



DC GROUP

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February 20, 2006

Ms. Constance C. Holland, AICP - Director
Office of State Planning and Coordination
State of Delaware
540 DuPont Highway
Thomas Collins Building, Third Floor
Dover, DE 19901



RE: PLUS 2005-05-09
Captain's Way (formerly Captain's Run)

Dear Ms. Holland:

We acknowledged the receipt of your PLUS comments dated July 20, 2005 for the above referenced project. We have carefully reviewed these comments and appropriately incorporated many of the recommendations into our revised site plan. Our specific reply comments are as follows:

Office of State Planning and Coordination (OSPC)

The Developer is proposing to construct 494 single-family dwelling units on 247.21± acres of an approximately 258.22+ acres of land located on the North side of DE Route 16 and the South side of SCR231 (Reynolds Pond Road) between Ellendale and Milton. Approximately 6.49 acres are reserved for future development along DE Route 16. The property is presently zoned Agricultural Residential (AR-1). The total proposed density for this site is two-lots per acre based on the Original Cluster Ordinance in force at the time the application was filed. This density allows for the provision of 30% open space in which we provide 52% (129.27± acres) with our submittal to the County to address the concerns of preserving natural resources on-site. The amount of open space excluding the area set aside for the private sewer system is 47%.

It is recognized that this project is designated as Level 4 (area outside designated growth zones) according to the Strategies for State Policies and Spending which designate growth zones as those areas of the County having access to existing infrastructure and services required for development. The Developer understands the State's concerns for development in Level 4 and have undertaken due diligence to address the spending issues in areas of utilities, services and impact of the project. Sanitary Sewer and Water Services will be provided by Tidewater Utilities either offsite

via a regional facility or on site at the expense of the Developer. Also, the Developer intends to provide access to public transportation, which will benefit the project, via a DART Bus stop to be located near the project entrance on Route 16 that will enable this community alternative transportation. The Developer will work with the State in order to add this bus stop during the construction of the entrance at the Developer's expense.

Additional measures are being undertaken by the Developer of this project to address the State's concerns regarding the priority of spending State's resources in a Level 4. These measures include (1) a contribution to the Nature Conservancy of \$10,000 per acre of forested land that will be impacted by the development of the project. This contribution is being offered because the Nature Conservancy owns the Ponders Tract (which is adjacent to the project) that is being reforested and managed; (2) a contribution of \$100.00 per lot at the initial transfer of lots to the Ellendale Volunteer Fire Company and to the Milton Volunteer Fire Company to help offset the costs of ambulance and fire protection associated with this project; (3) a contribution of \$50.00 per lot at the time of the initial transfer of lots to the Sussex County EMS to help offset the costs of emergency medical services, and (4) this project is being aimed at providing "value housing" in Sussex County to fill a need that is expressed in the Sussex County Comprehensive Plan and Livable Delaware.

This project will be developed according to Future Land Use map in the Comprehensive Plan, which supports projects that are being developed in rural areas under its current zoning. This project, which is adjacent to a mobile home park and a commercial use, is about half a mile from the Investment Level 3 area depicted on the State strategies map for State Policies and Spending. Hence, it is anticipated that future County planning and annexation areas may extend to this development.

State Historic Preservation Office (SHPO)

Review of available data indicates the absence of prehistoric archeological site within the vicinity of this subject Property. Per a phone conversation with SHPO 7/26/05, a registered historic cemetery is located southwest of this property, approximately 350 yards into the woodland on adjacent property.

Per data received by email from SHPO 7/26/05, there are no archeological sites located within this subject property. In addressing SHPO's concerns about the high probability of extension of the above referenced cemetery into our subject property, minimal disturbance and a 30-foot plus setback from the edge of the existing woodland will be applied.

Great caution will be exercised during construction activities not to impact area adjacent to the cemetery or any other archaeological sites that may become evident within the vicinity of this property.

The Developer will not require any federal involvement which may result in a request from SHPO that archaeological work be conducted on this Site in compliance with Section 106 of the National Historic Preservation Act.

Department of Transportation (DeIDOT)

Presently, the final traffic impact study has been completed and submitted to DeIDOT for review and approval. To support existing traffic and additional traffic from this development, road improvement plans for this project will be finalized with DeIDOT.

All road plans will be designed in accordance with the States Local Roads design currently in place at this time. All construction documents will be submitted to DeIDOT for their review and approval.

Additionally, the Developer is in discussions with the Delaware DART Bus program, in order for this development to provide for a bus shelter near the entrance to this project along Delaware Route 16.

Prior to layout and design, DC Group will continue to consult with Mr. Fiori and the staff of DeIDOT to review the final road plans for this development.

Department of Natural Resources and Environmental Control (DNREC)

Soils

According to Sussex County Soil Survey (1974) soils mapped within the immediate vicinity of this property include the following:

- 1) Evesboro series with slope ranging from 0 -2; 2-5 percents
- 2) Pocomoke series
- 3) Fallsington series
- 4) Johnston series

Evesboro is an excessively well-drained soil of uplands that has few limitations for development. Pocomoke, Fallsington and Johnston are very poorly-drained soils associated with floodplain wetlands (Hydric) and have severe limitation for development.

Soil reconnaissance report by Atlantic Resource Management, DC Group and Eastern Shore Soil Services indicate that the vast majority of on-site soils are well-drained and have the potential to support Wastewater Treatment and Disposal Systems. These on-site soils have fluctuating water table greater than 36 inches and nutrient leaching via groundwater or surface runoff is not anticipated.

Wastewater

The Developer has undertaken steps to become connected to an offsite regional wastewater facility. However, if this does not occur, then Tidewater Utilities will provide wastewater through an on site facility. Recognizing the need to be in compliance with future TMDL for the Broadkill river sub-watershed, to which this property belongs, a central wastewater system instead of individual on-site septic systems are being proposed for this Development. Preliminary soil feasibility studies and Site Investigation Reports indicate that majority of on-site soils are well-drained. These soils have the potential to support Community OWTDS and nutrient leaching via groundwater or surface runoff is not anticipated. Treated Wastewater effluent from this development will be disposed of through the use of Rapid Infiltration Basins (RIB).

Green Infrastructure

No specific plan recommendations regarding Green Infrastructure. It should be noted that our site plan utilizes Context-sensitive design standards, a performance-based community septic system, a minimum of a 60-foot buffer setback from wetlands or waters of the United States, additional planting of street trees, the use of rain gardens and low impact development BMP's along all roadways, provision of 52% of open space, limited to no impact to the existing vegetation that is contiguous to the lands of the Nature Conservancy and reduction of site's imperviousness. Conservatively, all these measures will reduce the impact this development will have on the environment and sensitive resource areas on-site to a bare minimum.

Wetlands

Wetlands and waters of the United States boundaries within the subject parcel were delineated in the field by Kenneth R. Redinger, Atlantic Resource Management of Virginia, in accordance with the 1987 Corps of Engineers Delineation Manual and associated federal and state regulatory documents. The presence of approximately 19.11 acres of non-tidal wetlands was identified within the Property. A wetland delineation report was submitted to the Philadelphia District U.S. Army Corps of Engineers (USACE) to obtain a jurisdictional determination on the wetland boundary. Site Plans show that there will not be direct impacts to wetlands or waters of the United States and sensitive resource areas through construction activities.

Wetlands provide water quality benefits by attenuating flooding and providing important habitat for plants and wildlife. 60-foot vegetated buffers will be employed from the edge of the wetland complex and other waterbodies on site.

TMDLs

The Property is located adjacent to receiving waters of the Delaware Bay Watershed. Since such receiving waters are a major avenue for nutrient-laden stormwater and sediment runoff, they are afforded the highest protection status by the State. TMDLs for

the Broadkill river sub-watershed, to which this parcel belongs, are scheduled for completion in December of 2006.

The Developer recognizes the need for protection of the environment and although not mandatory, a detailed nutrient budget analysis was prepared via DNREC's Nutrient Protocol to ascertain the site's post-development nutrient loading rate. The post-development loading rate of this development was compared to a known loading rate of Inland Bays Low Reduction Area and resultant data indicate a reduction in nutrient loading rate that is comparable to the mandated TMDL of Inland Bays Low Reduction Area. However, all best available technologies (BATs, BMPs) will be employed by the Developer as mitigative strategies to reduce the degradative impacts that may be associated with this development.

Mitigating measures such as conservation design, central wastewater systems in lieu of individual on-site septic systems and all available BMPs will be implemented to the greatest degree practicable to protect sensitive headwaters and waterbodies.

Water Supply

No specific plan change recommendations regarding water supply. As part of our preparation of site utility plans for approvals by Sussex County Engineering, a CPCN will be obtained. At present, the Developer is working with Tidewater Utilities, Inc.

Should dewatering permit be needed during construction, the Developer will follow all necessary procedures to obtain this permit from the Water Supply Section prior to construction of well points.

Impervious Cover

Our site plan calls for Context-sensitive design standards, (LID's, Rain Gardens, mulched walking paths, etc.), a performance-based community septic and additional planting of street trees that allows for the provision of 56% of open space that allow for reduction of total impervious surface over this development. Conservatively, only minimum impact to the environment could be anticipated from this development.

Water Resource Protection Areas

Sussex County is currently drafting local ordinances that may restrict future development in area mapped as conducive to groundwater recharge. The Developer acknowledged this and has incorporated into the revised site plan recommendations to augment recharge throughout this development, i.e. rain gardens, bio-retention, bio-filtration along all roadways, riparian buffers along all natural resources. Provision of abundance of open spaces (56%), stormwater management structures and additional planting of street trees will augment recharge throughout the site.

Sediment and Erosion Control/Storm Water Management

Stormwater structures are very effective techniques for providing channel protection and pollutant removal prior to entering the existing streams. Stormwater structures are the most effective and widely used practices for stormwater management in developing areas. The importance of stormwater structures can be attributed to their proven ability to attenuate runoffs from design storm events. Stormwater structures and wetlands are common practices for treating stormwater runoffs.

The fact that this site has both existing wetlands and ditches, with the land use cover that presently exists indicates that the wetlands and ditches on site are serving as a water quality practice prior to the runoff leaving this site.

With the introduction of this project, permanently vegetated landscape, open areas, and additional stormwater treatment systems, the amount of pollutants leaving the site will decrease, thus the runoff will be reduced prior to entering the existing aquatic resource areas.

During the design of the stormwater management structures the designers and the Developer will work with the Sussex Conservation District to achieve the best management practice for the development. The design of permanent stormwater structures that will incorporate the existing vegetation onsite will be utilized.

If the existing ditches and wetlands are to be used for stormwater discharge the designers will acquire all County, State and Federal permits prior to discharging.

No specific plan change recommendations regarding Erosion Control and Storm Water Management. As part of our preparation of site storm water and grading plans for approvals by Sussex County Engineering (SCE) and the Conservation District (SCED), all comment requirements will be addressed.

Floodplains

Per DNREC recommendations, all building finished floors shall be located outside the floodplain on grades above the base flood elevation for 100 year storm events.

Very limited portion along the wetlands is within the 100-year floodplain. Based on the Flood Insurance Rate Map dated January 6, 2005, Map Number 10005C0335J, this portion of the project is located within the following two flood zones:

1. Zone A – No Base Elevation Determined. Special flood hazard area subject to inundation by the 1% annual chance flood.
2. Zone AE – Base Flood Elevations Determined. Special flood hazard area subject to inundation by the 1% annual chance flood.

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special

Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. In referencing our site plans, the base flood elevation is delineated approximately along the wetlands line. All dwellings along this portion of the site will not encroach on the wetlands line as a 60-foot buffer set-back will be employed.

Forests

The Developer acknowledges that forests provide important water quality, air quality and wildlife benefits both for the Site and the region as a whole, and as such, great caution will be exercised to preserve forested resources on-site as much as possible.

In preserving the existing buffering capacity and wildlife habitat on-site, site plan was revised so that overall acreage of upland woodlands projected for removal constitutes approximately 38% of forested area. All trees adjacent to the Nature Conservancy Property will be preserved in a natural buffer outside of all building lots. Tree removal will be done in such a way that discourages fragmentation and encourages contiguity of forest blocks. The site will be reforested with street trees to further increase the total acreage of forested resource on-site. The design of permanent stormwater structures that will incorporate the existing vegetation onsite will be utilized. Forested area on-site will be considered a community asset and will be managed appropriately. It is recognized that even though efforts have been made to avoid impacting forested land, the inevitable consequence is that a portion of the 138 acres of forested lands will be impacted. The calculation of impacts in forested property ranges from 48 to 58 acres depending upon the ability to save trees in the rear setbacks of the lots which will have a conservation easement imposed on the treed areas in the rear setbacks (assumed to be 49.4 acres). This \$10,000 per acre of disturbed forest will equate to \$494,000 (assuming 49.4 acres of disturbance) which will be paid upon the original settlement on each lot as the lots are sold. As a result, the Developer will contribute \$10,000 per acre of forested land that is impacted by the inevitable consequences of the development of the project to the Nature Conservancy to be used for the reforestation and management of the adjacent Ponders Tract.

Open Space

The preliminary subdivision plan shows a variety of open space that adds up to approximately 52% of the entire site area and 47% of the site area exclusive of the wastewater treatment areas, which exceeds the minimum 30% open space as required by County Code. This open space is provided to the residents of this development for recreation, wild life habitat, landscaping, stormwater management and wastewater treatment. Additional street forested areas are being established throughout the Site to create more recreational opportunities for residents.

According to the Statewide Comprehensive Outdoor Recreation Plan (SCORP), the high facility needs in Eastern Sussex County are walking and jogging, bike paths and fishing areas. The moderate facility needs are picnic areas, canoe/kayak access, hiking trails, swimming pools, playgrounds, tennis courts and other items such as power boat access and baseball softball fields that we are not addressing. We have provided all of the high facility recreational needs and six of the ten moderate facility needs.

The overall recreational purpose for these open spaces consists of a clubhouse, swimming pool, and sidewalks/jogging paths throughout the site. The project will have two "Hilton Head" styled paths, one on each side of the road. One side will be dedicated to walking/jogging and the other will be earmarked for bike paths. The hiking trail will be located on the perimeter of the property. Passive recreation space in the form of improved landscape areas and related amenities is provided throughout the site and will provide opportunities for residents to engage in leisure activities. Enhancing the utility of these passive recreation spaces will be light shelters and park benches along walkways. These amenities will offer opportunities for residents to enjoy the site's landscape.

All areas not planned as landscape beds and/or meadow-type grasses will be improved and maintained to provide open space and useable lawn area for passive recreation. Stormwater management structures that will be permanent water features with decorative fountains and provide recreational opportunities are included in the passive/active recreation space calculations, due to the fact that these features act as an attractive landscape element that significantly enhances the park-like setting of the open space and the overall passive recreational experience for its users.

It should also be noted that street trees will also be furnished throughout the site. The benefits of street trees have been thoroughly documented. They play a vital role in carbon sequestration, air pollution absorption, street traffic calming and asphalt life cycle extension, energy conservation, and provide intangible sociological benefits.

Site Visit Request

The Developer, at their request and expense, had a Natural Heritage and Endangered Species survey performed as well as wetlands delineation, and has voluntarily provided a 60' foot buffer around all jurisdictional wetlands on site. Furthermore, it was found that no endangered species were evident on site and that this development would not adversely impact the natural resources by this type of development.

Rare/Threatened/Endangered Species

In maximizing the existing buffering capacity and wildlife habitat on-site, buildings and other infrastructure (such as stormwater management ponds) have been removed from the forested wetland area. Vegetated buffers of no less than 60 feet will be employed from the edge of the wetland complex and other waterbodies on site.

Nuisance Waterfowl

Monofilament line may be used to deter geese as it has been proven to be an effective measure. Rest assured, as part of our preparation of landscape architectural plans for the site, native plantings and other edge treatments will be specified around proposed water bodies to deter nuisance waterfowl. Furthermore, recreational paths will encourage canine owners to walk their dogs in these areas, providing supplementary passive strategy towards dissuading nuisance waterfowl habitation of the pond areas. Per DNREC recommendations, the periphery of the proposed stormwater pond will be landscaped with 15' of vegetated buffer of native plants consisting of grasses and shrubs. Additionally, by encouraging resident and visitor to utilize the pond area as a recreation space, i.e. kayaks, canoes, paddle boats, etc. passive harassment will be provided to dissuade nuisance waterfowl from nesting in the area.

State Resource Areas/ Natural Areas Inventory

No specific plan change recommendations regarding State Resource Areas. The preservation of existing wetlands by maintaining a 60-foot setback and significant decrease in tree removal will adequately protect these outlying natural resource areas. A 100-foot setback from the Nature Conservancy Property to minimize any impact to the vegetation that is contiguous to this property.

Underground Storage Tanks

No specific plan change recommendations regarding LUST sites. Should any environmental conditions become evident during construction activities, DNREC's recommendations will become effective.

State Fire Marshal's Office (DSFMO)

No specific plan change recommendations by DSFMO. Per DSFMO comments, detailed plans will be submitted in accordance with Delaware State Fire Prevention Regulation (DSFPR) for Fire Marshal approval.

Department of Agriculture (DDA)

The Developer intends to proceed with the project as proposed and has thoroughly addressed most environmentally sensitive issues and this is reflected in the revised site plan. Refer to comments above.

Public Service Commission (PSC)

No specific plan change recommendations by PSC. Tidewater Utilities has initiated a certificate of public convenience and necessity (CPCN) with the appropriate agencies to provide public water and sanitary sewer services to this Development.

Sussex County (SCE)

Per SCE recommendations and as part of our overall submittal to the County for approval, the Developer will provide evidence that it has entered into a long-term agreement with Tidewater Utilities to provide sanitary sewer services. Wastewater treatment area will be excluded from the overall proposed open space and plan for the open space management can be found in the revised site plan.

This project will be developed according to the approved AR-1 Cluster Zoning Ordinance. The overall design concept provides approximately 47% of open space exclusive of wastewater treatment area as compared to 30% open space required under the Counties Cluster Ordinance. Conservatively, this abundant open space provides more opportunity to preserve and protect more natural and historic resources on-site.

With these reply comments, I am forwarding copies of our revised plan for your reference. If there are any questions regarding this letter or about the revised plan, please do not hesitate to contact us at (302) 684-8030.

Respectfully Yours,



Mark H. Davidson
Owner
Design Consultants Group, L.L.C.

Enclosures