



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

April 23, 2015

Mr. Ring Lardner
Davis, Bowen, & Friedel, Inc.
23 N. Walnut Street
Milford, DE 19963

RE: PLUS review 2015-03-02, The Village Center

Dear Ring,

Thank you for meeting with State agency planners on March 25, 2015 to discuss the proposed plans for The Village Center. According to the information received, you are seeking review of a rezoning of 33.2 acres from AR-1 to CR-1 and a site plan for 203,000 square feet of commercial space located to the southeast of the intersection of Kings Highway and Gills Neck Road in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as 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 1 according to the *Strategies for State Policies and Spending*. Investment Level 1 reflects areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy.

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. From the plan accompanying the PLUS application, DeIDOT estimates that the development would generate 11,834 vehicle trip ends per day on a typical weekday. This number differs somewhat from the volume shown on the PLUS application but the difference may not matter in that we understand the center design is still being refined and the floor areas are likely to change. Regardless, the daily and peak hour volumes will almost certainly be high enough to warrant a TIS.
- Having said that, the applicant submitted a TIS in 2006 for the development of the entirety of Tax Parcel 3-35-12.00-3.00. A DeIDOT consultant reviewed the study and DeIDOT sent comments to Sussex County in January 2008, incorporating in that review analysis of yet a third land use scenario. Shown below for comparison purposes are the 2006, 2008 and 2015 land use scenarios, with the 2015 residential data coming from a conversation with the applicant’s engineer. We understand they intend to submit plans for the residential development to us this spring.

	2006	2008	2015
Shopping Center (square feet)	330,000	521,000	235,000 (includes pad sites)
Single-Family Detached Houses (dwellings)	138	N/A	287
Townhouses (dwellings)	318	472	139
Performing Arts Center (seats)	1,000		
Museum (acres)			10
YMCA (acres)			17

- Subsequent to the TIS review, in 2009, DeIDOT entered an agreement with the applicant, outlining the right-of-way dedications and road improvements for which the applicant will be responsible. That agreement is still in effect. Copies of the TIS review letter and agreement are attached.
- Because of the previous TIS, the agreement and the downsizing of the proposed development since then, we find that a new TIS is not needed for the shopping center or the residential development. However, pursuant to Section 2.3.2 of the Development

Coordination Manual, DelDOT anticipates requiring a Traffic Operational Analysis (TOA) as part of the plan review process to ensure that the required road improvements are appropriately sized. They will evaluate the need for separate TIS to address the proposed future museum and YMCA when plans for them are presented, but presently it is believed the YMCA will require a TIS and they anticipate requiring one for it. Further, pursuant to Section 2.6 of the Development Coordination Manual, DelDOT anticipates requiring a Signal Justification Study for a signal at the intersection of Kings Highway, Clay Road and the site entrance there.

- To obtain a scope of work for the TOA, the applicant may have their engineer contact Mr. Troy Brestel of this office. Mr. Brestel may be reached at (302) 760-2167. To obtain a scope of work for the Signal Justification Study, they may have their engineer contact Mr. Chris Sylvester of the DelDOT Traffic Studies Section. Mr. Sylvester may be reached at (302) 659-4094.
- The site access on King’s Highway and on Gills Neck Road must be designed in accordance with DelDOT’s Development Coordination Manual (formerly the Standards and Regulations for Subdivision Streets and State Highway Access), which is available at <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>.
- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Development Coordination Manual, DelDOT will require dedication of right-of-way along the site’s frontage on both King’s Highway and Gill’s Neck Road. By this regulation, those dedications are to provide a minimum of 50 feet of right-of-way from the road centerline on King’s Highway and a minimum of 30 feet of right-of-way from the road centerline on Gill’s Neck Road. However, the 2008 TIS review letter and the 2009 agreement discussed above contemplate expansion of Kings Highway to either four lanes with median left turn lanes or five lanes with a continuous left turn lane.
- The right-of-way dedication note has been revised to the following, “**An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat.**”
- In accordance with Section 3.2.5.1.2 of the Development Coordination Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on both Kings Highway and Gills Neck Road. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, “**A 15-foot wide permanent easement is hereby established to the State of Delaware, as per this plat.**”
- Section 2.5 of the Development Coordination Manual addresses in part Traffic Signal Agreements, Traffic Signal Revolving Fund agreements, and Off-Site Improvement Agreements. These agreements must be finalized prior to entrance plan approval. Having said that, the 2009 agreement discussed above divides responsibility for all signals, assigning DelDOT responsibility for aboveground work and the developer responsibility for

underground work, and at least to some extent takes the place of Off-Site Improvement Agreements. The applicant's engineer should contact Mr. Steve Sisson of this office to discuss what, if any, further agreements may be needed. Mr. Sisson may be reached at (302) 760-2553.

- Referring to Section P.5 of the Development Coordination Manual, the Initial Stage review fee shall be assessed to this project.
- Referring to Section P.5 of the Development Coordination Manual, the Construction Stage review fee shall be assessed to this project.
- In accordance with Section 3.4 of the Development Coordination Manual, a record plan shall be prepared prior to issuing "Letter of No Objection". The following information will be required for the "Letter of No Objection" review:
 - Copy of the Initial Stage Fee Calculation Form
 - Copy of the Initial Stage Review Fee
 - Gate-Keeping Checklist – Site Plan
 - Sight Distance Spreadsheet
 - Design Checklist – Record Plan*
 - Owners and Engineer's name and e-mail address
 - Three (3) paper sets of the Record Plan
 - Conceptual Entrance Plan
 - CD with a pdf of the Site Plan
 - Submission of the Area-Wide Study Fee (if applicable)

*For the design checklist for the site plan, please refer to the Development Coordination Manual, Appendix D, Plan Review Checklist.

- Referring to Section 4.3 of the Development Coordination Manual, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Entrance Plan review:
 - Copy of the Construction Stage Fee Calculation Form
 - Copy of the Construction Review Fee
 - Gate-Keeping Checklist – Entrance Plan
 - Auxiliary Lane Spreadsheet
 - Design Checklist – Entrance Plan**
 - Three (3) paper sets of the Entrance Plan
 - SWM Report and Calculations (if applicable)
 - CD with a pdf of the Entrance Plan

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

- Referring to Section 3.3.5 of the Development Coordination Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT, in consultation with Sussex County, shall be shown on the Record Plan.
- Referring to Section 3.4.1 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. The form needed to request this meeting is available http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.pdf.
- Referring to Section 3.4.2.1 of the Development Coordination Manual, a Traffic Generation Diagram is required on the Record Plan. See Figure 3.4.2-a for the required format and content.
- In accordance with Section 3.5 of the Development Coordination Manual, the proposed private subdivision streets should follow Sussex County's requirements for connectivity. That said, we do have comments in this regard, which we offer under Suggestions below.
- Referring to Section 3.5.4.2 of the Development Coordination Manual, projects that generate 2,000 or more Average Daily Trips (ADT) and need Entrance Plan Approval are required to install a shared-use path or sidewalk along the State-maintained road frontage, in this case Kings Highway and Gills Neck Road.
- In accordance with Section 3.8 of the Development Coordination Manual, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along Kings Highway and Gills Neck Road.
- In accordance with Section 5.2.5.6 of the Development Coordination Manual, Turning Movement Diagrams shall be provided to verify vehicles can safely enter and exit the site entrances. As per Section 5.2.3 of the Manual, the entrance shall be designed for the largest vehicle using the entrance.
- In accordance with Section 5.2.9 of the Development Coordination Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrances and how long those lanes should be. The worksheet can be found at http://www.deldot.gov/information/business/subdivisions/auxiliary_lane_worksheet.xls.
- In accordance with Section 5.4 of the Development Coordination Manual, sight distance triangles are required for the site access on Kings Highway and Gills Neck Road and shall be established in accordance with American Association of State Highway and Transportation

Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at

<http://www.deldot.gov/information/business/subdivisions/Intersection-Sight-Distance.xls>.

- Metes and bounds and total areas need to be shown for any drainage easements. Section 5.7.2.6 of DelDOT's Development Coordination Manual requires, in part, a minimum 20-foot wide drainage easement for storm drainage systems, open or closed, that fall outside the existing right-of-way. These easements shall be shown and noted on the record plan.
- In accordance with Section 6.4.3 of the Development Coordination Manual, this project will require Level II Construction Inspection and the applicant will be required to enter a construction inspection agreement with an inspection firm currently under contract with DelDOT.

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

Wetlands

- State regulated wetlands ARE located on this property based on a review of the State wetland maps. State regulated wetlands are those wetlands identified on the State's official State Regulated Wetland Maps. Wetlands labeled F for forested wetlands are on the southern edge of the property. Be sure there is no direct or indirect impact to these wetlands during the building process. Any activity in State regulated wetlands may require a permit from DNREC's Wetlands and Subaqueous Lands Section.
- State regulated subaqueous lands ARE likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and USGS topographic maps. Upon review of the GIS layers, Pot Hook Creek runs on and adjacent to this property. State subaqueous lands include all tidal waters (up to the mean high water line), most non-tidal rivers, streams, lakes, ponds, bays and inlets (up to the ordinary high water line), most perennial streams and ditches and many intermittent streams and ditches. An on-site inspection by a representative of the Wetlands and Subaqueous Lands Section or an environmental consultant is recommended to determine the limits of jurisdictional State subaqueous lands. Additional information about State regulated subaqueous lands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or on line at <http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>.
- Waters of the U.S. regulated by the U.S. Army Corps of Engineers ARE likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and USGS topographic maps. The application notes that a delineation has been done. Review with the Army Corps of Engineers should be done to assess any direct or indirect impacts. 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>.

County: Sussex
PLUS 2015-03-02
The Village Center



0 425 850 1,700 2,550 3,400
Feet



Map created by: Kitty Bronson
DNREC Wetlands and Subaqueous Lands

-  Army Corps Wetlands
-  State Regulated Wetland Lines

TMDLs

- The project is located in the low nutrient reduction zone of the greater Inland Bays watershed. In this watershed, Total Maximum Daily Load (TMDL) pollutant reduction targets have been developed by the State of Delaware (under the auspices of Section 303(d) of the 1972 Federal Clean Water Act) for nutrients (e.g., nitrogen, phosphorus), and bacteria. A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited 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 *low reduction* zone of the Inland Bays watershed calls for 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 40 percent reduction (17 percent for marine waters) in bacteria from baseline conditions. Please view the following web link for further information on the regulatory requirements and technical analysis involved in the development of the specific TMDLs: <http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessmentTMDLs.aspx>
- The Inland Bays Pollution Control Strategy (PCS) and the accompanying regulations were finalized by order of the DNREC Secretary on October 2008. The PCS regulations can be reviewed at <http://regulations.delaware.gov/documents/November2008c.pdf>. Background information about the PCS with guidance documents and mapping tools can be retrieved from http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib_pcs.htm
- 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 project information sheets state water will be provided to the project by Tidewater Utilities via a central water system. Our records indicate that the project is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity 03-CPCN-12.
- 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.

- Potential Contamination Sources exist in the area, and any well permit applications will undergo a detailed review that may increase turnaround time and may require site specific conditions/recommendations. In this case, there are two Underground Storage Tanks associated with Cape Henlopen High School and Petroleum Equipment Inc. Lewes Bulk Plant located within 1000 feet of the proposed project.

Source Water Protection Areas

- Significant portion of the proposed development falls within the wellhead protection area for the City of Lewes. Wellhead protection areas are surface and subsurface areas surrounding a public water supply well where land use activities or impervious cover may adversely affect the quantity and quality of ground water moving toward such wells. The review did not find any excellent groundwater recharge areas within the proposed development (see map). The project lies within Sussex County.
- DNREC acknowledge that the Sussex County has a source water protection ordinance in place but DNREC recommends that this project go beyond the requirements of the ordinance and consider the recommendations that will afford this resource additional and much needed protection. DNREC asks the Sussex County consider Chapter 115 Zoning Article IV §115-19 of the County's Code that states in part that agricultural districts are also intended for protection of water resources. As an agricultural district, Lewes' drinking water source would be afforded more protection if the parcel remains agricultural.
- The amount of impervious cover proposed in this project is significant. This amount of impervious cover added to the existing impervious cover within the wellhead protection area has the potential to reduce ground-water recharge of the City of Lewes well field. The City of Lewes well field consists of a series of shallow public wells that draw water from the shallow unconfined aquifer that receives recharge directly from precipitation. Maintenance of water levels in this aquifer is critical to this coastal community due to long term risks of salt water intrusion in the event that head levels decline in the freshwater aquifer.
- The majority of this impervious cover is Parking Lot. On the PLUS application, the Developer estimates 11,487 vehicle trips will be generated from this project. The Source Water Assessment and Protection Program identifies potential contamination from land use in the Source Water Assessment Reports for public water systems. These reports are required by amendments to the Federal Safe Drinking Water Act passed in 1996 (EPA, 1997). The land use category Highway/Parking lot is associated with the production of petroleum hydrocarbons, other organic compounds, metals, and other

inorganic compounds (DNREC, 1999). Additionally, commercial land use is associated with the introduction of pathogens into the groundwater (DNREC, 1999).

- Impervious surface cover is known to accumulate pollutants leaked from vehicles. Wind-blown pollutants also accumulate on impervious surface cover. During a storm event, these pollutants are mobilized in runoff (Li, 2003; Schueler, 1994). The runoff from impervious surface cover can carry a pollutant load in a sufficient concentration to degrade water quality (Gobel, 2007; Li et al., 2006; Schueler, 1994). If this runoff is infiltrated into the unconfined aquifer, it has the potential to affect the drinking water quality and may require additional treatment methods for the City of Lewes.
- The site plan submitted with the PLUS application shows a stormwater management area that runs north to south on the east site of the development (see map). A small bridge crosses this feature. It is unclear from the submission if this is a wet pond cutting into the water table or an infiltration basin.
- The construction phase of stormwater management facilities requires excavation, hauling, and grading. The heavy equipment used in this phase has the capacity to compact and degrade the structure of the strata of the underlying aquifer (Schueler, 2000). Changes to the structural soil properties may cause significant reduction in recharge capacity. Installing storm-water management ponds in wellhead protection areas has the potential to contaminate the ground water beneath it and infiltrate into the aquifer.
- DNREC recommends that the portion of the new development within the wellhead protection area not exceed 20 percent impervious cover. Some allowance for augmenting ground-water recharge should be considered if the impervious cover exceeds 20 percent but is less than 50 percent of that portion of the parcel within this area. However, the development should not exceed 50 percent regardless. A water balance calculation will be necessary to determine the quantity of clean water to be recharged via a recharge basin. The purpose of an impervious cover threshold is to minimize loss of recharge (and associated increases in storm water) and protect the quality and quantity of ground water and surface water supplies.
- In addition, DNREC recommends the following actions:
 - Remove any stormwater management facilities out of the wellhead protection area. (Please note: they should not be moved to excellent groundwater recharge areas).
 - Using Better Management Practices in the design, construction, and maintenance of a stormwater management system designed to address water quality with respect to the dissolved component of nutrient and other pollutant loads.

- Design the infiltration facility with advanced treatment, for example, multi-chamber sand filter system, to minimize the likelihood of introduction of any contamination to the infiltration basin.
- Demonstrate via a ground-water particle tracking analysis with a numerical model that contaminants released into the infiltration pond will not be captured by existing wells.
- In addition, because the wellhead protection area is the source of public drinking water for the City of Lewes, the storage of hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program.

Village Center (PLUS 2015-03-02)

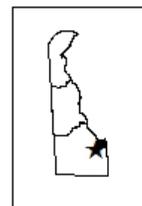


0 2,000 Feet

1:10,000

Legend

-  Wellhead Protection Area
-  Excellent Groundwater Recharge Potential Area
-  Stormwater Management



As of January 2015. This map is provided by the DNREC solely for display and reference purposes and is subject to change without notice. DNREC will not be held responsible for the assumed accuracy contained in the map or for the use other than its intended purpose.

References

DNREC, 1999, The State of Delaware Source Water Assessment Plan, in DNREC, ed.: Dover, DE, State of Delaware, p. 301. EPA, 1997, State Source Water Assessment and Protection Programs Guidance: Final Guidance: Washington D.C., EPA, p. 160. Gobel, P., Dierkes, C., and Coldewey, W. G., 2007, Storm Water runoff concentration matrix for urban areas: Journal of Contaminant Hydrology v. 91, no. 1-2, p. 26-42. Li, L., Yin, C., He, Q., and Kong, L., 2006, First flush of storm runoff pollution from an urban catchment in China: Journal of Environmental Sciences v. 19, no. 1-2, p. 295 - 299. Schueler, T. R., 1994, The Importance of Imperviousness: Watershed Protection Techniques, v. 1, no. 3, p. 100-111. Schueler, T. R., 2000a, The Compaction of Urban Soils, in Schueler, T. R., and Holland, H. K., eds., The Practice of Watershed Protection: Ellicott City, MD, Center for Watershed Protection, p. 215-218.

Sediment and Stormwater Program

- A sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as 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 Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.

Hazardous Waste Sites

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

Tank Management Section

- 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:
 - Uni Mart #02008 Lewes, Facility: 5-000110, Project: S9706088 (Inactive)
 - Mills Property, Facility: 5-000848, Project: S9703040 (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>.

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 (DSFPR):

• **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 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 sqft 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
- 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 to the site 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

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There was a known historic house (S-219 and S-1045) on this parcel and an archaeological site (S-562, 7S-G-024), towards the southeast side and Kings Hwy (Route 9). Although the house (S-219 and S-1045) was demolished, there are still some outbuildings remaining. According to the Pomeroy and Beers Atlas of 1868, the house (S-219 and S-1045) was associated with a S. P. Houston, and there may be archaeological resource associated with it. With this in mind, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law, which is in 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 and

www.history.delaware.gov/preservation/cemeteries.shtml.

- Therefore, 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 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.

Recommendations/Additional Information

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Section 2.5 of the Development Coordination Manual addresses in part Traffic Signal Agreements, Traffic Signal Revolving Fund agreements, and Off-Site Improvement Agreements. To the extent that DelDOT identifies a need for these agreements, the applicant should expect a requirement that the need for them be noted on the Record Plan.
- The plan accompanying the PLUS application shows a right-turn acceleration lane entering Kings Highway from the proposed main access. While DelDOT will review this feature further as part of the TOA and plan review, DelDOT generally discourages the use of acceleration lanes leaving subdivision streets and commercial driveways.

- The plan accompanying the PLUS application shows what appears to be a full access on Kings Highway serving the proposed YMCA site. While DelDOT will review this feature further when a plan is submitted for the YMCA parcel and may permit some direct access from Kings Highway, it is likely that some or all access movements will need to occur at the main entrance opposite Clay Road.
- The TOA will need to address queueing along the proposed main site access opposite Clay Road.
- The plan accompanying the PLUS application shows a proposed parcel line running down the middle of the main access road leading in from Kings Highway. While such an ownership arrangement may be feasible using a set of cross-access easements, we suggest that the creation of a public or private right-of-way may make for easier administration.
- In the internal design of the shopping center, we recommend that the applicant's engineer use truck turning templates typical of the largest trucks expected to make deliveries to the center. DelDOT will require the use of such template in the design of the site access but the plan accompanying the PLUS application appears to be restrictive internally, such that fire access and deliveries to the backs of the stores could be difficult.
- Be advised that the Standard General Notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision date of Mayh 21, 2014. The notes can be found at http://www.deldot.gov/information/business/subdivisions/DelDOT_Development_Coordination_Plan_Sheet_Notes.doc
- The applicant should expect a requirement that all PLUS and/or TAC comments be addressed prior to submitting record, subdivision or entrance plans for review.
- Please check to determine whether any utilities will need to be relocated as part of this project.
- The applicant should expect a requirement that any substation, wastewater facility or other utility parcels serving the site have access from an internal subdivision street with no direct access to the State-maintained highway.
- Please be advised DelDOT's check handling procedures changed in 2012. For specific information, see the letter available at <http://www.deldot.gov/information/business/subdivisions/PaymentProcedure.pdf>.

- The subject parcel is located at the intersection of two roads included in the Lewes Historic Byway, Kings Highway and Gills Neck Road. The design of the shopping center and associated off-site improvements will necessarily affect the experience of visitors to the Byway.
- The following comments listed below are from the DelDOT Byways Program and are grouped under Suggestions because many of them are just that; they address concerns which DelDOT cannot require the applicant to address. However, the applicant should expect DelDOT to require the improvements to Kings Highway and Gills Neck Road to be guided by the DelDOT publication Context Sensitive Solutions for Delaware's Byways, the Corridor Management Plan for the Byway, and the Kings Highway/Gills Neck Road Master Plan.
 - Follow DelDOT's publications related to Byway design. As the proposed development project is on two roadways that comprise the Lewes Historic Byway, please follow the principles and guidance of the DelDOT publication, Context Sensitive Solutions for Delaware's Byways (DelDOT, June 2011) as the project design and transportation mitigation designs are progressed. This document represents DelDOT policy with regards to the state's byways.
 - Follow the recommendations of the Corridor Management Plan for the Lewes Historic Byway. The soon to be completed Corridor Management Plan (final draft in May) for the Lewes Historic Byway provides more specific guidance on developing context sensitive solutions designed to protect and preserve the character of the Byway. This document, when completed will also become policy for the Department. The Applicant's attention is specifically directed to the typical sections developed in conjunction with the citizens that participated in the Byway Corridor Management Plan development process. Such typical sections received positive comment at the public meeting held on November 13, 2014.
 - Coordinate with the Kings Highway/Gills Neck Road Master Plan which will begin shortly. Legislatively funded, the Master Plan will coordinate with the active developers in the area, DelDOT and the community to develop context sensitive solutions for Kings Highway and Gills Neck Road.
 - Address the following site plan comments. The site plan as presented in the PLUS Application, while absent of dimensions, has generated the following specific comments:
 - Provide sufficient setbacks to enable landscaping and other context sensitive features of the Byway to be designed into the project. The sketch plan shows insufficient setbacks to permit the context sensitive typical sections contained in the draft Corridor Management Plan. Such typical sections will be provided upon request.

- Provide for multi-use trails through the development and connections to external trail links. DelDOT requirements with regard to multi-use trails, sidewalks and walkways are found in Section 3.5 of the Development Coordination Manual. The proposed setbacks also seem to lack sufficient room for a trail network along the Byway.
- Revise the design of the site to one that enhances the character of the Byway. The succession of outparcels is unlike any other development, recent or older on any of the Lewes Historic Byway roadways. We request that they be eliminated or the site redesigned to a more village configuration as opposed to the typical suburban shopping center plan shown in the sketch. Note: A village design represents a center where retail buildings are arrayed across the site with separate parking areas and internal landscaping.
- Provide appropriate buffering and retain viewsheds. The strip center building at the back of the site has its back to the adjacent residential neighborhood. A village design might address that concern. The shopping center's back will be visible from Gills Neck Road.
- Provide an acceptable access design to Gills Neck Road. The access to Gills Neck Road lacks an insufficient throat. We are concerned that incoming and outgoing traffic will conflict causing congestion on Gills Neck Road. The subject of entrance length or "throat" is addressed at length in Section 5.2.6 of the Development Coordination Manual.
- Incorporate the recommendations of the approved Transportation Management Plan. Please follow the recommendations of the DelDOT approved Transportation Management Plan (Delaware Greenways, December 2014) for the Byway by participating in transportation management improvements in addition to the capacity mitigation improvements driven by the traffic impact study. Such improvements are designed to improve the quality of life for the residents in the area, some of which reside in neighborhoods developed by the Applicant. The report will be provided upon request.
- Seek input from the Byway Committee and its sponsors throughout the design process. We request that the Applicant include the Lewes Scenic and Historic Byway Committee, an official committee of the City of Lewes and the Management Entity of the Lewes Historic Byway, in the review process for aspects of the plan review not under DelDOT entrance review purview.

- Based on soils survey mapping update, the soil mapping units with the most limitations for development are Hurlock (HvA), Manahawkin (Ma), Hurlock, and Transquaking & Mispillion (TP). These soil mapping units are poorly to very poorly drained wetland associated (hydric) soils that are considered to have severe limitations for development (considered unsuitable). Therefore, DNREC strongly recommends that the applicant avoid development in all hydric soil mapping units. (Figure 1).

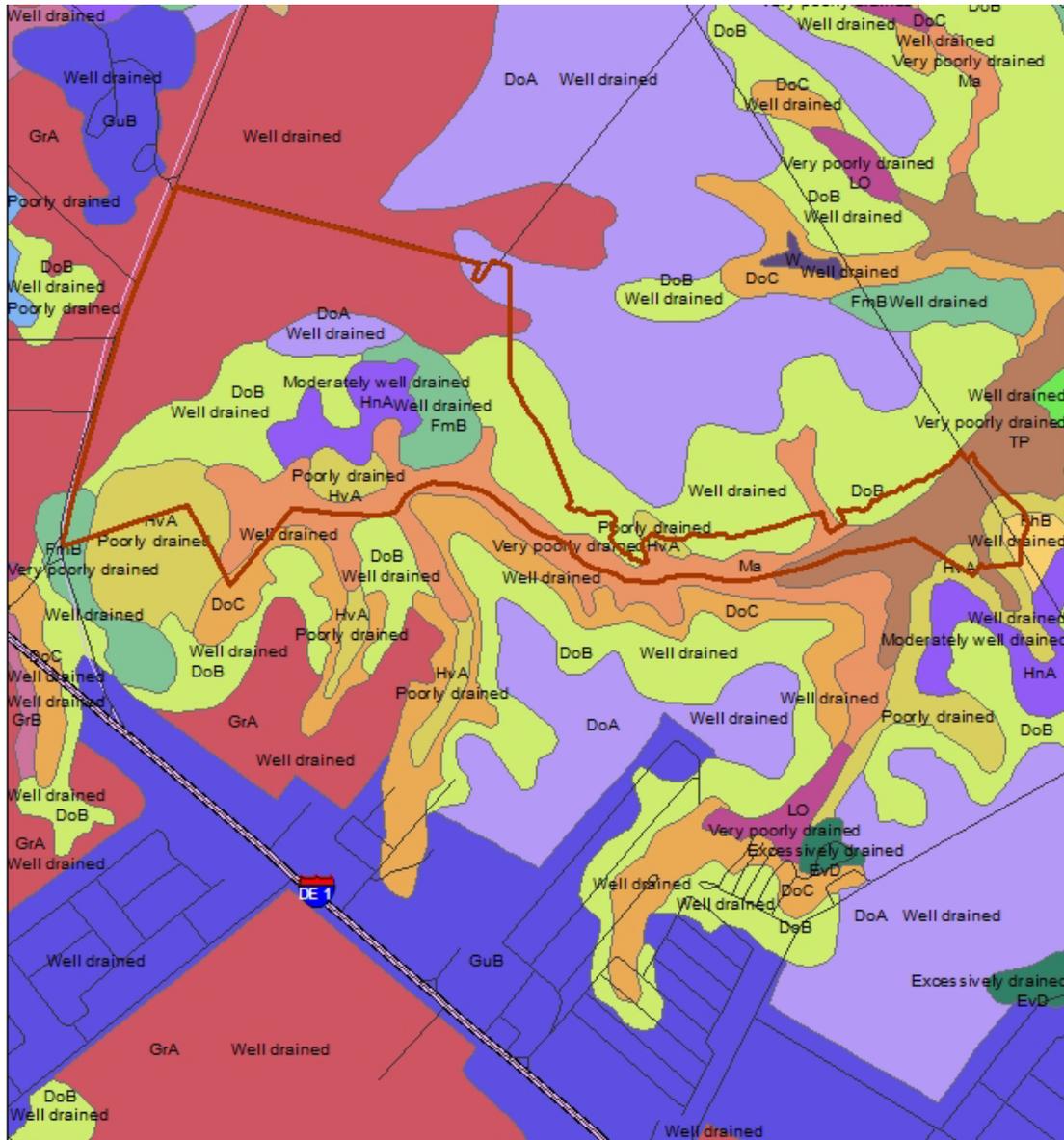


Figure 1: NRCS soil survey mapping update in the immediate vicinity of the proposed construction

Habitat and Rare Species

Rare Species

- DNREC scientists have not surveyed this project area; therefore, we are unable to provide information pertaining to the existence of state-rare or federally listed plants, animals or natural communities at this project site. In the absence of site-specific information, we offer the following comments:
- According to the PLUS application submitted in 2009, the forested wetlands along Pot Hook Creek were to be designated as a conservation easement and left intact. However, this application does not specify if the plan remains to designate these habitats as a conservation easement. Rare species have been documented downstream within the forested buffer along Pot Hook Creek and Wolfe Glade. Forested habitat along the creek protects water quality by filtering run-off, minimizing bank erosion, and providing shade that moderates water temperature so it is suitable for spawning. Forested riparian habitat also provides vital breeding areas for wetland dependent species and is utilized by wildlife for resting, foraging and as a travel corridor between habitats. As such, DNREC strongly recommends that the forested wetlands within the parcel, both those which are included in the site plan and those that are not, are to remain intact. Moreover, it remains unclear how wide the buffer will be between these key wildlife habitats and the areas that are to be disturbed. DNREC highly recommends that at least a 100 foot (preferably 300 foot) buffer is preserved along the creek to protect sensitive rare species, protect water quality and to maintain a wildlife habitat along the creek.

Mosquito Control

- Development projects within 2-5 miles of large expanses of salt marshes or brackish wetlands can often lead to increased demands for mosquito control services, going beyond what DNREC's Mosquito Control Section currently has the budget or resources to provide. State, county and/or local governments should be prepared to deal with increased budget demands for mosquito control services when approving developments that could potentially have mosquito issues.
- Additionally, even though the EPA has scientifically determined that EPA-registered mosquito control insecticides can be applied "without posing any unreasonable risks to human health, wildlife or the environment" (when used in accordance with all product label instructions), avoiding or reducing the use of such pesticides should be employed whenever possible. For more information about this issue, the applicant can contact Dr. Bill Meredith, Mosquito Control Administrator at (302) 739-9917.

Stormwater Ponds

- 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 ft. 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.
- DNREC's botanist, Bill McAvoy at (302) 735-8668 or William.McAvoy@state.de.us, would gladly assist in drafting a list of plants suitable for this site. =
Kate Fleming, (302) 735-8658, Kate.Fleming@state.de.us

Additional information on TMDLs and water quality

Compliance with the specified TMDL nutrient and bacterial reduction requirements specified for the Inland Bays watershed can be facilitated by adherence to the strategies and requirements described in the Inland Bays PCS, and the implementation of the following recommended BMPs:

- Maintain all of the existing forest cover and/or riparian wetlands that bound the southern portion of this parcel. We further suggest additional native tree and native herbaceous plantings - wherever possible – to create additional environmentally-friendly open space.
- Conduct a United States Army Corps of Engineers (USACE) approved wetlands delineation. According to information submitted by the applicant, a wetland delineation has not been conducted or approved by the USACE.
- Based on NRCS soil survey mapping, the area proposed for development is likely to contain poorly-drained wetland-associated (hydric) soils; hydric soils are considered unsuitable for development and should be avoided. We further suggest that a site-specific soils evaluation by a licensed soil scientist be conducted to more accurately identify and locate the presence of hydric soils in this parcel.
- 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

(maintaining the existing forested buffer and planting additional native vegetation to maintain this 100-foot buffer) from all waterbodies (including ditches) and wetlands (as determined by USACE approved wetlands delineation).

- Use green-technology storm water management and a rain garden(s) (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant runoff increases that often track post-development 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.
- 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, ponds, and roads) included in the calculation. Using open-water management structures as part of calculation for open space results in an underestimate of actual surface imperviousness, and is not considered an acceptable best management practice.
- Since this project will create additional surface imperviousness that will increase the probability for increased flooding and increased pollutant load runoff impacts to adjoining streams and wetlands in the greater Inland Bays watershed - wherever practicable - , the use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate these impacts is strongly encouraged. We suggest that the applicant use pervious paving materials in all parking areas and consider the use of pervious pavers in roadways as well.
- 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) resulting from the conversion of individual or combined land parcels to a changed land use(s); thus providing applicants and governmental entities with quantitative information about the project’s impact(s) on baseline water quality. 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 (Division of Watershed Stewardship) at 302-739-9939 for more information on the protocol.

Additional information on hazardous waste sites

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

business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.

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

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

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

- New homes 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 commercial spaces 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 commercial space, 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 development were quantified. Table 2 represents the actual impact the project development may have on air quality.

Emissions Attributable to Village Center (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)

Mobile	38.15	50.31	*	*	*
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(*) Indicates data is not available.

Note that emissions associated with the actual construction of the road, 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, 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.

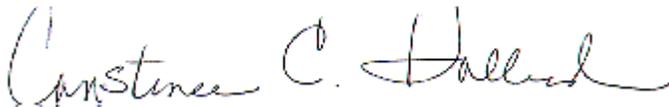
Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394

- 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.

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 PLUS process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



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

CC: Sussex County
City of Lewes