



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF MANAGEMENT AND BUDGET
STATE PLANNING COORDINATION

October 26, 2006

Garth Jones
Becker Morgan Group
309 S. Governors Avenue
Dover, De 19904

RE: PLUS review – PLUS 2006-09-09; Collison Farm

Dear Mr. Jones:

Thank you for meeting with State agency planners on October 3, 2006 to discuss the proposed plans for the Collison Farm project to be located at 1624 Mt. Friendship Road near Smyrna.

According to the information received, you are seeking site plan approval through Kent County for 184 residential units on 204 acres.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Kent County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.

This proposal is located in Investment Level 4 according to the *Strategies for State Policies and Spending*, and is outside of a designated growth area according to the Kent County Comprehensive plan. **The comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to construct the development you indicate or any subdivision thereof on these lands.**

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

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

This project represents a major land development that will result in 184 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 the designated growth area according to the Kent County Comprehensive Plan. 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. 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 is likely to bring more than 460 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 100% of the cost of police protection in the unincorporated portion of Kent 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.

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

While this parcel is currently in Level 4, the county may extend the growth zone here in their upcoming comprehensive plan. Still, the development will lead to a further loss of the historic agricultural landscape in this area and to the destruction of archaeological sites. There is nothing known within this parcel. However, Beer's Atlas of 1868 shows the Mrs. Bell House where the current buildings are now. The USGS 15' topographic 1931 Smyrna map also shows another building in the northeast corner of the parcel on Hillyard Rd. There may be historic-period archaeological remains associated with these

houses. There are areas of high potential for prehistoric-period archaeological sites here as well. The Mt. Friendship Church and Cemetery (K-1345) is located nearby on Mt. Friendship Rd.

Small, rural, family cemeteries often are found in relation to historic farm complexes, such as the Bell House, 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, and the developer may want to hire an archaeological consultant to check for the possibility of a cemetery here. We would have to have a copy of any archaeological report done for this purpose. We 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 proceeds, The DHCA would like the opportunity to record any historic buildings that may survive in the existing agricultural complex, prior to any demolition activities. They request that the development have sufficient landscaping to block the view and noise from Mt. Friendship Church. In addition, the DHCA would appreciate the opportunity to look for any archaeological sites and learn something about their location, nature, and extent prior to any ground-disturbing activities.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Collison Farm, LLC seeks to develop a 204-acre parcel (Tax Parcel KH-00-36.00-01-45.00-000) southwest of Smyrna. More specifically, the land is between Delaware Route 300 and Massey's Millpond Road (Kent Road 148) with frontage on Hillyard Road (Kent Road 147) and Mount Friendship Road (Kent Road 91). The development would consist of 184 single-family detached houses. The land is zoned AC and the development would be done by right.

Because the development is proposed for a Level 4 Area, 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. They 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

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 the potential impacts to two out of three layers of green infrastructure (forest and cropland) and increase in impervious cover. 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.

Soils

According to the Kent County soil survey, Sassafras, Woodstown, and Fallsington were mapped in the immediate vicinity of the proposed construction. Sassafras is a well-drained upland soil that has few limitations for development. Woodstown is a moderately well-drained soil of low-lying uplands that has moderate limitations for development. Fallsington is a poorly-drained wetland associated (hydric) soil that has severe limitations for development.

It should also be noted that the hydric soils (Fallsington) mapped on subject parcels are likely to have a seasonal high water table within a depth of one-foot from the soil surface. Building in such soils may leave prospective residents of this and adjoining properties susceptible to future flooding problems from groundwater-driven surface water ponding; this issue is of particular concern during periods of high-intensity long duration rainfall events associated with tropical storms/hurricanes or "nor'easters." Flooding probabilities may be further augmented by surface water runoff emanating from created forms of structural imperviousness (roof tops, roads, and sidewalks). Therefore, the applicant should refrain from building on lots containing mapped hydric soils or soils delineated as such by their consulting soil scientist, while further attempting to reduce all forms of constructed surface imperviousness.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine forested wetland on this parcel. Impacts to Palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. Wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. **The developer should maintain a 100-foot vegetated buffer from the wetlands. There should not be any buildings or associated infrastructure within the buffer.**

PLUS application materials indicate that wetlands have been delineated (presumably a field delineation). This delineation should be verified by the Army 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.

As mentioned previously, an extensive network of ditching and/or headwater stream tributaries in conjunction with mapped hydric soils suggests that headwater riparian wetlands are more extensive than indicated by the SWMP mapping. Headwater riparian 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 and/or water bodies further downstream. Since such riparian streams are a major avenue for nutrient-laden stormwater and sediment runoff, their protection deserves the highest priority. In recognition of this concern, the Watershed Assessment Section strongly recommends the applicant consider maintaining a minimum 100-foot upland buffer (containing either indigenous or planted native species) between lot parcel lines and wetlands/water bodies (including all ditches).

Impervious Cover

Based on a review of the PLUS application, post-development surface imperviousness is estimated to be about 25 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.

TMDLs

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. Compliance with TMDL nutrient loading reduction requirements will ultimately be assessed via nutrient budget protocol, a computer-based model that quantifies post-development nutrient loading under a variety of land use scenarios in combination with a variety (or absence) of BMP types and intensities. This post-development loading rate is then compared with the pre-development loading rate as a means to assess whether the project meets the acceptable TMDL reduction levels. Although TMDLs have not yet been finalized for the Leipsic River watershed to date, the applicant should be made aware that they will be available in the near future (before December 2006), and may be applicable to this project. It is strongly advised, therefore, that the applicant be proactive and employ best management practices (BMPs) and Best Available Technologies (BATs) as methodological mitigative strategies to reduce the likely degradative impacts associated with this development. Examples of BMPs or BATs that should be used to significantly reduce nutrient loading from this project, include practices that prevent or mitigate or minimize created surface imperviousness, preservation/enhancement of forest cover, maintenance of recommended wetland buffer widths (100 feet), and use of innovative “green-technology” stormwater methodologies rather than conventional open-water stormwater management structures. We suggest that the applicant periodically contact our office regarding the status of the nutrient budget protocol and obtain it as soon as possible. When it becomes available, we suggest that the applicant then verify their project’s compliance with the specified TMDL loading rates by running the model themselves, or contacting us if assistance is needed. The contact person for obtaining the protocol is Lyle Jones at 739-9939.

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.

Sediment and Erosion Control/Stormwater Management

Requirements:

1. Land disturbing activities in excess of 5,000 square feet are regulated under the Delaware Sediment and Stormwater Regulations. A detailed sediment and stormwater management plan must be reviewed and approved by our office prior to any land disturbing activity (i.e. clearing, grubbing, filling, grading, etc.) taking place.
2. The review fee and a completed Application for a Detailed Plan are due at the time of plan submittal to our office. Construction inspection fees based on developed area and stormwater facility maintenance inspection fees based on the number of stormwater facilities are due prior to the start of construction. Please refer to the fee schedule for those amounts.
3. The following notes must appear on the record plan:
 - The Kent Conservation District reserves the right to enter private property for purposes of periodic site inspection.

- The Kent Conservation District reserves the right to add, modify, or delete any erosion or sediment control measure, as it deems necessary.
 - A clear statement of defined maintenance responsibility for stormwater management facilities must be provided on the Record Plan.
4. Ease of maintenance must be considered as a site design component and a maintenance set aside area for disposal of sediments removed from the basins during the course of regular maintenance must be shown on the Record Plan for the subdivision.
 5. All drainage ways and storm drains must be contained within drainage easements and clearly shown on the plan to be recorded by Kent County.
 6. A soils investigation supporting the stormwater management facility design is required to determine impacts of the seasonal high groundwater level and soils for any basin design.
 7. Access to the proposed stormwater facility must be provided for periodic maintenance. This access should be at least 12 feet wide to leading to the facility and around the facility's perimeter.
 8. Proper drainage of developed lots and active open space should be considered in the development of the grading plan for this subdivision.

Comments:

1. The preferred methods of stormwater management are those practices that maximize the use of the natural features of a site, promote recharge and minimize the reliance on structural components. The designer is encouraged to consider the conservation design approach and limit the amount of tree clearing required for the development of the site including the stormwater management facilities shown in the wooded areas.
2. It is recommended that the stormwater management areas be incorporated into the overall landscape plan to enhance water quality and to make the stormwater facility an attractive community amenity.
3. A letter of no objection to recordation will be provided once the detailed Sediment and Stormwater Management plan has been approved.

4. Based on the site characteristics, a pre-application meeting is suggested to discuss stormwater management and drainage for this site.

Drainage

After review of the preliminary site plan for Collison Farm (PLUS 2006-09-09) the Drainage Program of the Division of Soil and Water Conservation, Department of Natural Resources and Environmental Control has the following comments. For questions or clarifications, please contact Jim Sullivan at 739-9921.

1. The Drainage Program does not have a clear understanding how stormwater is to be conveyed to the stormwater management areas. The Drainage Program requests that the routing of major stormwater pipes through yards be prohibited.
2. The Drainage Program encourages the elevation of rear yards to direct water towards the streets where storm drains are accessible for maintenance.
3. The Drainage Program recognizes the need for catch basins in rear yards in certain cases. Therefore, catch basins placed in rear yards will need to be clear of obstructions and be accessible for maintenance. Decks, sheds, fences, kennels, and other structures placed along the storm drains, or within 10 feet of the catch basins, can hinder drainage patterns as well as future maintenance to the storm drains or catch basins. Deed restrictions, along with drainage easements recorded on deeds, should ensure adequate future maintenance access.
4. The Drainage Program requests a 15-foot side yard setback on all lots with an easement on the side. A 15-foot side yard setback will allow room for equipment to utilize the entire drainage easement and maneuver free of obstructions if the drainage conveyance requires periodic maintenance or future re-construction.
5. Record all drainage easements on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction.
6. The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of on site storm water. The Drainage Program requests that the engineer check existing ditches and pipes for function and blockages prior to the construction. Notify downstream landowners of the change in volume of water released on them.

7. The existing drainage ditches will still receive offsite sediment and require future “dip-out” maintenance. A 25-foot open space area, as measured from top of bank, would allow for sediment to be removed. Please designate a spoil disposal area. Consideration should be given for “dip-out” maintenance to be performed from the east and north sides of existing ditches.
8. The Drainage Section recommends a tree and shrub planting along existing drainage ditches with the tallest trees planted on the south and west side of the ditches to maximize shading. Trees and shrubs should be native species, spaced to allow for mechanized drainage maintenance at maturity. Tree and shrub planting in this manner will provide a shading effect promoting water quality while allowing future drainage maintenance. Trees should not be planted within 5 feet of the top of the bank to avoid future blockages from roots. All areas along ditches should be planted as a buffer with herbaceous vegetation to aid in the reduction of sediment and nutrients entering into ditches. Grasses, forbs and sedges planted within this buffer should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities.
9. On the northwest corner of the subdivision, a grass/wildflower meadow would enhance the open space. Native species of grasses, forbs, sedges, and wildflowers planted within this meadow should be selected for their height and ease of maintenance. A mixture of native “no mow” bunch grasses and native wildflowers is preferable in most of the passive open spaces.

Open Space

To maximize the existing buffering capacity and wildlife habitat on site, community open space should be designated along the existing woodland edge. In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Doing so will provide wildlife habitat and it will create recreational opportunities for residents. 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. Natural habitat implementation efforts should be targeted to open space areas adjacent to the forest, wetlands, along drainage ditches, and the northwest corner of the subdivision. Natural habitat could consist of reforesting portions of open space or establishing meadow 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. The developer is encouraged to review "Community Spaces, Natural Places: A guide to restoration, management, and maintenance of community open space". This document provides a reference of practical and successful open space management techniques that emphasize natural landscape alternatives other than turf grass management. The guidebook is available online at:
<http://www.dnrec.state.de.us/dnrec2000/Divisions/Soil/dcmp/>.

In addition, a detailed open space management plan should be recorded on the record plan. This plan should outline how to manage each open space area, as well as invasive species. Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

Rare Species

A review of our database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities at this project site. There are rare species associated with Massey's Mill Pond, but they should not be impacted provided run-off from this project does not enter the pond system (includes tributaries of the pond).

Nuisance Waterfowl

Stormwater management ponds may attract waterfowl like resident Canada geese and mute swans that will create a nuisance for community residents. The number of ponds being proposed may not be necessary. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. However, native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (at least 50 feet) around ponds, are not as attractive to geese because they do not feel safe from predators and other disturbance when their view of the area is blocked. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with a reduction in the number of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

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.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 14.1 tons (28,242.1 pounds) per year of VOC (volatile organic compounds), 11.7 tons (23,382.5 pounds) per year of NOx (nitrogen oxides), 8.6 tons (17,252.1 pounds) per year of SO2 (sulfur dioxide), 0.8 ton (1,535.7 pounds) per year of fine particulates and 1,181.2 tons (2,362,414.0 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 5.7 tons (11,391.3 pounds) per year of VOC (volatile organic compounds), 0.6 ton (1,253.4 pounds) per year of NOx (nitrogen oxides), 0.5 ton (1,040.1 pounds) per year of SO2 (sulfur dioxide), 0.7 ton (1,342.2 pounds) per year of fine particulates and 23.1 tons (46,177.8 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.3 tons (4,514.7 pounds) per year of NOx (nitrogen oxides), 7.9 tons (15,703.3 Pounds) per year of SO2 (sulfur dioxide) and 1,158.1 tons (2,316,236.2 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	14.1	11.7	8.6	0.8	1181.2
Residential	5.7	0.6	0.5	0.7	23.1

Electrical Power		2.3	7.9		1158.1
TOTAL	19.8	14.6	17.0	1.5	2362.4

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.3 tons of nitrogen oxides per year and 7.9 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.

State Fire Marshal’s Office – Contact: John Rossiter 739-4394

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal’s Office. At the time of formal submittal,

the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

a. **Fire Protection Water Requirements:**

- Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

b. **Accessibility:**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Mt Friendship Road and Hillyard 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.

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

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

d. **Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Name of Water Supplier

- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact: Scott Blaier 698-4500

The proposed development is in an area designated as Investment 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 this plan 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 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.

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 upwards 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.

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.

Delaware State Housing Authority – Contact Karen Horton 739-4263

The proposal is a site plan review for 184 residential units on 204 acres located on 1624 Mt. Friendship Road between Hillyard Road and Mt. Friendship Road, east of Route 300 near Smyrna. 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.

Department of Education – Contact: John Marinucci 739-4658

1. 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.
2. This proposed development is within the Smyrna School District.
3. DOE offers the following comments on behalf of the Smyrna School District.
4. Using the DOE standard formula, this development will generate an estimated 92 students.
5. In a letter dated March 20, 2006, addressed to Commissioner David R. Burris, President, Kent County Levy Court, the Superintendent of the **Smyrna School District** officially informed the Kent County Levy Court that it does not have capacity to accommodate the students resulting from any continued development.
6. The developer is strongly encouraged to contact the Smyrna School District Administration (302)653-8585 to address the issue of school over-crowding that this development will exacerbate and potential resolutions.

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.

Sincerely,



Constance C. Holland, AICP
Director

CC: Kent County