



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF
STATE PLANNING COORDINATION

September 16, 2004

Mr. Bret A. Martine, P.E.
6 Village Square
Smyrna, De 19977

RE: PLUS review – PLUS 2004-08-04; Winding Creek Estates

Dear Mr. Martine:

Thank you for meeting with State agency planners on September 1, 2004 to discuss the proposed plans for the Winding Creek Estates project to be located on Winding Creek Road, west of Dover on Route 8, just outside the growth zone.

According to the information received, you are seeking site plan approval through Kent County to develop a 207 unit residential subdivision on 220 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.

This office has received the following comments from State agencies:

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

This site is located in Investment Level 4 according to the June 3 version of the 2004 State Strategies for Policies and Spending, which has been approved by the Cabinet Committee for State Planning Issues. This site is located outside of the Kent County Growth Zone. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4. This proposed development is inconsistent with the

goals and intent of Investment Level 4. While the Strategies indicate that State investments to support growth and suburban development are not anticipated in Investment Level 4, we acknowledge that the project may proceed under the relevant County ordinances.

State Historic Preservation Office (SHPO) – Contact: Anne McCleave 739-5685

The State Historic Preservation Office has noted that they do not favor this development because it is proposed in a Rural Area. There is a high probability for prehistoric and historic archaeological sites, especially in the area where there was once a house and outbuildings, which have been demolished. It is suggested that you contact Anne McCleave at 739-5685 to schedule a time for archaeologists to meet at the site to provide advice on how to best avoid the archaeological sites.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Because the development is proposed for a Rural Area, it is inconsistent with the Strategies for State Policies and Spending. Therefore DelDOT will not participate in the cost of any road improvements needed to support this development. The comments that follow are technical, and are not intended to suggest that DelDOT supports this development proposal.

- 1) While the proposed development would not warrant a traffic impact study, Winding Creek Road has significant geometric deficiencies, some of which DelDOT may require the developer to correct as part of the site entrance construction.
- 2) The developer's site engineer should contact the DelDOT project manager for Kent County, Mr. Brad Herb of Johnson, Mirmiran & Thompson, regarding their requirements with regard to the design of the site entrance, and of the subdivision streets if the streets are to be public. Mr. Herb may be reached at (302) 266-9080.

The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-3091

Soils

According to the soil survey update, the following soils were found in the immediate vicinity of the proposed construction and grouped on the basis of drainage class:

Well Drained – Sassafras

Moderately well drained – Woodstown

Poorly drained (**hydric**) – Fallsington, Elkton, Othello & Mixed alluvial (floodplain)

Very poorly drained (**hydric**) - Johnston (floodplain) & Pocomoke

Sassafras is a well-drained upland soil with few limitations for development. Woodstown is a moderately well-drained soil of low-lying upland that has moderate limitations for development. Fallsington, Elkton, and Othello are poorly-drained wetland associated (hydric) soils that have severe limitations for development. Mixed Alluvial is a poorly drained (generally) wetland associated (**hydric**) floodplain soil that has severe limitations for development. Johnston is a very poorly-drained wetland associated (**hydric**) floodplain soil that has severe limitations for development. Pocomoke is a very poorly-drained wetland associated (**hydric**) soil that has severe limitations for development.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine forested, palustrine farmed and palustrine emergent wetlands.

Impacts to 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.

Because there is strong evidence that federally regulated wetlands exist on site, **a wetland delineation, in accordance with the methodology established by the Corps of Engineers Wetlands Delineation Manual, (Technical Report Y-87-1) should be conducted. Once complete, this delineation should be verified Corps of Engineers through the Jurisdictional Determination process.**

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.

Further, it is recommended that the Farm Services Agency of the USDA be contacted to assess whether the farmed wetlands on subject parcel meet the recognized criteria for classification as “prior converted wetlands.” Prior converted wetlands are farmed wetlands that have drained or altered before December 23, 1985, and no longer meet the wetland criteria established under the 404 program. Such wetlands are considered exempt from regulatory protection provided that there is no proof of a continuous “fallow period” of five years or greater in that parcel’s cropping history. Parcels converted after said date regardless of cropping history are considered jurisdictional by the Army Corps of Engineers (ACOE). The contact person for assessing a parcel’s cropping history is Sally Griffin at the USDA – she can be reached at 678-4182.

Site plans indicate that wetland and forest resources have been largely minimized. However, it is important to note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex and other waterbodies on site.

It should also be noted that this parcel contains sensitive headwater riparian wetlands associated with the Penrose Branch and the Maidstone Branch. Headwater riparian wetlands and their associated streams are important for the protection of water quality and the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system downstream. Since headwater streams are a major avenue for nutrient-laden stormwater and sediment runoff, their protection deserves the highest priority. **In recognition of this concern, the Department strongly recommends that the applicant preserve the existing natural forested buffer adjacent to the Penrose and Herring Branches' in their entirety. Efforts to maximize or expand the existing natural buffer width via planting of native woody or herbaceous vegetation beyond above-referenced minimum, is further recommended.**

TMDLs

Although Total Maximum Daily Loads (TMDLs) as a “pollution runoff mitigation strategy” to reduce nutrient loading have not yet been developed for most of the tributaries or subwatersheds of the Delaware Bay watershed to date, work is continuing on their development. TMDLs for the St. Jones River subwatershed, of which this parcel is part, are scheduled for completion in December 2006.

Therefore, until the specified TMDL reductions and pollution control strategies are adopted, it shall be incumbent upon the developer to employ best available technologies (BATs) and/or best management practices (BMPs) as “methodological mitigative strategies” to reduce degradative impacts associated with development.

Water Supply

The project information sheets state that County/City of Dover will be used to provide water for the proposed project. Our records indicate that the project is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity number PSC-1190. I recommend that the developer contact Tidewater Utilities 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 302-739-3665.

Drainage

The Drainage Section has concerns about existing drainage problems associated with the project in the area where Penrose Branch crosses Sharon Hill Road. The Drainage Section requests a downstream analysis for this project. This project is within an area that has had severe storm damage from multiple storms in the past 10 years which could cause flow restrictions in the wooded section. The Drainage Section recommends evaluation and maintenance of existing ditches on the property prior to house construction. The Drainage Section 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.

Revegetation

DNREC requests that no invasive species be used in the revegetation of disturbed areas. A list of species considered invasive in Delaware can be found on the DNHP web site, <www.dnrec.state.de.us/fw/invasive.htm>. They further recommend the use of native plants and our Botanist, Bill McAvoy can be contacted at (302) 653-2880 to assist you in developing a plant list.

Nuisance Species

The pond within the subdivision will likely attract waterfowl like resident Canada geese and mute swans that will create a nuisance for community residents. Although small numbers of these species are enjoyed by residents, geese and swans can quickly multiply and overwhelm the area. 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. The pond within the subdivision plan should be landscaped to deter nuisance species. Short manicured lawns around ponds provide an attractive habitat for these species. However, native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area around ponds, are not as attractive to geese because they do not feel as safe from predators and other disturbance when their view of the area is blocked. 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.

Open Space

To maximize the existing buffering capacity and wildlife habitat on site, it is recommended that lot lines and other infrastructure be pulled out of the forest and areas of community open space be designated along the riparian areas. Doing so will accomplish two things: it will preserve the existing riparian buffers on site and its value for birds and wildlife and it will create recreational opportunities for residents by allowing them access to and views of the forest and stream.

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.

Recreation

It is recommended that sidewalks be built fronting every residence 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, public mass transit stops, schools, stores, work etc.

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

Walking or Jogging Paths

Bike Paths

Swimming Pools

Picnic Areas

Playgrounds

Fishing Areas

Moderate Priorities

Skate Facilities

Hiking Trails

Baseball/Softball Fields

Campgrounds

Soccer Fields

Volleyball Courts

Basketball Courts

Canoe/Kayak Access

It is recommended that active recreation be provided that is centrally located and easily accessible. It is also recommended that active recreation sites have more than one access point.

Air Quality

Air pollution threatens the health of human beings and other living things on our planet. While often invisible, pollutants in the air create smog and acid rain, cause cancer or other serious health effects, diminish the protective ozone layer in the upper atmosphere, and contribute to the potential for world climate change. Breathing polluted air can have numerous effects on human health, including respiratory problems, hospitalization for heart or lung disease, and even premature death. Some can also have effects on aquatic life, vegetation, and animals.

Once complete, vehicle emissions associated with this project are estimated to be 15.9 tons (31,772.3 pounds) per year of VOC (volatile organic compounds), 13.2 tons (26,305.3 pounds) per year of NO_x (nitrogen oxides), 9.7 tons (19,408.6 pounds) per year of SO₂ (sulfur dioxide), 0.9 ton (1,727.7 pounds) per year of fine particulates and 1,328.9 tons (2,657,715.8 pounds) per year of CO₂ (carbon dioxide)

Emissions from electrical power generation associated with this project are estimated to be 2.5 tons (5,079.0 pounds) per year of NO_x (nitrogen oxides), 8.8 tons (17,666.2 pounds) per year of SO₂ (sulfur dioxide) and 1,302.9 tons (2,605,765.7 pounds) per year of CO₂ (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 6.4 tons (12,815.2 pounds) per year of VOC (volatile organic compounds), 0.7 ton (1,410.1 pounds) per year of NOx (nitrogen oxides), 0.6 ton (1,170.2 pounds) per year of SO2 (sulfur dioxide), 0.8 ton (1,510.0 pounds) per year of fine particulates and 26.0 tons (51,950.1 pounds) per year of CO2 (carbon dioxide)

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	15.9	13.2	9.7	0.9	1328.9
Residential	6.4	0.7	0.6	0.8	26.0
Electrical Power		2.5	8.8		1302.9
TOTAL	22.3	16.4	19.1	1.7	2657.8

The Department of Natural Resources and Environmental Control is asking that local jurisdictions consider mitigation to help resolve this issue. Mitigation might involve limiting large new developments to growth zones, focusing development to urban areas capable of providing mass transit services, requiring more energy efficient homes which would lessen air quality impacts, and promoting walkability and bikability within and between developments and town centers.

Underground Storage Tanks

There are no LUST sites located near the proposed project. However, should any underground storage tank or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that any construction specifications would need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel in the contaminated areas.

State Fire Marshal’s Office – Contact: Kevin McSweeney 739-3696

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:**
 - 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.
 - The infrastructure for fire protection water shall be provided, including the size of water mains.

b. 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 Winding Creek 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.
- If the use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

c. Gas Piping and System Information:

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

d. 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”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- 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: Mark Davis 739-4811

DDA opposes development of this site, due to its location in the state’s investment level four. The state has determined that investment level four areas are primarily suitable for wildlife habitat, natural resource and agricultural preservation – the setting is rural and the economic drivers area agricultural industrial as well as “agricultural and eco-tourism.”

If this site is to be developed, then a modified deed notice in all subdivided parcels within

in the new subdivision is recommended. See Below:

“Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Areas (Investment Level Four Areas). New residents should expect normal agricultural uses and activities which generate noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, and farm related road traffic.”

A forested buffer should be maintained between the proposed subdivision and all adjacent properties in active agricultural use. In addition, a forest buffer should be maintained for those pre-existing residential properties and along all streams, wetlands, and river that border the proposed subdivision.

The developer should consider a diverse landscape plan that uses Delaware native tree and shrub species and encourages the “Right Tree for the Right Place” concept.

Public Service Commission - Contact: Andrea Maucher 739-4247

The property is in a certificated area for Tidewater Utilities, Inc.

The Application notes a central (community system). If it will be a private system serving 50 or more homes, the operator will need to apply to the Commission for a CPCN. Additional requirements may apply if the operator has not been previously granted a CPCN to provide wastewater services.

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 Emergency Management Agency – Contact: Don Knox 659-3362

A significant impact to public safety is foreseen by implementation of this project, due to the large number of residential units being constructed. The developer should notify the police, fire service, and emergency medical response organization serving this portion of Kent County, to keep them apprised of all development activities.

It appears portions of this development lie in the Special Flood Hazard Area inundated by the 100 and 500-year flood. Route 8 is a coastal storm evacuation route and this development will add to the traffic volume on this route during a coastal storm event.

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.

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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 to the right of the word "Sincerely,".

Constance C. Holland, AICP
Director

CC: Kent County