



Received
DC GROUP

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April 26, 2007

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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 2005-04-10
Amended and Expanded Dove Knoll Subdivision
Lot 17 & Outlot "C", Parcel "A", Parcel "B" & Parcel "C"

Dear Ms. Holland:

We have received your PLUS comments dated May 13, 2005 for the project referenced above and have incorporated many of these comments into site plan revisions. Our specific reply comments are as follows:

General Comment

The County Ordinance of 51% property owner consent has been recognized by the applicants of this project and they have attempted to supply all existing lot owners in Parcel A, Dove Knoll with a presentation of the options available to them as the entire community is updated and completed. 51% consent of lot owners in Parcels "A", "B" & "C" has been accomplished.

State Strategies/Project Location

It is recognized that this project is located within Levels 3 and 4 according to the Strategies for State Policies and Spending. It is also recognized that this project is located in the Environmentally Sensitive Development District. Sussex County's Comprehensive Plan, dated January 1, 2003, as approved by the State of Delaware, and defines the Environmentally Sensitive Developing District as a "Developing District". The Plan also emphasizes these areas for the County should be adjacent to existing infrastructure and services required for development. This project is in the Sussex County Sanitary Sewer District and is in the Water Service area for Tidewater Utilities, Inc. This project is intended to keep the density and the minimum lot sizes per the underlying zoning for AR-1 district Section 115-25. B. (1). The density for this portion of the project will be in kind with that of the existing phase of Dove Knoll. The Comprehensive Plan supports projects that are being developed in rural areas under its current zoning.

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Natural and Cultural Resources

The existing natural forested area within the Section 404 Non-Tidal Wetlands will be preserved and used as open space for the residents of all three phases of Dove Knoll. No lot line will extend into this area and the plans have been modified to add an additional 10-foot to the rear building restriction lines for a total of a 30-foot rear building setback. No Stormwater Management structures will be placed within these areas.

Office of State Planning and Coordination (OSPC)

Per OSPC and Executive Office recommendations, the applicant will preserve a larger portion of the existing upland woodlands. However, this will not be in the form of the recommended 100' buffers. Most lots adjacent to the wetland areas will have larger rear setbacks. This allow for the provision of a 15' wooded greenway and a 15' lot greenway. The greenways will guarantee the preservation of a portion of the upland woodlands and ensure participation of property owners in their management and preservation in perpetuity. 100% of wooded wetlands will be preserved. Our plans also call for the preservation of existing upland woods within front setback. Trees are an important factor in maintaining the privacy and natural attractiveness of Dove Knoll Parcels "B" & "C" and will be regarded an asset by individual lot owners.

Per OSPC and other comments, our plan has been altered to include preservation of upland woodlands along side setback lines. Conservatively, we expect to preserve at least 20' width of these trees in these setback areas, allowing for some clearance due to utilities as noted above. Because lots will be sold as wooded lots, and because home builder footprints are unknown at this time, the actual quantity of upland woods to be cleared is difficult to ascertain. We anticipate that the total trees to be removed will be much less than that presented in our plans, as septic systems will not be installed for these homes and most home buyers and builders in the marketplace understand the significant price premiums associated with wooded lots. Additionally, an owner's association will scrutinize proposed home site plans with a bias towards woodland preservation. In concert, these practices should significantly reduce the overall acreage of upland woodlands projected for removal. The removal of trees of a certain diameter will be subject to the covenant and restrictions and the Dove Knoll Extension Architectural Review Committee (DKEARC) and only permitted for the erection or placement of dwellings and for the construction or placement of utility lines, driveways, sewer and water utilities, roads, stormwater management facilities and accessory structures. A tree removal plan will be needed by lot owners and submitted to the DKEARC for approval.

It should be noted that approximately 35% (12.87 acres±) of existing upland woods is fragmented due to previous clearing activities. Each of these fragments is between 1 to 4 acres in size. Only the remaining 65% (23.92± acres) of upland woods is contiguous to the surrounding wooded wetlands (18.92± acres). Of the conservatively projected 25.37 acres of upland woods to be removed, 10.10 acres (34%) are fragmentary woodlands.

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 prominent role in carbon sequestration, air pollution absorption, street traffic calming and asphalt life cycle extension, energy conservation, and provide intangible sociological benefits. Unlike woodland buffers, street trees sequester carbon without releasing it vis-à-vis decomposition. A summary of street tree benefits is covered in the following URL:

<http://www.coloradotrees.org/benefits.htm#carbon>

Finally, it should be noted that neither DNREC's nutrient budget protocol, nor the USDA-NRCS methodology for calculating storm water, nor DNREC's DURMM model factor in the benefits that street trees provide in terms of storm water interception and nutrient load mitigation. Consequently, Sussex County does not have a street tree ordinance, and DeIDOT lacks context-sensitive design standards for traditional urban and suburban alleys, lanes, streets, avenues, and boulevards that typically encourage the application of street trees and other pedestrian-friendly "fixed objects".

State Historic Preservation Office (SHPO)

Per SHPO recommendations, 100% of existing low-lying woodlands in wetland areas will be preserved. Refer to our reply comments to OSPC regarding upland woodlands.

Per a phone conversation with SHPO 5/18/05, an unregistered prehistoric archeological site exists within the parcel. The site was collected back in the 1970's.

Per data received by email from SHPO 5/23/05, there are no archeological sites located on this property. One site is located on a developed ¼ acre residential lot in an adjacent subdivision and no where near the existing woods. Another two sites are located on a property east of the subject property, presumably on the other side of the peripheral wetland and therefore well-removed from any of the proposed lots or construction activities.

Department of Transportation (DeIDOT)

To support existing traffic and additional traffic from the Amended and Expanded Dove Knoll Subdivision, preliminary road development plans were finalized with Subdivision Manager for Sussex County, Mr. John Fiori. No specific plan change recommendation by DeIDOT and letter of no objection was issued to the traffic plan of this project.

The subdivision streets will be dedicated to the State and all plans will be designed in accordance with the States Local Roads design in effect at this time. All construction documents will be submitted to DeIDOT for their review and approval.

Prior to layout and design, DC Group had several meetings with Mr. Fiori and the staff of DeIDOT to review the development of this portion of the Amended and Expanded Dove Knoll.

Department of Natural Resources and Environmental Control (DNREC)

Note our reply comments to OSPC (above).

Green Infrastructure

No specific plan recommendations regarding Green Infrastructure. Note our reply comments to OSPC (above) and comments made below.

Soils

According to Sussex County Soil Survey for 1974 and Recent Soil Update for 2002 soils mapped at the property include the following:

- 1) Downer Sandy Loam, with slopes ranging from 0-2, 2-5, 5-10 percent;
- 2) Manahawkin muck
- 3) Longmarsh and Indiantown soils

Downer is well-drained upland soil that has few limitations for development. Manahawkin and Longmarsh are very poorly-drained soils associated with floodplain wetlands (Hydric) and have severe limitation for development.

The mapping of these soils types at this Property are depicted on the referenced Preliminary Plan. No specific plan recommendations regarding these on-site soils

Wetlands and Water Bodies

Per DNREC recommendations, all lots will be removed from existing wetlands. In addressing DNREC's concerns, existing upland woodlands will be preserved along front and side lot setback areas. Where feasible, an increased rear setback will provide for a wooded greenway and lot greenways to buffer the wetlands at the back sides of the lots.

On January 31, 2004, The Department of the Army, Philadelphia District, Corp of Engineers issued the approved Jurisdictional Determination (JD) Permit for this project. (CENAP-OP-R-200300478-26)

ERES Waters

No specific plan recommendations regarding ERES waters. Refer to comments above. It should be noted that BMPs will be implemented to the greatest degree practicable.

TMDLs

Refer to previous comments regarding existing woods. It should be noted that a nutrient budget analysis has been prepared in conjunction with the projected implementation of practicable BMPs for this site.

Water Supply

No specific plan change recommendations regarding water supply. As part of our preparation of site utility plans for approvals by Tidewater Utilities, Inc., a CPCN has been obtained.

Sediment and Erosion Control/ Storm Water Management

Stormwater structures are one of the most effective techniques for providing channel protection and pollutant removal prior to entering the existing streams. Stormwater structures are among the most adaptable, effective and widely applied stormwater treatment practices in developing areas. The popularity of stormwater structures can be attributed to their proven ability to attenuate runoffs from design storms. Stormwater structures and wetlands are common practices for treating stormwater runoffs.

The fact that this site has both existing wetlands and stream, with the land use cover that presently exists shows that the wetlands and streams on site are acting as a water quality practices prior to the runoff leaving this site.

With the introduction of single family lots, permanently vegetated landscape, open areas, and additional ponds, 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 practices the designers and the developer will work with the Sussex Conservation District to achieve the best management practice for the development.

If the existing stream and wetlands are to be used for stormwater practices the designers will achieve all County, State and Federal permits prior to construction.

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 lots and/or building finished floors shall be located outside the floodplain on grades above the base flood elevation for 100 year storm events.

A very limited portion of the rear lots along the wetlands are within the 100-year floodplain. Based on the Flood Insurance Rate Map dated January 6, 2005, Map Number 10005C0335J, this portion of the subdivision is located within the following three flood zones:

1. Zone X – Areas determined to be outside the 0.2% annual chance floodplain
2. Zone X (Shaded) – Areas of 0.2% chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than one square mile.
3. Zone AE (EL 8) – 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 subdivision plans, the base flood elevation 8 was digitized from the above referenced FIRM and is shown as approximate. The base flood elevation would therefore be delineated along contour line 8 as shown on the subdivision plans and incorporates approximately the rear 20% to 30% of all lots along the forested wetlands. All structures located in a flood zone AE, EL. 8 will have to follow the guidelines of a flood certificate in order to be considered for flood insurance.

Forests

Refer to previous comments regarding existing woods. In keeping with DNREC suggestions and as part of our preparation of final site subdivision plans, areas to be set aside for conservation easements may be considered by Dove Knoll Extension, LLC.

Open Space

Note our reply comments to OSPC above regarding existing woods. The preliminary subdivision plan shows a variety of open space that adds up to approximately 29% of the entire site area for Parcels "B" & "C, which exceeds the minimum open space requirement as outlined in the Sussex County Subdivision Code Section 99-21. D. This open space is provided to the residents of Parcels A, B & C for recreation, wild life habitat, landscaping, and stormwater management. Additional street trees and landscaping of the existing 8.24 acre open space area located in Parcel "A" is being proposed to the existing homeowners throughout the Site to create more recreational opportunities for residents.

The overall recreational purpose for these open spaces consists of a clubhouse, swimming pool, and sidewalks/jogging paths throughout Parcels "B" & "C". The project will have one "Hilton Head" styled path along the proposed roads. 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 will be improved and maintained to provide open space and useable lawn area for passive recreation. Stormwater management structures 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

Wetlands delineation has been completed and approved by ACOE, and a voluntary added setback has been incorporated in to the plans around all jurisdictional wetlands on site. Furthermore, it should be noted that our site plan utilizes Context-sensitive design standards, additional planting of street trees, provision of 29% of open space, limited to no impact to the existing vegetation that is contiguous to the lands of the State of Delaware 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.

Rare/ Threatened/Endangered Species

In maximizing the existing buffering capacity and wildlife habitat on-site, buildings and other infrastructure (such as stormwater management ponds) will be removed from the forested wetland area. Vegetated buffers and greenways will be employed from the edge of the wetland complex on site. Refer to OSPC response above for additional specific information.

State Natural Heritage Site

All information was submitted to the U.S. Army Corp of Engineers (ACOE) during the wetlands delineation and the ACOE made their determination in a letter dated January 31, 2004.

Potential Hunting Issue

As the site is bounded by residential subdivisions along the southern and western property lines, hunting is prohibited on a majority of the subject property. The larger portion of existing forest block immediately to the north and east of the site is largely inaccessible for hunting purposes due to the presence of adjacent subdivisions and the impassible water course ways of Pot Hook Creek and Wolfe Glade.

Nuisance Waterfowl

Per DNREC recommendations and 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 discourage use by - and encourage harassment of - nuisance waterfowl.

State Resource Areas/ Natural Areas Inventory

No specific plan change recommendations regarding State Resource Areas. The preservation of existing wetlands on site will adequately protect these outlying natural areas. Refer to reply comments under Forests concerning conservation easements.

Recreation

Per DNREC recommendations, sidewalks will be furnished fronting every residence and stub street.

Underground Storage Tanks

No specific plan change recommendations regarding LUST sites.

Solid Waste

It should be noted that recycling in this part of Sussex County is voluntary. The varied production practices of home builders, the number of seasonal occupants, and the recycling habits of future occupants will determine the total solid waste generation for this project.

Air Quality

No specific plan change recommendations regarding air quality. Refer to reply comments to OSPC regarding proposed street trees. As previously stated above, 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.

State Fire Marshal's Office (DSFMO)

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

Department of Agriculture (DDA)

All environmentally sensitive issues have been thoroughly considered in our revised site plan to adequately address all concerns which DDA have in regard to this project.

Overall Comments

Refer to reply comments made to OSPC and DNREC concerning preservation and mitigation of forest resources and the planting of street trees.

Right Tree for the Right Place

Per DDA recommendations and as part of our preparation of landscape architectural plans for this project, appropriate street tree and planting materials will be specified for this project.

Native Landscapes

Per DDA preferences, landscape architectural specification of plant species for this project will be biased towards Delaware natives or sturdier varieties of native trees and shrubs. It should be noted that all adjacent upland properties consist of developed subdivisions. There are no adjacent agricultural uses that would normally require a forested buffer. 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.

Department of Education (DOE)

No specific plan change recommendations by DOE. Per DOE recommendations, street design for this subdivision will be in accordance with Delaware Department of Transportation (Del DOT) requirements. Del DOT requirements are more than adequate to accommodate school buses.

It should be noted that large school buses are only 8 feet wide and inappropriate street widths are environmentally unsound and ultimately a waste of taxpayer dollars. More importantly, wider local streets are inherently pedestrian-hostile because they encourage speeding. Pedestrian traffic fatalities increase exponentially with increased road width. The safest local streets are 24' wide or less (measured from curb face). A 2-foot width increase above this generally correlates to a 35-50% increase in injury accidents (Swift & Associates, Longmont Study). As such, recommendations for "wide enough streets" for "large" vehicles should be proffered with the greatest caution. In order to accommodate school bus accessibility without backing, a school bus stop will be provided at the clubhouse lot which is located approximately in the middle of this development.

Delaware Emergency Management Agency (DEMA)

No specific plan change recommendations by DEMA. Per DEMA request, the developer will notify all emergency response agencies and organizations of the project status and apprise them of all pertinent development activities. Refer to our reply comments to DNREC regarding the existing FEMA flood line and lot locations.

Sussex County (SCE)

Per SCE recommendations and as part of our overall submittal to the County for approval, the developer has complied with Section 99-13. A. of the Sussex County Subdivision Code. Also per SCE recommendations and as part of our preparation of landscape architectural plans for this project, a 30-foot buffer along Lots 12 through 16 has been provided as well as the realignment of Covey Court.

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,

For Design Consultants Group, L.L.C.

A handwritten signature in black ink, appearing to read 'Mark H. Davidson', with a large, sweeping flourish extending to the right.

Mark H. Davidson
Owner