



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION

March 24, 2015

Mr. Colin Kraucunas  
Duffield Associates  
5400 Limestone Rd  
Wilmington, DE 19808

RE: PLUS review 2015-02-02, 3601 Wrangle Hill Road

Dear Mr. Kraucunas,

Thank you for meeting with State agency planners on February 25, 2015 to discuss the proposed plans for 3601 Wrangle Hill Road. According to the information received, you are seeking review of a rezoning of 10.6 acres from NC-21 to CN and a site plan for a proposed 4,685 square foot convenience store and a 4,800 square foot bank.

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 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.

**Code Requirements/Agency Permitting Requirements**

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Per Section 2.2.2.1 of the Development Coordination Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour. Section 2.2.2.2 provides that for developments generating less than 2,000 vehicle trip ends per day and less than 200 vehicle trip ends per hour, DelDOT may accept an Area Wide Study Fee of \$10 per daily trip in lieu of a TIS.

From the PLUS application, we see that the proposed development would generate 4,674 vehicle trip ends per typical weekday. Therefore, considering only our volume warrants, a TIS would be warranted and payment of the Area Wide Study Fee would not be an option.

Therefore DelDOT will require a TIS. Recognizing this requirement, the applicant and their engineer and attorney met with DelDOT and New Castle County staff on December 2, 2014, to determine a scope of work for the study. DelDOT issued that scope of work on December 11, 2014.

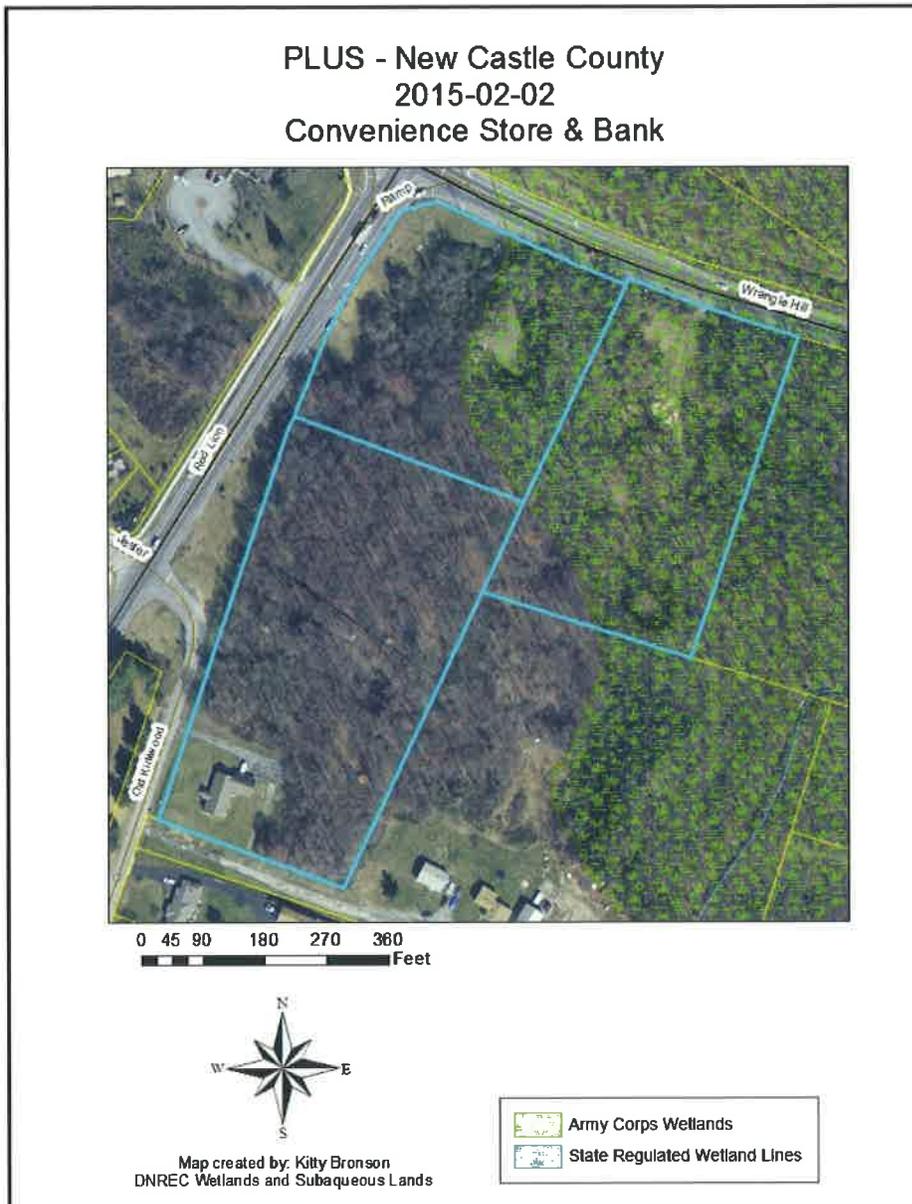
- The site accesses on Wrangle Hill Road and Red Lion Road, respectively Delaware Routes 72 and 71, must be designed in accordance with DelDOT's Development Coordination Manual, which is available at <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>. A significant issue to be addressed in the TIS is the turning movements to be permitted at the proposed access on Wrangle Hill Road.
- Please be advised that, effective March 10, 2015, DelDOT adopted a comprehensive revision of the Standards and Regulations for Subdivision Streets and State Highway Access, now known as the Development Coordination Manual. While in most respects, the changes are incremental, they are located throughout the manual and could well have some effect on the entrance design. DelDOT anticipates holding training sessions for the consulting engineering community but those sessions have yet to be scheduled.
- In accordance with Section P.3, Figure P.3.A, of the Development Coordination Manual, because the proposed development would generate more than 200 vehicle trips per day, a Pre-Submittal Meeting is required before plans are submitted for review. Guidance on what will be covered at this meeting and how to prepare for it is located at [http://www.deldot.gov/information/business/subdivisions/Pre-Submittal\\_Meeting\\_Requirements.doc](http://www.deldot.gov/information/business/subdivisions/Pre-Submittal_Meeting_Requirements.doc). The form needed to request this meeting is available at [http://www.deldot.gov/information/business/subdivisions/Meeting\\_Request\\_Form.doc](http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.doc).
- As shown on the Investment Level map associated with the Strategies for State Policies and Spending, the subject development is located in a Level 2 area. Section 3.5.4.2 of the Development Coordination Manual states that a path or sidewalk shall be installed along the State-maintained road frontage of any development in a Level 1 or 2 area. The plan accompanying the PLUS application shows a sidewalk along the property frontage on Wrangle Hill Road and Red Lion Road but not along the property frontage on Old Kirkwood Road. If the applicant wishes to avoid installing that additional sidewalk, we recommend that they consider changing the plan to create a separate parcel for the single-family detached house. We expect our review of the TIS to identify additional pedestrian facilities, and also bicycle facilities, that should be required.

- DelDOT has recently seen a concept plan developed by the applicant's engineer for a shared access with Old Kirkwood Road on Red Lion Road opposite Jester Street. We support the idea of moving the access away from Wrangle Hill Road and combining it in some way with Old Kirkwood Road. We will reserve further comment on it pending our review of the TIS and the further development of the plan.
- DelDOT is in the preliminary stages of designing a project at the intersection of Wrangle Hill Road and Red Lion Road, which could include the installation of a raised-curb median along Wrangle Hill Road. DelDOT expects to begin construction in 2019 and complete construction in 2020. The site access must be compatible with the planned construction. For more information on this project, the Consultant shall contact Mr. Matthew Vincent of Project Development North. Mr. Vincent may be reached at (302) 760-2746.

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

- **Wetlands.** Waters of the U.S. regulated by the U.S. Army Corps of Engineers ARE likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and/or USGS topographic maps. A wetland delineation by a consultant and contact with the U.S. Army Corps of Engineers is required for any impacts. Waters of the United States include the following: navigable waters of the United States; wetlands; tributaries to navigable waters of the United States, including adjacent wetlands and lakes and ponds; interstate waters and their tributaries, including adjacent wetlands; and all other waters of the United States not identified above, such as isolated wetlands, intermittent streams, and other waters that are not part of a tributary system to interstate waters or to navigable waters of the United States, where the use, degradation or destruction of these waters could affect interstate or foreign commerce. The extent of Federal jurisdiction over Waters of the United States is determined by the U.S. Army Corps of Engineers and is based on site specific conditions. Therefore, an on-site inspection by an environmental consultant is recommended to determine if Waters of the U.S. are located on the property and the limits of Federal jurisdictional. The U.S. Army Corps of Engineers can be contacted at (215) 656-6728 or online at <http://www.nap.usace.army.mil/cenap-op/regulatory/regulatory.htm>.

*Catherine Bronson, (302) 739-9383, [Catherine.Bronson@state.de.us](mailto:Catherine.Bronson@state.de.us)*



- **TMDLs.** The project is located in the greater Delaware River and Bay drainage area, specifically within the C & D Canal and Red Lion Creek watersheds. In the Red Lion Creek watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nutrients (e.g., nitrogen, phosphorus), and bacteria (under the auspices of Section 303(d) of the Federal Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited waterbody” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; *State of Delaware Surface*

*Water Quality Standards, as amended July 11, 2004*) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the Red Lion Creek watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 38 percent reduction in bacteria from baseline conditions. Although a TMDL has not been developed for the C&D Canal watershed to date, the existing TMDL developed for the Red Lion Creek should apply to the entirety of the project area.

*John Martin, (302) 739-9939, [John.Martin@state.de.us](mailto:John.Martin@state.de.us)*

- **Water Supply.** The project information sheets state water will be provided to the project by Artesian Water Company via a public water system. Our records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 85-WS-03.

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.

*Rick Rios, (302) 739-9944, [Ricardo.Rios@state.de.us](mailto:Ricardo.Rios@state.de.us)*

- **Sediment and Stormwater Program.** A sediment and stormwater plan will be required for the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as possible. 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 New Castle County Department of Land Use Engineering Section. Contact the Department of Land Use at (302) 395-5470 for details regarding submittal requirements and fees. (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101).

*James Sullivan, (302) 7390 9921, [James.Sullivan@state.de.us](mailto:James.Sullivan@state.de.us)*

- **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:

<b>Table 1: Potential Regulatory Requirements</b>	
<b>Regulation</b>	<b>Requirements</b>
<b>7 DE Admin. Code 1106</b> - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none"> <li>• Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.</li> <li>• Use covers on trucks that transport material to and from site to prevent visible emissions.</li> </ul>
<b>7 DE Admin. Code 1113</b> – Open Burning	<ul style="list-style-type: none"> <li>• Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year.</li> <li>• Prohibit the burning of land clearing debris.</li> <li>• Prohibit the burning of trash or building materials/debris.</li> </ul>
<b>7 DE Admin. Code 1135</b> – Conformity of General Federal Actions to the State Implementation Plan	<ul style="list-style-type: none"> <li>• 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)</li> </ul>
<b>7 DE Admin. Code 1141</b> – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	<ul style="list-style-type: none"> <li>• Use structural/ paint coatings that are low in Volatile Organic Compounds.</li> <li>• Use covers on paint containers when paint containers are not in use.</li> </ul>
<b>7 DE Admin. Code 1144</b> – Control of Stationary Generator Emissions	<ul style="list-style-type: none"> <li>• Ensure that emissions of nitrogen oxides (NO<sub>x</sub>), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and carbon dioxide (CO<sub>2</sub>) from emergency generators meet the emissions limits established. (See section 3.2).</li> <li>• Maintain recordkeeping and reporting requirements.</li> </ul>
<b>7 DE Admin. Code 1145</b> – Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> <li>• Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.</li> </ul>
<b>Regulation 21 Section 10</b> – Emission Standards for Hazardous Air Pollutants, Asbestos	<ul style="list-style-type: none"> <li>• Ensure no visible residue of asbestos materials remains in the work area after all asbestos materials are removed in accordance with NESHAP.</li> <li>• Display DANGER signs whenever airborne asbestos may be present in accordance with NESHAP and OSHA</li> <li>• Use wet removal techniques.</li> <li>• Dispose of all asbestos containing waste in clearly labeled sealed</li> </ul>

	containers and store in a secure location awaiting transport to an authorized disposal facility, not to exceed a period of 45 days.
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For a complete listing of all Delaware applicable regulations, please look at our website: <http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

*Rachel Yocum, (302)739-9402, [rachel.yocum@state.de.us](mailto:rachel.yocum@state.de.us)*

- **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.

*Krystal Stanley, (302) 395-2644, [Krystal.Stanley@state.de.us](mailto:Krystal.Stanley@state.de.us)*

- **Tank Management.** 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 area:
  - Bear BP, Facility: 3-001738, Project: N0902010 (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 Section by calling 302-395-2500.

*Elizabeth Wolff, (302) 395-2500, [Elizabeth.Wolff@state.de.us](mailto:Elizabeth.Wolff@state.de.us)*

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known cultural or historic resources on this parcel, such as an archaeological site, or National Register-listed property. However, the Pomeroy and Beers Atlas of 1868 shows that there was a dwelling on the parcel towards the corner of Wrangle Hill Road and Route 71. The dwelling was associated with a O.D. Jester, the

USGS Topographic Map also indicated that a dwelling was there, and it is possible that there could be archaeological resources associated with it as well. With this in mind, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law, Chapter 54 of Title 7, of the Delaware Code (7 Del. C. Ch. 54).

- Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (7 Del. C. Ch. 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to know more information pertaining to unmarked human remains or cemeteries, please check the following websites for additional information: [www.history.delaware.gov/preservation/umhr.shtml](http://www.history.delaware.gov/preservation/umhr.shtml) and [www.history.delaware.gov/preservation/cemeteries.shtml](http://www.history.delaware.gov/preservation/cemeteries.shtml)
- Prior to any demolition or ground-disturbing activities, the developer may want to hire an archaeological consultant to examine the parcel for any potential archaeological site or archaeological resources, such as cemetery, burial site, or unmarked human remains. Furthermore, if there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these

without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at [www.achp.gov](http://www.achp.gov).

Delaware State Fire Marshall's Office – Contact John Rudd 323-5365

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 (DSFPR):

- **Preliminary meetings** with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: [www.statefiremarshal.delaware.gov](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures
- **Fire Protection Water Requirements:**
  - Water distribution system capable of delivering at least 1500 gpm for 2-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 mercantile and business 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 sqft, 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
- **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 drive to the buildings from the street 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.
  - 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

### **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**

- Please be advised that DelDOT is about to advertise for adoption, in the March Register of Regulations, a comprehensive revision of the Standards and Regulations. While in most respects, the changes are incremental, they are located throughout the manual and could well have some effect on the entrance design. DelDOT anticipates holding training sessions for the consulting engineering community but those sessions have yet to be scheduled.

- Because the proposed development would generate more than 200 vehicle trips per day, a Pre-Submittal Meeting is required before plans are submitted for review. Guidance on what will be covered at this meeting and how to prepare for it is located at [http://www.deldot.gov/information/business/subdivisions/Pre-Submittal\\_Meeting\\_Requirements.doc](http://www.deldot.gov/information/business/subdivisions/Pre-Submittal_Meeting_Requirements.doc). The form needed to request this meeting is available at [http://www.deldot.gov/information/business/subdivisions/Meeting\\_Request\\_Form.doc](http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.doc).
- As shown on the Investment Level map associated with the Strategies for State Policies and Spending, the subject development is located in a Level 2 area. DelDOT's Shared-Use Path and/or Sidewalk Process policy (available at [http://www.deldot.gov/information/business/subdivisions/SUP\\_Sidewalk\\_Process.pdf](http://www.deldot.gov/information/business/subdivisions/SUP_Sidewalk_Process.pdf)) states that a path or sidewalk shall be installed along the State-maintained road frontage of any development in a Level 1 or 2 area. The plan accompanying the PLUS application shows sidewalk along the property frontage on Wrangle Hill Road and Red Lion Road but not along the property frontage on Old Kirkwood Road. If the applicant wishes to avoid installing that additional sidewalk, we recommend that they consider changing the plan to create a separate parcel for the single-family detached house.

We expect our review of the TIS to identify additional pedestrian facilities, and also bicycle facilities, that should be required.

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

- **Soils Assessment.** Based on soils survey mapping update, Elkton (EmA) and Ingleside-Hammonton-Fallsington complex (ImB) are mapped on subject parcel (Figure 1). Elkton and Fallsington are poorly-drained wetland associated (hydric) soil mapping units. The Hammonton-Fallsington complex contains all three named soil components - including the poorly-drained Fallsington soil series - because a distinct soil mapping unit could not be separated at the mapping scale used by the soil survey. Therefore, some of the soils in this complex and subject parcel are likely to be hydric (even though the map in figure 1 indicates that the soils are well drained).

Since poorly-drained hydric soils such as Elkton and Fallsington are considered unsuitable for development, we strongly discourage building on them. Hydric soils are a functionally important source of water storage (functions as a “natural sponge”) - the loss/destruction of hydric soils (through excavation, filling, or grading during the building process) increases the probability for more frequent and destructive future flooding events. The probability for flooding is further augmented by increases in surface imperviousness, especially when building density in the area rises over time. Moreover, destruction of hydric soils increases the amount pollutant runoff (i.e., hydric



Castle County may require a tree survey to be conducted and/or a Woodland Management Plan to be developed. If a tree survey or Woodland Management Plan is an aspect of this project, the Wildlife Species Conservation and Research Program would like an opportunity to review these documents to confirm that appropriate forest resources are being retained. Please contact our plant biologist, Bill McAvoy, with this information (302-735-8668, [William.McAvoy@state.de.us](mailto:William.McAvoy@state.de.us)).

Although leaving a forest intact is usually more beneficial to the existing wildlife and is preferential to clearing, if clearing is to take place, we recommend that it does not occur April 1<sup>st</sup> to July 31<sup>st</sup>. This recommendation is to reduce impacts to nesting birds and other wildlife species that utilize forests for breeding. This time of year recommendation would only protect those species during one breeding season; because once trees are cleared the result is an overall loss of habitat.

*Kate Fleming, (302) 735-8658, [Kate.Fleming@state.de.us](mailto:Kate.Fleming@state.de.us)*

- **Nuisance Waterfowl.** Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns surrounding ponds provide attractive habitat for these species.

To deter waterfowl from taking up residence in these ponds, we recommend planting the surrounding open space with a mix of native wildflower plantings (to be planted in accordance with the Sediment and Stormwater Plan approval agency requirements). It is best to mow the open space area surrounding the pond only once a year, either in February or March. If mowing must occur more often, it would be helpful to leave a minimum buffer of 15-30 feet in width to be mowed annually. This area would be necessary to adequately deter the waterfowl from inhabiting the area (when the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond). In addition to deterring nuisance waterfowl, the native wildflower mix will also serve to attract bees, butterflies, and other pollinators, and reduce run-off, which can contain oil and other pollutants that homeowners may use on their lawns and driveways.

Our program botanist, Bill McAvoy would gladly assist in drafting a list of plants suitable for this site. Bill can be contacted at (302) 735-8668 or [William.McAvoy@state.de.us](mailto:William.McAvoy@state.de.us).

- **Additional information on TMDLs and water quality.** A Pollution Control Strategy (PCS) to achieve the required TMDL nutrient and bacterial load reduction requirements has not been established for the C&D Canal & Red Lion Creek watersheds to date. We

strongly encourage the applicant to reduce nutrient and bacterial pollutants through voluntary implementation of the following recommended BMPs:

- A United States Army Corps of Engineers (USACE) approved field wetlands delineation is strongly recommended before commencing any development activities on this parcel(s). The USACE can be reached by phone at 736-9763. According to the PLUS application, wetlands delineation was conducted but not approved by the USACE.
- 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. Upland buffers also serve as habitat for many terrestrial species that are dependent on aquatic and wetlands habitats for a portion of their annual life cycle. 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. 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 and the State of Delaware's Subaqueous Lands section). Lot lines, roadways, and infrastructure should not be placed within this buffer zone.
- Based on NRCS soil survey mapping, the area proposed for development is likely to contain poorly-drained wetland-associated (hydric) soils that are considered unsuitable for development. We strongly advise avoiding all hydric soils. We further suggest that a site-specific soils evaluation by a licensed soil scientist be conducted to verify if hydric soils are present.
- 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.
- Encourage the use of pervious paving materials (instead of conventional asphalt and concrete) as a BMP to mitigate the impacts associated with surface imperviousness. The large amount of impervious surface proposed for this project makes this site an especially good candidate for the installation of pervious paving material.
- Use of green-technology storm water management (in lieu of open-water management structures) and rain gardens as BMPs for mitigating nutrient and bacterial pollutant runoff from increases in surface imperviousness. Please contact Lara Allison at 739-9939 for further information about the possibility for installing a rain garden(s) on this parcel.

- 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 John Martin or Jen Walls at 302-739-9939 for more information on the protocol.

**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 hazardous waste sites.**

- SIRS strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) 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 county or state.
- 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). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions.

**Additional information on air quality.** New businesses may emit, or cause to be emitted, additional air contaminants into Delaware’s air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:

- Emissions that form ozone and fine particulate matter; Delaware currently violates federal health-based air quality standards for ozone. New Castle County, Delaware is classified as non-attainment for not meeting federal and state 8-hour ozone standards. Compared to Kent and Sussex Counties, short term 1-hour average peak ozone levels are usually highest in New Castle County, as well,

- The emission of greenhouse gases which are associated with climate change, and
- The emission of air toxics.

Air emissions generated from new businesses include emissions from the following activities:

- Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
- The generation of electricity, and
- All transportation activity.

Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) for the project could not be quantified. DAQ was able, however, to quantify the mobile emissions based on the proposed daily trip data presented in the application and data taken from the ITE Trip Generation Manual, 8<sup>th</sup> Edition. Table 2 represents the actual impact the 3601 Wrangle Hill Road Boulevard project may have on air quality.

Emissions Attributable to 3601 Wrangle Hill Road Boulevard (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO <sub>x</sub> )	Sulfur Dioxide (SO <sub>2</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Carbon Dioxide (CO <sub>2</sub> )
Mobile	15.52	20.47	*	*	*

(\*) *Indicates data is not available.*

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

DNREC encourages sustainable growth practices that:

- Control sprawl;
- Preserve rural and forested areas;
- Identify conflicting land use priorities;
- Encourage growth on previously developed sites and denser communities while at the same time protect our diminishing land base;
- Coordinate transportation, environment, and climate protection plans with land use plans; and
- Demonstrate that communities can achieve the qualities of privacy, community, and contact with nature without degrading the natural environment or generating unacceptable environmental costs in terms of congestion, use of natural resources, or pollution.

Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:

- **Constructing with only energy efficient products.** Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.
- **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.
- **Constructing with high albedo, high solar reflectance materials.** This includes roofing and hardscape. These materials help to reduce heat island impacts and, by extension, help to minimize the potential for localized ground-level ozone formation. These materials also help reduce demands on air conditioning systems and save on energy costs.
- **Providing shade for parking areas.** Approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level ozone formation. Such measures can also have the additional benefit of channeling or infiltrating stormwater.
- **Encouraging the use of safe multimodal transportation.** This measure can significantly reduce mobile source emissions. **For every vehicle trip that is replaced by the use of a sidewalk, 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 is on-site as well as equipment used to transport materials to and from site.
- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees in vegetative buffer areas, particularly those between the site and nearby residential areas.** Trees reduce emissions by trapping dust particles and replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the 3601 Wrangle Hill Road Boulevard project. The DAQ point of contact is Rachel Yocum, and she may be reached at (302) 739-9402 or [Rachel.yocum@state.de.us](mailto:Rachel.yocum@state.de.us).

**Instructions for Handling Asbestos.** According to the site plan, an existing dwelling is to be removed. Please select a Certified Professional Service Firm (CPSF) to inspect the facility and sample for Asbestos-Containing Materials (ACM). Once you receive the CPSF report detailing their findings as to how much, what type(s), and the location(s) of the ACM present, you can use that info to fill out the "Notification of Demolition or Renovation" form. If necessary, please select an asbestos abatement contractor from the list, and call to schedule the work to begin three weeks (or more) from the date you mail the form to EPA. When you choose an abatement contractor, please enter the remainder of the required info on the form, to include the name of the Abatement Contractor, name of the Hazmat Hauler who will haul the ACM, and the Hazmat landfill where the ACM will be taken. Once you have completed the form, please make four (4) copies of it, and then send the ORIGINAL to USEPA at the following address:

USEPA Region III  
Attn: Asbestos Coordinator  
1650 Arch Street  
Philadelphia, PA 19103

Send one copy to the DAQ:

DNREC/DAQ  
c/o Mr. Thomas Postell  
655 S. Bay Rd., Suite 5N  
Dover, DE 19901

You must wait a minimum of ten business days after EPA receives your notification, prior to any activity which may disturb asbestos-containing materials (reasoning behind waiting three weeks to begin abatement work). This allows the EPA asbestos inspectors time to coordinate and schedule a site visit if they so desire.

Once the ACM has been abated, a post-abatement inspection by a CPSF asbestos inspector shall be performed to verify that all ACM has been removed.

Following asbestos removal and re-inspection, normal demolition procedures may be employed to complete the demolition process.

Please keep in mind that physical demolition and loading, transport, and landfill dumping of construction/demolition debris can be quite costly. Another option for more affordable demolition does exist. If the local fire company is interested in using the structure(s) for firefighter training,

they are authorized to burn it/them to the ground upon completion of their training. This significantly reduces the volume and mass of material remaining to be loaded, transported, and dumped; thereby reducing demolition costs by a good margin. Keep in mind that this type of demolition via firefighting instruction is limited to those months not encompassed by Delaware's Ozone Season Burn Ban.

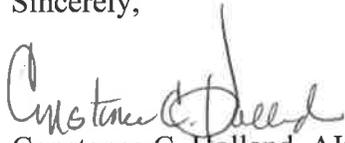
Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394

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

**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: New Castle County