



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF MANAGEMENT AND BUDGET  
STATE PLANNING COORDINATION

April 25, 2007

Mr. Scott Lodell  
Van Cleef Engineering Associates  
630 Churchmans Road, Ste. 105  
Newark, De 19702

RE: PLUS review – PLUS 2007-03-02; The Centre at Hearthstone Manor

Dear Mr. Lobdell:

Thank you for meeting with State agency planners on March 28, 2007 to discuss the proposed plans for the Centre at Hearthstone Manor project to be located on the south end of Milford, bounded by Wilkins Road, Cedar Creek Road and Elks Lodge Road.

According to the information received, you are seeking a site plan review through the city of Milford for 164 residential units and 742,200 sq. ft. of commercial space.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as the City of Milford is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.

**Executive Summary**

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. *Our office*

***notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

### **State Strategies/Project Location**

This area is designated as an “Area of Study” according to the *Strategies for State Policies and Spending*. At the time the current version of the Strategies was being developed, this area was the subject of a study to determine potential alignments for a limited access highway along the Route 113 corridor. This study is still ongoing, and in fact three of the proposed alternative alignments are in the vicinity of this site. Since the *Strategies* were completed, the City of Milford proposed and the State certified an amendment to Milford’s comprehensive plan which includes this area as an annexation area. The City met all annexation requirements of the Delaware Code and the parcel was annexed on November 28, 2005. Our office considers the City of Milford to be in compliance with the *Strategies*.

The State has no objections to the development of this project in compliance with the City of Milford’s certified comprehensive plan. However, we note that it is essential for the developers and the City to continue coordination with the DelDOT Route 113 North/South Study. Several of the proposed alternative alignments could impact this property, and must be considered in the site design process.

### **Street Design and Transportation**

- The proposed development will require continuing coordination with DelDOT’s Route 113 North South Study, and specifically with the off-alignment eastern bypass alternatives.
- Route 30 is a major collector road and Wilkins Road and Elks Lodge Road are local roads. DelDOT’s policy is to require dedication of sufficient land to provide a minimum right-of-way width of 40 feet from the centerline on collector roads and 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- DelDOT will require a traffic impact study (TIS) for this development.
- You should anticipate a need to make significant improvements along Wilkins Road from Elks Lodge Road to Delaware Route 1 and along Cedar Creek Road from the south limits of the site frontage to Wilkins Road. These improvements may require right-of-way from other properties along those roads.

- While DelDOT appreciates the developer's efforts to provide a buffer around the outparcels on Cedar Creek Road, they recommend that cross-access easements be provided so that those parcels can be accessed through the proposed shopping center if they are ever redeveloped.
- Regarding the site plan, DelDOT is pleased to see the neo-traditional arrangement of buildings along a central street, but DelDOT has some suggestions as to how the design of the site might be improved.
  1. Building L should be moved west to the central street, or perhaps supplemented by another building such as Building K-2, north of where Building K-2 is now proposed. The idea in either case is to give people walking from Hearthstone Manor a destination to walk to or past. If they have to walk past a parking lot to reach the shops, they are more likely to forego walking altogether and just drive, and once they have committed to driving they may decide to drive elsewhere.
  2. Depending on the proposed tenants in Buildings A, B, Q and S, it may be appropriate to move those buildings closer to the central shopping district to encourage walking to them. If the proposed tenants primarily sell goods such as lumber, furniture or bulk groceries, such that walking with one's purchases is not an option, then the locations of these stores is less important.

More generally, DelDOT recommends that the developer work to group the buildings along a north-south axis and an east-west axis, as they already have to some extent, include safe walkways throughout the site, and consider some parking structures to minimize impervious surface and maximize opportunities for landscaping and open space.

- The number and locations of the site entrances should be reviewed with DelDOT's Subdivision Manager for Sussex County, Mr. John Fiori, early in the plan development process.

### **Natural and Cultural Resources**

- The Watershed Assessment Section recommends that the applicant maintain a minimum 100-foot upland buffer from the landward edges of all wetlands and water bodies. Buffer widths less than 100-foot are insufficient to mitigate impacts to water quality.

- It is difficult to ascertain from the site plan provided if trees along a tributary to Cedar Creek are going to be removed or if a stormwater management pond is within 100 feet of the tributary. DNREC highly recommends that the forested buffer along this tributary be left intact and the stormwater management pond be pulled out of this buffer zone.

The following are a complete list of comments received by State agencies:

**Office of State Planning Coordination – Contact: David Edgell 739-3090**

This area is designated as an “Area of Study” according to the *Strategies for State Policies and Spending*. At the time the current version of the Strategies was being developed, this area was the subject of a study to determine potential alignments for a limited access highway along the Route 113 corridor. This study is still ongoing, and in fact three of the proposed alternative alignments are in the vicinity of this site.

Since the *Strategies* were completed, the City of Milford proposed and the State certified an amendment to Milford’s comprehensive plan which includes this area as an annexation area. The City met all annexation requirements of the Delaware Code and the parcel was annexed on November 28, 2005. Our office considers the City of Milford to be in compliance with the *Strategies*.

Our office has no objections to this development proposal as it is consistent with Milford’s certified plan. However, we note that it is essential to coordinate the site design for this parcel with DelDOT’s Route 113 North/South Study. Several of the potential alternative alignments (known as the Eastern By-Pass alternatives) have the potential to impact this parcel. Contact information is provided below in DelDOT’s comments. From our discussion at the PLUS meeting it is clear that you have been in regular contact with Mr. Monroe Hite. We encourage that contact to continue.

From a design perspective, we wish to compliment the developers on their intention to include a mixed use, downtown style shopping area as a component of this site plan. Commercial areas that mix uses, have a strong pedestrian focus, and attractive architecture are encouraged by our publication Better Models for Development in Delaware. At the PLUS meeting we discussed several ideas to improve upon that design. These ideas include better pedestrian connections to surrounding residential areas, strategically placed open space throughout the site, improving pedestrian connectivity between the “main street” area and the big box portion of the site, and reorganizing some

buildings on the site to provide a better streetscape and to shield some of the surface parking. Please contact David Edgell of our office to learn more, and to view our collection of pictures and site plans of other successful development projects.

**Division of Historical and Cultural Affairs – Contact: Alice Guerrant 739-5685**

Nothing is known within this parcel. Beers Atlas of 1868 shows two H. Vreeland Houses here, one on Elks Lodge Rd. and one on Cedar Creek Rd., which appears to be the house in the out-parcel on this side. There may be historic-period archaeological remains associated with the first one. There are areas of high potential for a prehistoric archaeological site as well. There is one historic property across the road to the southeast, and another across the road to the west.

Small, rural, family cemeteries often are found in relation to historic farm complexes, such as the Vreeland Houses, usually a good distance behind or to the side of the house. The developer is aware of Delaware's Unmarked Human Remains Act of 1987, which governs the discovery and disposition of such remains. The property was purchased from the Vreelands, and they were unaware of any family cemetery here. However, the unexpected discovery of unmarked human remains during construction can result in significant delays while the process is carried out, and the developer may still want to hire an archaeological consultant to check for the possibility of a cemetery here if this development is approved. The DHCA would have to have a copy of any archaeological report done for this purpose. They will be happy to discuss these issues with the developer.

If this development is approved, the DHCA would like the opportunity to examine the area prior to any ground-disturbing activities, to see if there are in fact any archaeological sites on the parcel and to learn something about their location, nature, and extent. In addition, they request that the development include sufficient landscaping to block visual and noise intrusions on the nearby historic properties.

**Department of Transportation – Contact: Bill Brockenbrough 760-2109**

- 1) The proposed development will require continuing coordination with DelDOT's Route 113 North South Study, and specifically with the off-alignment eastern bypass alternatives. For more information, the developer can visit the project web site at [www.deldot.gov/static/projects/us113](http://www.deldot.gov/static/projects/us113) and as necessary may contact The DelDOT manager for the project, Mr. Monroe Hite. Mr. Hite may be reached at (302) 760-2120.

- 2) Route 30 is a major collector road and Wilkins Road and Elks Lodge Road are local roads. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 40 feet from the centerline on collector roads and 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- 3) DelDOT will require a traffic impact study (TIS) for this development. A scoping meeting for this study was held on March 14, 2007. Normally a TIS takes about one year from the scoping meeting to the issuance of DelDOT's comments on the completed study, although on a development of this size more time might be needed. DelDOT recommends that the City withhold plan approvals pending the results of the study and require that any conditions recommended by DelDOT as a result of that study be addressed on the record plan by illustration or notes.
- 4) The first comment notwithstanding, and without prejudging the results of the TIS, the developer should anticipate a need to make significant improvements along Wilkins Road from Elks Lodge Road to Delaware Route 1 and along Cedar Creek Road from the south limits of the site frontage to Wilkins Road. These improvements may require right-of-way from other properties along those roads.
- 5) While DelDOT appreciates the developer's efforts to provide a buffer around the outparcels on Cedar Creek Road, they recommend that cross-access easements be provided so that those parcels can be accessed through the proposed shopping center if they are ever redeveloped.
- 6) Regarding the site plan, DelDOT is pleased to see the neo-traditional arrangement of buildings along a central street, but DelDOT has some suggestions as to how the design of the site might be improved. First, Building L should be moved west to the central street, or perhaps supplemented by another building such as Building K-2, north of where Building K-2 is now proposed. The idea in either case is to give people walking from Hearthstone Manor a destination to walk to or past. If they have to walk past a parking lot to reach the shops, they are more likely to forego walking altogether and just drive, and once they have committed to driving they may decide to drive elsewhere.

Second, depending on the proposed tenants in Buildings A, B, Q and S, it may be appropriate to move those buildings closer to the central shopping district to encourage walking to them. If the proposed tenants primarily sell goods such as lumber, furniture or bulk groceries, such that walking with one's purchases is not an option, then the locations of these stores is less important.

More generally, DelDOT recommends that the developer work to group the buildings along a north-south axis and an east-west axis, as they already have to some extent, include safe walkways throughout the site, and consider some parking structures to minimize impervious surface and maximize opportunities for landscaping and open space.

- 7) The number and locations of the site entrances should be reviewed with DelDOT's Subdivision Manager for Sussex County, Mr. John Fiori, early in the plan development process. To some extent this may be an iterative process as the site is designed, but it can save time in the TIS process to agree on an initial concept for the site access before the study is submitted. If the study finds that the agreed upon access would not operate well, the access and the study can always be revised. Mr. Fiori may be reached at (302) 760-2260.

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

**Soils**

According to the Sussex County soil survey, Downer, Ingleside, Rosedale, Fort Mott, Hammonton, and Fallsington were mapped in the immediate vicinity of the proposed construction. Downer, Ingleside, Rosedale, and Fort Mott are well-drained upland soils that, generally, have few limitations for development. Hammonton is a moderately well-drained soil of low-lying upland that has moderate limitations for development. Fallsington is a poorly-drained wetland associated (hydric) soil that has severe limitations for development.

**Wetlands**

According to the Statewide Wetland Mapping Project (SWMP) mapping, palustrine forested riparian wetlands were mapped in the immediate vicinity of an adjoining headwater stream tributary draining into Cedar Creek, and bordering much of the southern boundary of the parcel. Wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. PLUS materials indicate that non-tidal wetlands were delineated (preferably, a field delineation) and the developer anticipates wetland impacts related to pond construction.

As noted previously, the palustrine headwater water riparian wetlands border much of the southern boundary of subject parcel. Headwater riparian wetlands serve to protect water quality which helps maintain the ecological integrity and functions throughout the length

of the stream, including the floodplain system and/or water bodies further downstream. Since headwater riparian wetlands serve as natural buffers that protect the water and habitat quality of streams from sediment and nutrient-laden runoff, their protection deserves the highest priority. **Therefore, the Watershed Assessment Section recommends that the applicant maintain a minimum 100-foot upland buffer from the landward edges of all wetlands and water bodies. Buffer widths less than 100-foot are insufficient to mitigate impacts to water quality.** A literature review of existing buffer research by Castelle et al. (1994) has documented consensus among researchers that a 100-foot upland buffer is the minimum buffer width necessary, under most circumstances, to protect water quality.

### **Wetland Permitting Information**

Impacts to palustrine wetlands are regulated by the U. S. Army Corps of Engineers (USACE, or “the Corps”) through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process. The wetland delineation should be verified by the Corps through the Jurisdictional Determination process.

Please be advised that the new Nationwide Permits from the Corps became effective March 19, 2007. The Delaware Coastal Management Program (DCMP) has not completed their Federal Consistency review of the new permits; therefore, contrary to past practices, Coastal Zone Management approval cannot be assumed. Individual certifications must be granted from the DCMP office for each project intending to utilize a Nationwide Permit. For more information on the Federal Consistency process, please contact the DCMP office at 302.739.9283.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-9943 to schedule a meeting. The developer should note that both DNREC and the Corps discourage allowing buildings and associated infrastructure to contain wetlands to minimize potential cumulative impacts.

## **Impervious Cover**

Based on a review of the PLUS application, post-development surface imperviousness is estimated to be about 69 percent. However, given the scope and density of this project, this estimate is **clearly an underestimate**. The primary reason for this underestimate is the applicant's improper use stormwater management areas and wetlands (to a much lesser extent), to meet open space requirements. Use of stormwater management areas and/or wetlands in this manner artificially lowers this project's projected amount of calculated surface imperviousness, ultimately leading to a significant underestimate of its actual environmental impacts. Therefore, the parcel's calculated amount of surface imperviousness should use as its basis, a calculated open space figure that reflects the omission of all delineated wetlands (i.e., USACE-approved) and stormwater management areas. Additionally, all created forms of constructed surface imperviousness (i.e., rooftops, sidewalks, and roads) should be comprehensively accounted for and included in the calculation for surface imperviousness. It was not clear from the information submitted whether this was done or not. In summary, the finalized calculation for surface imperviousness should address or correct all of the above-mentioned concerns so that an accurate assessment of this project's impacts can be made.

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of its most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.

## **TMDLs**

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Cedar Creek watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. In the Cedar Creek watershed, "target-rate-nutrient reductions" of 45 percent will be required for nitrogen and phosphorus. Additionally, "target-rate-reductions" of 96 percent will be required for bacteria.

### **TMDL Compliance through the Pollution Control Strategy (PCS)**

As indicated above, Total Maximum Daily loads (TMDLs) for nitrogen and phosphorus have been proposed for the Cedar Creek watershed. The TMDL calls for a 45 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 96 percent reduction in bacteria. A pollution control strategy will be used as a regulatory framework to ensure that these nutrient reduction targets are attained. The Department has developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Additional nutrient reductions may be possible through the implementation of Best Management Practices such as wider vegetated buffers along watercourses, increasing passive, wooded open space, and the use of green-technology stormwater management treatment trains. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

### **Water Resource Protection Areas**

The Water Supply Section has determined that the project does not fall within any delineated wellhead protection areas or areas of excellent ground-water recharge (see map). It does border on two public supply wellhead protection areas for White Oaks Mobile Home Park. These wells are up-gradient and should not be affected by the proposed development.

Water Supply does note that four parcels not listed in the PLUS application nor in the aerial submitted are contained in the site plan as parking lot (see map).

**Map of Center at Heatherstone Manor (PLUS 2007-03-02)**



**Water Supply**

The information provided indicates that the City of Milford will provide water to the proposed projects through a central public water system. DNREC files reflect that The City of Milford does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. According to SB 135 that was signed on June 30, 2003 by Governor Minner, the municipality is required to give notice to the Public Service Commission when the annexation is

complete. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-739-4247.

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.

### **Sediment and Erosion Control/Stormwater Management**

This project has the potential for significant impacts from stormwater runoff. The design must include an adequate level of management to prevent such impacts to downstream areas. As such, a downstream analysis will be required for this project. The owner/developer should contact the Sussex Conservation District at (302) 856-7219 to schedule a preapplication meeting to discuss the downstream analysis requirements and other sediment & stormwater management issues.

### **Open Space**

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Doing so will provide wildlife habitat and it will create recreational opportunities for residents. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces. Natural habitat could consist of increasing tree canopy density, reforesting portions of open space or establishing meadow grasses. The developer is encouraged to review "Community Spaces, Natural Places: A guide to restoration, management, and maintenance of community open space". This document provides a reference of practical and successful open space management techniques that emphasize natural landscape

alternatives other than turf grass management. The guidebook is available online at: <http://www.dnrec.state.de.us/dnrec2000/Divisions/Soil/dcmp/>.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

### **Rare Species & Riparian Buffer**

*Dendroica dominica* (Yellow-throated Warbler) occurs in the vicinity of this project and because this state-rare bird inhabits deciduous forests near or along water courses, it could nest within the forested buffer along a tributary to Cedar Creek. There are also numerous rare species downstream from this site, including the federally-listed swamp pink (*Helonias bullata*). This rare plant appears to be very sensitive to sedimentation and water quality changes, which can be caused by upstream development. This species (and others) could be impacted by this project unless an adequate buffer is maintained along the tributary.

It is difficult to ascertain from the site plan provided if trees along a tributary to Cedar Creek are going to be removed or if a stormwater management pond is within 100 feet of the tributary. DNREC highly recommends that the forested buffer along this tributary be left intact and the stormwater management pond be pulled out of this buffer zone. This project will result in an increase in impervious surface (to 69% according to question #26 on the application) and run-off generated by activities at this site could end up in this tributary. Scientific research indicates buffers less than 100 feet in width are not as effective at protecting water quality.

If the existing forested buffer is less than 100 feet in width, the applicant has an opportunity to restore habitat along this tributary. DNREC recommends that plantings of native vegetation be made to increase the buffer to a more functional width. Our botanist, Bill McAvoy would gladly assist in developing a list that would include native plants suitable to the hydrology and soil characteristics of the site. Many incentive-based programs for wildlife management are available to private landowners through our agency. Please contact our office at (302) 653-2880 if the applicant is interested in more information.

Preservation of trees on-site is preferred, but if trees are going to be removed, we recommend they not be cleared from April 1st to July 31st to reduce impacts to birds and other wildlife that utilize trees for breeding. This would only protect these species for one breeding season, because once trees are removed an overall loss of habitat results.

## **Nuisance Geese**

Stormwater management ponds may attract waterfowl like resident Canada geese and mute swans. 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. We recommend that a buffer comprised of tall grasses, wildflowers, shrubs, and trees be planted at the edge and within a buffer area around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of

Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.

## **Solid Waste**

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.

## **Air Quality**

Once complete, vehicle emissions associated with this project are estimated to be 12.6 tons (25,172.3 pounds) per year of VOC (volatile organic compounds), 10.4 tons (20,841.0 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 7.7 tons (15,376.8 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 0.7 ton (1,368.8 pounds) per year of fine particulates and 1,052.8 tons (2,105,629.9 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 5.1 tons (10,153.1 pounds) per year of VOC (volatile organic compounds), 0.6 ton (1,117.2 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 0.5 ton (927.1 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 0.6 ton (1,196.3 pounds) per year of fine particulates and 20.6 tons (41,158.5 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.0 tons (4,024.0 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 7.0 tons (13,996.4 pounds) per year of SO<sub>2</sub> (sulfur dioxide) and 1,032.2 tons (2,064,471.4 pounds) per year of CO<sub>2</sub> (carbon dioxide).

	VOC	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Mobile	12.6	10.4	7.7	0.7	1052.8
Residential	5.1	0.6	0.5	0.6	20.6
Electrical Power		2.0	7.0		1032.2
TOTAL	17.7	13.0	15.2	1.3	2105.6

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.0 tons of nitrogen oxides per year and 7.0 tons of sulfur dioxide per year.

A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their webpage, <http://www.energystar.gov/>:

“ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

building envelope upgrades,  
 high performance windows,  
 controlled air infiltration,  
 upgraded heating and air conditioning systems,  
 tight duct systems and  
 upgraded water-heating equipment.”

The Energy office in DNREC is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. They highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

They also recommend that the home builders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths, links to mass transit, and fund a lawnmower exchange program for their new occupants.

Water Resources acknowledges the developers intent to use practices consistent with LEED certification.

**State Fire Marshal's Office – Contact: RT Leicht 856-5298**

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. 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):

- a. **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. (Mercantile)
  - Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly, Apartments, and Business)
  - Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.
  
- b. **Fire Protection Features:**
  - All structures over 10,000 sq.ft. aggregate will require automatic sprinkler protection installed.
  - Buildings greater than 10,000 sq.ft., 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
  - Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
  - Show Fire Lanes and Sign Detail as shown in DSFPR
  
- c. **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 subdivision from Elks Lodge Rd, Wilkins Rd, and Cedar Creek Rd must be constructed so fire department apparatus may negotiate it.

- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

d. **Gas Piping and System Information:**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

e. **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(s) is/are 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

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.delawarestatefiremarshal.com](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.

**Department of Agriculture - Contact: Scott Blaier 698-4500**

The Delaware Department of Agriculture has no objections to the proposed application. The project was annexed into the City of Milford in accordance with their certified comprehensive plan, and is consistent with the *Strategies for State Policies and Spending*.

*Right Tree for the Right Place*

The Delaware Department of Agriculture Forest Service encourages the developer to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to increase property values in upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

*Native Landscapes*

The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

*Tree Mitigation*

The Delaware Forest Service encourages the developer to implement a tree mitigation program to replace trees at a 1:1 ratio within the site and throughout the community. This will help to meet the community’s forestry goals and objectives and reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754.

**Public Service Commission - Contact: Andrea Maucher 739-4247**

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

**Delaware State Housing Authority – Contact Vicki Walsh 739-4263**

This proposal is for a site plan review of 164 residential units and 742,200 sq. ft. of commercial space on 100 acres located Southeast of Milford, bounded by Wilkins Road, Cedar Creek Road, and Elks Lodge Road. This proposal is within the City of Milford, and as a general planning practice, DSHA encourages residential development inside growth zones, where residents will have proximity to services, markets, and employment opportunities. DSHA supports the fact that this proposal targets the full range of incomes including first time homebuyers. According to the most recent real estate data collected by DSHA, the median home price in Sussex County is \$260,000. However, families earning 100% of Sussex County's median income only qualify for mortgages of \$174,485, thus creating an affordability gap of \$85,515. The provision of units within reach of families earning at least 100% of Sussex County's median income would help increase housing opportunities for first time homebuyers.

**Department of Education – Contact: John Marinucci 739-4658**

DOE recognizes that this development project is in level 4 of the State Strategies for Policies and Spending, however, this project was annexed into the city of Milford as a part of the City's certified Comprehensive Plan, as such, the project is consistent with State Strategies.

This proposed development is within the Milford School District. DOE offers the following comments on behalf of the Milford School District.

1. Using the DOE standard formula, this development will generate an estimated 82 students.
2. DOE records indicate that the Milford School Districts' *elementary schools are at or beyond 100% of current capacity* based on September 30, 2006 elementary enrollment.
3. DOE records indicate that the Milford School Districts' *secondary schools are not at or beyond 100% of current capacity* based on September 30, 2006 secondary enrollment.
4. The Milford School District has communicated to the DOE the district's lack of capacity at all grade levels given the number of planned and recorded residential sub divisions within district boundaries.

5. This development will create additional elementary and secondary student population growth which will further compound the existing shortage of space.
6. The developer is strongly encouraged to contact the Milford School District Administration to address the issue of school over-crowding that this development will exacerbate.
7. DOE requests developer work with the Milford School District transportation department to establish developer supplied bus stop shelter ROW and shelter structures, interspersed throughout the development as determined and recommended by the local school district.

**Sussex County – Contact: Richard Kautz 855-7878**

Sussex County has no comment about this project. The site is entirely within the City limits and does not directly impact county services or properties outside the town limits.

The town is encouraged to avoid the creation of new enclaves when annexing, to eliminate existing enclaves during its negotiation of the annexation agreement, and to notify the Sussex County Planning Department when the annexation becomes effective.

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

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

Sincerely,

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

Constance C. Holland, AICP  
Director

CC: City of Milford