



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

March 24, 2014

Tom Ford
Land Design, Inc.
Oak Square, Suite 3
53 Atlantic Ave.
Ocean View, DE 19970

RE: PLUS review 2014-02-01; Old Mill Bridge Road

Dear Tom:

Thank you for meeting with State agency planners on February 26, 2014 to discuss the proposed plans for the Old Mill Bridge Road project located near Old Mill Bridge Road in Sussex County. According to the information received, you are seeking site plan approval through Sussex County for 263 single family dwelling units on 183.22 acres.

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 3 according to the Strategies for State Policies and Spending. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments may support future growth in these areas, but please be advised that the State has other priorities for the near future.

This particular parcel has several environmental features that should be considered when developing the parcel. As an example, this parcel contains Sea Level Fen which could be damaged if adequate buffers are not included in the design of this site (See DNREC recommendations on page 14). We encourage you to design the site with respect for the environmental features which are present.

122 Martin Luther King Jr. Blvd. South – Haslet Armory · Third Floor · Dover, DE 19901
Phone (302)739-3090 · Fax (302) 739-5661 · www.stateplanning.delaware.gov

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are known archaeological sites (S-7323, 7S-K-061 and S-7324, 7S-K-062) on this parcel. According to the Pomeroy and Beers Atlas of 1868, it appears there was a dwelling very close to the parcel associated with an E. F. Williams. In addition, the USGS Topographic Map 1901 also indicated that there were a couple of dwellings there, and there may be archaeological remains associated with the dwellings that were indicated on these maps. With this in mind, the developer should be aware of the Delaware Unmarked Human Burials and Human Skeletal Remains Law, which is outlined in Chapter 54 of Title 7 of the Delaware Code.

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 (Delaware Code Title 7, Chapter 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 that pertains to unmarked human remains or cemeteries, please check the following websites for additional information: www.history.delaware.gov/preservation/umhr.shtml and www.history.delaware.gov/preservation/cemeteries.shtml.

Prior to any demolition or ground-disturbing activities, the developer should consider hiring an archaeological consultant to examine the parcel for potential historic or cultural resources, such as a potential archaeological site, a cemetery or unmarked human remains. Furthermore, if there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project

undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- The Section 2.3.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, Traffic Impact Studies (TIS) are warranted for developments generating more than 400 vehicle trip ends per day or 50 vehicle trip ends per hour. Recognizing that this development would likely meet those warrants, the developer's traffic engineer met with DelDOT in August 2013 to obtain a scope of work for their TIS. Presently DelDOT is waiting to receive and review that study. On completion of their review DelDOT will provide comments, including recommendations as to what should be required with regard to off-site transportation improvements, to the engineer. DelDOT will send a copy of those comments to Sussex County.
- The site entrances must be designed in accordance with DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access, which is available at http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf.
- The relocated portions of Old Mill Bridge Road and Millers Neck Road, and the roundabout at which they are proposed to intersect must be designed in accordance with DelDOT's Road Design Manual and Design Guidance Memoranda, which are, respectively, available at http://www.deldot.gov/information/pubs_forms/manuals/road_design/index.shtml and http://www.deldot.gov/information/pubs_forms/manuals/dgm/index.shtml. Both roads must meet Del DOT standards for Local Roads.
- In accordance with Section 3.6.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require the applicant to furnish and place right-of-way monuments along the realigned State-maintained roadways.
- As necessary, in accordance with Section 3.6.5 and Figure 3-3 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require dedication of right-of-way along the site's frontage on Old Mill Bridge Road and Millers Neck Road to provide a minimum of 30 feet of right-of-way from the road centerlines. The right-of-way dedication note has been revised to the following, "**An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat.**" Where these roads are to be relocated, the new rights-of-way will need to be 60 feet wide.

- In accordance with Section 3.6.5 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Old Mill Bridge Road and Millers Neck Road. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, **“A 15-foot wide permanent easement is hereby established to the State of Delaware, as per this plat.”**
- In accordance with Section 4.8 of the Standards and Regulations for Subdivision Streets and State Highway Access, a 20-foot wide buffer will be required from the edge of any stormwater management pond to the ultimate right-of-way of the nearest State-maintained road. The ultimate right-of-way is based on the functional classification of the road.
- In accordance with Section 3.4.14 of the Standards and Regulations for Subdivision Streets and State Highway Access, if this development is proposing a neighborhood sign/structure, then a permanent easement shall be established at the entrance. The easement shall be located outside of any existing and/or proposed right-of-way. It will also need to be verified that the sign/structure does not pose a sight distance and/or safety hazard.
- Metes and bounds and total areas need to be shown for any drainage easements. Section 5.7.2.5 of DelDOT’s Standards and Regulations for Subdivision Streets and State Highway Access requires, in part, a minimum 20-foot wide drainage easement for storm drainage systems, open or closed, that fall outside the existing right-of-way or the drainage/utility easement. These easements must be shown on the record plan, not referenced by a note.
- As specified in Section 3.4.1.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, a traffic generation diagram is required on the record plan.
- In accordance with Section 3.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, any off-site improvements and when those improvements are warranted need to be noted on the record plan.
- In accordance with Section 5.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, a sight distance triangle is required for the sight entrance and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at <http://www.deldot.gov/information/business/subdivisions/Intersection-Sight-Distance.xls>.
- Referring to Section 1.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, the Initial Stage review fee shall be assessed to this project.

- In accordance with Section 3.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, a site plan shall be prepared prior to issuing “Letter of No Objection”. The following information will be required for the “Letter of No Objection” review:

Copy of the Initial Stage Fee Calculation Form
Copy of the Initial Stage Review Fee
Gate-Keeping Checklist – Site Plan
Design Checklist – Record Plan*
Owners and Engineer’s name and e-mail address
Three (3) paper sets of the Record Plan
Conceptual Entrance Plan
CD with a pdf of the Site Plan

*For the design checklist for the site plan, please refer to the Standards and Regulations for Subdivision Streets and State Highway Access, Appendix D, Plan Review Checklist, pages D-2 and D-3.

- Referring to Section 1.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, the Construction Stage review fee shall be assessed to this project.
- Referring to Section 4.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, 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
Design Checklist – Entrance Plan**
Three (3) paper sets of the Entrance Plan
SWM Report and Calculations (if applicable)
CD with a pdf of the Entrance Plan

**For the design checklist for the entrance plan, please refer to the Standards and Regulations for Subdivision Streets and State Highway Access, Appendix D, Plan Review Checklist, pages D-9 and D-13.

Department of Natural Resources and Environmental Control – Contact Bahareh Van Boekhold 735-3495

Wetlands

- State regulated wetlands ARE located on this property based on a review of the State wetland maps. State regulated wetlands are those wetlands identified on the State’s official State Regulated Wetland Maps. Any activity in State regulated wetlands may

require a permit from DNREC's Wetlands and Subaqueous Lands Section. Based on proposed site plan, house plans are outside of the wetland line and the wetland line has been delineated according to application. Please be sure to keep construction materials outside the wetland area. Additional information about State regulated wetlands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or on line at

<http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>

- State regulated subaqueous lands, Perennial River/Streams ARE likely to be located on this property based on a review of aerial photographs, State Wetland Mapping Project (SWMP) maps, Soil Surveys and USGS topographic maps. State subaqueous lands include all tidal waters (up to the mean high water line), most non-tidal rivers, streams, lakes, ponds, bays and inlets (up to the ordinary high water line), most perennial streams and ditches and many intermittent streams and ditches. An on-site inspection by a representative of the Wetlands and Subaqueous Lands Section or an environmental consultant is recommended to determine the limits of jurisdictional State subaqueous lands. Additional information about State regulated subaqueous lands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or on line at <http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>.
- Waters of the U.S. regulated by the U.S. Army Corps of Engineers ARE likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and USGS topographic maps. According to our GIS SWMP maps, there are considerable wetlands regulated by the U.S. Army Corps of Engineers. We suggest contacting them after the wetland jurisdictional determination is completed. Much of the building looks to be in non-tidal wetlands. Waters of the United States include the following: navigable waters of the United States; wetlands; tributaries to navigable waters of the United States, including adjacent wetlands and lakes and ponds; interstate waters and their tributaries, including adjacent wetlands; and all other waters of the United States not identified above, such as isolated wetlands, intermittent streams, and other waters that are not part of a tributary system to interstate waters or to navigable waters of the United States, where the use, degradation or destruction of these waters could affect interstate or foreign commerce. The U.S. Army Corps of Engineers can be contacted at (215) 656-6728 or online at <http://www.nap.usace.army.mil/cenap-op/regulatory/regulatory.htm>.

Soils Assessment

- Based on soils survey mapping update, the following soil mapping units were mapped on subject parcel (Figure 1; soil mapping units grouped on the basis of drainage class):
 1. Moderately well drained – Pepperbox-Rosedale complex (PsA)
 2. Somewhat poorly drained (potentially hydric, and potentially unsuitable) – Klej (KsA)

3. Poorly drained & very poorly drained (hydric, and considered unsuitable for development) – Hurlock (HuA), Mullica (MmA), Askecksy (AsA), Transquaking & Mispillion (TP) and Broadkill mucky peat

Based on review of the NRCS soils survey mapping update, the applicant is advised to avoid all of the above-reference hydric soil mapping units. Hydric soil mapping units are associated with wetlands (Figures 1 & 2); therefore, they have naturally-elevated water tables susceptible to seasonal flooding, especially after high-intensity precipitation events. We further recommend that the applicant contact a certified (ARCPACs) and licensed soil scientist (State of Delaware Class D licensed) to conduct a more thorough site-specific field delineation of the hydric soils on this site. Please contact the Underground Discharges Branch at 739-9948 for a list of qualified soil scientists.

The Statewide Wetland Mapping Project often uses the soil survey as the basis for mapping and delineating wetlands. The presence of a hydric soil is one of three key parameters that must be met in order to meet jurisdictional wetland requirements (as specified by the USACOE). The other parameters are hydrophytic vegetation and hydrology. Hence the presence of hydric soils is a correlate with wetland presence. Although the removal of hydrophytic vegetation may change the jurisdictional status (e.g., from a regulated to a non-regulated wetland) of a given wetland area; wetland conditions or the functional significance (i.e., water storage/flood control and/or retention of nutrients and other pollutants) of the existing hydric soils still remain.

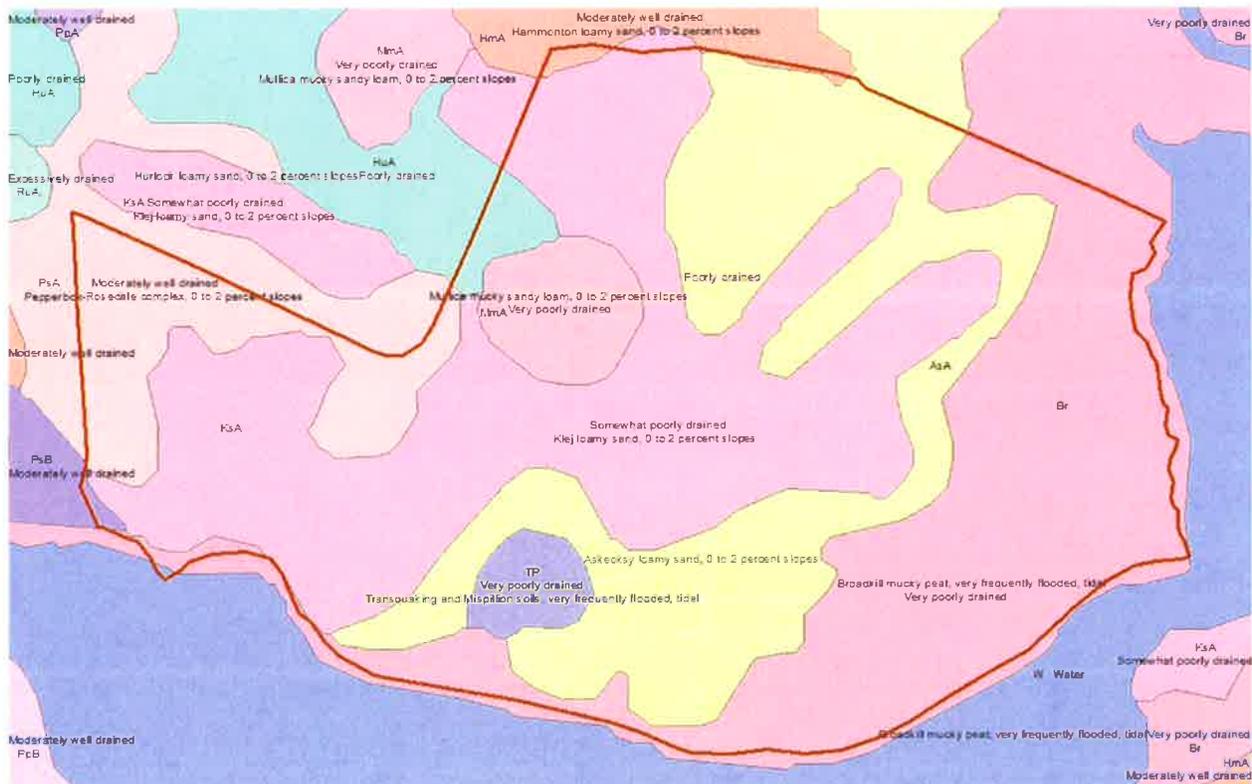


Figure 1: NRCS soil survey update mapping in the immediate vicinity of the proposed project

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 water body” 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.
- A nutrient management plan is required under the *Delaware Nutrient Management law (3 Del. Chapter 22)* for all persons or entities who apply nutrients to lands or areas of open space in excess of 10 acres. This project’s open space may exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at 739-4811 for further information concerning compliance requirements or view the following weblink for additional information: <http://dda.delaware.gov/nutrients/index.shtml>
- The Inland Bays Pollution Control Strategy (PCS) and the accompanying regulations were finalized by order of the DNREC Secretary on October 2008. These regulations can be reviewed at <http://regulations.delaware.gov/documents/November2008c.pdf> and background information, guidance documents, and mapping tools can be retrieved from 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 Artesian Water Company via a public water system. Our records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 03-CPCN-14.
- 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.

Hazardous Waste Sites.

- If it is determined by the Department that there was a release of a hazardous substance on the property in question and the Department requires remediation pursuant to the Hazardous Substance Cleanup Act, the provisions of 7 Del.C., Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware Regulations Governing Hazardous Substance Cleanup shall be followed.

There are no SIRS sites or salvage yards found within a ½-mile radius of the proposed project.

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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year.

	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Ensure that emissions of nitrogen oxides (NO_x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO₂), carbon monoxide (CO), and carbon dioxide (CO₂) 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	<ul style="list-style-type: none"> • Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

For a complete listing of all Delaware applicable regulations, please look at our website: <http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

Office of the State Fire Marshal – Contact: R.T. Leicht 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 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. This means that the access roads within the subdivision must be constructed so fire department apparatus may negotiate them. Where “turn-about” and “center islands” are placed in the public roads, they shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the subdivision.
- 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.
- Any dead end road more than 300 feet in length shall be provided with a cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- 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
- Maximum Height of Buildings (including number of stories)

- Provide Road Names, even for County Roads

Recommendations/Additional Information

This section includes a list of site specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject area knowledge. **These suggestions do not represent State code requirements.** They are offered here in order to provide proactive ideas to help the applicant enhance the site design, and it is hoped (**but in no way required**) that the applicant will open a dialogue with the relevant agencies to discuss how these suggestions can benefit the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Because the proposed development would generate more than 200 vehicle trips per day, the developer should expect a Pre-Submittal Meeting to be required before of plans are submitted for review. Guidance on what will be covered at this meeting and how to prepare for is located at http://www.deldot.gov/information/business/subdivisions/Pre-Submittal_Meeting_Requirements.doc. The form needed to request this meeting is available at http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.doc.
- DelDOT's Shared-Use Path and/or Sidewalk Process policy (available at http://www.deldot.gov/information/business/subdivisions/SUP_Sidewalk_Process.pdf) requires that a path or sidewalk be installed along the State-maintained road frontage of any development generating 2,000 or more trips per day. Therefore, the applicant should expect a requirement that a 10-foot path be installed along the property's Old Mill Bridge Road and Millers Neck Road frontage. This requirement would likely include curb ramps and a cross-walk across Millers Neck Road at its intersection with Old Mill Bridge Road.
- To promote walking as a means of transportation within the development, we recommend that shared-use paths be provided to connect the proposed Amenity Area to the three southernmost cul-de-sacs and to connect the cul-de-sac closest to the intersection of Old Mill Bridge Road and Millers Neck Road to the intersection of those two roads.
- To promote walking as a means of transportation to destinations beyond the development, we recommend that a shared-use path be provided to connect the southwesternmost cul-de-sac to Old Mill Bridge Road near Dirickson Creek.
- In accordance with the policy just mentioned, the applicant should expect a requirement that the following note be added to the record plan, "The shared-use path shall be the responsibility of the developer. The State of Delaware assumes no responsibility for the future maintenance of the shared-use path."

- The applicant's engineer should determine whether any utilities will need to be relocated as part of this project. For clear zone purposes, all utilities are to be a minimum of ten feet from the edge of the travel lane or five feet from the edge of the pavement. DelDOT will require that the applicant relocate any utility not meeting this requirement.
- Be advised that the standard general notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision date of June 28, 2013 for the Record/Site Plan and Construction Plan general notes and the Temporary Traffic Control general notes. The notes can be found at
 - http://www.deldot.gov/information/business/subdivisions/DelDOT_Development_Coordination_Plan_Sheet_Notes.doc
- The applicant should expect a requirement that all PLUS and/or TAC comments be addressed prior to submitting record, subdivision or entrance plans for review.
- Please use the Auxiliary Lane Worksheet to determine whether auxiliary lanes are warranted at the site entrance. The worksheet can be found at http://www.deldot.gov/information/business/subdivisions/auxiliary_lane_worksheet.xls.
- The applicant should expect a requirement that any sub-station and/or wastewater facilities have access from the internal subdivision street with no direct access to the State maintained highway.
- The applicant should expect a requirement that any portion of the existing rights-of-way for Old Mill Bridge Road or Miller's Neck Road be vacated in accordance with DelDOT's standard process for road vacations. The applicant may contact Ms. Kathleen Enright in our Right-of-Way Section for assistance in this regard. Ms. Enright may be reached at (302) 760-2237.

The applicant should expect a requirement to enter into an Inspection Agreement with DelDOT concerning the construction of the entrance, roadway and/or off-site improvements

Department of Natural Resources and Environmental Control – Contact Bahareh Van Boekhold
735-3495

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 the strategies and

requirements described in the Inland Bays PCS, and the implementation/adherence to the following recommended BMPs:

- A United States Corps of Engineers (USACE) approved wetlands delineation is strongly recommended. According to information presented in the PLUS application, a field-based wetlands delineation was not conducted or approved by the United States Army Corps of Engineers (USACE). DNREC strongly recommends that the applicant have an USACE approved wetlands delineation before commencing development. The applicant should also realize that compliance with Federal wetland requirements are not the same as compliance with State wetland regulatory requirements. The USACE regulates nontidal wetlands (e.g., palustrine wetlands, or wetlands with “P” as the first letter in the SWMP mapping unit designation), while the State regulates tidal wetlands (e.g., estuarine wetlands, or wetlands with “E” as the first letter in the SWMP mapping unit designation). Both tidal and nontidal wetlands are mapped on subject parcel (Figure 2).
- Based on a review of peer-reviewed buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review*. J. Environ. Qual. 23: 878-882.), an adequately-sized buffer that effectively protects wetlands and streams - in most circumstances - is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all waterbodies (including ditches) and wetlands (field delineated nontidal wetlands and approval by the USACE and delineation and approval by the Subaqueous Land section for all tidally-influenced wetlands). Information in the PLUS application suggests that the applicant is willing to provide a 10-foot buffer from wetland or the adjoining waterbody. Based on the above-mentioned research, a 10-foot buffer is clearly inadequate for protecting water quality in the Inland Bays watershed.
- Applicant should 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, and roads) included in the calculation. DNREC strongly recommends that the applicant avoid all hydric soil mapping units. Building on such soils is likely to contribute to an increased probability of future onsite and offsite flooding problems.
- Use rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant impacts via runoff/discharges from impervious surfaces. Please contact Lara Allison at 739-9939 for further information about the possibility for installing a rain garden(s) on this parcel.
- Wherever practicable, use pervious paving materials (instead of conventional asphalt and concrete) as a BMP(s) to reduce the impacts from all forms of created surface imperviousness.

- DNREC strongly encourages the applicant to voluntarily 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. DNREC also strongly encourages the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact Jen Walls or John Martin at (Division of Watershed Stewardship) at 302-739-9939 for more information on the protocol.

Additional information on hazardous waste sites.

- DNREC's Site Investigation and Restoration Section (SIRS) strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) and a Phase II or Facility Evaluation in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA) and the HSCA Guidance Section 2, part 2.3 (page 2-1). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.

Additional remediation may be required if the project property or site is re-zoned by the county.

Should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRS should also be contacted as soon as possible at 302-395-2600 for further instructions.

Sea Level Fen.

- The parcel in question is bordered to the south and east by wetlands. The wetlands are primarily marsh. Analysis of aerial photos, wetland maps and soil maps revealed a fringe of wetlands influenced by freshwater seeping out through groundwater that has been filtered through the adjacent uplands. This wetland type, known as a Sea Level Fen, has been listed as a Category 1 wetland by DNREC’s Division of Water. Sea Level Fens are likely to host rare plant and animal species and also serve to cleanse surface water as it passes through the fen.

- The current site design will affect the groundwater regime and will likely result in the loss of the Sea Level Fen. The developer/landowner should consider designs that maximize the surface area available for rainwater to infiltrate naturally into the groundwater beneath. Also effort should be made to minimize the amount of untreated runoff that enters the fens. This can be accomplished through use of forested buffers around the edges of this site (100 foot wide buffers are recommended) and stormwater best management practices (e.g. use of bio swales rather than concrete pipes to manage runoff).

Forest Preservation.

- The current site design calls for the clearing of 48 out of 74 acres of total forest acreage on the property. The forest on this property is part of a larger forest block which is not permanently protected. Larger, connected forest blocks are extremely important for species that require interior forested areas for breeding, such as neotropical migratory birds. This type of habitat also provides an important stopover area for these birds as they undertake lengthy migrations. Forest fragmentation can separate wildlife populations, increase road mortality, and increase “edge effects” that leave many forest dwelling species, particularly songbirds, vulnerable to predation.
- The developer/landowner should consider a more innovative site design that incorporates a larger, connected area for forest protection and considers the feasibility of stormwater management that does not require forest clearing. The current plan appears to be the typical cul-de-sac, maximum yield design. The forested open space that will remain will be further fragmented by trails, bio-swales, and a stormwater pond. Forest that is not cleared during initial construction could be further cleared by the homeowner (for sheds, swimming pools, dog kennels, etc.). It should be noted that one function that trees provide is taking up water and reducing flooding. Removing trees can contribute to drainage problems. Even with improved site design there would still be forest loss but a new site design would allow a larger, connected area of forest to be protected.
- Many forest dependent birds and other wildlife will be most vulnerable to impacts during the nesting/breeding season and tree removal should be avoided during that time, April 1 to July 31. This clearing recommendation would only protect those species during one breeding season; because once trees are cleared the result is an overall loss of habitat.

Site Visit Request

- DNREC scientists have not surveyed the project area and in order to provide more informed comments, they request the opportunity to conduct a survey to evaluate habitat and determine the potential for species of conservation concern. Please note that DNREC scientists have extensive knowledge of the flora and fauna of the state. The survey will be conducted at no expense to the landowner. In the event that authorizations will be needed from DNREC's Coastal Management Program and/or Wetlands and Subaqueous Lands Section, they will require complete and up to date info from the Natural Heritage

and Endangered Species Program as part of their review. Therefore, allowing access to the site will increase the efficiency of the State authorization process. Please contact Bill McAvoy at (302) 735-8668 or at william.mcavoy@state.de.us if the landowner will grant a site visit.

Office of the State Fire Marshal – Contact: R.T. Leicht 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, technical services link, plan review, applications or brochures.

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 pre-application 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