



**ENVIRONMENTAL CONSULTANTS INTERNATIONAL CORPORATION**

**ENGINEERING  
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May 2, 2006

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**RE: PLUS SUBMITTAL AND RESPONSE-PLUS 2005-05-02  
KGH PROPERTIES/CARRIAGE GREENS SUBDIVISION**

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Dear Ms Holland:

Thank you for your coordination and compiling of agency comments, regarding Carriage Greens, to Ms. Wilma Howett of KGH Properties. Since receipt of the letter, we have reviewed the agency comments and have prepared this correspondence in answer to the agency issues brought forth within your letter.

Through extensive planning efforts over the past months and communications with numerous agencies, we have revised the plans for Carriage Greens and have reduced the density of the project from 112 residential units to 105 units, for a better design of the project.

The Carriage Greens plan, as amended, reflects our determination to achieve a plan that will affirmatively respond to the comments issued by the agencies associated with PLUS. Obviously, the issue related to Level 4 Investment Area can not be affirmatively addressed, as the geographic location of the project is simply its geographic location. We can only point out to the reviewers of this document that this locale is currently under significant development pressure by numerous developers. In fact, there is sufficient development activity within an approximate 2-mile radius of Carriage Greens that Artesian Water Company has developed an off-site capability to treat and dispose wastewater for this project and numerous other projects located within close proximity of the Carriage Greens project. This significant level of investment on the part of Artesian is indicative of the growth patterns that are currently in place, immediately surrounding the Carriage Greens project. Perhaps review of the Investment Level 4 boundaries is in order, to more fully address real world development activities, within the vicinity of Carriage Greens.

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This project is unique, in that it provides a cluster type development that is gated and allows for a continuation of the agricultural pursuits previously located on site. Specifically, Carriage Greens will continue to utilize the horse stable and pastures that are currently located on site with an expectation that in the future, these facilities may be expanded to allow for additional boarding of resident horses. The equestrian theme of this project is carried out throughout the project in that riding trails are provided, that are dispersed throughout the project allowing a significant active use of the natural site characteristics. In addition, a community center and swimming pool are provided for residents of the development. The layout of Carriage Greens is designed to foster pedestrian traffic throughout the development, along the roadways and along the riding trails previously discussed. The designed pedestrian flow is deliberate, so as to minimize vehicular traffic flow in the created individual neighborhoods.

The site's geographic location off of Route 9 will assure that vehicular traffic associated with people traveling to Carriage Greens from the Baltimore/Washington area and areas to the west, as well as areas to the north, will not be required to traverse the Route 1 corridor to the beach. But instead, will be able to travel directly to the Carriage Greens development without impacting in any significant measured traffic commonly referred to "beach traffic".

The revised plan seeks to implement the intent of the Community Design Element of the Sussex County Comprehensive Plan, and provide significant recreational opportunities. The revised plan is consistent with the concept of a cluster style development in rural areas, with extensive open-space and habitat areas.

The plan responds to the comments for the PLUS review as follows:

#### **OFFICE OF STATE PLANNING COORDINATION**

The project is in an investment Level 4 area based upon the Strategies for State Policies and Spending, and in the Sussex County Comprehensive Plan area as low density AR-1 zoning. The revised plan reflects AR-1 zoning, with a cluster option, to maintain low density zoning in the rural setting. It is understood that in the Level 4 Investment Areas, the State does not support infrastructure improvements. The developer of the Carriage Greens project recognizes and understands the State's position regarding Investment Levels. We encourage the State Planning Office to consider revision to the Investment Level 4 boundary. It is apparent that the Investment boundaries as currently established, disregard the current growth patterns within Sussex County. The developers recognize their responsibility to provide infrastructure to support their development and are more than willing to furnishing funding for the cost, along with their fair share of off-site impacts and costs. All central water and wastewater treatment and distribution facilities, planned for this project, will be built entirely with private funds. The wastewater disposal and treatment for this project will be addressed off-site by a permitted wastewater treatment facility and disposal site duly approved by DNREC and Sussex County. At present, the Carriage Greens project is a small portion of the total sewage flow slated for the Artesian Water Company's high level treatment and disposal site. The same scenario holds true with the potable water supply for the project. The operation of the water and wastewater

facilities will be by Artesian, a public utility, governed by the Public Service Commission, thereby insuring oversight for the safe and fiscally responsible management of the services provided. The tax revenue added to the State revenues plus real estate transfer taxes will support any additional burdens the State or County may need to address.

The creation of this community will increase demand for business services by residents moving into the community. This will result in private business growth and increased taxes and revenues to nearby communities, Sussex County and the State of Delaware. The increases in revenues, both to the public and private sectors, will mitigate increases in services as needed.

### **STATE HISTORIC PRESERVATION OFFICE**

A comprehensive assessment of cultural resources was prepared by Dr. Edward Otter, in a report prepared for Environmental Consultants International Corporation, dated September 5, 2004. The result of his investigation, contained within the conclusion of his report, agrees with the State Historic Preservation Office. If desired, a copy of the report prepared by Dr. Otter can be made available to the State Historic Preservation Office upon written request.

### **DEPARTMENT OF TRANSPORTATION**

The concern of DELDOT, regarding the Strategies for State Policies and Spending, has previously been addressed elsewhere in this correspondence. All road improvement cost associated with the project will be the responsibility of the projects developer, thus mitigating the issues of State Policies and Spending Strategies.

### **DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL**

#### **Investment Level 4**

The developer acknowledges the Department's comments related to Investment Level 4 Strategies, within the State of Delaware. The initial comments within this correspondence, made a part of this response to the Office of State Planning comments, are relevant and fully address the concerns established within these criteria. Please note that the issues brought forth are a matter of policy, not State Regulation. The basis for Investment Level 4 comments is not supported by the current growth patterns and development activities throughout Sussex County and is not consistent with Sussex County Planning and Zoning Ordinances and the Sussex County Comprehensive Plan.

### **Green Infrastructure**

The subdivision of Carriage Greens has been designed to specifically address Green Infrastructure. This statement is supported by the following:

- Over 60% of the existing woodlands, located on site, will be preserved. In addition, extensive landscaping will be undertaken as the project develops, as well so as to provide reforestation of the site as construction moves forward.
- The overall site characteristics of Carriage Greens are being preserved and respected by the development of a cluster option for the project site.

It is fully the intention of the developer of Carriage Greens to be an example of voluntary stewardship by private development, forwarding goals of Green Infrastructure through appropriate planning and site design and eventual construction methods.

### **Soils**

A soils investigation has been conducted on the site and was forwarded to the State for review. Although soils on site are appropriate for the disposal of wastewater, the developer of Carriage Greens has elected to participate in a regional wastewater treatment and disposal site as permitted by Artesian Water Company. Sewage will be collected centrally and pumped to the off-site Artesian wastewater treatment and disposal site. In addition, the soils on site have been tested for infiltration and it has been found that the soils are suitable for treatment and infiltration of stormwater run-off that will occur as a result of development activities on site. In order to address stormwater management, a comprehensive plan will be developed and forwarded to the Sussex County Conservation District for review and comment and approval.

### **Wetlands**

A wetland delineation has been performed and a Jurisdictional Delineation will be filed with the Army Corp of Engineers. The jurisdictional wetlands are not being disturbed, thereby not requiring any federal permits. There are no lots that have wetlands in the boundaries of the lots.

### **Impervious Cover**

The design of Carriage Greens is developed around Best Management Practices (BMP's) to forward the reduction of impervious cover.

### **Total Maximum Daily Loads**

Although no Total Maximum Daily Loads (TMDLS) have been determined for the drainage basin Carriage Greens lies within, it is the plan and approach of this project to use as a general guide, the TMDL strategy from the Inland Bays Watershed as promulgated by the State of Delaware. The strategy for the Inlands Bays is most likely more restrictive than the proposed Delaware Bay Watershed. Of particular note is the strategy to establish buffers from wetlands and water bodies. Secondly, the application of best available technologies (BATS) and best management practices (BMPS) will be utilized to minimize impacts of this project in the watershed. The conversion from agricultural production to a planned community, with BAT and

BMP strategies implemented, will significantly reduce nitrogen, phosphorus and sediment loads into the watershed of the Delaware Bay.

### **Stormwater Management**

The development of this project will include detailed development of a stormwater management and erosion and sediment control plan for the entire project. The intent of the strategy for the design of the erosion and sediment control plan is to minimize runoff of nutrients and sediment into surrounding waters. The strategy for stormwater management will be infiltrating the renovated stormwater into the ground, thereby replenishing the surficial aquifer. A mixture of ponds, bio-retention swales, and open swales will be incorporated through the site and used to control and renovate the stormwater. In the areas that infiltration may not be suitable; stormwater will be routed to better soils.

The developer will contact the Sussex County Conservation District and schedule a pre-application meeting to discuss the sediment and erosion control measures necessary to address stormwater management for this project. A Notice of Intent will be filed with DNREC in accordance with applicable Delaware State Law. The ponds that are developed to provide stormwater management capability on site will be developed in accordance with the Pond Code 378.

During construction activities, a Certified Construction Reviewer will be assigned to this project.

### **Drainage**

Issues related to drainage are compatible with the discussion addressed above, under Stormwater Management. Other recommendations contained within Drainage Sections Recommendations, will be incorporated into the plan, where possible.

### **Floodplain**

The only floodplain associated with this project is the stream that currently passes under the entrance to the site, currently named Gelding Lane. In discussion with the State, it is our understanding that a replacement culvert is anticipated to be placed in the vicinity of the stream crossing by the state agency. The developer of Carriage Greens indicated a willingness to cooperate fully with the agency towards the placement of the existing culvert.

### **Forest Promulgation**

The plan, as presented preserves over 60% of the existing woodlands located on site. Clearly, the areas of woodlands that are left undisturbed will preserve wildlife habitat for many wildlife species that may depend upon interior forest. In addition, extensive landscaping and woodland buffer will be maintained.

### **Open-Space**

Carriage Greens, as proposed, provides over 47 acres of open-space, exclusive of lots that is dedicated to both passive and active recreational pursuits. This equates to almost 60% of the total area of Carriage Greens.

### **Recreation**

The Carriage Greens project offer unprecedented recreational opportunities. A complete equestrian center with corals, stables and riding trails will be provided, capitalizing on the existing equestrian facilities located currently on site. In addition, an extensive network of riding and walking trails is provided. A community center, with pool, tennis courts, basketball courts, and other active recreational pursuits is planned for the project, thereby presenting significant active recreational opportunity on site.

### **Nuisance Geese**

It is recognized that ponds proposed as a part of this project, may result in attractive location for nuisance geese to promulgate. It is the intention of the developer to landscape areas immediately adjacent to these ponds and lakes in a manner consistent with NOT, providing habitat for nuisance geese.

### **Solid Waste**

As part of the Home Owner's Association's Charter efforts to minimize solid waste generated by common household refuse will be undertaken. Steps to allow for the recycling of waste materials will be provided. The estimates of solid waste generation, made a part of the Department's comments, seem to be inflated. However, as the developer of Carriage Greens, we do not have available, accurate estimates of solid waste generation from the average household. It must be noted that many of the residences made a part of this proposal will be seasonally occupied, resulting in significant decreases in the production of solid waste. Additionally, Delaware does have a Solid Waste Authority that provides for disposal of solid waste in a cost effective, environmentally sensitive manner. It will be the intention of the developer of Carriage Greens to fully utilize this existing State sponsored capability.

### **Air Quality**

The project, as designed, is meant to facilitate compliance with applicable Energy Star guidelines. Typically, the dwellings that will be made a part of this project, by virtue of current market conditions, will be expected to meet or exceed applicable Energy Star compliance for appliances, heating and air conditioning systems, insulation and other factors that directly impact power requirements and/or energy requirements to support the residences.

### **Water Supply**

A CPCN has been filed with the Public Service Commission to grant Artesian Water Company, one of the major water utilities in Delaware, the right to provide public water. The procedure to determine water availability in both quantity and quality will be carried out by the water utility given the CPCN. The process will include obtaining all necessary allocation, drilling and

dewatering permits through DNREC. Based upon neighboring well yields and existing distribution in and around the area, there is an adequate water supply in the area for this project.

## **DELAWARE STATE HOUSING AUTHORITY**

With regard to the Level 4 argument raised within the Delaware State Housing Authority's comments, we feel that our comments related to this issue are contained elsewhere in this response and need not be repeated.

It appears that the Delaware State Housing Authority is inconsistent in it's' opinion related to Carriage Greens, as the project has been designed to meet the needs promulgated by the Delaware State Housing Authority. Nowhere within the Charter of the Delaware State Housing Authority is there discussion related to Investment Level 4. We do not understand the apparent reversal of goals and policy by the Housing Authority.

## **STATE FIRE MARSHAL'S OFFICE**

This project will comply will all State Fire Marshal regulations. The project will obtain all necessary permits to comply with the regulations, including but not limited to: Fire Protection Water Requirements, Fire Protection Features, Accessibility, Gas Piping and System Information and Required Notes. The engineer of record will conduct a preliminary meeting with the State Fire Marshal's Office prior to formal plan submittal.

## **DELAWARE DEPARTMENT OF AGRICULTURE**

The concerns of the Delaware Department of Agriculture (DDA), related to Investment Level 4, have previously been addressed in earlier comments. The plans, where pertinent, incorporate the 30-foot forested buffer as required in the regulations. The tree plantings will be coordinated with DDA for species and spacing. A disclaimer will be added, where appropriate, to notify home owners of the protections listed in the Delaware Code for subdivisions bordering agricultural preservation districts.

The position of the Department of Agriculture indicating that the development will lessen the value of environmental resources found within, and adjacent to this site, is without standing. There is no reference available, in any planning documentation that can support this claim.

With regard to the "right tree for the right place", it is the intention of the developer to preserve woodlands where possible, and to provide reforestation of the project, in a comprehensive manner that addresses the overall needs of the project and approach a common sense resolution of landscape plantings. The development, as planned, positively addresses tree preservation within the project site. With regards to the existing electrical transmission line right of way, that bisects the project, the developer has been in touch with Delmarva Power and Light, the current

owner of the easement of right of way. It is the intention of the developer to avoid any conflict with this existing transmission line right of way.

With regard to nutrient management for the stable facilities, planned to remain on site, a nutrient management plan for horse manure will be developed in accordance with appropriate policies and procedures.

#### **DELAWARE DEPARTMENT OF EDUCATION**

The concerns of the Delaware Department of Education, related to Investment 4, is duly noted. Our response to those issues is fully documented elsewhere within this response.

Based upon the results of the sale of homes similar in nature to those proposed for Carriage Greens, it appears that the majority of home sales are to persons contemplating retirement or acquiring homes as a second home scenario, thereby minimizing impacts of school as people in retirement commonly do not have children of school age.

If the Carriage Greens project was a conventional subdivision, located in an other than a retirement/recreation community, the number of students that could be expected from such a development is approximately 52. It must be pointed out that it is the opinion of the developer of Carriage Greens that any impact to the school district will be minimal in nature, due to the type of housing proposed and current marketing strategies in the Sussex County area.

#### **PUBLIC SERVICE COMMISSION**

The project will be under the jurisdiction of the Public Service Commission for both water and wastewater services. Artesian Water Company, the public utility selected for both water and sewer will apply for the appropriate CPCNs for the project. If the project utilizes natural or propane gas, the project will follow the Pipeline Safety Guidelines as required.

#### **DELAWARE EMERGENCY MANAGEMENT AGENCY**

The developer will work closely with the police, fire service, and emergency medical organizations in the area to create the awareness of the project.

#### **SUSSEX COUNTY**

With regard to the comments raised by Sussex County, related to this plan, we offer the following:

The plan as proposed is specifically designed to integrate the proposed project into the existing terrain and surrounding landscape. This is affected by the minimization of grading, lessening impacts on standing woodlands, and the development of a plan that strives to maintain some of the original agricultural pursuits that were associated with this property. The plan continues the rural theme of the site in general, and allows for significant open-space and recreational opportunities.

The Jurisdictional Wetlands that occur on site (less than 3,000 square feet) are completely respected. There is no development slated within any floodplains and the preservation of natural resources associated with this plan is evident.

A complete Cultural Resources Investigation of the property indicates that there are no historic features associated with the property. As previously stated, the plan minimizes destruction of woodlands and vegetative sources, and allows for minimal grading of the site. With regard to objectionable features, we anticipate not creating any objectionable features that would adversely impact adjoining view sheds. Provisions for community water and sanitary sewage disposal will be accommodated off site by Artesian Water Company, as discussed elsewhere within this document.

With regard to pollution to surface and groundwaters, the plan will be developed around Best Management Practices (BMP's), as promulgated by the Sussex County Soil Conservation District. The plans will be developed to minimize soil erosion and sedimentation and in direct response to the policies and regulations promulgated by the Sussex County Soil Conservation District.

The plan provides sidewalks and pedestrian walk-ways to allow for safe vehicular, as well as pedestrian movements throughout the project. In fact, the project is designed to maximize opportunities for pedestrian movement throughout the project, not only along the roadways and cart ways, but along the trails made a part of this proposal.

The nature of this project will have a positive affect on area property values, as it is envisioned that the development of this parcel will positively impact property values throughout the geographic area that the project is located on. This affect is well documented by considering the increase in property values that have occurred within Sussex County in the last five (5) years. The plan, as presented, preserves some of the agricultural pursuits that are originally associated with the parcel, thereby conserving the agricultural or farmland characterization of the site.

As the project is envisioned to be a retirement/second home community, it is anticipated that this project will have minimal impact on schools, public buildings and community facilities. In order to further minimize impacts on existing infrastructure, the plan is developed to provide significant active recreational opportunities throughout the project, thereby minimizing its impact on other off-site recreational opportunities. The plan is consistent with the current land use that surrounds the project site. In fact, the geographic area in which this project is situated in has experienced significant development over the past five (5) years. The plan is compatible in

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terms of residential, as well as its agricultural impacts. The plan, as presented, will have little or no impact on adjacent waterways.

With regard to the Sussex County comment regarding source water protection, Artesian Water Company will meet any requirements that may be adopted by the Sussex County Council. The well locations for the water supply, associated with this project, will be off-site.

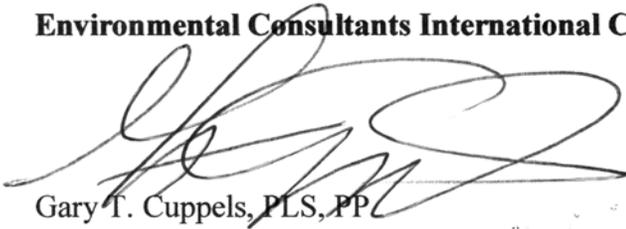
With regard to the private central community wastewater system, discussed within the Sussex County comments, this plan now negates the on-site community system, and utilizes a regional off-site sewage treatment and disposable facility, to be owned and operated by Artesian Water Company.

With regard to site access, the plan, as presented, is accessed by an existing right of way that provides the only access for the parcel. The entrance and exit for this subdivision will be duly designed and permitted in accordance with all applicable DeIDOT standards and policies.

We wish to take this opportunity to thank you for your input, with regard to the Carriage Greens project. As you can see, we have made efforts to incorporate the comments received, into the plan, in a manner consistent with good planning and the rules and regulations promulgated by Sussex County Planning and Zoning. Should you have any comments or questions regarding our submittal and response to the PLUS Review, please feel free to contact me directly.

Sincerely,

**Environmental Consultants International Corporation**



Gary T. Cuppels, PLS, PP  
President

cc: Sussex County  
Wilma Howett, KGH Properties