



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

October 21, 2005

Mr. Marco Boyce
Morris & Ritchie
18 Boulden Circle, Ste. 36
Wilmington, DE 19720

RE: PLUS review – PLUS 2005-09-04; Cattail Creek

Dear Mr. Boyce:

Thank you for meeting with State agency planners on October 5, 2005 to discuss the proposed plans for the Cattail Creek project to be located on the south side of Barratts Chapel Road across from Buffalo Road.

According to the information received, you are seeking subdivision plan approval for a Planned Unit Development (PUD) of 275 residential units on 96.23 acres.

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 Kent 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.

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 project is located in Investment Level 3 according to the Strategies for State Policies and Spending. This site is also located in the Kent County Growth Zone. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments will support growth in these areas, but please be advised that the State may have other priorities in the near term future. We encourage you to design the site with respect for the environmental features which are present.

Street Design and Transportation

- Barratts Chapel Road is classified as a local road. Local roads in Delaware typically have right-of-way widths ranging from 33 to 50 feet. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 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.
- The developer should be prepared to make the following improvements:
 1. Improve Barratts Chapel Road to meet DelDOT's standard typical section for local roads (two 11-foot lanes and two 5-foot shoulders) for the length of the site frontage.
 2. Share in the construction cost of a single lane roundabout including the site entrance at the intersection of Barratts Chapel Road and Buffalo Road as per the conceptual layout sent to the applicant's engineer. The developer of the Fox Trail Meadows (PLUS 2004-09-05) subdivision will contribute to the cost of the roundabout.
 3. Contribute to intersection improvements at Delaware Route 1 and Barratts Chapel Road.
- DelDOT will further require that a paved multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.

Natural and Cultural Resources

- The DHCA requests that the developer include sufficient landscaping across the Barratts Chapel Road frontage to block the view of this development from the

historic property across the road. They also request that the historic property within the parcel be maintained on a large lot within the development.

- Disturbance to wetlands should be avoided and vegetated buffers of no less than 100 feet should be employed from all wetlands and water bodies.
- A review of our database indicates that *Lycaena hyllus* (Bronze copper), a state-rare butterfly, inhabits the freshwater emergent tidal marsh which borders the project site. DNREC recommends maintaining this wetland area and increasing the buffer from 50 feet to at least 100 feet to reduce the amount of sediments, pollutants, and other non-point source material that could potentially affect the condition and survivability of organisms that rely on this habitat.

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

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

This project is located in Investment Level 3 according to the Strategies for State Policies and Spending. This site is also located in the Kent County Growth Zone. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments will support growth in these areas, but please be advised that the State may have other priorities in the near term future. We encourage you to design the site with respect for the environmental features which are present.

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

There is a late 19th-c. to early 20th-c. agricultural complex (K-2746) within this parcel. There is also a historic agricultural complex immediately across Barratts Chapel Road from this parcel. There is a known prehistoric-period archaeological site (K-623) near the south corner of this parcel, and there is some potential for an early historic-period archaeological site and possibly more prehistoric-period sites along the creek. Alice was concerned that the clump of trees on the northeast side of the parcel may contain a cemetery, but DNREC staff and the developer noted that this showed as an area of wet soils making the likelihood of a cemetery there very low.

The DHCA requests that the developer include sufficient landscaping across the Barratts Chapel Road frontage to block the view of this development from the historic property across the road. They also request that the historic property within the parcel be maintained on a large lot within the development. If this is not feasible, they would like the opportunity to record the house and outbuildings before any demolition activities take

place. The DHCA would also like the opportunity to take a closer look at the known site to get a better idea about its boundaries and nature, and to check the parcel for other archaeological sites to identify their location and nature, before any ground-disturbing activities take place.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

- 1) Barratts Chapel Road is classified as a local road. Local roads in Delaware typically have right-of-way widths ranging from 33 to 50 feet. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 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.
- 2) The developer will be required to improve Barratts Chapel Road to meet DelDOT's standard typical section for local roads (two 11-foot lanes and two 5-foot shoulders) for the length of the site frontage.
- 3) A single lane roundabout including the site entrance shall be constructed at the intersection of Barratts Chapel Road and Buffalo Road as per the conceptual layout sent to the applicant's engineer. The developer of the Fox Trail Meadows (PLUS 2004-09-05) subdivision will contribute to the cost of the roundabout.
- 4) The developer will also be required to contribute to intersection improvements at Delaware Route 1 and Barratts Chapel Road. These improvements, briefly, consist of prohibiting left turns out of Barratts Chapel Road, and lengthening the northbound left turn lane on Route 1 serving Barratts Chapel Road and the southbound U-turn lane on Route 1 serving the crossover immediately south of Barratts Chapel Road.
- 5) DelDOT will further require that a paved multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.
- 6) DelDOT commends the developer for including the proposed stub streets on the plan.
- 7) Dead-end alleys are proposed at several points in the townhouse portion of the development. Where possible, it is recommended that the alleys be extended or redesigned to provide for continuity. Dead ends are inefficient for maintenance activities such as mowing and snow removal and they can be security concerns.

- 8) The developer's site engineer should continue to coordinate with Mr. Brad Herb, DelDOT project manager for Kent County, regarding their specific requirements for streets and access. He may be reached at (302) 266-9600.

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

Green Infrastructure

Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special state conservation interest.

Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forest land, greenways, cultural, historic and recreational sites and other natural areas all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

Soils

According to the Kent County soil survey Sassafras, Fallsington, and Johnston were mapped on subject parcel. Sassafras is a well-drained upland soil that, generally, has few limitations for development. Fallsington is a poorly-drained wetland associated (hydric) soil that has severe limitations for development. Johnston is a very poorly-drained wetland associated (hydric) soil that has the highest severity level for development.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine tidal and forested wetlands. PLUS application materials indicate that wetlands have been

delineated. This delineation should be verified by the Army Corps of Engineers through the Jurisdictional Determination process.

PLUS materials indicate that wetlands will not be directly impacted by construction activities. However, if impacts are anticipated please note that palustrine wetlands are regulated by the Army Corps of Engineers 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. Disturbance to wetlands should be avoided and vegetated buffers of no less than 100 feet should be employed from all wetlands and water bodies.

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) 739-4691 to schedule a meeting.

This project is located directly adjacent to sensitive headwater or near headwater riparian wetlands associated with Double Run and Spring Creek of the greater Murderkill River watershed. This project is likely to greatly increasing the probability of harmful impacts to surface and groundwater quality of said waters within the greater Murderkill River watershed, making it more difficult for the State to achieve the required TMDL nutrient reductions. In recognition of this concern, the Watershed Assessment Section strongly recommends that the applicant consider preserving the existing natural forested buffer in its entirety. **Otherwise – as mentioned previously - a 100-foot upland buffer width is the minimum acceptable distance that should be maintained between all wetlands and water bodies (including ditches).** Lot lines, roadways, and stormwater management ponds should not be located within this buffer zone. In cases where natural buffer vegetation has been removed or reduced by past development or farming activities, the developer is encouraged to restore/establish to said buffer width or greater with native herbaceous and/or woody vegetation.

TMDLs

With the adoption of Total Maximum Daily Loads (TMDLs) as a nutrient runoff-mitigation strategy” for reducing nutrients in the Murderkill River watershed, reduction of nitrogen and phosphorus loading will be mandatory. 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 necessary to support use goals

such as swimming, fishing, drinking water and shell fish harvesting. Nutrient reductions prescribed under TMDL are assigned to watersheds or basins on the basis of recognized water quality impairments. In the Murderkill watershed, the primary source of water quality impairment is associated with nutrient runoff from agricultural and/or residential development. In order to mitigate the aforementioned impairments, a TMDL reduction level of 50 and 30 percent will be required for nitrogen and phosphorus, respectively. In order for the applicant to verify compliance with the TMDL mandate, a full nutrient accounting process known as a nutrient budget should be prepared. The protocol used for calculating the nutrient budget involves a computer-based model to calculate post-development nutrient loading under a variety of land use scenarios in combination with a variety (or absence) of BMP types and intensities. This post-development loading rate is then compared with the pre-development loading rate as a means to assess whether the project meets the acceptable TMDL reduction levels. Based on a preliminary evaluation of this project using said model, the development as currently conceived **does not meet** the TMDL reduction requirements for phosphorus. The applicant is encouraged to consider some of the above-suggested BMPs along with other redesign changes that they could be used to satisfy these reductions. We suggest that the applicant verify their project's compliance with the specified TMDL loading rates by running the model themselves. Please contact Lyle Jones of Watershed Section at 739-9939 for the acceptable model protocol. The applicant should also be made aware that the inclusion of stormwater management, wastewater treatment, buffers, and wetlands as metrics for open space calculations – may understate the actual nutrient runoff as calculated in the nutrient budget protocol.

Impervious Cover

Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline. The Department feels that the applicant should reduce imperviousness to the greatest degree practicable. Use of pervious paving materials in lieu of asphalt and concrete along with efforts to increase forest cover via tree plantings – are examples of practical BMPs that could easily be implemented to reduce surface imperviousness. Please contact Dr. Robert Traver by phone (610-519-7899) or email (robert.traver@villanova.edu) for further information about pervious paving materials.

Water Supply

The project information sheets state that Tidewater Utilities will be used to provide water for the proposed project. DNREC records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity number 03-CPCN-10. It is recommended that the developer

contact Artesian Water Company to determine the availability of public water. Any questions concerning CPCNs should be directed to the Public Service Commission at 302-739-4247. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any well(s).

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

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through **Kent Conservation District**. Contact Jared Adkins at (302) 741-2600, ext. 3, for details regarding submittal requirements and fees.

As of April 11, 2005, stormwater best management practices must also consider water quality as well as quantity in impaired water bodies.

Drainage

The Drainage Program requests that all precautions be taken to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of on site storm water.

The Drainage Program does not have a clear understanding how stormwater will be directed to the stormwater management area.

The Drainage Program requests the majority of the stormwater pipes on this project be located on drainage easements along the streets. Regarding drainage conveyances within the proposed subdivision that are not able to be located along a street, the Drainage Program strongly recommends said drainage conveyances be dedicated as a 30-foot drainage easement. All stormwater conveyances should be placed in the center of the 30-foot drainage easement. Trees and shrubs planted within drainage easements should be spaced to allow for mechanized drainage maintenance or the reconstruction of drainage conveyances.

This project is within the Murderkill River Watershed, a designated critical area, with a promulgated Total Maximum Daily Load (TMDL). Existing riparian buffers should be preserved to aid in the reduction of nutrients, sediment, and other pollutants. For the further enhancement of water quality, the Drainage Program encourages additional widths of vegetated buffers and other water quality best management practices on this project.

Floodplains

Portions of the property are located in the 100-year floodplain which will remain as open space, and cannot be subdivided per Kent County Code.

Open Space

To maximize the existing buffering capacity and wildlife habitat on site, it is recommended that the developer minimize the amount of forest removal by relocating infrastructure (such as storm water management ponds) to areas outside of the forest and designating community open space along the forested areas. Doing so will preserve and expand the existing buffers on site and its value for birds and wildlife and it will create recreational opportunities for residents.

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. 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.

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

A review of our database indicates that *Lycaena hyllus* (Bronze copper), a state-rare butterfly, inhabits the freshwater emergent tidal marsh which borders the project site. DNREC recommends maintaining this wetland area and increasing the buffer from 50 feet to at least 100 feet to reduce the amount of sediments, pollutants, and other non-point source material that could potentially affect the condition and survivability of organisms that rely on this habitat.

Nuisance Waterfowl

Although it was indicated that consideration was being given to nuisance geese, it is hard to discern from the preliminary landscape plan if adequate buffers are going to be planted around all of the stormwater management ponds. It appears that there is going to be some amount of coverage, but there are also cleared areas on the back of lots and next to roadways which most likely are designed to allow residential access to the ponds. Water quality within stormwater management ponds typically restrict certain recreational activities and if geese are allowed access, water quality will be further degraded. In addition, waterfowl leave droppings on lawn and paved areas and can become aggressive during the nesting season. First of all, DNREC recommends that consideration be given to reducing the number of ponds. Secondly, they recommend native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) 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 a reduction in the number of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

State Resource Area/Natural Areas Inventory

This project contains land along Spring Creek and Double Run Branch currently identified as part of a State Resource Area. State Resource Areas are comprised of lands that contain a variety of natural, cultural and open space resources significant to the state. Consideration should be given to protecting these resources during design and construction of this project. For more information, please contact Ron Vickers, Land Preservation Office, 739-9235.

This project also contains land currently listed on Delaware's Natural Areas Inventory. Natural Areas contain lands of statewide significance identified by the Natural Area Advisory Council as the highest quality and most important natural lands remaining in Delaware. Consideration should be given to protecting these resources during design and construction of this project. The developer should investigate dedicating the Natural Area as a Nature Preserve through a conservation easement or donation of land. For more information, please contact the Office of Nature Preserves at 739-9235.

State Natural Heritage Site

The riparian buffer along Spring Creek and its tributaries are within a State Resource Area. The existing forested buffer should be left intact. Lot lines, roadways, and infrastructure should not be placed within this buffer zone. This buffer should be placed in permanent conservation to prevent future clearing for access and vistas of the river.

In addition, because of the presence of bronze copper and the existence of a State Natural Area, this project lies within a State Natural Heritage Site. However, it does not lie within a Delaware National Estuarine Research Reserve. This is one of the criteria used to determine the presence of Critical Resource Waters. The final decision regarding Critical Resource Waters – if this is an issue – will be made by the U.S. Army Corps of Engineers (ACOE). The information above will aid the ACOE in their determination.

Recreation

DNREC recommends that sidewalks be built fronting at least one side of residential streets and stub streets. A complete system of sidewalks will: 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the community, and 3) facilitate safe, convenient off-road access to neighboring communities, parks, public mass transit stops, schools, stores, work, etc.

DNREC appreciates the active recreation areas are centrally located. Encourage bike and pedestrian access by minimizing the dedicated parking spaces at the active recreation sites.

The Division of Parks and Recreation conducted a telephone survey of Delaware residents to gather information on outdoor recreation patterns and preferences as well as other information on their landscape perception. These findings are the foundation of the 2003-2008 Statewide Comprehensive Outdoor Recreation Plan (SCORP) providing guidance for investments in needed outdoor recreation facilities. The high and moderate facility needs in Kent County are listed below. Consideration should be given to

incorporate some of these recreation opportunities into the project. For additional information about the outdoor recreation priorities, contact Bob Ehemann at 739-5285.

High priorities are Walking or Jogging Paths, Bike Paths, Swimming Pools, Picnic Areas, Playgrounds and Fishing Areas. Moderate priorities are Skate Facilities, Hiking Trails, Baseball/Softball Fields, Campgrounds, Soccer Fields, Volleyball Courts, Basketball Courts and Canoe/Kayak Access.

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 21.1 tons (42,209.6 pounds) per year of VOC (volatile organic compounds), 17.5 tons (34,946.7 pounds) per year of NOx (nitrogen oxides), 12.9 tons (25,784.3 pounds) per year of SO2 (sulfur dioxide), 1.1 ton (2,295.2 pounds) per year of fine particulates and 1,765.4 tons (3,530,781.8 pounds) per year of CO2 (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 8.5 tons (17,025.1 pounds) per year of VOC (volatile organic compounds), 0.9 ton (1,873.3 pounds) per year of NOx (nitrogen oxides), 0.8 ton (1,554.6 pounds) per year of SO2 (sulfur dioxide), 1.0 ton (2,006.1 pounds) per year of fine particulates and 34.5 tons (69,015.8 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 3.4 tons (6,747.5 pounds) per year of NOx (nitrogen oxides), 11.7 tons (23,469.6 pounds) per year of SO2 (sulfur dioxide) and 1,730.9 tons (3,461,766.0 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	21.1	17.5	12.9	1.1	1765.4
Residential	8.5	0.9	0.8	1.0	34.5

Electrical Power		3.4	11.7		1730.9
TOTAL	29.6	21.8	25.4	2.1	3530.8

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 3.4 tons of nitrogen oxides per year and 11.7 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 DNREC Energy Office 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. We 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.

State Fire Marshal’s Office – Contact: John Rossiter 302-739-4394

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 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Townhouses)
 - Where a water distribution system is proposed for single family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required. (One & Two- Family Dwelling)
 - 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:**
 - For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan.

- 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 Barratts Chapel Road 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)
 - Townhouse 2-hr separation wall details shall be shown on site plans
 - 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

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, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact: Milton Melendez 698-4500

Neither the Delaware Department of Agriculture nor the Delaware Forest Service has any objections to the Cattail Creek application. The site is located on a long-range designated controlled development area within the county. The *Strategies for State Policies and Spending* encourages environmentally sensitive development in areas within a Growth Level 3 Zone.

In addition, this site is a part of a “good recharge” area. The Department of Agriculture and the Department of Natural Resources has mapped and evaluated all ground water potential recharge areas throughout the state. A “good” rating designates an area as having important groundwater recharge qualities. Maintaining existing vegetation in an area with either “Excellent” or “Good” recharge designation is crucial for the overall environmental health of our state and extremely important to ensuring a safe drinking water supply for future

generations. Finally, the loss of every acre of land designated as “excellent” or “good” recharge adversely impacts the future prospects for agriculture in Delaware. Again, retention of existing cover is essential to ensure an adequate future water supply for the future viability of agriculture in the First State. We encourage the developer to consider recharge potential during the design phase and during construction.

The applicant should be aware that the proposed parcel shares a boundary with the Somy Expansion Preservation District. The below restrictions will apply to any development within 50 feet of any Agricultural Districts or Easements. Please see Delaware Code Title 3, Chapter 9, Subchapter II, section 910:

§ 910. Agricultural use protections.

(a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

(1) For any new subdivision development located in whole or in part within 300 feet of the boundary of an Agricultural Preservation District, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

This property is located in the vicinity of an established Agricultural Preservation District in which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities."

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

(b) Normal agricultural uses and activities conducted in accordance with good husbandry and best management practices in Agricultural Preservation Districts shall be deemed protected actions and not subject to any claim or complaint of nuisance, including any such claims under any existing or future county or municipal code or ordinance. In the event a formal complaint alleging nuisance related to normal agricultural uses and activities is filed against an owner of lands located in an Agricultural Preservation District, such owner, upon prevailing in any such action, shall be entitled to recover reasonably incurred costs and expenses related to the defense of any such action, including reasonable attorney's fees. (68 Del. Laws, c. 118, § 2.)

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.

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 Jimmy Atkins 739-4263

According to the *State Strategy Map*, the proposal is located in Investment Level 3 area. As a general planning practice, DSHA encourages residential development in these areas where residents will have proximity to services, markets, and employment opportunities.

Furthermore, the proposal targets units for first time homebuyers. According to the most recent real estate data collected by DSHA, the average home price in Kent County is \$174,015. However, families earning 80% of Kent County's median income only qualify for mortgages of \$147,099. The provision of units within reach of families earning at least 80% of Kent County's median income would help increase housing opportunities for first time homebuyers.

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 printed name and title.

Constance C. Holland, AICP
Director

CC: Kent County