



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION

June 20, 2018

Ted Williams, P.E.  
Landmark Science & Engineering  
200 Continental Drive, Suite 400  
Newark, DE 19713

RE: PLUS Review 2018-05-06; Appoquinimink School District – Summit Campus

Dear Ted,

Thank you for meeting with State agency planners on May 23, 2018 to discuss the proposed plans for the Appoquinimink School District – Summit Campus. According to the information received you are seeking review of a school site feasibility for a new K-12 campus in Level 4 along Rt. 896 in New Castle 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 New Castle 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 4 according to the *Strategies for State Policies and Spending*. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities, including new school sites are not supported in Investment Level 4 areas.

As per the discussion at the PLUS meeting, it is clear that the District feels that this site is appropriate for new school construction. However, a review of the current New Castle County Comprehensive Plan and the other data sources used to create the State Strategies do not provide any reasons to support a school site on this parcel at this time. The District is encouraged to work with New Castle County as they prepare the upcoming Southern New Castle County Master Plan and/or an upcoming amendment or update to the New Castle County

Comprehensive Plan. Our office can take these planning studies into account as we update the State Strategies next in 2019-2020.

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

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

- The site access on Summit Bridge Road (Delaware Route 896) must be designed in accordance with DelDOT's Development Coordination Manual, which is available at <http://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes>.
- Consistent with Section 1.2.1 of the Manual, DelDOT anticipates requiring the site access on Summit Bridge Road to be located opposite the main entrance to the Summit Airport. Other access locations may be acceptable on further review.
- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. DelDOT appreciates the District meeting with them on April 3 but a meeting much closer to plan submission will be needed.
- Section P.5 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.
- Per Section 2.2.2.1 of the 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. DelDOT anticipates that the proposed development would meet those warrants.

The proposed campus located just west of the Southern New Castle County Transportation Improvement District (TID). See Section 2.4 of the Manual for a general treatment of TIDs. In a TID, developments consistent with the planning for the TID pay a fee and in exchange are relieved of responsibility for traffic studies and off-site improvements. DelDOT has had initial discussions with New Castle County about creating a TID for the area between the Southern New Castle County TID boundary line and the state line but has yet to begin real work in this regard.

For more information on this potential TID, the District may contact Ms. Sarah Coakley, a planner in DelDOT's Statewide and Regional Systems Planning Section. Ms. Coakley may be reached at (302) 760-2236 or [Sarah.Coakley@state.de.us](mailto:Sarah.Coakley@state.de.us).

The TID discussion notwithstanding, schools generally have much more intense peak period traffic than other uses, especially in the morning peak hour. For that reason, even if a TID were created, DelDOT would likely require a Traffic Operational Analysis (TOA) in its review of the site access. Per Section 2.3.2 of the Manual, DelDOT may require a TOA for any development project that is expected to generate 200 or more vehicle trips per day and for which a TIS was not completed.

- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Manual, DelDOT will require dedication of right-of-way along the site's frontage on Summit Bridge Road. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the outside edge of the northbound travel lanes. The following right-of-way dedication note is required, "**An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat.**"
- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Summit Bridge 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 for the State of Delaware, as per this plat.**"
- Referring to Section 3.5.4.2.A of the Manual, all developments generating 2,000 or more vehicle trip ends per day are required to install a sidewalk or Shared Use Path along their frontage.
- Because the proposed development is to be constructed in the proximity of a road with a functional classification of principal arterial, freeway or interstate, specifically Delaware Route 896, the developer will be required to perform a noise analysis in accordance with DelDOT's Noise Policy, found in Section 3.6 of the Manual and may be required to provide noise abatement for the schools based on that analysis.
- This project is located within the regulated airspace zones of Summit Airport (EVY), which is a public-use facility. Federal Aviation Regulation (FAR) Part 77 imposes height restrictions on any structures within these zones. DelDOT requires that the applicant for this project submit a "Proposed Construction/Alteration in Airport Zones Notification Form" in accordance with Delaware Code (2 Del. C. § 602).

This notification form can be submitted during the plan approval process with the local land use jurisdiction, but DelDOT's Office of Aeronautics is willing to test hypothetical height numbers to prevent any future project complications. Please contact Mr. Nate Attard with the Office of Aeronautics at (302) 760-2174 or [Nathan.Attard@state.de.us](mailto:Nathan.Attard@state.de.us) with any questions or concerns. A copy of the notification form is available at [https://www.deldot.gov/Programs/aviation\\_svcs/pdfs/aviation\\_obstruction\\_review\\_form.pdf?012913](https://www.deldot.gov/Programs/aviation_svcs/pdfs/aviation_obstruction_review_form.pdf?012913)

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

Development of this parcel may have impacts to protected wildlife species, including Bald Eagle and Bog Turtle, and will result in increased impervious surface and new sources of

greenhouse gas emissions. Opportunities exist to preserve habitat and natural resources while reducing the environmental impact on-site. As discussed at the May 23<sup>rd</sup>, 2018 PLUS meeting, the Department recommends reduced impervious surface cover and protection of the excellent groundwater recharge area on which the parcel is located. Due to these concerns, DNREC has provided specific information and outlined a number of best management practices to assist in protecting these resources and the overall health of the community.

The State of Delaware is threatened by climate change and has a goal of reducing greenhouse gas emissions by 30 percent by 2030. Appropriate development and re-development that provides access to public transportation, opportunities to walk and bike to shopping and recreation, and that employs energy efficient building standards are among key strategies to meet these goals. DNREC encourages the use of high performance building standards and consideration of alternative energy sources to promote clean sustainable energy and reduce greenhouse gas emissions. This could mean siting the buildings to take advantage of solar and geothermal systems, and/or including infrastructure for electric vehicle charging stations (funding assistance may be found at [www.de.gov/cleantransportation](http://www.de.gov/cleantransportation)). DNREC further recommends an abundant use of native vegetation and shade trees throughout the landscape, as well as other green infrastructure, where practicable, to absorb carbon dioxide, protect water quality and provide relief to students and staff on hot days.

The following pages provide information about applicable regulations and detailed recommendations associated with this project, from various DNREC Divisions. DNREC would like to be a partner in creating appropriate development that protects and highlights the environment as a natural amenity of the landscape. The Department has resources and expertise that are available to help make this a reality, often at no expense to the landowner.

#### **Source Water Protection.**

- A significant portion of the project falls within an area of excellent groundwater recharge. Two wellhead protection areas were identified on the western edge of the project (see map).

New Castle County (NCC) refers to excellent ground-water recharge potential areas as 'recharge areas'. Recharge areas are characterized as deposits of coarser grained material that have the best ability to transmit water vertically through the unsaturated zone to the water table. The NCC recharge areas were mapped using the methods described in the Delaware Geological Survey Open File Report No. 34, "Methodology for Mapping Ground-Water Recharge Areas in Delaware's Coastal Plain" (Andres, 1991), and depicted in a series of maps prepared by the Delaware Geological Survey (Butoryak and Talley, 1993).

This map category (excellent) is an indicator of how fast contaminants will move and how much water may become contaminated (Andres, 2004). Land use activities or impervious cover on areas of excellent ground-water recharge potential may adversely affect ground water in these areas.

- Wellhead protection areas are surface and subsurface areas surrounding a public water supply well where land use activities or impervious cover may adversely affect the quantity and quality of ground water moving toward such wells.

DNREC recommends referring to NCC Unified Development Code for regulations regarding development in these areas.

- *Reference:*

Andres, A. Scott, 1991, Methodology for Mapping Ground-Water Recharge Areas in Delaware's Coastal Plain: Delaware Geological Survey Open File Report No. 34, p. 18.

Butoryak, K. R., and Talley, J. H., 1993, Delineation of Ground-Water Recharge Resource Protection Areas in the Coastal Plain of New Castle County, Delaware: Delaware Geological Survey Project Report for the Water Resources Agency for New Castle County, p. 26.

Andres, A. Scott, 2004, Ground-Water Recharge Potential Mapping in Kent and Sussex Counties, Delaware: Delaware Geological Survey Report of Investigations No. 66, p. 14.

<http://www.udel.edu/dgs/Publications/pubform.html#investigations>

#### **Bald Eagle.**

- There is an active Bald Eagle (*Haliaeetus leucocephalus*) nest near the project area. Bald eagles and their nests are protected under the federal Bald and Golden Eagle Protection Act (BGEPA). The U.S. Fish and Wildlife Service (USFWS) developed National Bald Eagle Management Guidelines, to help landowners and others minimize impacts to eagles, including disturbance, which is prohibited by the BGEPA. The guidelines focus on minimizing disturbance through the use of suggested buffer zones (330 ft. to 660 ft. from a nest) and time-of-year restrictions for certain activities in several categories. Determinations of allowable activities within protection distances are evaluated on a case-by-case basis by USFWS biologists. The USFWS has jurisdiction regarding Bald Eagles protection via BGEPA and works with landowners regarding all eagle disturbance issues. Please contact Tom Wittig, USFWS Permit Biologist at (413) 253-8577 or [Thomas\\_Wittig@fws.gov](mailto:Thomas_Wittig@fws.gov).

#### **Bog Turtle.**

- A review of our database has revealed that there may be suitable habitat for the federally listed bog turtle (*Glyptemys muhlenbergii*) within the proposed project area. Bog turtles typically occur in freshwater wetlands with open canopies, mucky soils, and tussock vegetation. However, they can occur in more marginal habitats as well. Because the bog turtle is a federally listed species, protected under the Endangered Species Act, its presence can affect the scope of work. To ensure that the project will not impact bog turtles or their habitat, Phase I surveys for bog turtle habitat should be conducted.

Phase I surveys can be conducted any time of year when ice and/or snow cover is not present. If potential habitat is found, however, please note there is a time of year restriction during which Phase II surveys for bog turtles must be conducted. A Delaware approved bog turtle surveyor must be used to conduct the surveys. Please contact Holly Niederriter (302) 735-8670 to obtain a list of contacts to conduct Phase I and, if necessary, Phase II surveys.

- If potential bog turtle habitat is found during Phase I surveys, you are required to either:
  - Completely avoid all direct and indirect project impacts to the wetland, in consultation with the U.S. Fish and Wildlife Service and Delaware Division of Fish and Wildlife;

OR

- Have Phase II surveys conducted to determine if bog turtles are present. In accordance with Delaware's bog turtle site survey procedures, surveys must be conducted by a State-approved bog turtle surveyor between April 15 and June 15.

**Sediment and Erosion Control/Stormwater Management.**

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through the Division of Soil and Water Conservation Sediment and Stormwater Program. Contact Elaine Webb with the Sediment and Stormwater Program at (302) 739-9921, for details regarding submittal requirements and fees. It is strongly recommended that you contact the reviewing agency to schedule a pre-application meeting with the Sediment and Stormwater Section to discuss the sediment and erosion control and stormwater management components of the plan. 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.

**State Historic Preservation Office – Contact Carlton Hall 736-7404**

- There is an archaeological site known as the Griffith Historic Site (N12814) on the western part of the parcel. Our office recommends the preservation of the archaeological site. The State Historic Preservation Office also recommend identifying the area of the archaeological site as an area of no ground disturbance in the future.
- If any project or development proceeds, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law. Prior to any demolition or ground-disturbing activities, the developer should hire an archaeological consultant, to examine the parcel for archaeological resources, including unmarked human burials or human skeletal remains, to avoid those sites or areas.

- Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, within or near the boundary, of a historic farm site. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (Del. C. Title 7, 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 see more information, please review the following websites: [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)
- If there is federal involvement, 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 the following: [www.achp.gov](http://www.achp.gov).

### **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**

- DelDOT is committed to maintaining a robust state aviation system in Delaware. DelDOT highly encourage the school district and the designers of its facility to meet with the operator of Summit Airport to address design elements of this proposed facility which could impact airport operations.

Critical to successful continued operations of the airport is limiting the height of construction and the management of light pollution which may come from the school and its athletic fields and affect the airport's runway lighting system. Perhaps the strongest design element which should be considered is noise abatement in order to support a quiet learning environment for the school district's students. Summit Airport in 2017 recorded 31,536 takeoffs and landings, with the number of takeoffs and landings projected to be 41,850 by 2037 per recent analysis by DelDOT. Summit Airport is also one of the two locations statewide where the Delaware State Police Aviation Unit base their aircraft.

The Office of Aeronautics is willing to facilitate a meeting with the airport operator, which can be set up by contacting Mr. Nate Attard with the Office of Aeronautics at (302) 760-2174 or [Nathan.Attard@state.de.us](mailto:Nathan.Attard@state.de.us)

- Referring to the April 3 meeting mentioned above, DelDOT identified at that time two other long-range planning considerations relevant to this site:
  - DelDOT wants to preserve the possibility of a passenger rail station between Delaware Route 896 and the C&D Canal. More work would need to be done to locate and size that station but it likely would involve land from this site. DelDOT does not have a capital project in this regard.
  - DelDOT also wants to preserve the possibility of a realignment of Lorewood Grove Road to intersect Route 896 south of the community of Summit, and that realignment would necessarily involve land from this site. DelDOT does not have a capital project in this regard either.

Preliminarily, DelDOT believes the best approach would be for the school district to build an intersection on Route 896 and a road leading north through the subject site and to locate the school access on that road. This would be similar to what was done for the new Dover High School.

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

**Wetland Buffers.**

- To protect the function and integrity of wetlands, a minimum 100-ft buffer should be left intact around the perimeter. Upland buffers serve as habitat for many terrestrial species that are dependent on aquatic and wetlands habitats for a portion of their annual life



cycle. Lot lines, roadways, and infrastructure should not be placed within this buffer zone. Buffers are an integral component of aquatic and wetland habitats, reducing the amount of sediments, pollutants, and other non-point source material that may affect the function and integrity of habitat and the condition and survivability of aquatic organisms.

**Air quality.**

- DNREC recommends the following considerations for the Summit Campus to mitigate potential air pollution impacts:
  - Preservation of open space where appropriate,
  - Expansion of the current bicycle and pedestrian network,
  - Encouraging the use of alternative transportation modes,
  - Planting native trees and landscaping.
  
- As an added component to address air quality concerns in the area, the applicant is encouraged to add electric vehicle supply equipment (EVSE) and charging where feasible in common areas to accommodate cleaner vehicular transportation through the area. DNREC's clean transportation website has more information about the various electric charging options and where they are best deployed. DNREC also offers rebates to lower the cost of electric vehicle charging stations at the workplace. For additional information on how the District can become involved with this growing and successful program, please visit the following link: [www.de.gov/cleantransportation](http://www.de.gov/cleantransportation).
  
- DNREC encourages the expansion of alternative transportation modes such as walking and biking, including the use of sidewalks and bike paths. It is recommended that efforts be coordinated to maximize the availability of alternative travel modes such as walking and biking to the school. Bike racks could be included in campus common areas.
  
- DNREC also recommends native trees in the school plan. The planting of native tree species improves the ability to reduce air pollution by taking in carbon dioxide and converting it into oxygen and particulate matter (PM) through leaves surfaces. The ideal tree species to use are those with large leaf surface areas, high transpiration rates and have hairy or sticky leaves which are amenable to particle collection.

**Reference Map.**

- Excellent Groundwater Recharge Potential:



**Approval Process**

School sites must be approved by the Secretary of Education, the Director of OMB, and the Director of the Office of State Planning Coordination. The *Strategies for State Policies and Spending*, the information contained within this PLUS letter, and other factors will be considered when the Secretary and the two Directors make the determination about whether or not to approve a school site.

Once the District decides on a school site or sites to pursue for approval, the district must submit a letter requesting approval for the site(s) to the Department of Education. The letter should be directed to the DOE staff responsible for the Capital Program. The letter should contain a tax parcel ID number, PLUS review number, and all relevant information regarding the site and the proposed school.

**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

CC: Sussex County

James Pennewell, Department of Education