



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

May 23, 2011

Mr. Kevin Carson
Woodbridge School District
16359 Sussex Highway
Bridgeville, DE 19933

RE: PLUS review – 2011-04-05; Woodbridge School District

Dear Mr. Carson:

Thank you for meeting with State agency planners on April 27, 2011 to discuss the proposed plans for the Woodbridge High School to be located at the intersection of Adams Road and Woodbridge Road.

According to the information received, you are planning a high school on land currently being used for the sports fields. It is our understanding that the sports fields will remain and the high school will be added to the area designated.

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 2 according to the *State Strategies for Policies and Spending*. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. State investments will support growth in these areas. This parcel is currently being used for the sports fields and we support the addition of the high school.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There was a known cultural and historic resource on this parcel (property), a house, probably built in the mid to late 19th century, but it is no longer there. According to the Pomeroy and Beers Atlas of 1868 (which is an historic map), it seems that that was a dwelling or structure on this parcel associated with a W.H. Dillworth. Furthermore, the USGS Topographic Map of 1918 also indicates that there was a dwelling or structure near the same vicinity. With this in mind, it is important that the developer be aware of the Delaware Unmarked Human Remains Act of 1987, in Chapter 54 of Title 7 of the Delaware Code, which pertains to the discovery and disposition of such remains. It is also important to keep in mind that the unexpected discovery of unmarked human remains during construction can result in significant delays, while the process is carried out.

Therefore, prior to any demolition or ground-disturbing activities, the developer should consider hiring an archaeological consultant to examine the parcel for archaeological sites, such as a cemetery or unmarked human remains.

- 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 culture or historic resources.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- The site access must be designed in accordance with DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access. This manual is available on-line at:
http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf.
- Using the average rate per 1,000 square feet from the Institute of Transportation Engineers' Trip Generation report, we would expect the proposed school to generate about 645 trips per day, which is more than twice the figure of 300 trips per day supplied on the PLUS application. Using 645 trips per day, the proposed school meets DelDOT's volume warrants for a Traffic Impact Study (TIS), as contained in Section 2.3.1 of the Standards and Regulations. Accordingly, DelDOT recommends that the applicant's engineer meet with them to schedule a meeting to set a scope for the TIS when the district is ready to proceed. To schedule a scoping meeting, please contact Mr. Troy Brestel of this office. Mr. Brestel may be reached at (302) 760-2167.

DelDOT understands from the discussion at the PLUS meeting that the District believes the 300 trip per day figure could be high. While they would not expect the school's trip generation to be low enough to avoid the need for a TIS, DelDOT will need to better determine how much traffic the school will generate.

TIS typically identify road improvements needed to support the subject development. Particularly in a rural area like this one, major improvements may be needed before the school opens. Recognizing that it may take time to fund, design and build those improvements, DelDOT recommends that the District proceed with their TIS as soon as they have decided to build on a specific site and determined an approximate number of students that they intend to serve there.

- In accordance with Section 3.5.4.2 of the Standards and Regulations, DelDOT anticipate requiring a 10-foot wide shared use path in a 15-foot wide permanent easement along the property frontage on Woodbridge Road (Sussex Road 585) and Adams Road (Sussex Road 583).
- Both Woodbridge Road and Adams Road are classified as local roads. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- Without prejudging the results of the revised traffic impact study, DelDOT anticipates requiring the developer to improve segments of both Woodbridge Road and Adams Road to meet local road standards. These standards include 11-foot wide travel lanes and 5-foot wide shoulders.

Department of Natural Resources and Environmental Control – Contact Kevin Coyle 739-9071

Wetlands

- The parcel is bordered on the south side by Polk Branch. Any activity which would be conducted below the mean high water mark of this stream would require a permit from the WSLS. No tidal wetlands are present on the site.

TMDLs

- The project is located in the greater Chesapeake drainage area - specifically, within the Nanticoke watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). 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 Nanticoke watershed calls for a 30 and 50 percent reduction in nitrogen and phosphorus, respectively, from baseline conditions. The TMDL also calls for a 2 percent reduction in bacteria from baseline conditions.

- The applicant should be made aware that EPA is requiring that the State of Delaware develop a Watershed Implementation Plan and 2-year progress milestones for purposes of accelerating efforts to improve and restore waters of the Chesapeake Bay.
- The WIP and milestones will identify specific pollution reduction practices and programs to reduce nitrogen, phosphorus, and sediment from a variety of sources within the watershed. Moreover, efforts to develop the documents and assist in developing the required reductions will be provided through meetings and discussions with an interagency workgroup and various subcommittees recently convened by the State of Delaware. Included in the meetings and discussions are onsite wastewater disposal systems which are a known source of nutrient pollutants to groundwater. Delaware's Draft Phase 1 WIP is currently available for review at:

http://www.wr.dnrec.delaware.gov/Information/Pages/Chesapeake_WIP.aspx.

Water Supply

- The project information sheets state that individual on-site well(s) will be used to provide water for the proposed project. DNREC records indicate that the project is not located in an area where public water service is available. Since an on-site Public/Miscellaneous Public well will be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area, and it must also be located at least 150 feet from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the current Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing each and every well(s).
- 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 Management Plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction review will be coordinated through DNREC Sediment and Stormwater Program. It is strongly recommended that the consultant schedule a project application meeting with DNREC prior to submittal of the Sediment and Stormwater Management Plan. The DNREC contact for plan review is Elaine Webb; she can be reached at (302) 739-9921.
- A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to DNREC Division of Watershed Stewardship along with the \$195 NOI fee prior to plan approval.
- Stormwater management measures for the site were constructed when the athletic fields and parking lots were constructed. Stormwater quantity management for the site included the building in the original design. It will need to be evaluated whether the proposed building is in keeping with that original design. Stormwater quality management will be required for new impervious areas through Green Technology BMPs.
- A Certified Construction Reviewer (CCR) will be required for the site throughout construction. (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101).

Drainage Program

- This proposed project is located in the Bee Branch Tax Ditch and is affected by tax ditch rights-of-way. Any change to the location of the tax ditch or existing tax ditch rights-of-way will require a change to the Bee Branch Tax Ditch court order. The placement of permanent obstructions within tax ditch rights-of-ways is prohibited. Please contact Matthew Grabowski, Environmental Program Manager with the Drainage Program in Georgetown at (302) 855-1930 to request a review of the tax ditch rights-of-way on this property to resolve any issues with the tax ditch rights-of-way for this project. (Title 7, Delaware Code, Chapter 41)

Flood Management

- The floodplain boundary has been revised for Polk Branch as the result of a flood study for the Nanticoke River. The preliminary Flood Insurance Rate Map can be reviewed at <http://www.rampp-team.com/de.htm>.

The floodplain remains a Zone a floodplain with no base flood elevation established. The Zone requirements in Sussex County's ordinance would still apply to this parcel.

Tank Management Branch. Please be aware:

- If a release of a Regulated Substance occurs at the proposed project site, compliance of 7 Del.C. Chapter 60, 7 Del.C., Chapter 74 and DE Admin. Code 1351, State of Delaware *Regulations Governing Underground Storage Tank Systems* (the UST Regulations) is required.
- The below LUST project with corresponding project status is located within a quarter mile of the project site:
 - TG Adams & Son Farms Inc., Facility: 5-000047, Project: S9402052 (Inactive)
- Per the **UST Regulations: Part E, § 1. Reporting Requirements:**
 - “Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:
 - The Department’s 24-hour Release Hot Line by calling 800-662-8802; and
 - The DNREC, Tank Management Branch by calling 302-395-2500.”

Air Quality

- The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 2 – Potential Regulatory Requirements may apply:

Table 1: Potential Regulatory Requirements	
Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and	<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.

Materials Handling	<ul style="list-style-type: none"> • 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. • 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 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>.

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:**

- Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.
- Where a water distribution system is proposed for educational sites, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

- **Fire Protection Features:**

- All structures over 10,000 sq. ft. aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq. ft., 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

- **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 road from the main thoroughfares must be constructed so fire department apparatus may negotiate it.
- 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 turn-around or 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”
 - Proposed Use
 - Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
 - Square footage of each structure (Total of all Floors)
 - National Fire Protection Association (NFPA) Construction Type
 - Maximum Height of Buildings (including number of stories)
 - Note indicating if building is to be sprinklered
 - Name of Water Provider
 - Letter from Water Provider approving the system layout
 - Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
 - Provide Road Names, even for County Roads

Delaware Department of Education – Contact John Marinucci 735-4199

- The Woodbridge School District has already initiated the necessary approval of land use/acquisition letter as required by 29 Del. C. § 7525. The approval is being processed.

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 Natural Resources and Environmental Control – Contact Kevin Coyle 739-9071

Additional information on TMDLs

- A Pollution Control Strategy (PCS) is the regulatory directive requiring the implementation of various best management practices (BMPs) that help reduce transport of nutrient and bacterial pollutant runoff from all waters draining into a “greater” common watershed; with the ultimate objective of achieving the obligatory TMDL reduction requirements for that watershed. However, the PCS for the Nanticoke River watershed has not been formally completed to date. In absence of a finalized PCS, the applicant is strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended BMPs:
 - Maintain as much of the existing forest cover as possible. We further suggest additional native tree and native herbaceous planting wherever possible.
 - Maintain 100-foot buffer width(s) from all delineated wetlands (USACE and State approved wetland delineations). The USACE can be reached by phone at 736-9763.
 - 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.
 - Since this is a commercial project that will likely generate large amounts of impervious cover, we strongly advise the use of pervious paving materials (instead of conventional asphalt and concrete) as a BMP to reduce the impacts associated with surface imperviousness, wherever practicable.
 - Utilize of 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 from impervious surfaces.

- 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) that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their 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. Please contact Lyle Jones at 302-739-9939 for more information on the protocol.

Additional information on drainage

- The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of onsite stormwater. Notify downstream landowners of the change in volume of water released on them.

Additional information on tank management

- When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.
- If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMB. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the Tank management Branch (TMB).
- Should the municipality anticipate being more restrictive than Delaware’s Regulations Governing Underground Storage Tank Systems or Delaware’s Regulations Governing Aboveground Storage Tanks, please be aware that the municipality shall be responsible for enforcing the more restrictive rules.

Additional information on air quality

- Based on the application submitted, the three air emissions components could not be quantified. However, based on the proposed daily trip data presented in the application and data taken from the ITE Trip Generation Manual, 8th Edition, mobile air emissions were quantified in Table 2 and represent the actual impact Woodbridge High School may have on air quality.

Table 2: Projected Air Emissions for Woodbridge High School			
Emissions Attributable to Woodbridge High	High	Volatile Organic Compounds	Nitrogen Oxides

School (Tons per Year)	(VOC)	(NOx)
Mobile Emissions	0.99	1.31

Note that emissions associated with the site preparation, including automobile and truck traffic from working in, or delivering products to the site, as well as earth moving activities, road paving and other miscellaneous air emissions, are not reflected in Table 2.

- The Division of Air Quality (DAQ) encourages developers and builders to consider all sustainable growth practices in their design, but we believe, however, that the air quality impacts associated with the project should be completely considered. Sustainable growth practices:
 - 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, housing, 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.
- Measures may be taken to substantially reduce air emissions. These measures include:
 - **Using retrofitted diesel engines.** This includes equipment that is used during the construction phase of the site, as well as, equipment used to transport materials to and from the site during normal operations.
 - **Planting trees in vegetative buffer areas.** The applicant has indicated that a vegetative buffer will be maintained. Trees reduce emissions by trapping dust particles and by replenishing oxygen. Trees are also suitable for landscaping as they reduce energy emissions by cooling during the summer and by providing wind breaks in the winter.

This is a partial list, and there are additional things that can be done to reduce the environmental impacts of the project. Should the applicant have questions or concerns, the

DAQ points of contact are Phil Wheeler and Deanna Cuccinello, and they may be reached at (302) 739-9402.

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 technical services link, plan review, applications or brochures.

Delaware Department of Education – Contact John Marinucci 735-4199

- The DOE supports this site and project. DOE will continue to work with the district, architects, site engineers, Municipalities and various state agencies regarding the site plan as it develops. The DOE reserves the right to provide continued and on-going comments and input as the site plan develops.
- The Woodbridge School District has engaged the stakeholders and interested parties/jurisdictions in their planning of the development of the site. Continued stakeholder involvement is suggested as the site plan develops.

Department of Agriculture – Contact Scott Blaier 698-4529

- The Delaware Department of Agriculture Forest Service encourages the school district to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to reduce heating and cooling costs. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource. To further support this concept the Delaware Forest Service does not recommend the planting of the following species due to the high risk of mortality from insects and disease:

Callery Pear

Ash Trees

Leyland Cypress

Red Oak (except for Willow Oak)

If you would like to learn more about the potential problems or impacts associated with these trees, please contact the Delaware Forest Service for more information at (302) 698-4500.

- The Delaware Department of Agriculture and the Delaware Forest Service encourage the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants.

To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

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,

A handwritten signature in cursive script that reads "Constance C. Holland".

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

CC: Sussex County
Town of Greenwood
Town of Bridgeville