



**STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION**

August 18, 2015

Mr. Mark Davidson  
Pennoni  
18072 Davidson Drive  
Milton, DE 19968

RE: PLUS review 2015-07-06; Beach Walk

Dear Mark,

Thank you for meeting with State agency planners on July 22, 2015 to discuss the proposed plans for the Beach Walk project. According to the information received, you are seeking review of a site plan for 64 residential units on 7.83 acres along Rt. 1 in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

### **Strategies for State Policies and Spending**

- This project is located in Investment Level 1 according to the *Strategies for State Policies and Spending*. Investment Level 1 reflects areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy.

### **Code Requirements/Agency Permitting Requirements**

#### **Department of Transportation – Contact Bill Brockenbrough 760-2109**

- Per Section 2.2.2.1 of the Development Coordination Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the plan accompanying the PLUS

application, we estimate that the development would generate 436 vehicle trip ends per day on a typical weekday. For the weekday morning and evening peak hours, we calculate 36 and 42 vehicles per hour, respectively. Based on any of these three volumes, this project would not warrant a TIS.

- The site access on Route 1 must be designed in accordance with DelDOT's Development Coordination Manual (formerly the Standards and Regulations for Subdivision Streets and State Highway Access), which is available at <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>. Terrace Road is a City-maintained street so the design of the entrance there is under City jurisdiction.
- The site plan for this development is currently being reviewed by DelDOT for issuance of a Letter of No Objection to Recordation (LONOR) in accordance with Chapter 3 of the Development Coordination Manual.
- Referring to Section 4.3 of the Development Coordination Manual, the Construction Stage review fee shall be assessed to this project.
- Referring to Section 4.3 of the Development Coordination Manual, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Entrance Plan review:
  - Copy of the Construction Stage Fee Calculation Form
  - Copy of the Construction Review Fee
  - Gate-Keeping Checklist – Entrance Plan
  - Entrance Plan Review Checklist
  - Entrance Design Checklist
  - Application for Commercial Entrance Permit
  - Pipe/Angle Spreadsheet (if applicable)
  - Entrance Photo
  - Entrance Plan
  - SWM Report, Calculations and DA Maps
  - Sediment & Stormwater Management Project Design & Review Checklist

**Department of Natural Resources and Environmental Control – Michael Tholstrup 735-3352**

**TMDLs**

- The project is located in the low nutrient reduction zone of the greater Inland Bays watershed. In this watershed, Total Maximum Daily Load (TMDL) pollutant reduction targets have been developed by the State of Delaware (under the auspices of Section 303(d) of the 1972 Federal Clean Water Act) for nutrients (e.g., nitrogen, phosphorus), and bacteria. A TMDL is the maximum level of pollution allowed for a given pollutant

below which a “water quality limited waterbody” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; *State of Delaware Surface Water Quality Standards, as amended July 11, 2004*) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the *low reduction* zone of the Inland Bays watershed calls for 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 40 percent reduction (17 percent for marine waters) in bacteria from baseline conditions. Please view the following web link for further information on the regulatory requirements and technical analysis involved in the development of the specific TMDLs: <http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessmentTMDLs.aspx>

The Inland Bays Pollution Control Strategy (PCS) and the accompanying regulations were finalized by order of the DNREC Secretary on October 2008. The PCS regulations can be reviewed at <http://regulations.delaware.gov/documents/November2008c.pdf>. Background information about the PCS with guidance documents and mapping tools can be retrieved from [http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib\\_pcs.htm](http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib_pcs.htm)

### **Water Supply**

- The project information sheets state water will be provided to the project by the City of Rehoboth Beach via a central water system. DNREC records indicate that the project is located within the public water service area granted to the City of Rehoboth Beach under Certificate of Public Convenience and Necessity 99-CPCN-04.
- Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.
- All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

### **Sediment and Stormwater Program**

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the

Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.

**Air Quality**

- The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 1 – Potential Regulatory Requirements may apply to your project:

Table 1: Potential Regulatory Requirements	
Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling	Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. Use covers on trucks that transport material to and from site to prevent visible emissions.
7 DE Admin. Code 1113 – Open Burning	Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year. Prohibit the burning of land clearing debris. Prohibit the burning of trash or building materials/debris.
7 DE Admin. Code 1135 – Conformity of General Federal Actions to the State Implementation Plan	Require, for any “federal action,” a conformity determination for each pollutant where the total of direct and indirect emissions would equal or exceed any of the de minimus levels (See Section 3.2.1)
7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	Use structural/ paint coatings that are low in Volatile Organic Compounds. Use covers on paint containers when paint containers are not in use.
7 DE Admin. Code 1144 – Control of Stationary Generator Emissions	Ensure that emissions of nitrogen oxides (NO <sub>x</sub> ), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO <sub>2</sub> ), carbon monoxide (CO), and carbon dioxide (CO <sub>2</sub> ) from emergency generators meet the emissions limits established. (See section 3.2). Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles	Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.
Regulation 21 Section 10 – Emission Standards for Hazardous Air Pollutants, Asbestos	Ensure no visible residue of asbestos materials remains in the work area after all asbestos materials are removed in accordance with NESHAP. Display DANGER signs whenever airborne asbestos may be present in accordance with NESHAP and OSHA Use wet removal techniques. Dispose of all asbestos containing waste in clearly labeled sealed

	containers and store in a secure location awaiting transport to an authorized disposal facility, not to exceed a period of 45 days.
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For a complete listing of all Delaware applicable regulations, please look at our website:

<http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

**Delaware State Fire Marshall’s Office – Contact Duane Fox 739-4394**

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation:

Fire Protection Water Requirements:

- Where a water distribution system is proposed for single-family and two-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

Accessibility:

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

Gas Piping and System Information:

- Provide type of fuel proposed, and show locations of bulk containers on plan

Required Notes:

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type

- Details for the required 2-hr separation wall between dwellings on the Two-Family dwelling units shall be shown on site plans
- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

### **State Historic Preservation Office – Contact Terrence Burns 736-7404**

- There are no known archaeological sites or National Register-listed property on this parcel. However, if there will any development, on this parcel, the developer should still be aware of the Unmarked Human Burials and Human Skeletal Remains Law of 1987 (Delaware Code: Title 7, Chapter 54), which pertains to the discovery and disposition process of such remains.

Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (7 Del. C. Ch. 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to know more information pertaining to unmarked human remains or cemeteries, please check the following websites for additional information: [www.history.delaware.gov/preservation/umhr.shtml](http://www.history.delaware.gov/preservation/umhr.shtml) and [www.history.delaware.gov/preservation/cemeteries.shtml](http://www.history.delaware.gov/preservation/cemeteries.shtml).

Therefore, prior to any demolition or ground-disturbing activities, the developer may want to hire an archaeological consultant to examine the parcel for any potential archaeological site or archaeological resources, such as cemetery, burial site, or unmarked human remains.

### **Recommendations/Additional Information**

#### **Department of Transportation – Contact Bill Brockenbrough 760-2109**

- Part of the basis for installing the signal at the present shopping center access was the traffic volumes associated with that shopping center. With the change from a shopping

center to a building of five residential condominiums, those volumes will be greatly reduced. Therefore the developer should be aware that DeIDOT may remove their signalized access, leaving the building with right-turn only access opposite a signalized T intersection.

- Please be advised that as of August 1, 2015, all new plan submittals and re-submittals, including major, minor and commercial plans, shall be uploaded via the PDCA (Planning Development Coordination Application) with any review fee paid online via credit card or electronic check. Guidance on how to do this is available on our website at <http://www.deldot.gov/information/business/subdivisions/>.

**Department of Natural Resources and Environmental Control – Michael Tholstrup 735-3352**

**Soils Assessment.**

- The soil mapping units mapped on subject parcel is Greenwich-Urban land complex. Greenwich-Urban land complex is a well-drained soil mapping unit that, generally, has few limitations for development (Figure 1).



**Additional information on TMDLs and water quality.**

- Compliance with the specified TMDL nutrient and bacterial reduction requirements specified for the Inland Bays watershed can be facilitated by adherence to the strategies and requirements described in the Inland Bays PCS, and the implementation of the following recommended best management practices (BMPs):
  - Maintain as much of the existing open space as possible. We further suggest additional native tree and native herbaceous plantings - wherever possible – to create additional environmentally-friendly open space.
  - Use green-technology storm water management and rain gardens (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant runoff increases that often track post-development increases in surface imperviousness. Please contact Lara Allison at (302) 739-9939 for further information about the possibility for installing a rain garden(s) on this parcel.

- Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, ponds, and roads) included in the calculation. Omission of any of the above-stated forms of surface imperviousness will result in an underestimate of the actual post-development surface imperviousness and associated environmental impacts.
- Since this project will create additional surface imperviousness that will increase the probability for increased flooding and increased pollutant load runoff impacts to adjoining streams and wetlands in the greater Inland Bays watershed - we strongly encourage the applicant mitigate these said impacts through the employ of pervious paving materials – wherever practicable - instead of conventional asphalt and concrete. We particularly recommend the applicant consider pervious paving materials for all designated parking areas.
- Assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the “Nutrient Load Assessment protocol.” The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) resulting from the conversion of individual or combined land parcels to a changed land use(s); thus providing applicants and governmental entities with quantitative information about the project’s impact(s) on baseline water quality. We strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs.

**Additional information on air quality.**

- According to the application, an undetermined amount of “open space,” will remain after the project is complete. However, the DNREC Division of Air Quality (DAQ) notes that the site plan appears to show no set aside for this use. The property appears to be fully pervious with the exception of each home’s allotted yard space.
- The existing property has access to well-connected sidewalks and bike lanes along DE Route 1. These provisions extend well into Rehoboth, both north and south. However, there are no such provisions on Terrace Road, where a main entrance is planned for this project. The applicant notes that neither sidewalks nor bike paths will be added as part of this project. DNREC reminds the applicant that City of Rehoboth Beach code requires property frontages to include sidewalks at a minimum of 5 feet wide.
- DNREC encourages developers and builders to consider all sustainable growth practices in their design, and we believe that the air quality impacts associated with the project should be completely considered. New homes may emit, or cause to be emitted, additional air contaminants into Delaware’s air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:

- Emissions that form ozone and fine particulate matter; Delaware currently violates federal health-based air quality standards for ozone.
  - The emission of greenhouse gases which are associated with climate change, and
  - The emission of air toxics.
- Air emissions generated from new homes include emissions from the following activities:
    - Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
    - The generation of electricity, and
    - All transportation activity.
- Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) were quantified. Table 2 – Projected Air Quality Emissions represents the actual impact BeachWalk may have on air quality.

<b>Table 2: Projected Air Quality Emissions for BeachWalk</b>					
Emissions Attributable to BeachWalk (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO <sub>2</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Carbon Dioxide (CO <sub>2</sub> )
Area source emissions	2.0	0.2	0.2	0.2	7.9
Power emissions	*	0.8	2.7	*	396.5
Mobile emissions	2.9	3.0	0.1	*	1862.0
Total emissions	4.9	4.0	5.0	0.2	2266.4

(\*) Indicates data is not available.

Note that emissions associated with the actual construction of the residential community, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

- DNREC encourages sustainable growth practices that:
  - Control sprawl;
  - Preserve rural and forested areas;
  - Identify conflicting land use priorities;
  - Encourage growth on previously developed sites and denser communities while at the same time protect our diminishing land base;
  - Coordinate transportation, environment, and climate protection plans with land use plans; and
  - Demonstrate that communities can achieve the qualities of privacy, community, and contact with nature without degrading the natural environment or generating unacceptable environmental costs in terms of congestion, use of natural resources, or pollution.
  
- Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:
  - **Constructing with only energy efficient products.** Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution.
  - **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.
  - **Constructing with high albedo, high solar reflectance materials.** This includes roofing and hardscape. These materials help to reduce heat island impacts and, by extension, help to minimize the potential for localized ground-level ozone formation. These materials also help reduce demands on air conditioning systems and save on energy costs.
  - **Providing shade for parking areas.** Approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level ozone formation. Such measures can also have the additional benefit of channeling or infiltrating stormwater.
  - **Providing charging stations for plug-in electric vehicles.** This measure helps to reduce localized air pollution by supporting the use of non-gasoline powered vehicles. Please refer to the US Department of Energy's website for electric vehicle readiness

information: [http://www1.eere.energy.gov/cleancities/electric\\_vehicle\\_projects.html](http://www1.eere.energy.gov/cleancities/electric_vehicle_projects.html). Several charging stations already exist in Rehoboth Beach and nearby Lewes.

- **Encouraging the use of safe multimodal transportation.** This measure can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk or bike path, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.
- **Using retrofitted diesel engines during construction.** This includes equipment that is on-site as well as equipment used to transport materials to and from site.
- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees in vegetative buffer areas, particularly those between the site and nearby residential areas.** Native trees reduce emissions by trapping dust particles and replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the BeachWalk project. The Division of Air Quality point of contact is Rachel Yocum, and she may be reached at (302) 739-9402 or [Rachel.yocum@state.de.us](mailto:Rachel.yocum@state.de.us).

**Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394**

- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: [www.statefiremarshal.delaware.gov](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.

**Sussex County – Contact: Janelle Cornwell 855-7878**

- A portion of the property is located within Sussex County. At the PLUS meeting it was suggested that the applicant talk to the City of Rehoboth and consider annexation to reduce any potential conflicts of having the property located between two jurisdictions.
- Sewer and water service is provided to the parcel by the City of Rehoboth Beach. Contact the City of Rehoboth Beach for information regarding sewer and water service. For questions regarding these comments, contact Rob Davis, Sussex County Engineering Department at (302) 855-7820.
- In addition to these comments, a letter from Brandy Nauman, Sussex County Housing Coordinator & Fair Housing Compliance Officer is attached to this letter.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the PLUS process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



Constance C. Holland, AICP  
Director, Office of State Planning Coordination

CC: Sussex County

Attachment