 2023.

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 Chapter 2 of the Development Coordination Manual.

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

- 1) The developer shall construct the site entrance on Polly Branch Road with the following configuration:

Approach	Current Configuration	Proposed Configuration
Eastbound Site Entrance	Approach does not exist	One shared left-turn / right-turn lane
Northbound Polly Branch Road	One through lane	One shared left-turn / through lane
Southbound Polly Branch Road	One through lane	One through lane, one right-turn lane

The turn lane length, based on DelDOT's Auxiliary Lane Worksheet (dated 7/24/18), is as follows:

Auxiliary Lane	Required Length
Southbound Right-Turn Lane on Polly Branch Road	150 feet (which includes 50-foot taper)

- 2) The developer shall enter into an agreement with DelDOT to fund an equitable share of a potential future improvement at the intersection of Delaware Route 54 and Polly Branch Road. This improvement would potentially include the addition of a southbound left-turn lane along Polly Branch Road. The developer should contact DelDOT's Development Coordination Section on the amount and timing of this contribution.

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

Enclosure

cc: D.J. Hughes, Davis, Bowen & Friedel, Inc.
Zachary Crouch, Davis, Bowen & Friedel, Inc.
Janelle Cornwell, Sussex County Department of Land Use
J. Marc Coté, Assistant Director, Development Coordination
T. William Brockenbrough, Jr., County Coordinator, Development Coordination
Peter Haag, Traffic Studies Manager, Traffic, DOTS
Gemez Norwood, South District Public Works Manager, South District, DOTS
Claudy Joinville, Project Engineer, Development Coordination

Table 1
 PEAK HOUR LEVELS OF SERVICE (LOS)
based on the Traffic Operational Analysis (TOA) for Schooner Landing
Report dated September 2018
 Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection ¹ Two-Way Stop Control	LOS per TOA		LOS per DelDOT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Polly Branch Road / Site Entrance				
2023 with development (Case 3)				
Eastbound Site Entrance	A (9.0)	A (9.1)	A (8.9)	A (8.9)
Northbound Polly Branch Road Left-Turn	A (7.4)	A (7.5)	A (7.3)	A (7.4)

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

Table 2
 PEAK HOUR LEVELS OF SERVICE (LOS)
based on the Traffic Operational Analysis (TOA) for Schooner Landing
Report dated September 2018
 Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection ¹ Two-Way Stop Control	LOS per TOA		LOS per DelDOT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Delaware Route 54 / Polly Branch Road				
2018 Existing (Case 1)				
Eastbound Delaware Route 54 Left-Turn	A (7.6)	A (7.7)	A (7.5)	A (7.7)
Southbound Polly Branch Road	B (10.2)	B (10.5)	B (10.0)	B (10.3)
2023 without development (Case 2)				
Eastbound Delaware Route 54 Left-Turn	A (7.8)	A (7.8)	A (7.7)	A (7.8)
Southbound Polly Branch Road	B (11.3)	B (11.7)	B (10.7)	B (11.2)
2023 with development (Case 3)				
Eastbound Delaware Route 54 Left-Turn	A (7.8)	A (8.0)	A (7.8)	A (8.0)
Southbound Polly Branch Road	B (11.9)	B (12.5)	B (11.2)	B (11.9)

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