



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

September 24, 2015

Mr. Doug Liberman
Larson Engineering Group, Inc.
910 South Chapel St., Suite 200
Newark, DE 19713

RE: PLUS review 2015-08-01; Blue Hen Apartments – Phase 2

Dear Mr. Liberman,

Thank you for meeting with State agency planners on August 26, 2015 to discuss the proposed plans for the Blue Hen Apartments – Phase 2 project. According to the information received, you are seeking review of a site plan for 192 apartment units on 6.15 acres in Dover.

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 the City of Dover has governing authority over this land and the developers will need to comply with any and all regulations/restrictions set forth by the County and City.**

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 in any hour of the day. The table below shows the increase in trip generation associated with the additional apartments, using the Institute of Transportation Engineers' (ITE) Trip Generation Manual.

Land Use	ITE Land Use Code	Weekday Average Daily Traffic	Weekday AM Peak Hour	Weekday PM Peak Hour
Total complex (354 dwellings)	220	2269	177	212
Phase 1 (162 dwellings)	220	1105	83	107
Net Increase (192 dwellings)		1164	94	105

Based on any of these three sets of volumes, this project would warrant a TIS. To obtain a scope of work for a TIS, the applicant may have their engineer contact Mr. Troy Brestel of the DeIDOT Planning office. Mr. Brestel may be reached at (302) 760-2167. However, the developer does have alternatives to doing a TIS.

If the City of Dover does not require a TIS, Section 2.2.2.2 of the Manual permits DeIDOT to accept an Area Wide Study Fee in lieu of a TIS for developments generating less than 2,000 vehicle trip ends per day and less than 200 vehicle trip ends per hour. The Fee is calculated as \$10 per daily trip, which in this case would mean \$11,640 and is payable when plans are submitted for the Initial Stage review. The Fee, if paid, would be used for the funding of future traffic studies in Kent County and does not reduce any contributions that might be assessed for off-site improvements or excuse the developer from making such contributions. Payment also does not excuse the developer from the need to conduct a Traffic Operational Analysis (TOA) if DeIDOT identifies the need for one in their review of an entrance plan.

Presently, we have not identified a need for off-site improvements or determined that a TOA is necessary. However, DeIDOT can foresee the possibility of requiring a TOA and the TOA identifying a need for intersection improvements at Haslet Street and South Little Creek Road and/or execution of a signal agreement for this intersection. To determine whether a TOA will be needed, and the scope thereof, the developer should request a Pre-Submittal Meeting as discussed later in these comments.

Another alternative to doing a TIS is participation in a Transportation Improvement District (TID). Since November 2013, DeIDOT has been working with the City of Dover to create a TID for the US Route 13 / Bay Road Corridor, which includes the subject development. The idea of a TID, as described in Section 2.4 of the Manual, is to plan comprehensively for land use and transportation in the District and to assess developers in the District a fee that will be used to build, or help build, the improvements needed in the District. To the extent that developers in the District are required to make off-site improvements, they receive credit against their fees. Section 2.2.2.4 of the Manual permits DeIDOT to require participation in a TID in lieu of a TIS but we have not yet progressed far enough in creating the TID to apply this section. DeIDOT and the City still need to determine a program of needed improvements and establish a fee structure. Based on our experience with the Southern New Castle County TID, DeIDOT would expect fees in the range of \$2,800 per multi-family dwelling unit, or in this case

\$537,600. If the developer does not want to do a TIS or pay the Area Wide Study Fee, one option would be to wait for the adoption of a TID fee structure.

- The site fronts on Haslet Street and Blue Hen Boulevard, which are not maintained by the State. Any off-site improvements necessary to support the development must be designed in accordance with DelDOT's Road Design Manual or, for improvements at development entrances, DelDOT's Development Coordination Manual. These manuals are, respectively, available at http://www.deldot.gov/information/pubs_forms/manuals/road_design/index.shtml and <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>.
- Regardless of whether roadway improvements are required, 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 Initial Stage Fee Calculation Form
 - Copy Initial Stage Review Fee
 - Gate-Keeping Checklist – Site Plan
 - Record Plan Review Design Checklist
 - Auxiliary Lane
 - Sight Distance Spreadsheet
 - Site/Record Plan
 - Conceptual Entrance Plan
 - Submission of the Area-Wide Study Fee (If applicable)
- 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 of the Development Coordination Manual, the Initial Stage review fee shall be assessed to this project.
- If roadway improvements are warranted, then referring to Section 4.3 of the Development Coordination Manual, the Construction Stage review fee shall be assessed to this project.
- Again, if roadway improvements are warranted, then 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
- Entrance Plan Review Checklist
- Entrance Design Checklist
- Application for Commercial Entrance Permit
- Pipe/Angle Spreadsheet (if applicable)
- Entrance Photo
- Entrance Plan
- SWM Report, Calculations and DA Maps
- Sediment & Stormwater Management Project Design & Review Checklist

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

TMDLs.

- The project is located in the greater Delaware River and Bay drainage area, specifically within the Leipsic River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited 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 Leipsic River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 75 percent reduction in bacteria from baseline conditions.

Water Supply.

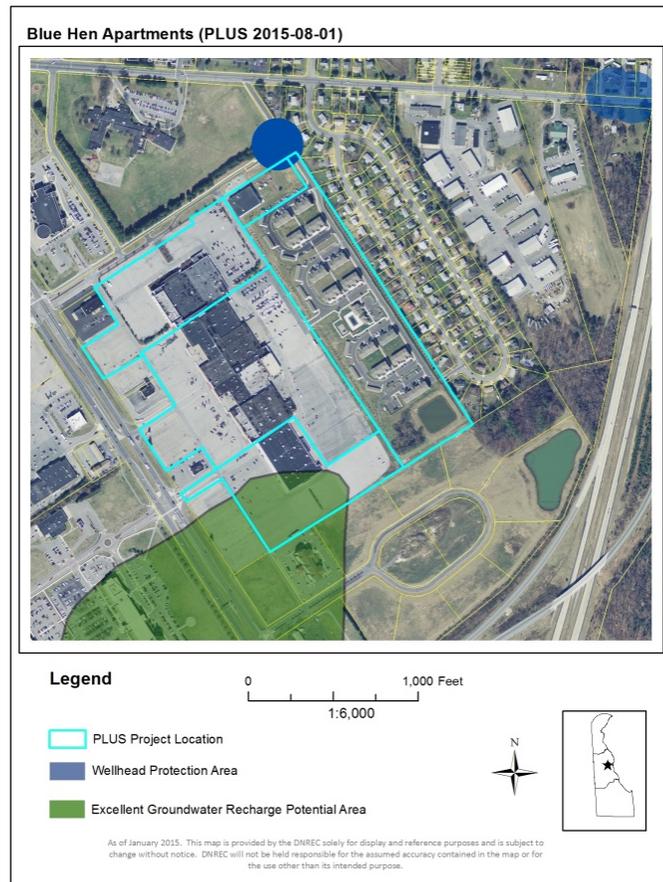
- The project information sheets state water will be provided to the project by the City of Dover via a public water system. DNREC records indicate that the project is located within the public water service area granted to the City of Dover under Certificate of Public Convenience and Necessity 90-CPCN-07.
- 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. Should you have any questions concerning these comments, please contact Rick Rios, at (302) 739-9944.

Source Water Protection Areas.

- A review of the adjacent area shows an un-delineated wellhead protection area for the City of Dover on the northeastern boundary. There is an excellent groundwater recharge potential area on the southwestern area of an adjacent parcel.
- Wellhead protection areas are surface and subsurface areas surrounding a public water supply well where the quantity and quality of ground water moving toward such wells may be adversely affected by land use activities. In addition, because the wellhead protection area the source of public drinking water, 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.
- Excellent Ground-Water Recharge Areas are those areas mapped by the Delaware Geological Survey where the first 20 feet of subsurface soils and geologic materials are exceptionally sandy. These soils are able to transmit water very quickly from the land surface to the water table. This map category (excellent) is an indicator of how fast contaminants will move and how much water may become contaminated (Andres, 2004). Land use activities or impervious cover on areas of excellent ground-water recharge potential may adversely affect ground water in these areas.
- Impervious cover should be limited in these areas. Stormwater management facilities should not be constructed in these areas.
- In addition, because the excellent ground water recharge area can readily affect the underlying aquifer if contaminants are spilled or discharged across the area, 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.

References:

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



Sediment and Stormwater Management.

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. It is strongly recommended that the owner and consultant contact the Kent Conservation District to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Kent Conservation District. Contact Jared Adkins, Program Manager, at the Kent Conservation District at (302) 741-2600, ext. 3 for details regarding submittal requirements and fees (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101).

Hazardous Waste Sites.

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

- There are two SIRS site within a ½ mile radius of the proposed project. The proposed project is located on the Blue Hen Drum Site (DE-1480, parcel ED-05-077.00-01-01.00). In August 2009, 63 drums were uncovered during the development of the currently existing apartments. The majority of the drums contained petroleum based liquids. It was believe that the drums were buried there during the construction of the Blue Hen Mall in the 1960s. From August to October 2009, all the drums and contaminated soil were removed and properly disposed offsite. In August 2012, DNREC issued a No Further Action designation and closed and archived the Site.

- The 605 South Bay Road Site (DE-1564) is located south adjacent of the proposed project. The Site was previously used as orchards for at least 60 years. The main farm operations were west of the orchard and consisted of several buildings with open space. Orchard operations began diminishing in the early 1990's. A Phase I investigation was conducted in July 2013 and identified potential impacts to soil and groundwater from the orchard business. The Site joined the Voluntary Clean-up Program (VCP) in December 2013. A Remedial Investigation was conducted and approved in June 2014. The Proposed Plan and Final Plans were published in July and August 2014. The Site was divided into two Operating Units (OUs). OU-1 is restricted to non-residential use.

- Both OUs were issued a Certificate of Completion of Remedy (COCR) in February and July 2014.

Tank Management.

- 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 (LUST) projects are located within a quarter mile from the proposed project area:
 - Shore Stop #1230, Facility: 1-000198, Projects: K9602029, K9710179, and K1112156 (Inactive)
 - East Dover Elementary School, Facility: 1-000060, Project: K9811202 (Inactive)
 - Roses Blue Hen Mall Dept. Store, Facility: 1-000554, Project: K9502032 (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.

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	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	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	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	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	Ensure that emissions of nitrogen oxides (NO _x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO ₂), carbon monoxide (CO), and carbon dioxide (CO ₂) 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	Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.
Regulation 21 Section 10 – Emission Standards for	Ensure no visible residue of asbestos materials remains in the work area after all asbestos materials are removed in

<p>Hazardous Air Pollutants, Asbestos</p>	<p>accordance with NESHAP. Display DANGER signs whenever airborne asbestos may be present in accordance with NESHAP and OSHA Use wet removal techniques. Dispose of all asbestos containing waste in clearly labeled sealed containers and store in a secure location awaiting transport to an authorized disposal facility, not to exceed a period of 45 days.</p>
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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>.

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known archaeological sites or National Register-listed property on this parcel. 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

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.

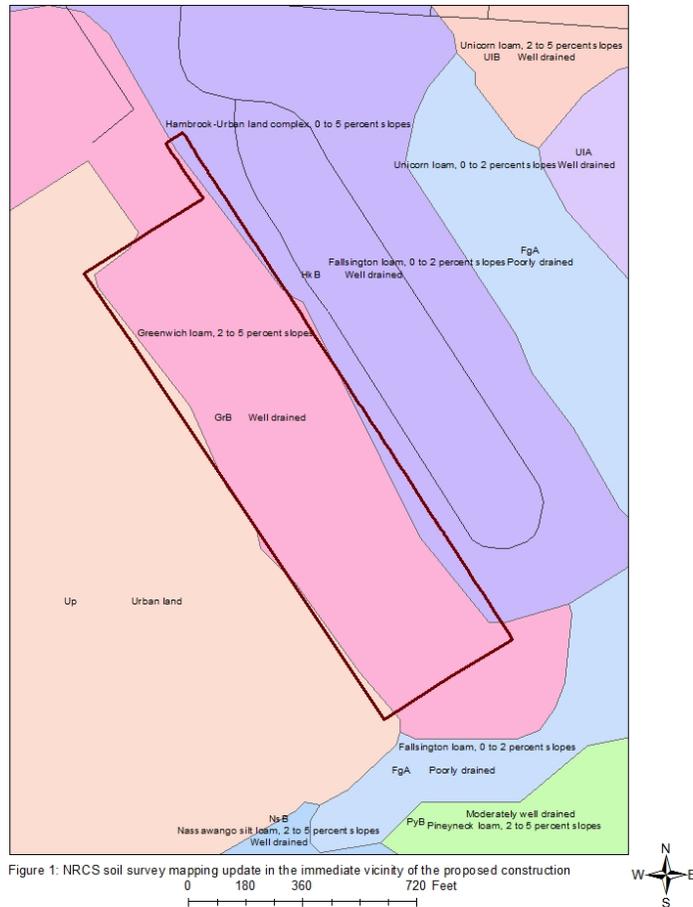
Department of Transportation – Contact Bill Brockenbrough 760-2109

- Please be advised that as of August 1, 2015, all new plan submittals and re-submittals, including major, minor and commercial plans, shall be uploaded via the PDCA (Planning Development Coordination Application) with any review fee paid online via credit card or electronic check. Guidance on how to do this is available at <http://www.deldot.gov/information/business/subdivisions/>.
- To provide improved access to both developments for pedestrians, bicyclists and emergency vehicles, we recommend that a shared use path, with bollards to prevent routine vehicular use, be built between the private section of Haslet Street and the unnamed stub street in the Schoolview development. We would advise against a street connection or a path without bollards as it could result in speeding in one or both developments.
- 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.

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

Soils Assessment.

- Based on soils survey mapping update, Greenwich (GrB) is the primary soil mapping unit mapped in the immediate vicinity of the proposed project (Figure 1). Greenwich is a well-drained upland soil that, generally, has few limitations for development.



Additional information on TMDLs and water quality.

- DNREC strongly encourages the applicant to reduce nutrient and bacterial pollutant runoff through voluntary implementation of the following recommended BMPs:
 - Consider additional native tree or herbaceous cover plantings wherever possible.
- Use green-technology storm water management (in lieu of open-water management structures) and rain gardens 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 (302) 739-9939 for further information about the possibility for installing rain gardens 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. Omission of any of the above-stated forms of surface imperviousness will

result in an underestimate of the actual post-development surface imperviousness and will understate the environmental impacts.

- Since this project is a large commercial project that will create additional surface imperviousness which will increase the probability for increased flooding and increased pollutant load runoff impacts to adjoining streams and wetlands in the greater Leipsic River watershed, wherever practicable, use pervious paving materials (instead of conventional asphalt and concrete) to mitigate these impacts. Use pervious paving materials for all parking areas.
- 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, while providing applicants with quantitative information about their project’s impact on baseline water quality. We strongly encourage the use of this protocol to help 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 hazardous waste sites.

- DNREC strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA. Additional remediation may be required if the project property or site is re-zoned by the city.
- 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 tank management.

- When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.
- If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMS.

Additional information on air quality.

- DNREC encourages developers and builders to consider all sustainable growth practices in their design, and we believe that the air quality impacts associated with the project should be completely considered. The existing property has access to sidewalks along Blue Hen Boulevard, leading up to South Bay Road. Safe pedestrian access is also provided to the Bay Court Plaza, which is located across South Bay Road. Bike paths are not present at this time, and the developer indicates that they will not be added as part of this project. There is an opportunity to connect to a transit network via existing DART bus stops within walking distance of the property, along Blue Hen Boulevard. These stops are served by route 107, which connects Federal Street in downtown Dover to the Division of Motor Vehicles in south Dover.
- New homes and 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.
 - The emission of greenhouse gases which are associated with climate change, and
 - The emission of air toxics.
- Air emissions generated from new homes and 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) were quantified. Table 2 – Projected Air Quality Emissions represents the actual impact Blue Hen Apartments Phase 2 may have on air quality.

Emissions Attributable to Blue Hen Apartments Phase 2 (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO _x)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Area source emissions	5.9	0.7	0.5	0.7	24.1
Power emissions	*	2.4	8.2	*	1,208.5
Mobile emissions	8.8	9.2	0.3	0.1	5,674.6
Total emissions	14.7	12.3	9.0	0.8	6,907.2

(*) Indicates data is not available.

Note that emissions associated with the actual construction of the apartment community, 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 an 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.

- **Providing charging stations for plug-in electric vehicles.** This measure helps to reduce localized air pollution by supporting the use of non-gasoline powered vehicles. Please refer to the US Department of Energy's website for electric vehicle readiness information:
http://www1.eere.energy.gov/cleancities/electric_vehicle_projects.html
- Several charging stations exist nearby along US 13, between Camden and Smyrna.

- **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. There is an opportunity to connect to a transit network via an existing DART bus stop within walking distance of the property, located on Blue Hen Boulevard.

- **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.** Native 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 Division of Air Quality (DAQ) which addresses the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Blue Hen Apartments Phase 2 project. The DAQ point of contact is Rachel Yocum, and she may be reached at (302) 739-9402.

Delaware State Housing Authority – Contact Karen Horton 739-4263

- DSHA supports the site plan review for a 192-unit rental community on 6.15 acres adjacent to the existing Blue Hen Apartments in Dover. As a general practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as this location. In addition, DSHA strongly supports the development of rental communities as they can be the most economical to construct and are needed to meet the needs of low- and moderate-income families. There is a growing body of research indicating a market shift away from the large suburban homes that dominated development in Delaware for many years. The Delaware Population Consortium (DPC) projections for the next ten years indicate that

not only will there be a large amount of suburban homes placed on the market by baby boomers, but that there will be a *decline* in households in age ranges that typically seek large homes. These same DPC projections show growth in the younger age ranges most likely at stages in their life and income to support entry-level homes, such as those included in this proposal.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

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

Sincerely,

A handwritten signature in cursive script that reads "Constance C. Holland". The signature is written in black ink and is positioned above the typed name and title.

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

CC: Kent County
City of Dover