



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
 800 BAY ROAD
 P.O. BOX 778
 DOVER, DELAWARE 19903

JENNIFER COHAN
 SECRETARY

February 16, 2016

Mr. D.J. Hughes
 Davis, Bowen & Friedel, Inc.
 23 North Walnut Street
 Milford, DE 19963

Dear Mr. Hughes:

DelDOT has completed its review of the traffic impact study (TIS) for the proposed **Berzin Property** residential development (Tax Parcels #134-17.00-30.03) in the Town of Ocean View, Sussex County, prepared by Davis, Bowen & Friedel, Inc. (DBF) and dated October 2015.

The TIS evaluates the impact of the subject development, which is proposed to be located on a 28.51-acre assemblage of parcels in the Town of Ocean View, on the south side of Muddy Neck Road (Sussex Road 361) and west side of Double Bridges Road (Sussex Road 363). The land use consists of 50 single-family detached houses. One access point is proposed on Muddy Neck Road. Construction is expected to be complete by 2018.

Based on our review, we have the following comments and recommendations:

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 2018 conditions with or without construction of the proposed land use.

Should the Town choose to approve the proposed development, the proposed site entrance should be designed as described in the below table, and shown as such on the record plan:

Approach	Current Configuration	Proposed Configuration
Northbound Site Entrance	Approach does not exist	One shared left-turn lane / right-turn lane
Eastbound Muddy Neck Road	One through lane	One shared through / right-turn lane
Westbound Muddy Neck Road	One through lane	One through lane, one bypass lane



A bypass lane of 225 feet, consisting of 60-foot tapers and a 105-foot storage length, should be constructed at the site entrance. The length of this lane was based on DeIDOT's Development Coordination Manual using the 2013 Delaware Vehicle Volume Summary. The 2014 Delaware Vehicle Volume Summary was not used due to the possibility that traffic in the area of study was inflated as a result of local road construction occurring in 2014. This lane should be constructed in a manner consistent with DeIDOT's Development Coordination Manual.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through our subdivision review process.

Additionally, comments related to transit, bicycle and pedestrian facilities have not been made in this letter. As discussions concerning these facilities are continuing between the Department and the developer at the time of issuance of this letter, comments related to those facilities will be further addressed during review of the site and entrance plans.

Improvements in this TIS may be considered "significant" under DeIDOT's *Work Zone Safety and Mobility Procedures and Guidelines*. These guidelines are available on DeIDOT's website at http://www.deldot.gov/information/pubs_forms/manuals/de_mutcd/index.shtml. For any additional information regarding the work zone impact and mitigation procedures during construction please contact Mr. Adam Weiser of DeIDOT's Traffic Section. Mr. Weiser can be reached at (302) 659-4073 or by email at Adam.Weiser@state.de.us.

Additional details on our review of the TIS are attached. Please contact me at (302) 760-2167 if you have any questions concerning this review.

Sincerely,



Troy Brestel
Project Engineer

TWB:tbm
Enclosures
cc with enclosures:

Wendy Carpenter, Davis, Bowen & Friedel, Inc.
Dianne Vogel, Town Manager, Town of Ocean View
Charles McMullen, Public Works Supervisor, Town of Ocean View
Lawrence Lank, Sussex County Planning and Zoning
Annie Cordo, Deputy Attorney General
Robert McCleary, Director, Transportation Solutions (DOTS)
Drew Boyce, Director, Planning
Mark Luszczyk, Chief Traffic Engineer, Traffic, DOTS
Michael H. Simmons, Assistant Director, Project Development South, DOTS
J. Marc Coté, Assistant Director, Development Coordination
T. William Brockenbrough, Jr., County Coordinator, Development Coordination
Jennifer Pinkerton, Chief Materials Engineer, Maintenance & Operations (M&O)
Adam Weiser, Safety Programs Engineer, Traffic, DOTS
Jeff Reed, South District Engineer, M&O
Peter Haag, Traffic Studies Manager, Traffic, DOTS
Gomez Norwood, Public Works Manager, South District, M&O
David Dooley, Service Development Planner, Delaware Transit Corporation
Anthony Aglio, Manager, Statewide & Regional Planning
Steve Sisson, Sussex County Subdivision Coordinator, Development
Coordination
Derek Sapp, Subdivision Manager, Development Coordination
Brian Clarke, Traffic Studies Engineer, Traffic, DOTS
Claudy Joinville, Project Engineer, Development Coordination

General Information

Report date: October, 2015

Prepared by: Davis, Bowen & Friedel, Inc.

Prepared for: The Evergreene Companies, LLC

Tax Parcels: 134-7.00-30.04, 134-17.00-30.03

Generally consistent with DeIDOT's *Development Coordination Manual*: Yes

Project Description and Background

Description: 50 single-family detached houses

Location: South side of Muddy Neck Road (Sussex Road 361) and west of Double Bridges Road (Sussex Road 363), Town of Ocean View

Amount of land to be developed: approximately 28.51 acres

Current zoning: MXPC (Mixed-Use Planned Community)

Proposed zoning: MXPC (Mixed-Use Planned Community)

Land use approval(s) needed: Subdivision approval, Town approval

Proposed completion date: 2018

Proposed access location: Muddy Neck Road

Livable Delaware

(Source: Delaware Strategies for State Policies and Spending, 2015 Update)

Location with respect to the Strategies for State Policies and Spending Map of Delaware: The proposed location of the development is located within Investment Level 3.

Description of Investment Level:

Investment Level 3

This investment level generally has two categories. The first category covers lands in the long-term growth plans of counties or municipalities where development is not necessary to accommodate expected populated growth during this five-year planning period (or longer). The second category includes lands that are adjacent to or intermingled with fast-growing areas within counties or municipalities that are otherwise categorized as Investment Levels 1 or 2. Environmentally sensitive features, agricultural preservation issues, or other infrastructure issues most often impact these lands. In these instances, development and growth may be appropriate in the near term, but the resources on the site and in the surrounding area should be carefully considered and accommodated by state agencies and local governments with land-use authority.

With regards to transportation, the priorities in the Level 3 Areas are for DeIDOT to focus on regional movements between towns and other population centers. Developers and property owners will make local roadway improvements as development occurs. Lower priority is given to transportation system-capacity improvements and transit-system enhancements. It should also be noted that DeIDOT requires that all projects requesting an Entrance Plan Approval (EPA) with Investment Level 3 Areas be evaluated on the basis of the context of the project and surrounding conditions, such as traffic volumes and whether the project abuts an existing Shared Use Path (SUP) and / or Sidewalk (SW) facility. DeIDOT will require projects to provide for SUP / SW construction, where deemed applicable, in accordance with the Development Coordination Manual (DCM) Chapter 3: Section 3.5.4.2, Shared Use Paths and Sidewalks.

Proposed Development’s Compatibility with Livable Delaware: Based on the above description, it appears that this development proposal is generally consistent with the second category, mentioned above, in the 2015 update of the Livable Delaware “Strategies for State Policies and Spending.”

Comprehensive Plans

The proposed development is located within the Town of Ocean View.

Town of Ocean View Comprehensive Plan: (Source: Town of Ocean View Comprehensive Plan Update, 2010)

The site is located in an area with a Future Land Use designated as Commercial / Residential.

Overview: The majority of the Town is designated for future residential land uses. To that end, the Town will use different planned community regulations that support mixed use activities that will provide commercial activities to support the residential land use activities.

Proposed Development’s Compatibility with Comprehensive Plan: Based on the above description, the proposed development generally adheres to the Town of Ocean View Comprehensive Plan.

Trip Generation

Trip generation for the proposed development was computed based on rates and equations established in the Institute of Traffic Engineers (ITE) Trip Generation Manual (9th edition) and the ITE Trip Generation Handbook (2nd edition).

Table 1
 Trip Generation for the Berzin Property

Land Use	Morning Peak Hour			Evening Peak Hour			Saturday mid-day Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
<i>50 single-family detached houses</i>	11	34	45	35	21	56	29	24	53

Overview of TIS

Intersections examined:

- 1) Muddy Neck Road / Site Entrance

Conditions examined:

- 1) Existing (2015);
- 2) 2018 without proposed development;
- 3) 2018 with proposed development.

Peak hours evaluated: all intersections were examined during the weekday morning, weekday evening and summer Saturday mid-day peak hours.

Committed developments considered: Ocean View Beach Club (150 single-family detached houses, 150 townhouses, 1,500 square feet of retail space)

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: Currently, no local transit service is provided within the area of study.

Planned transit service: Comments relating to transit improvements will be made during DelDOT's site plan review process.

Existing bicycle and pedestrian facilities: The Sussex County Bicycle Map indicates both Muddy Neck Road and Double Bridges Road are considered Connector Bicycle Routes with separate bikeways.

Planned bicycle and pedestrian facilities: Comments relating to bicycle and pedestrian improvements will be made during DelDOT's site plan review process.

General HCS Analysis Comments

(see table footnotes on the following page for specific comments)

There were no general differences between the TIS and DelDOT's review of it.

Table 2
 PEAK HOUR LEVELS OF SERVICE (LOS)
 Based on Traffic Impact Study for the Berzin Property
 Report dated October 2015
 Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection ¹	LOS per Analysis			LOS per DelDOT		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
Muddy Neck Road / Site Entrance						
2018 with development						
Muddy Neck Road Westbound Left-Turn	A (7.8)	A (7.7)	A (8.7)	A (7.7)	A (7.6)	A (8.4)
Site Entrance Northbound	B (10.7)	B (10.6)	C (15.5)	B (10.3)	B (10.2)	B (13.5)

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