



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

August 21, 2013

Mr. J. Michael Riemann, PE
Becker Morgan Group, Inc.
309 S Governors Avenue
Dover, DE 19901

RE: PLUS review 2013-07-16, Duck Creek Business Campus

Dear Mr. Riemann,

Thank you for meeting with State agency planners on July 24, 2013 to discuss the proposed plans for the Duck Creek Business Campus. According to the information received, you are seeking review of the subdivision of 24 lots with Industrial Research Office Park zoning for the development of 1,300,000 sf of commercial construction, located South of Paddock Rd, East of Rt 13, and West of Rt 1 within the Town of Smyrna.

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 the Town of Smyrna 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*. This site is also located in the Kent County Growth Zone. 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. Our office has no objections to the proposed development of this project in accordance with the town codes and ordinances.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are a number of known archaeological sites on this parcel, as follows: N-10607, 7NC-J-118; N-10608, 7NC-J-119; N-10609, 7NC-J-120; N-10610, 7NC-J-121; N-10611, 7NC-J-122; N-10612, 7NC-J-123; N-10613, 7NC-J-124; and N-10614, 7NC-J-125. In addition, there is also a 20th-century building (N-13377) nearby, and areas of high potential for both prehistoric-period and historic-period archaeological sites in areas that were not included in the archaeological survey. According to the Pomeroy and Beers Atlas of 1868 (an historical map), it appears that there were dwellings associated with a J. Stephenson, also known as Belmont within the northern parcel across Paddock Road, as well as another, which was probably the tenant house where the existing house is on the south side of Paddock Road. There was also another associated with A. Cavender where the existing agricultural complex is within the southern parcel, along with another associated with A. Cavender, which was probably the tenant House on Old Brick Store Landing Rd. Furthermore, there might be archaeological remains associated with the dwellings indicated on the Pomeroy and Beers Atlas of 1868. With this in mind, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law of 1987 (Delaware Code: Title 7, Chapter 54), which pertains to the discovery and disposition of such remains in the State of Delaware.
- 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 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.
- Therefore, prior to any demolition or ground-disturbing activities, and before any construction or development project proceeds, the developer should consider hiring an archaeological consultant to examine the parcel for possible cultural or historic resources, such as a potential archaeological site, a cemetery or unmarked human

remains. Although this parcel is zoned for commercial use, the Division of Historical and Cultural Affairs ask that the developer to contact us in order to avoid any negative impact on the archaeological sites, which might be disturbed if this proposed construction or development project proceeds. 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 culture 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. Any preconstruction activities without adherence to these stipulations may jeopardize the issuance of a permit or receipt of funding if it is determined that such opportunity to comment has been foreclosed. For further information on Section 106 and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov

Delaware Emergency Management Agency—Contact Jamie Turner, 659-2240

- Due to the nature of the work conducted at the Emergency Operations Center during disaster related preparedness, response and recovery incidents, DEMA requests that the proposed access, ingress and egress be located on Paddock Road only.

Dover/Kent County Metropolitan Planning Organization—Contact Jim Galvin, 387-6030

- The MPO appreciates the opportunity to comment on this project. This is a Subdivision Plan that doesn't require site specific attributes. The MPO reminds applicants that pedestrian and bicycle access to a site is critical for employees that choose to utilize those modes. The MPO encourages sidewalk connections to all buildings from and along the public right of way. We encourage bicycle facilities for parking, including racks and lockers. If the business park will reach a concentration of employees, contact the Delaware Transit Corporation, or DART, to inquire about transit service to the park via DART routes 120 and even 301. The MPO representative of DTC Planning staff is Cathy Smith at cathy.smith@state.de.us or at 302.576.6071.
- The MPO was a part of a team that assisted the Town of Smyrna with identifying the preferred land use and design considerations for their US 13 corridor. The team included members of the Town and MPO staff, the Office of State Planning Coordination, DelDOT, and design assistance from McCormick Taylor, Inc. A copy of the Smyrna US 13 Corridor Plan is available at <http://smyrna.delaware.gov/DocumentCenter/View/4307>. As a step in implementing the Plan, the partners are developing an Access Management Plan for the section of US 13 north of Duck

Creek to the north interchange. The summary provided by Rich Vetter (rich.vetter@doverkentmpo.org or 302.387.6030) during the 7/24/13 PLUS meeting is the extent of the narrative at this point. The MPO is assisting with the process to promote a quality business environment and neighborhood for Smyrna residents and visitors.

- Any plans for properties in the area will be reviewed by the Town of Smyrna. The Town, the MPO, or any of the partners in the Corridor or Access Management Plan are willing to meet with property owners and representatives.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Per 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. DelDOT recognizes that TIS have been done previously for similar development proposals on this site. While it may be possible to reuse some of the traffic counts from the last study, we will require a new study reflecting the current proposal and meeting current DelDOT standards. To obtain a scope of work for a TIS, the developer may have their engineer contact Mr. Troy Brestel of this office. Mr. Brestel may be reached at (302) 760-2167.
- The site entrance 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.
- Required entrance improvements, in accordance with Section 3.10.2 of DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access, will likely include but are not limited to the following:
 - A right turn deceleration lane on Paddock Road (New Castle Road 30) at the site entrance.
 - An overlay along Paddock Road, in which the overlay thickness will be determined at a later date. The minimum limits of the overlay would be from Brickstore Landing Road (New Castle Road 30A) to the westernmost property line.
 - Widening of Paddock Road to provide 12-foot wide travel lanes and 8-foot wide shoulders. The minimum limits of the overlay would be from Brickstore Landing Road to the westernmost property line.
 - Installation of a 10-foot wide shared use path along Paddock Road.
 - Accommodation of bicycle and pedestrian facilities.
- The above list will be refined through the TIS and plan review processes.
- 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 Paddock Road to provide a minimum of 40 feet of right-of-way from the road centerline and along the site's frontage on Brickstore Landing Road to provide a minimum of 30 feet of right-of-way from the road centerline. The standard 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."**

- 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 15-foot wide permanent easements across the property frontage on both Paddock Road and Brickstore Landing Road for future 10-foot wide pedestrian/bike paths. The location of the easements shall be outside the limits of the ultimate right-of-way. The easement areas can be used as part of the open space calculation for the site. The following note is required, **"A 15-foot wide permanent easement for a future 10-foot wide multi-use path is hereby established, as per this plat."**
- The location of this project (Tax Parcels 28-002.00-001 and 002) lies within the regulated airspace zones of Smyrna Airport, 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 submits 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 Record Plan review, but DelDOT's Office of Aeronautics is willing to test hypothetical height numbers to prevent any future project complications. Please contact the Office of Aeronautics at (302) 760-2119 with any questions or concerns.

Department of Natural Resources and Environmental Control – Contact Kevin Coyle 735-3495

Wetlands

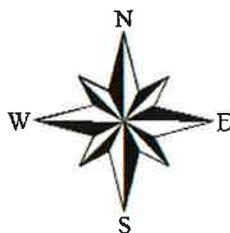
- State regulated wetlands ARE located on this property based on a review of the State wetland maps. Please refer to State Wetland map number 355. State regulated wetlands are those wetlands identified on the State's official State Regulated Wetland Maps. Any activity in State regulated wetlands may require a permit from DNREC's Wetlands and Subaqueous Lands Section. The PLUS application states that a Jurisdictional Determination has been done for the area and acknowledges county setbacks. The applicant should ensure that no construction material impacts the wetlands. 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 are adjacent to this property based on a review State Wetland Mapping Project (SWMP) maps and Sussex County Waterway maps. Review of the GIS information shows the property is adjacent to Duck Creek. 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.asp>

x.

New Castle County PLUS 2013-07-16 Duck Creek Business Campus



0 0.05 0.1 0.2 Miles

Reviewed By: Kitty Bronson
Source: New Castle County layers:
Parcels, DeIDOT Rds, Wetland
and Swmp maps

	Duck Creek Business Center
	Tidal_Wetlands

TMDLs

- The project is located in the greater Delaware River and Bay drainage area, specifically within the Smyrna River 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 Smyrna River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 75 percent reduction 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 web link for additional information: <http://dda.delaware.gov/nutrients/index.shtml>

Water Supply

- The information provided indicates that The Town of Smyrna will provide water to the proposed project via a public water system. Our records indicate that The Town of Smyrna does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water for parcel 28-002.00-001; however, parcel 28-002.00-002 is within the Town of Smyrna annexation project. If The Town of Smyrna plans on annexing this project to their municipality, then according to §203C, Subchapter II, Chapter 1, Title 26, Delaware Code, the municipality is required to give notice to the Public Service Commission when the annexation is complete. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-736-7547. 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 Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.
- 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. It is strongly recommended that the owner and consultant contact the Kent Conservation District to schedule a project application meeting 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. The plan review and approval as well as construction inspection will be coordinated through the Kent Conservation District. Contact Jared Adkins, Program Manager, at the Kent Conservation District at (302) 741-2600, ext. 3 for details regarding submittal requirements and fees. (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101)

Flood Management

- The site plan indicates the floodplain is a depiction of 10001C0154H Zone A. This is incorrect. The General Notes section #20 has the correct New Castle County FIRM panel and number (even though it calls it the flood PLANE). The correct flood zone is Zone AE. The whole foot base flood elevation of 9 feet on the FIRM should be correctly identified to the nearest tenth of a foot by using the FEMA Flood Insurance Study for these New Castle County FIRMs. DNREC would like to remind the consultant that the floodplain boundary **MUST** be depicted as it is shown on the FIRM. It cannot be drawn along the corresponding topography of the site unless a formal LOMR has been approved by FEMA.
- This tidal floodplain is currently being revised. The base flood elevation and floodplain boundary may change in this area. DNREC advises reviewing the preliminary maps prior to permitting, to verify buildings will not be built in high risk flood zones.

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 three SIRS sites within a ½ miles radius of the property in question:
 - Ennis Dump Site (DE-0127) is located 0.03 miles south, of the project property; across Duck Creek. The Site was a former sand and gravel pit that was used for municipal and industrial waste dumping from 1949 to 1951. A Preliminary

Assessment was conducted on the Site in September 1985, followed by a site Investigation in October 1987. No soil contamination was found. An Environmental Assessment was performed in June of 1990 for a prospective developer. The site remains undeveloped and vegetated. This site was recommended for closure and archiving.

- Carter Homes Site (DE-1020) is located 0.12 miles to the south of the project property. A Facility Evaluation was conducted in 1993 to determine if there was any impact from the Ennis Dump site. It was concluded that there was no impact from the dump. The site is now developed with homes and secondary roads. This site has been recommended for closure and archiving.
- Litton Industries Site (DE-0110) is located 0.31 miles south-east of the project property. A Preliminary Assessment was conducted in September 1985 because the site was suspected of being the source of TCE in the City of Smyrna municipal wells. It was speculated that the site may have had a small hazardous spill and a dump; however no information was available at the time of the investigation. A site Investigation was performed in 1988. It was determined that No Further Action was needed. After recent review of the site, it was concluded that the results of the SI were questionable and the site will remain open under the HSCA program until further investigation.

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 following confirmed leaking underground storage tank (LUST) projects are located within a quarter mile from the proposed project boundary:
 - Former John Nelson Mobil, Facility: 3-002369, Project: N0002037 (Inactive)
 - Shore Stop #252 Smyrna, Facility: 3-000214, Project: N1209079, N8707070 (Inactive)
 - Econo Tire, Facility: 3-001965, Project: N9902036 (Inactive)
 - Smyrna Sub Shop, Facility: 1-000644, Project: K9807117 (Inactive)
- No environmental impacts are anticipated; however, 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 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. • 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>.

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.

Delaware Economic Development Office—Contact Jeff Stone 739-4271

- DEDO supports the approval of the subdivision plan for the Duck Creek Business Campus in Smyrna. The plan presented is virtually the same as that approved some years ago. It is compatible with and complementary to the current zoning and surrounding uses and will bring needed economic development to an underutilized parcel of land. A major new business park in central Delaware is critically needed and the location of the Duck Creek Business Campus provides excellent access to transportation and a strong work force. DEDO looks forward to working with other State agencies to smooth the process of bringing this significant economic development opportunity online as rapidly as possible. DEDO urges the respective reviewing agencies to approach this project in as positive a manner as possible.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- The subject development will necessarily figure significantly in the Access Management Plan being developed jointly by the Town, the Dover/Kent County Metropolitan Planning Organization and DelDOT. DelDOT asks that the developer work with all parties in the preparation of that Plan.
- Please refer to the DelDOT website for guidance as to whether a pre-submittal meeting is required and how to prepare for one. That guidance is available at <http://www.deldot.gov/information/business>.
- DelDOT recommends that sidewalks be provided on all streets within the proposed park.
- As discussed with the developer's engineer, because of the developers' business model, it is not possible to predict with certainty how much traffic the tenants of the proposed park will generate. However assumptions must be made to perform the TIS and to design the site entrance and streets and any needed off-site improvements. Therefore DelDOT anticipates requiring a plan note to the effect that entrance permits will be issued for individual lots rather than one permit for the whole park. With such a note, if it were determined that the park's traffic generation exceeded the volumes for which the entrance was designed, further permits would be contingent on entrance and/or off-site improvements to be determined at that time.

for the Smyrna River watershed has not been formally completed to date. The applicant is strongly urged to reduce nutrient and bacterial pollutants through the voluntary commitment to the implementation of the following recommended BMPs:

- Maximize open space by maintaining and/or establishing native tree/shrub and herbaceous cover on this parcel.
- Conduct a United States Army Corps of Engineers (USACE) approved wetland delineation before commencing any construction activities. According to information submitted in the PLUS application, an approved USACE wetlands delineation has not been conducted to date.
- Based on a review of existing 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 water bodies (including ditches) and wetlands (field delineated and approved by the USACE).
- Calculate post-construction surface imperviousness with all forms of created surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, and roads) included in the calculation.
- Since this project will create large amounts of impervious cover that will contribute additional pollutant loads that will negatively impact adjoining streams and wetlands, we strongly encourage the use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate said impacts.
- DNREC encourages the use of rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to reduce nutrient pollutant impacts. Removal of forest cover to accommodate storm water management structures is strongly discouraged.
- The applicant should 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 Jen Walls or John Martin at 302-739-9939 for more information on the protocol.

Additional information on hazardous waste sites

- DNREC 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) in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA). 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 town.
- 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.

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 TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMS.

Additional information on air quality

- DNREC 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. New businesses may emit, or cause to be emitted, air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:
 - Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
 - The emission of greenhouse gases which are associated with climate change, and
 - The emission of air toxics.
- Air emissions generated from new homes include emissions from the following activities:
 - Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
 - The generation of electricity needed to support the new homes, and
 - All transportation activity.

- DNREC encourages sustainable growth practices that:
 - Control sprawl;
 - Preserve rural and forested areas;
 - Identify conflicting land use priorities;
 - Encourage growth on previously developed sites and denser communities while at the same time protect our diminishing land base;
 - Coordinate transportation, 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.

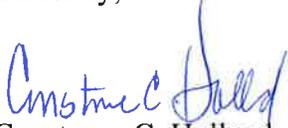
- Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:
 - **Constructing with only energy efficient products.** Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.
 - **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.
 - **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** These measures can significantly reduce mobile source emissions. **For every vehicle trip that is replaced by the use of a sidewalk, a bike path or mass transit, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.**
 - **Using retrofitted diesel engines during construction.** This includes equipment that are on-site as well as equipment used to transport materials to and from site.
 - **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
 - **Planting trees in vegetative buffer areas.** Trees reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, thereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

- This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into this project.

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: Town of Smyrna