
Response to June 28, 2006 Office of State Planning Coordination Request for Review Letter

Dear Mr. McBride:

Thank you for meeting with State agency planners on June 28, 2006 to discuss the proposed plans for the Owens property project to be located east of Pie Road at the intersection of Deep Branch Road and Peterkins Road.

According to the information received, you are seeking site plan approval for 303 residential units on 201 acres located with and Investment Level 4 area.

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 Sussex 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.

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

Office of State Planning Coordination – Contact: Herb Inden 739-3090

This project represents a major land development that will result in 303 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. This project is also located outside of a designated growth area in relevant municipal and county certified comprehensive plans. 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 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed will bring new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and about 90% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the *Strategies for State Policies and Spending*, the State is opposed to this proposed subdivision.

The developer of this property originally approached the Town of Georgetown and the Office of State Planning with a request to have the State Strategies Plan and Comprehensive Plan for Georgetown amended to include this project and several other parcels. The reason cited for inclusion of this parcel was that it was the only parcel with sufficient sewage disposal areas which could serve some, if not all, of the other parcels. The intention was to have a publicly regulated, private wastewater treatment facility constructed and managed for a limited time period and eventually turned over to the town as part of their system. The stated was strongly opposed to this approach despite the town's strong endorsement of a comprehensive master plan concept for the properties involved. Since the other parcels and the town do not have

sufficient sewage disposal areas, there is little hope they can be developed cost effectively in the town. Therefore this property can only be developed outside the town.

Although located in Investment Level 4, this site's proximity to the town of Georgetown as well as adjacent developments of similar size and nature, local schools and existing infrastructure make it an excellent choice to include in the revised Comprehensive plans for Sussex County and Georgetown respectively. The plan would also have a positive effect on water quality should the Town ultimately accept the private wastewater treatment facility proposed for Deep Branch Village that will be built and operated by one of several publicly regulated utility companies. The site's development would provide sound fiscal benefits to the county via property tax and additional fees. Finally, the layout strives to preserve the existing character of this wooded parcel preserving 50% of the existing woods; a majority of which remains as buffers to adjacent uses averaging 250 feet wide and all of which form contiguous swaths throughout the neighborhood. A rarity in Sussex County, homes located in and around woodlands/wetlands will offer potential residents an opportunity to live in a development that exists in balance with the land's natural features as opposed to being isolated from them.

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

The Division of Historical and Cultural Affairs is not in favor of this development in Level 4, because it will increase the loss of the historic agricultural landscape in this area (woods in this instance) and lead to the loss of any historic properties within the parcel.

Nothing is known within the parcel. There are areas of high potential for prehistoric-period archaeological sites. The USGS 15' topographic map for Millsboro, 1917, shows a building near the intersection of Pie Ln. and Deep Branch Rd. There are two historic properties in the area, the S. W. Johnson House (S-2900; Beers Atlas of 1868) across Peterkins Rd. on the south and a brick dwelling complex (S-3101) further to the northeast on Peterkins Rd. These will be substantially shielded from the development by the trees that will be left as a buffer around the parcel.

Small, rural, family cemeteries often are found in relation to historic farm complexes, such as the one shown on the USGS topographic map, usually a good distance behind or to the side of the house. The developer should be aware of Delaware's Unmarked Human Remains Act of 1987, which governs the discovery and disposition of such remains. The unexpected discovery of unmarked human remains during construction can result in significant delays while the process is carried out. The DHCA will be happy to discuss these issues with the developer; the contact person for this program is Faye Stocum, 302-736-7400.

If this development does proceed, they would appreciate the opportunity to examine this area for archaeological sites, to learn something about their location, nature, and extent prior to any ground-disturbing activities.

No known historic structures exist on the site. The Owner and Developer of the property will allow the DHCS office to visit the site only if required as part of the permit process regulated by and initiated by a federal permit application. The Development will be buffered from adjacent properties as required by county standards.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Pusey/Mears Ventures, LLC, seeks to develop a 201.82-acre parcel (Tax Parcel 2-34-08.00-23.00) southeast of Georgetown and more specifically on the west corner of Deep Branch Road (Sussex Road 315) and Peterkins Road (Sussex Road 317). The development would consist of 303 single-family detached houses. The land is zoned AR-1 and the proposed development would be done under the County's cluster development option.

Because the development is proposed for a Level 4 Area, outside of the County growth zone, it is inconsistent with the *Strategies for State Policies and Spending*. As part of our commitment to support the *Strategies*, DelDOT refrains from participating in the cost of any road improvements needed to support this development and is opposed to any road improvements that will substantially increase the transportation system capacity in this area. DelDOT will only support taking the steps necessary to preserve the existing transportation infrastructure and make whatever safety and drainage related improvements are deemed appropriate and necessary. The intent is to preserve the open space, agricultural lands, natural habitats and forestlands that are typically found in Level 4 Areas while avoiding the creation of isolated development areas that cannot be served effectively or efficiently by public transportation, emergency responders, and other public services.

DelDOT strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in approved Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

If this development proposal is approved, notwithstanding inconsistencies with the relevant plans and policies, DelDOT will provide technical review and comments.

We agree that the creation of isolated and remote development is inappropriate, however this site is located 2.72 miles from the town limits of Georgetown. It would not disrupt the existing road infrastructure, but rather improve it through the work DelDot requests the developer furnish. The design complies with all the requirements by DelDot that are conditional upon approval. The surrounding properties to the north and east have already been subdivided and this case would be consistent with the adjacent residential uses.

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

Investment Level 4 Policy Statement

This project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and county certified comprehensive plans. According to the *Strategies* this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional state investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development.

With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., non-attainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minner's Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC's programs. Of particular concern are: impacts to two out of three layers of green infrastructure (natural resource and recreation priorities working forestland), the loss/fragmentation of 105 out of 185 acres of forest, and the project's location in a high reduction zone for TMDLs. While mitigating measures such as conservation design, central wastewater systems instead of individual on-site septic systems, and other best management practices may help mitigate impacts from

this project, not doing the project at all is the best avenue for avoiding negative impacts. As such, this project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for this project shall be considered in light of the project's conflict with our State growth strategies.

Green Infrastructure

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

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

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

Recognizing that Executive Order #61 is targeted at preserving green infrastructure in a developing area; the Plan was purposely designed to preserve existing forest onsite, enhance buffers along Peterkins Branch, and add ponds and wetland buffers with stormwater quality and quantity retention to prevent flooding. Native and non-invasive plant species were used. As previously stated, the current plan shows 100.9 acres (49.9%) of forest retention and 115.04 acres (57%) of open space. The forest remains as several contiguous stands and we have provided an average 100' buffer to all wetlands on site. In addition to preserving half of the forest on this parcel we have also provided over 15, 000 linear feet of multimodal trail by which residents can enjoy the forested open space in a matter that is non-invasive to the natural landscape. Based on PLUS comments, we have reconfigured the road along the wetlands to the west to provide an even greater wooded buffer to these wetlands and designate the areas of best permeable soils to open space.

Soils

Based on the Sussex County soil survey, Kenansville, Evesboro, Fallsington, Pocomoke, and Johnston were mapped on subject parcel. Kenansville is a well-drained upland soil that, generally, has few limitations for development. Evesboro is an excessively well-drained upland soil that has moderate limitations for development on account of its rapid permeability. Fallsington and Pocomoke are poorly-drained to very poorly-drained wetland associated (hydric) soils that have severe limitations for development. Johnston is a very poorly-drained wetland associated floodplain soil that has the highest severity level for development.

Prior to final plans a geotechnical report will provide recommendations for soil remediation if unsuitable materials are encountered.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on this parcel.

These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. The developer should maintain a minimum 100-foot vegetated buffer from the edge of the wetland complex and Browns Branch, recognizing that the developer has attempted to maintain an average 100-foot buffer from wetlands and water bodies. The developer should 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.

This project is located directly adjacent to sensitive headwater or near headwater riparian wetlands associated with the Peterkins Branch, greatly increasing the probability of harmful impacts to surface and groundwater quality of all waters within the greater Murderkill River watershed, and reducing the probability that the State will achieve the required TMDL nutrient reductions. Headwater streams and their associated wetlands 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. In recognition of this concern, the Watershed Assessment Section strongly recommends the applicant consider preserving as much of the existing forested buffer as possible. Otherwise, a buffer width of at least 100-foot should be retained or enhanced to protect the water and habitat quality of this waterway and its wetlands.

State Wetland Mapping Project (SWMP) maps are consistently in error and seldom reflect the actual field conditions. A field delineated wetland has been conducted (See Appendix A). The wetland delineation performed by GeoTechnical Associates certified wetland scientists seldom deviate from the USACOE determination. Should any adjustments be required by the USACOE the plan will be modified to respect the wetland and eliminate impacts or obtain any necessary permits for disturbances allowed under their standard process. Buffers are not required by Federal, State or Local agencies. However, substantial buffers averaging 100' from the Peterkins Branch and additional 404 wetlands have been voluntary applied to achieve higher water quality benefits. There are no wetlands contained within any proposed lots or rights-of-way and at this point there are no Federal or State permits necessary to complete this development.

Wetland Permitting Information

Because there is strong evidence that federally regulated wetlands exist on site, a field 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.

Please note that impacts to palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In situations where the applicant believes that the delineated wetlands on their parcel are nonjurisdictional isolated wetlands, the Corps must be contacted to make the final jurisdictional assessment. They can be reached by phone at 736-9763.

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.

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) 739-9943 to schedule a meeting.

Once specific impacts, if any, are determined through final engineering the Applicant will attend a joint meeting and begin the permit process.

Impervious Cover

Based on a review of the PLUS application, post-development surface imperviousness is estimated to be about 4 percent. However, given the scope and density of this project, said estimate is **clearly inaccurate**. The applicant should recognize that all forms of constructed surface imperviousness (i.e., rooftops, sidewalks and roads) should be accounted for when calculating surface imperviousness, otherwise an inaccurate assessment of this project's environmental impacts is inevitable. It is strongly advised that this figure be recalculated to accurately reflect these concerns.

Since studies link increases in impervious cover to decreases in water quality, the applicant is strongly encouraged to pursue best management practices (BMPs) that can mitigate or reduce some of the most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to reduce surface imperviousness.

Upon recalculation, we've found the current design includes a post-development impervious surface coverage of just 10%. The intention of Livable Delaware and State Spending Strategies is to direct development of greater densities and impervious cover to the areas in and around town-centers in order to achieve a lower impervious cover percentage through out the entire drainage area. With Deep Branch Village located no more than 5 miles from the center of Georgetown, coupled with it's incorporation of BMPs, additional tree plantings and forest conservation to mitigate for the increase in impervious cover, it clearly utilizes those elements which the state promotes for appropriate development location and implementation.

ERES Waters

This project is located adjacent to receiving waters of the Inland Bays designated as waters having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 5.6 of Delaware's "Surface Water Quality Standards" (as amended July 11, 2004), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of pollutants through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 5.6.3.5 of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree achievable and, where practicable, implementation of a standard requiring no discharge of pollutants.

The PCS is still being written by DNREC and has not been adopted. However, Deep Branch Village is designed to comply with the buffering, forest conservation, Best Available Technologies (BAT's) and BMP's suggested in the PLUS comments and will meet or exceed the TMDL requirements once adopted.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing

and implementing standards to support these desired use goals. This project is located in the **high** nutrient reduction area requiring an 85 percent and 65 percent reduction in nitrogen and phosphorus, respectively. A Total Maximum Daily Load (TMDL) is the maximum level of pollution for which a water quality limited water body can assimilate without compromising use and recreational goals such as swimming, fishing, drinking water, and shell fish harvesting.

As previously stated the PCS is still being written by DNREC and has not been adopted. However, Deep Branch Village is designed to comply with the buffering, forest conservation, Best Available Technologies (BAT's) and BMP's suggested in the PLUS comments and will meet or exceed the TMDL requirements once adopted.

Compliance with TMDLs through the PCS

As stated above Total Maximum Daily loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. The TMDL calls for an 85% reduction for nitrogen and 65% reduction for phosphorus from baseline conditions. The Department developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

Some additional Best Management Practices that may help this proposed project meet TMDL reductions are wider vegetated buffers along watercourses, increasing passive, open space, using enhanced nutrient removal wastewater technologies, and the use of stormwater management treatment trains.

As previously stated the PCS is still being written by DNREC and has not been adopted. However, Deep Branch Village is designed to comply with the buffering, forest conservation, Best Available Technologies (BAT's) and BMP's suggested in the PLUS comments and will meet or exceed the TMDL requirements once adopted. A preliminary meeting will be held with SCD to discuss BMP's. Final Plans will be submitted once Preliminary Plans are approved by the County. We will work in cooperation with the Department to ensure compliance.

Water Supply

The information provided indicates that Tidewater Utilities will provide well water to the proposed projects through a central public water system. Our files reflect that Tidewater Utilities does not currently hold a Certificate of Public Convenience and Necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-739-4247. Should an on-site public well be needed, it must be located at least 150 feet from the outermost boundaries of the project. 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 wells.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

Well pointing permits will be applied for if required.

Sediment and Erosion Control/Stormwater Management

Standard Comments:

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson, Program Manager, at (302) 856-7219 for details regarding submittal requirements and fees.

It is strongly recommended that you contact the Sussex Conservation District to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post- development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion.

A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to the Division of Soil and Water Conservation along with the \$195 NOI fee prior to plan approval.

Applying practices to mimic the pre-development hydrology on the site, promote recharge, maximize the use of existing natural features on the site, and limit the reliance on structural stormwater components, such as maintaining open spaces, should be considered in the overall design of the project as a stormwater management technique.

Each stormwater management facility should have an adequate outlet for release of stormwater. Any drainage conveyed onto this site from neighboring properties must be adequately conveyed through the site to the discharge point without interruption.

Clearly address how Stormwater Quality and Quantity Treatment will be provided. If this project is eligible for a Quantity Waiver, please make the request in the stormwater narrative citing the specific regulation.

Please indicate on the sediment and stormwater management plan who shall be responsible for maintenance of the stormwater management facilities both during construction and after. During the design of the sediment control and stormwater management plan, considerations should be made for maintenance (i.e. access, easements, etc.) of any structures or facilities.

If a stormwater management pond is going to be utilized as a sediment trap/basin during construction it must be designed to accommodate 3600 cubic feet of storage per acre of contributing drainage area until project stabilization is complete.

All ponds are required to be constructed per Pond Code 378.

Please note that if the stormwater facilities will impact wetlands, a permit must be provided to the District prior to receiving approval. Please address.

Site-Specific Comments:

A Certified Construction Reviewer (CCR) is required for this project.

The District will require a phased plan and sequence of construction for this project. DNREC regulations require no more than 20 acres to be disturbed at more time. Please address.

Under the DNREC Health and Safety Memo of 2000, all wet ponds are required to have an open space depth of 3 feet or more that comprises 50-75 percent of the area of the pond.

Consideration should be made for any adjacent properties during the design of this project, including drainage and erosion/sediment control.

Please demonstrate that you have an adequate outfall for this project.

Please provide a soil survey report for each SWM basin.

Please incorporate "Green Technology BMPs" in the stormwater management design as stated in Section 10.3.5.1 of the regulations.

Please provide SCD with a copy of the AutoCAD drawings and HydroCAD files to expedite the review process.

A preliminary meeting will be held with SCD to discuss BMP's. Final Plans will be submitted once Preliminary Plans are approved by the County.

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 mature forest and areas of community open space be designated along this forest and wetland areas. Doing so will create recreational opportunities for residents by allowing them access to and views of the forest.

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.

One of Deep Branch Village's strongest concepts is that it centers around large areas of open space onto which virtually all homes abut. These open spaces are comprised of SWM ponds and/or extensive stands of existing forest, all of which are connected with 5' concrete sidewalks, 6' bituminous multi-modal trails with additional amenities provided such as benches and gazebos creating a unified network of passive recreation.

The open space and stormwater management systems were designed to work in conjunction with the existing topography and natural features of the parcel both enhancing them as well as providing residents with aesthetic and recreational benefits. Minimum 50 foot buffers to all wetlands and an average 250 foot wooded buffer to the property line ensure that these sensitive areas remain protected.

Forest Preservation

According to 2002 aerial photos, the entire parcel is forested; PLUS materials indicate that 105 acres of forest will be removed. 1937 maps indicate that the forest was present on the parcel. Lot lines should not impact the mature forested area; therefore any lot lines within this area should be removed. Preservation of the mature forested area should be given the highest priority.

The forested area within this parcel is a component of a contiguous stretch of forest. Large contiguous stretches of forest like this not only provide important water and air quality benefits, but provide important habitat for many wildlife species that depend on interior forest. Clearing portions of the forest within the parcel may reduce the habitat value of the entire forest stretch. Therefore, the developer is strongly encouraged to preserve, and where possible, enhance forested resources on site. This includes

removing lot lines and infrastructure (such as storm water management ponds) from forested areas to the extent possible and minimizing any clearing activities. The forested areas on-site should be viewed as a community asset and managed appropriately.

Forested areas on-site set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection. These areas should be clearly marked and delineated so that residents understand their importance and so that homeowner activities do not infringe upon these areas.

The plan has been revised to only remove 101.47 acres of forest. There are no Forest Conservation requirements for Sussex County, or the state of Delaware. Clustering was used on this site to save nearly 50% of forest cover. Additional tree plantings have been proposed to mitigate for clearing only that which is necessary for a well-balanced, walkable, multi-use community. I find this subjective comment is inconsistent with Liveable Delaware which strives to save large tracts of contiguous forest in remote areas of the County by allowing for concentrated growth in and around towns. Even jurisdictions that have forest conservation requirements consider anything greater than 30% retention an exemplary level.

State Resource Areas/Natural Areas

The Office of Nature Preserves strongly urges the applicant to consider alternatives to development of this site. The Owens Property sits within a larger forested tract 672 acres in total. This forested tract provides protection to the headwaters of the Peterkins Branch, which drains into Morris Mill Pond, and then eventually into the Indian River. The shape of the forested lands and the lack of fragmentation lends to its high quality. The property is just north of the Doe Bridge Nature Preserve. In its current forested condition, this property provides a variety of benefits including improved water quality, and air quality, wildlife habitat, and flood control.

Both the Open Space Council and the Natural Areas Advisory Council recently moved to amend the State Resource Area map and the Natural Areas Inventory map and identified the entire parcel as both a State Resource Area and a State designated Natural Area.

State Resource Area lands include any open lands characterized by great natural scenic beauty, or whose existing openness, natural condition or present state of use, if retained, would maintain important recreational areas and wildlife habitat, and enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources, including environmentally sensitive areas.

Natural Areas involve areas of land or water, or of both land and water, whether in public or private ownership, which either retains or has reestablished its natural character (although it need not be undisturbed), or has unusual flora or fauna, or has biotic, geological, scenic or archaeological features of scientific or educational value.

The Office of Nature Preserves respectfully requests the applicant contact the Land Protection Office in the Parks and Recreation Division at 302-739-9235 to learn more about land preservation options.

There is a pending lawsuit with regard to the SRA maps. Until such time as the lawsuit is resolved it appears that the state will not be enforcing the requirements for the county to include the listed properties in their Comprehensive Plans and/or adopt proper restrictions for such properties. This application has been filed under the current Comprehensive Plan and should not be subject to future regulations.

However, the plan strives to preserve the scenic beauty of the surrounding forest through minimal disturbance of large contiguous areas of existing stands of trees. The design will also strive to meet and/or exceed the state water quality requirements once adopted. Additionally, this parcel contains some of, if not the, best soils conducive for central sewer

systems which would help the Town of Georgetown meet the capacity it's struggling to accommodate due to the majority of its soils being so poor. Developing this land would make it a greater asset to Sussex County and the Town of Georgetown both financially and environmentally.

Solid Waste

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.

The Developer anticipates chipping and mulching trees and other organic materials. Recycled milled materials, if available, will be used for bituminous concrete and concrete paving. Use of pre-cast and engineered components such as roof trusses and stairs will result in less scrap lumber. Modular dimensional standards for room dimensions ensure minimal waste in drywall, trim and flat goods.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 23.3 tons (46,507.3 pounds) per year of VOC (volatile organic compounds), 19.3 tons (38,504.9 pounds) per year of NOx (nitrogen oxides), 14.2 tons (28,409.6 pounds) per year of SO2 (sulfur dioxide), 1.3 ton (2,528.9 pounds) per year of fine particulates and 1,945.1 tons (3,890,279.6 pounds) per year of CO2 (carbon dioxide).

However, because this project is in a level 4 area, mobile emission calculations should be increased by 118 pounds for VOC emissions for each mile outside the designated growth areas per household unit; by 154 pounds for NOx; and by 2 pounds for particulate emissions. A typical development of 100 units that is planned 10 miles outside the growth areas will have additional 59 tons per year of VOC emissions, 77 tons per year of NOx emissions and 1 ton per year of particulate emissions versus the same development built in a growth area (level 1,2 or 3).

Emissions from area sources associated with this project are estimated to be 9.4 tons (18,758.5 pounds) per year of VOC (volatile organic compounds), 1.0 ton (2,064.0 pounds) per year of NOx (nitrogen oxides), 0.9 ton (1,712.8 pounds) per year of SO2 (sulfur dioxide), 1.1 ton (2,210.3 pounds) per year of fine particulates and 38.0 tons (76,042.9 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 3.7 tons (7,434.5 pounds) per year of NOx (nitrogen oxides), 12.9 tons (25,859.2 pounds) per year of SO2 (sulfur dioxide) and 1,907.1 tons (3,814,236.7 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	23.3	19.3	14.2	1.3	1945.1
Residential	9.4	1.0	0.9	1.1	38.0
Electrical Power		3.7	12.9		1907.1
TOTAL	32.7	24.0	28.0	2.4	3890.2

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 3.7 tons of nitrogen oxides per year and 12.9 tons of sulfur dioxide per year.

A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their webpage, <http://www.energystar.gov/>:

“ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

building envelope upgrades,
high performance windows,
controlled air infiltration,
upgraded heating and air conditioning systems,
tight duct systems and
upgraded water-heating equipment.”

The Energy office in DNREC is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. They highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

They also recommend that the home builders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths, links to mass transit, and fund a lawnmower exchange program for their new occupants.

We appreciate the calculations provided indicating the projected emissions and air pollutants from this subdivision. However, given that trees can remove dust and particulates, absorb ozone, sulfur dioxide, and other pollutants and can absorb up to 26 pounds of carbon dioxide per year, the above calculations should be amended to accommodate the preserved wooded areas and the addition of all proposed vegetation onsite. Numerous canopy trees, evergreen trees, and shrubs are proposed within Deep Branch Village, providing valuable benefits to an area that extends outside the development’s boundaries.

In addition, by properly placing vegetation, heating costs can be reduced by as much as 20% and cooling costs can be lowered by as much as 50%. Energy efficient technology in home-building coupled with strategically designed landscaping can provide substantial reductions in energy demands and thereby reducing our use of fossil fuels.

State Fire Marshal’s Office – Contact: Duane Fox 302-856-5298

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal’s Office. At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

- a. **Fire Protection Water Requirements:**
 - Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Treatment)
 - Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly)
 - Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure.

Fire hydrants with 1000 feet spacing on centers are required. (One & Two- Family Dwelling)

- Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

b. **Fire Protection Features:**

- All structures over 10,000 sq.ft. aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq.ft., 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

c. **Accessibility**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Deep Branch Road and Peterkins Road must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

d. **Gas Piping and System Information:**

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

e. **Required Notes:**

- Provide a note on the final plans submitted for review to read " All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations"
- Proposed Use
- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Note indicating if building is to be sprinklered
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- Provide Road Names, even for County Roads

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website:

www.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

The plan will be reviewed by the State Fire Marshall's office prior to preliminary plan approval.

Department of Agriculture - Contact: Milton Melendez 698-4500

The proposed development is in an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies* do not support this type of isolated development in this area. The intent of these plans is to preserve the agricultural lands, forestlands, recreational uses, and open spaces that are preferred uses in Level 4 areas. The Department of Agriculture opposes the proposed development which conflicts with the preferred land uses, making it more difficult for agriculture and forestry to succeed, and increases the cost to the public for services and facilities.

More importantly, the Department of Agriculture opposes this project because it negatively impacts those land uses that are the backbone of Delaware's resource industries - agriculture, forestry, horticulture - and the related industries they support. Often new residents of developments like this one, with little understanding or appreciation for modern agriculture and forestry, find their own lifestyles in direct conflict with the demands of these industries. Often these conflicts result in compromised health and safety; one example being decreased highway safety with farm equipment and cars competing on rural roads. The crucial economic, environmental and open space benefits of agriculture and forestry are compromised by such development. We oppose the creation of isolated development areas that are inefficient in terms of the full range of public facilities and services funded with public dollars. Public investments in areas such as this are best directed to agricultural and forestry preservation.

This site overlaps with the State's Green Infrastructure Investment Strategy Plan. The Forest Lands and Natural Areas layers are present on this site; this designation identifies areas that possess unique natural features that are valuable for preservation. The developer should make every attempt to preserve as much forest and natural area as possible while developing this land.

The Delaware Department of Agriculture supports growth which expands and builds on existing urban areas and growth zones in approved State, county and local plans. Where additional land preservation can occur through the use of transfer of development rights, and other land use measures, we will support these efforts and work with developers to implement these measures. If this project is approved we will work with the developers to minimize impacts to the agricultural and forestry industries.

Right Tree for the Right Place

The Delaware Department of Agriculture Forest Service encourages the developer to use the "Right Tree for the Right Place" for any design considerations. This concept allows for the proper placement of trees to increase property values in excess of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

Native Landscapes

The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

Tree Mitigation

The Delaware Forest Service encourages the developer to implement a tree mitigation program to replace trees at a 1:1 ratio within the site and throughout the community. This will help to meet the

community's forestry goals and objectives and reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754.

The proposed development will endeavor to use native, non-invasive species for street trees, open space and foundation plantings. While a 1:1 replacement is impossible on a fully wooded site, the project will mitigate to the extent possible.

Public Service Commission - Contact: Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

The selected utility provider will comply with PSC requirements and the need for a CPCN.

Delaware State Housing Authority – Contact Karen Horton 739-4263

This proposal is for a site plan review for 303 residential units on 201 acres located East of Pie Road at the intersection of Deep Branch Road and Peterkins Road. According to the *State Strategies Map*, the proposal is located in an Investment Level 4 area. As a general planning practice, DSHA encourages residential development only in areas where residents will have proximity to services, markets, and employment opportunities, such as Investment Level 1 and 2 areas outlined in the State Strategies Map. Since the proposal is located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State would like to see new residential development, DSHA does not support this proposal.

This Project is designed to appeal to families that prefer affordable single family home ownership within a community framework. The close proximity to educational, governmental and other institutional facilities in the immediate Georgetown area, while not subject to higher municipal taxes, fees development and land costs, allow this project to be completed at a more affordable rate.

Department of Education – Contact: John Marinucci 739-4658

DOE recognizes that this development project is in level 4 of the State Strategies for Policies and Spending and as such, DOE does not support the approval of this project. DOE offers the following comments on behalf of the Indian River School District:

1. Using the DOE standard formula, this development will generate an estimated 151 students.
2. DOE records indicate that the Indian River School Districts' *elementary schools are at or beyond 100% of current capacity* based on September 30, 2005 elementary enrollment.
3. DOE records indicate that the Indian River School Districts' *secondary schools are not at or beyond 100% of current capacity* based on September 30, 2005 secondary enrollment. In multiple correspondences from the Indian River School District, the district asserts that while the Indian River High School has capacity, the Indian River Middle Schools exceed student capacity.
4. This development will create additional elementary school and middle school student population growth which will further compound the existing shortage of space. The developer is strongly encouraged to contact the Indian River School District Administration to address the issue of elementary school over-crowding that this development will exacerbate.
5. DOE requests developer work with the Indian River School District transportation department to establish developer supplied bus stop shelter ROW and shelter structures, interspersed throughout the development as determined and recommended by the local school district.

A significant percentage of this development will be age targeted to households without children therefore reducing the stated ratio of 1 child per 2 homes.

A letter was sent in August 2006 to the Indian River School District (IRSD) requesting their ability to service this project and as of this date no response has been received. Prior to final engineering adequate school bus stops within the community will be provided based on the IRSD Supervisor of Transportation.

Sussex County – Contact: Richard Kautz 855-7878

This year Sussex County will be considering implementation of a Source Water Protection Program required by the State. Depending on the requirements adopted by the County Council this project might be affected. Any well location should insure that the wellhead protection area is entirely on site.

The State Wetlands map indicates the possibility of wetlands impacting the location of proposed subdivision lots and roads. Therefore a jurisdictional determination letter should be provided to support the proposed design for that area and that the lot layout does not contain any wetlands. This letter should be obtained prior to the request for approval of any final plan.

All sidewalks and trails within the development and any constructed at the request of DelDOT should tie together internally and with adjacent development so that persons using wheelchairs or pushing strollers can navigate without hindrance.

Because this project is an AR-1 Cluster subdivision, the developer must include in the application a plan for the management of all open space. Also, the developer must document for the Planning and Zoning Commission how the proposed development: provides for a total environment and design which are superior to that which would be allowed under the standard lot option; preserves the natural environment and historic or archeological resources; and, will not have an adverse effect on any of the items included under Ordinance Number 1152 (County Code 99-9C). For example, the reduction of 303 lots from 20,000 sq. ft. to 7,500 sq. ft. allows for more than 94 acres of open space. An unidentified amount of "useable" open space is provided. These issues can be addressed by including in the application an explanation of how the developer plans to mitigate the issues raised by the State agencies.

The Sussex County Engineer Comments: According to the PLUS application, the project will receive wastewater treatment from a public utility and lists Sussex County as the service provider. Sussex County does not have wastewater systems in the area and has no plan or schedule to provide sewer service in the foreseeable future.

If the above is an error, and the project proposes to develop using a private central community wastewater system, then the comments that follow apply. We recommend that the wastewater system be operated under a long-term contract with a capable wastewater utility that meets TMDL limits for Delaware's Inland Bays. In addition, we recommend they have a wastewater utility provider prior to approving the project. The proposed project is located outside of the Inland Bays Planning area where Sussex County expects to provide sewer service. Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. A review and approval of the treatment and disposal system by the Sussex County Engineering Department is also required and plan review fees may apply. Disposal fields should not be counted as open space. Wastewater disposal fields should be clearly identified on recorded plots and separated from lot area.

If Sussex County ever provides sewer service, it is required that the treatment system be abandoned and a direct connection made to the County system at the developers and/or homeowners association expense.

Submission and approval of a sewer concept plan is not required.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

If you have any questions, please feel free to contact our office at (302) 855-5734.

Sincerely,
MORRIS & RITCHIE ASSOCIATES, INC.

J. Kevin McBride, RLA
Principal

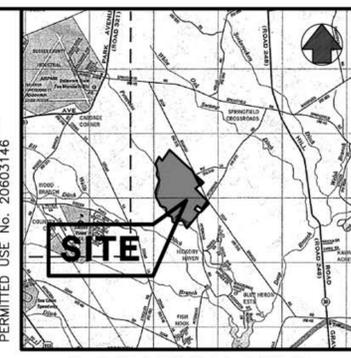
NO.	REVISION	DATE
JOB NO. 14713	DRAWN BY GMM	ISSUED 10/07/05

SHEET TITLE
PLUS PLAN

SHEET NUMBER

PP-1

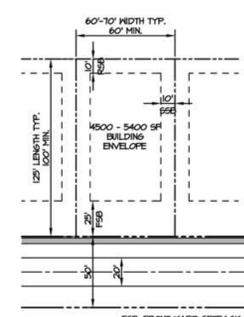
PRELIMINARY-NOT FOR CONSTRUCTION



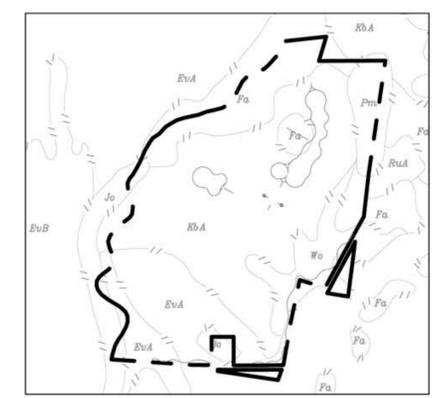
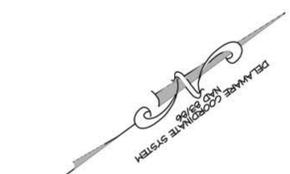
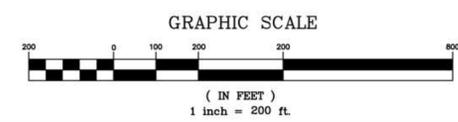
LOCATION MAP
SCALE: 1" = MILE

SITE DATA:

- PROJECT NAME & ADDRESS:
ALMHOUSE
SUSSEX COUNTY DE
- OWNER INFORMATION:
OWNERS: MILDRED R. OWENS
20044 REYNOLDS POND RD
ELLENDALE, DE 19941
TAX MAP/PARCEL: 2-34-0 p.23
GROSS AC: 1.6055 AC
- DEVELOPER:
PUSEY/MEARS VENTURES, LLC
22613 SUSSEX PINES ROAD
GEORGETOWN, DE 19947
TAX MAP TOTAL: 191.10 AC
SURVEYED TOTAL: 201.83 AC
- ZONING INFORMATION:
EXISTING ZONING: AR-1
PROPOSED: AR-1 CLUSTER
- LAND USE INFORMATION:
PRESENT USE: FORRESTED
PROPOSED USE: RESIDENTIAL
- NET DEVELOPMENT COMPUTATIONS:
TOTAL SITE AREA = 201.83 AC ±
TOTAL ROAD ROW = 22.24 AC ± (10%)
NET DEVELOPMENT ACREAGE (SITE AREA x 25%) = 151.31 AC
201.83 x 25%
ALLOWABLE DENSITY (151.31 AC x 2) = 303 UNITS (1.5 UNITS/AC) ±
PROPOSED DENSITY = 303 UNITS (1.5 UNITS/AC) ±
- PROPOSED LOTS:
(40) 70' X 125' LOTS (30%)
(147) 80' X 125' LOTS (49%)
(66) 90' X 125' LOTS (21%)
TOTAL = 303 LOTS
- BULK AREA REQUIREMENTS:
SINGLE FAMILY DETACHED HOMES
MINIMUM SETBACKS-
FRONT: 25'
SIDE: 10'
REAR: 60' MIN
LOT WIDTH: 100' ±
LOT DEPTH: 17500 S.F.
MIN LOT AREA: 42'
MAX BLDG. HT:
- OPEN SPACE AREAS:
REQUIRED: 60.55± AC (30%)
PROPOSED: 88.64± AC (43%)
- FOREST COVER:
EXISTING WOODS = 185.21 AC (91% OF TRACT)
WOODS CLEARED = 105.34 AC (56%)
WOODS TO REMAIN = 79.82 AC (44%)
- WETLANDS:
ISOLATED NON-JURISDICTIONAL WETLANDS:
FIELD WETLAND VERIFICATION IN PROCESS
- BOUNDARY SURVEY DATED 6-01-02 BY DONALD J. MCGANN
- WATER SERVICE: TO BE DETERMINED
- SANITARY SERVICE: TO BE DETERMINED
- NO PORTIONS OF THIS SITE LIE INSIDE OF MAPPED FLOOD ZONE PER FEMA MAP NO. 1000500325J, REVISED JANUARY 6, 2005.

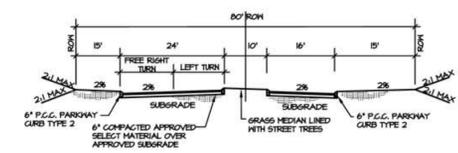


TYPICAL LOT
SCALE 1" = 60'

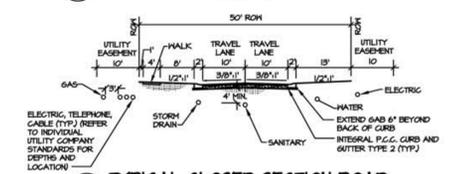


SOIL LEGEND

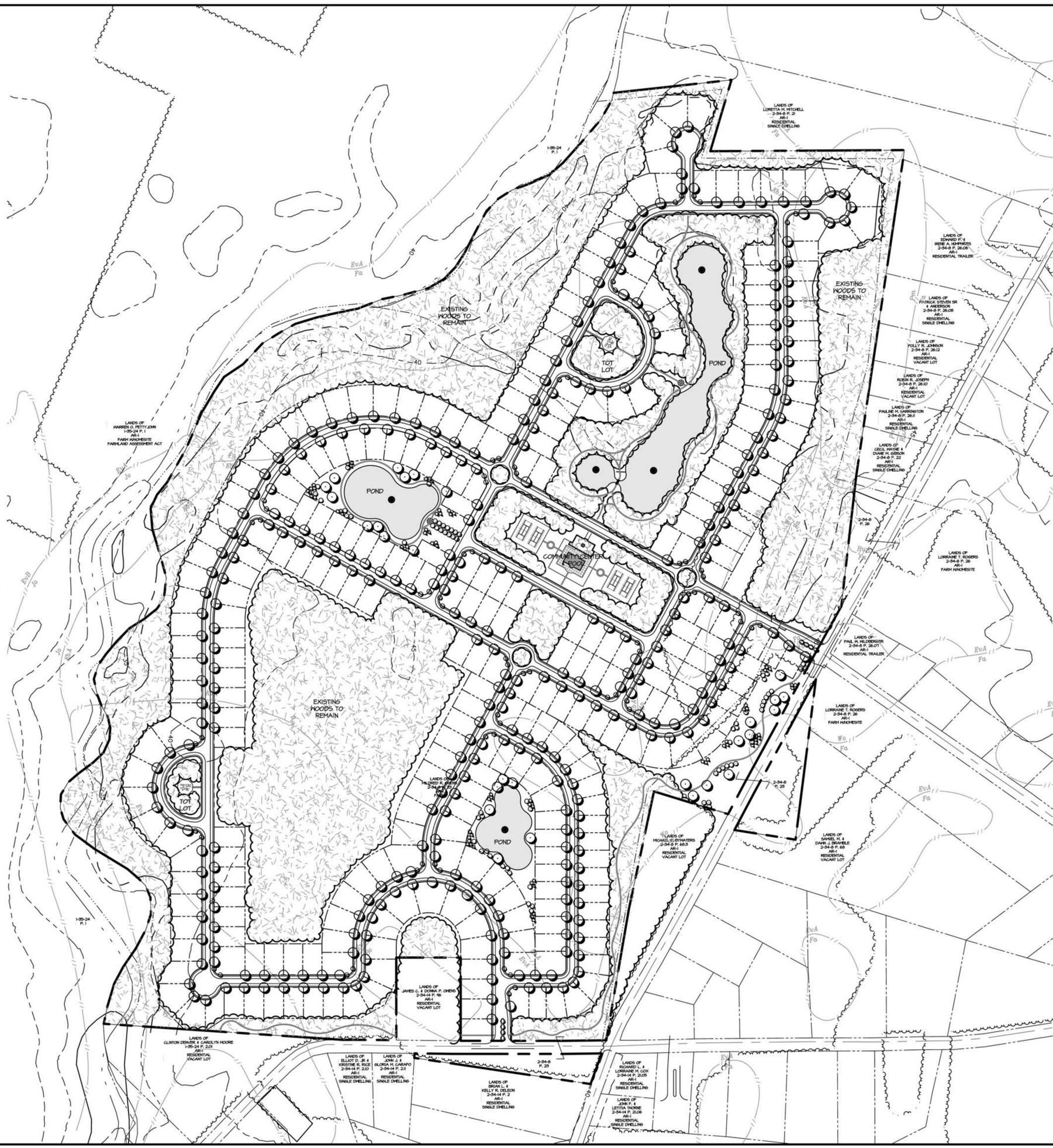
SOIL	H.S.G.	DESCRIPTION
Bo		BORROW PITS
EVA	A	EVESBORO LOAMY SAND, LOAMY SUBSTRATUM, 0% TO 2% SLOPES
EVb	A	EVESBORO LOAMY SAND, LOAMY SUBSTRATUM, 2% TO 5% SLOPES
Fg	B/D	FALLSINGTON LOAM
KDA	A	KENANSVILLE LOAMY SAND, 0% TO 2% SLOPES
Jo	D	JOHSTON SILT LOAM
Pm	B/D	POCOMOKE SANDY LOAM
RuA	B	RUMFORD LOAMY SAND, 0% TO 2% SLOPES
Wo	C	WOODSTOWN SANDY LOAM



1 TYPICAL ENTRANCE BOULEVARD
SCALE 1" = 20'



2 TYPICAL CLOSED SECTION ROAD
SCALE 1" = 20'

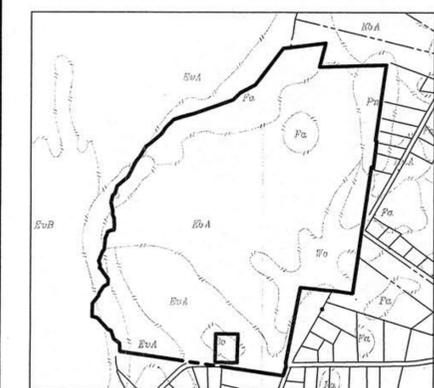


OWNER'S PLAN DEVELOPMENT APPROVAL
 I, as owner of the property shown, hereby approve these plans for development as shown or otherwise noted.
Mildred R. Owens 09/29/06 Date
 PARCELS: 1-23-2 P.22, 23, 24 & 24.01
 MILDRED R. OWENS
 20044 REYNOLDS FOND ROAD
 ELLENDALE, DE 19141

DEVELOPER'S PLAN DEVELOPMENT APPROVAL
 I, as developer of the project, hereby approve these plans for development as shown or otherwise noted.
Deep Branch Road, LLC 09/29/06 Date
 DEEP BRANCH ROAD, LLC
 22618 SUSSEX PINES ROAD
 GEORGETOWN, DE 19147

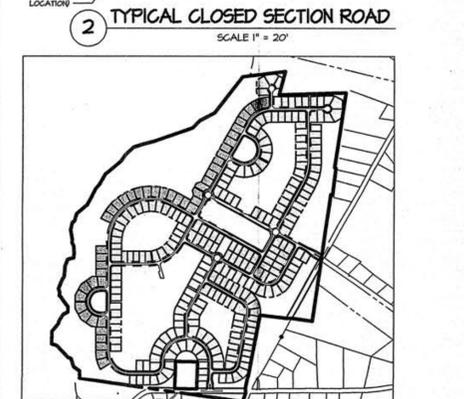
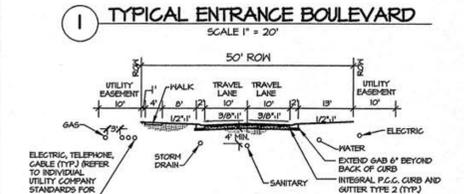
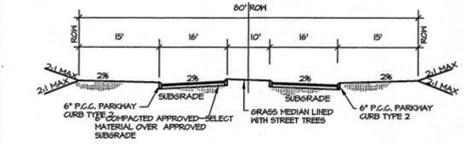
ENGINEER'S CERTIFICATION
 I, the undersigned, hereby certify that I am a registered professional engineer in the state of Delaware and that the plan shown and described herein, other than the property boundary and topography, is true and correct to the accuracy required by accepted standards and practices and by the Sussex County Subdivision and Land Development regulations to the extent that it describes the proposed manner and layout of the subdivision.
Steven W. Hutchins 10/23/06 Date
 Steven W. Hutchins
 DE LICENSE No. #19454

LEGEND:
 - - - - - EXISTING CONTOUR
 = = = = = EXTERIOR PROPERTY LINE
 = = = = = EXISTING PAVED ROAD
 --- --- DENOTES EXISTING TREE LINE & COVER
 - - - - - NON-TIDAL WETLANDS



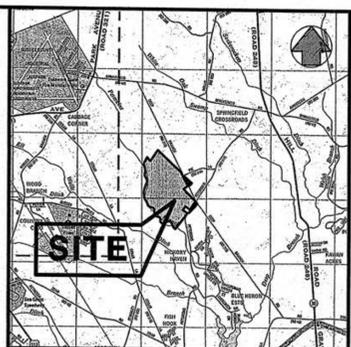
SOIL LEGEND

SOIL	H.S.G.	DESCRIPTION
Ba	A	BORROW PITS
Eva	A	EVESBORO LOAMY SAND, LOAMY SUBSTRATUM, 0% TO 2% SLOPES
EvB	A	EVESBORO LOAMY SAND, LOAMY SUBSTRATUM, 2% TO 5% SLOPES
Fa	B/D	FALLSINGTON LOAM
Kba	A	KENANSVILLE LOAMY SAND, 0% TO 2% SLOPES
Jo	D	JOHNSON SILT LOAM
Pm	B/D	POCOMOKE SANDY LOAM
Rnd	B	RUMFORD LOAMY SAND, 0% TO 2% SLOPES
Wo	C	WOODSTOWN SANDY LOAM



LOT LEGEND

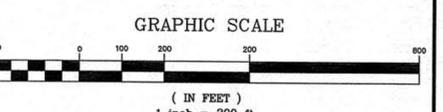
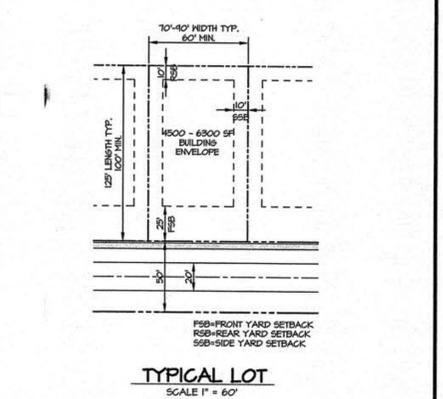
- 90' WIDE LOTS
- 80' WIDE LOTS
- 70' WIDE LOTS



LOCATION MAP
 SCALE: 1" = MILE

SITE DATA:

- PROJECT NAME & ADDRESS:
 DEEP BRANCH VILLAGE
 SUSSEX COUNTY DE
- OWNER INFORMATION:
 MILDRED R. OWENS
 20044 REYNOLDS FOND RD
 ELLENDALE, DE 19141
 TAX MAP/PARCEL # 68055 AC
 2-34-8 p.23
- DEVELOPER:
 DEEP BRANCH ROAD, LLC
 22618 SUSSEX PINES ROAD
 GEORGETOWN, DE 19147
 TAX MAP TOTAL SURVEYED TOTAL 171.0 AC
 202.31 AC
- ZONING INFORMATION:
 EXISTING ZONING: AR-1
 PROPOSED ZONING: AR-1 CLUSTER
- LAND USE INFORMATION:
 PRESENT USE: FORESTED
 PROPOSED USE: RESIDENTIAL
- NET DEVELOPMENT COMPUTATIONS:
 TOTAL SITE AREA = 202.31 AC
 TOTAL ROAD ROW = 22.04 AC (10.9%)
 NET DEVELOPMENT ACREAGE (SITE AREA - 25%) = 151.78 AC
 202.31 - 50.54 = 151.78 AC
 ALLOWABLE DENSITY (151.78 AC X 2) = 303 UNITS (1.5 UNITS/AC)
 PROPOSED DENSITY = 303 UNITS (1.5 UNITS/AC)
- PROPOSED LOTS:
 (103) 10' X 125' LOTS (51%)
 (100) 80' X 125' LOTS (50%)
 (41) 40' X 125' LOTS (16%)
 TOTAL = 303 LOTS
- BULK AREA REQUIREMENTS:
 SINGLE FAMILY DETACHED HOMES
 MINIMUM SETBACKS:
 FRONT: 25'
 SIDE: 10'
 REAR: 10'
 LOT WIDTH: 60' MIN
 LOT DEPTH: 100' MIN
 MIN LOT AREA: 1500 S.F.
 MAX BLDG. HT: 42'
 AVERAGE LOT AREA: 498.0 SF
 TOTAL LOT AREA: 65,241 AC (33%)
- OPEN SPACE AREAS:
 REQUIRED: 60.71 AC (30%)
 PROPOSED: 115,041 AC (57%)
- FOREST COVER:
 EXISTING WOODS = 202.31 AC (100% OF TRACT)
 WOODS CLEARED = 101.41 AC (50.01%)
 WOODS TO REMAIN = 100.9 AC (49.99%)
- WETLANDS:
 404 WETLANDS: 11.51 AC
- BOUNDARY SURVEY DATED 01-24-06 BY GARY S. POWERS
- WATER SERVICE: CENTRAL SYSTEM (PROVIDER TO BE DETERMINED)
- SANITARY SERVICE: CENTRAL SYSTEM (PROVIDER TO BE DETERMINED)
- NO PORTIONS OF THIS SITE LIE INSIDE OF MAPPED FLOOD ZONE PER FEMA MAP NO. 10005C0252J, REVISED JANUARY 6, 2005.



MRA
MORRIS & RITCHE ASSOCIATES, INC.
 ENGINEERS, PLANNERS,
 SURVEYORS, AND
 LANDSCAPE ARCHITECTS
 404 S. BEDFORD STREET
 SUITE 5
 GEORGETOWN, DE. 19947
 302-855-5734
 302-855-0157 FAX

OWNER/DEVELOPER
 PUSEYMEARS
 VENTURE, LLC
 22618 SUSSEX PINES ROAD
 GEORGETOWN, DE 19947

DEEP BRANCH VILLAGE
 SUSSEX COUNTY, DE. 19947



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 MORRIS & RITCHE ASSOCIATES, INC.

NO.	REVISION	DATE
JOB NO. 14713	DRAWN BY SKM	ISSUED 09/29/06

PRELIMINARY PLAN

SHEET NUMBER
PP-1
 PRELIMINARY-NOT FOR CONSTRUCTION