



December 22, 2005

Mr. Ron Sutton
McCrone, Inc.
111 South West Street, Ste. 6
Dover, De 19904

RE: PLUS review – PLUS 2005-11-01; Indian Point Road Subdivision

Dear Mr. Sutton:

Thank you for meeting with State agency planners on November 30, 2005 to discuss the proposed plans for the Indian Point Road Subdivision project to be located on Indian Point Road, near Canterbury Road.

According to the information received, you are seeking site plan approval for 275 residential units on 55.90 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.

Executive Summary

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

State Strategies/Project Location

- This project is located in Investment Level 2 according to the *State Strategies for Policies and Spending*. This site is also located in the Kent County Growth Zone. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. State investments will support growth in these areas. Our office has no objections to the proposed development of this project in accordance with the relevant County codes and ordinances.
- The State is very encouraged that the developer is taking advantage of Kent County's Transfer of Development Rights (TDR) ordinance. We support equity transfer programs such as TDRs which preserve land in our rural areas while concentrating growth in designated growth zones where infrastructure and services will be available to new residents.

Street Design and Transportation

- DelDOT will not require a TIS for this development, but they will require that the developer participate in some of the road improvements identified as being necessary in those studies. Because the plan for this project is still somewhat fluid, DelDOT recommends that the developer's engineer continue to check the expected trip generation. If the expected trip generation equals or exceeds 2,100 vehicle trip ends per day, they will require a TIS.
- The developer will be required to improve Indian Point Road to meet DelDOT's standard typical section for local roads for the length of the site frontage.

Natural and Cultural Resources

- 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. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex.
- This project is located directly adjacent to headwater or near headwater riparian wetlands that drain directly into Andrews Lake – greatly increasing the probability of harmful impacts to surface and groundwater quality to all waters within the Murderkill River watershed - making it more difficult for the State to achieve future required TMDL nutrient reductions. In recognition of the impacts to water and habitat quality and the necessity to protect it for long-term

sustainable use, the Watershed Assessment Section strongly urges the applicant to consider the preserving the existing naturally-forested buffer in its entirety. Otherwise, a 100-foot upland buffer width is the recommended minimum.

- Based on a preliminary evaluation of this project using this model, the development as currently conceived **does not** meet the Murderkill River watershed TMDL nutrient reduction requirements for nitrogen and phosphorus – the applicant is strongly advised to consider the use of appropriate BMPs and Best Available Technologies (BATS) to ensure compliance.

- Portions of the proposed project are located within the 100-year floodplain. It is recommended that development be limited to those areas which are outside of the 100-year floodplain.

- To maximize the existing buffering capacity and wildlife habitat on site, it is recommended areas of community open space designated along the forested/riparian areas. Doing so will accomplish two things: it will preserve and expand the existing riparian buffers on site and its value for birds and wildlife and it will create recreational opportunities for residents by allowing them access to and views of the forest and stream.

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

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

This project is located in Investment Level 2 according to the *State Strategies for Policies and Spending*. This site is also located in the Kent County Growth Zone. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. State investments will support growth in these areas. Our office has no objections to the proposed development of this project in accordance with the relevant County codes and ordinances.

Our office is particularly encouraged that the developer is taking advantage of the Kent County Transfer of Development Rights (TDR) ordinance. We support equity transfer programs such as TDRs which preserve land in our rural areas while concentrating growth in designated growth zones where infrastructure and services will be available to new residents. In addition, Kent County's ordinance contains high standards for subdivision design and architecture in TDR developments, which will assure that the development is unique, attractive, and of a high quality. Our office has no objections to

the development of this parcel in accordance with all relevant Kent County codes and ordinances.

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

This parcel contains a historic house (K-2779), which may be the J. Anderson House shown on Beers Atlas of 1868. There may be surviving archaeological resources associated with this house. There is also a prehistoric-period archaeological site (K-6364) which appears to be partially on this parcel, and there is medium potential for other prehistoric-period archaeological sites in the area. There are no other historic houses in the immediate area.

However, small, rural, family cemeteries often are found in relation to historic farm complexes, usually a good distance from 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.

They urge the developer to consider maintaining the historic property on its own lot. If it will be demolished, we would like the opportunity to document the house and any outbuildings prior to any demolition activities. DHCA would also appreciate the opportunity to examine the known archaeological site, to learn something about its extent and nature, and to look for any other sites that may be there to learn something about their location, extent, and nature prior to any ground-disturbing activities.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

At the PLUS meeting, the developer presented a plan that had been significantly revised from the one submitted with the PLUS application. The DNREC comments reflect the revised plan.

- 1) At 275 townhouses, the proposed development is small enough, by a few dwellings, that DelDOT would not expect it to meet their average daily traffic warrant for a traffic impact study (TIS). Further, TIS are in progress for other, larger developments, notably the Meding and Biggs Properties. For these reasons, DelDOT will not require a TIS for this development, but they will require that the developer participate in some of the road improvements identified as being necessary in those studies. Because the plan for this project is still somewhat fluid, DelDOT recommends that the developer's engineer continue to check the

- expected trip generation. If the expected trip generation equals or exceeds 2,100 vehicle trip ends per day, they will require a TIS.
- 2) Indian Point Road is classified as a local road. Local roads in Delaware typically have right-of-way widths ranging from 33 to 50 feet. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
 - 3) DelDOT will also require that a paved multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.
 - 4) The developer will be required to improve Indian Point Road to meet DelDOT's standard typical section for local roads for the length of the site frontage. These improvements should include two 11-foot travel lanes, two 5-foot shoulders, and possibly overlaying the existing through travel lanes. DelDOT will analyze the through travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if it is needed.
 - 5) DelDOT's understanding is that Lake Drive is a private street owned and is maintained by the Andrews Lake Estates Home Owners Association. A cross access agreement between the applicant and home owners association would be required in order to have an entrance to Lake Drive. DelDOT does not require that connection.
 - 6) The response to Item 40 on the PLUS application indicated that no sidewalks are proposed in the development. At the PLUS meeting it was stated that sidewalks would be provided throughout the development. DelDOT commends the developer for making this change.
 - 7) The developer's site engineer should contact Mr. Brad Herb, the project manager for Kent County, regarding their specific requirements for access. He may be reached at (302) 266-9600.

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

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.

Soils

Based on the Kent County soil survey Sassafras, Rumford, and Johnston were mapped in the immediate vicinity of the proposed project. Sassafras and Rumford are well-drained upland soils that, generally, have few limitations for development. Johnston is a very poorly-drained (hydric) floodplain soil that has the highest level of severity for development.

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. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex. 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 headwater or near headwater riparian wetlands that drain directly into Andrews Lake – greatly increasing the probability of harmful impacts to surface and groundwater quality to all waters within the Murderkill River watershed - making it more difficult for the State to achieve future required TMDL nutrient reductions. It should also be noted that harmful impacts to water quality are directly correlated with the deterioration in the ecological function of a stream along its entire length, including the floodplain system further downstream. In recognition of the impacts to water and habitat quality and the necessity to protect it for long-term sustainable use, the Watershed Assessment Section strongly urges the applicant to consider the preserving the existing naturally-forested buffer in its entirety. Otherwise, a 100-foot upland buffer width is the recommended minimum.

Wetland Permitting Information

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.

Impervious Cover

Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline. Based on analyses of

2002 aerial photography by the University of Delaware, the Murderkill watershed, at that time, had about 8.1 percent impervious cover. Although this data is almost 4 years old and likely an underestimate - it illustrates the necessity for a proactive strategy to mitigate for likely cumulative environmental impacts. Since the amount of imperviousness generated by this project (reported as 40 %) is significantly above the desirable watershed threshold of 10 percent, the applicant is strongly advised to pursue best management practices (BMPs) that 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 via preservation or additional tree plantings – are examples of practical BMPs that could easily be implemented to reduce surface imperviousness.

TMDLs

With the adoption of Total Maximum Daily Loads (TMDLs) as a “nutrient-runoff-mitigation strategy” for reducing nutrients in the Murderkill River watershed, reduction of nitrogen and phosphorus loading will be mandatory. 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. Nutrient reductions prescribed under TMDLs are assigned to those watersheds or basins on the basis of recognized water quality impairments. In the Murderkill watershed, the primary source of water quality impairment is associated with nitrogen and phosphorus runoff from agricultural and/or residential development. In order to mitigate for the aforementioned impairments, a post-development TMDL reduction level of 50 and 30 percent will be required for nitrogen and phosphorus, respectively. Compliance with the post-development TMDL nutrient loading reduction requirements will 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. The post-development loading rate is then compared with a similarly quantified pre-development loading rate to assess whether the project meets the acceptable TMDL reduction levels. Based on a preliminary evaluation of this project using this model, the development as currently conceived **does not** meet the Murderkill River watershed TMDL nutrient reduction requirements for nitrogen and phosphorus – the applicant is strongly advised to consider the use of appropriate BMPs and Best Available Technologies (BATs) to ensure compliance. Examples of BMPs or BATs that should be used to significantly reduce nutrient loading from this project, include: practices that prevent or mitigate for surface imperviousness; reducing or foregoing forest cover removal; maintenance of recommended wetland buffer widths; and the use of innovative or “green-technology” stormwater methodologies. The applicant is encouraged to consider all of the above-suggested BMPs or BATs to ensure

that these reductions are attained. We suggest that the applicant verify their project's compliance with the specified TMDL loading rates by running the model themselves. Please contact Lyle Jones of Watershed Section at 739-9939 for the acceptable model protocol.

Water Supply

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 the Kent Conservation District prior to any land disturbing activity (i.e. clearing, grubbing, filling, grading, etc.) taking place. The review fee and a completed Application for a Detailed Plan are due at the time of plan submittal to the Kent Conservation District. 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.
2. 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.
3. 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.
 4. All drainage ways and storm drains should be contained within drainage easements and clearly shown on the plan to be recorded by Kent County.
 5. 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.

Comments:

6. 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.
7. It's not clear what type of pond and outfall is being proposed for the site, this will need to be clarified.
8. 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.
9. 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.
10. A letter of no objection to re-recording will be provided once the detailed Sediment and Stormwater Management plan has been re-approved.
11. Proper drainage of developed lots and active open space should be considered in the development of the grading plan for this subdivision.

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

Drainage

The Drainage Program encourages the elevation of rear yards to direct water towards the streets for accessible maintenance. The Drainage Program recognizes the need for catch basins in rear yards in certain cases. Catch basins placed in rear yards will need to be clear of obstructions and be accessible for maintenance. Decks, sheds, fences, and kennels should not be placed along the storm drains or near catch basins.

The Drainage Program requests 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 the engineer check existing downstream ditches and pipes for function and blockages prior to the construction of townhomes.

This project is within the Murderkill River Watershed, a designated critical area, with a promulgated Total Maximum Daily Load (TMDL). Preserve existing riparian buffers to aid in the reduction of nutrients, sediment, and other pollutants. For the further enhancement of water quality in the Murderkill watershed, the Drainage Program encourages additional widths of vegetated buffers and other water quality measures on this project.

Floodplains

Portions of the proposed project are located within the 100-year floodplain. It is recommended that development be limited to those areas which are outside of the 100-year floodplain.

Open Space

To maximize the existing buffering capacity and wildlife habitat on site, it is recommended areas of community open space designated along the forested/riparian areas. Doing so will accomplish two things: it will preserve and expand the existing riparian buffers on site and its value for birds and wildlife and it will create recreational opportunities for residents by allowing them access to and views of the forest and stream.

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.

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

DNREC has not surveyed the project area; therefore, 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. However, there are rare fish and plant species associated with the Andrews Lake system. Therefore, maintaining the current forested riparian buffer is extremely important. Especially since this project will have an estimated 40% of impervious surface and is adjacent to Andrews Lake, a publicly owned pond managed by the Division of Fish and Wildlife, DNREC. Water quality and fish habitats in the pond might be negatively affected by run-off from this development if appropriate measures to contain run-off are not taken. For additional information regarding management of the pond, please contact Fisheries Biologist, Cathy Martin at (302) 653-2887. Bonnie Willis, a scientist with the Division of Soil and Water Conservation, can be contacted at (302) 739-9283 for information pertaining to non-point-source pollution reduction devices which should be part of the project design.

Nuisance Waterfowl

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese and mute swans, especially given the proximity to Andrews Lake. 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. We recommend native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. 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 proper landscaping, monitoring, and other techniques, geese problems can be minimized.

Recreation

DNREC recommends that sidewalks be built fronting at least one side of residential streets and stub streets. A complete system of sidewalks will: 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the community, and 3) facilitate safe, convenient off-road access to neighboring communities, parks, public mass transit stops, schools, stores, work, etc.

The Division of Parks and Recreation conducted a telephone survey of Delaware residents to gather information on outdoor recreation patterns and preferences as well as other information on their landscape perception. These findings are the foundation of the 2003-2008 Statewide Comprehensive Outdoor Recreation Plan (SCORP) providing guidance for investments in needed outdoor recreation facilities. The high and moderate facility needs in Kent County are listed below. Consideration should be given to incorporate some of these recreation opportunities into the project. For additional information about the outdoor recreation priorities, contact Bob Ehemann at 739-9235.

High priorities are Walking or Jogging Paths, Bike Paths, Swimming Pools, Picnic Areas, Playgrounds and Fishing Areas. Moderate priorities are Skate Facilities, Hiking Trails, Baseball/Softball Fields, Campgrounds, Soccer Fields, Volleyball Courts, Basketball Courts and Canoe/Kayak Access.

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 21.1 tons (42,209.6 pounds) per year of VOC (volatile organic compounds), 17.5 tons (34,946.7 pounds) per year of NO_x (nitrogen oxides), 12.9 tons (25,784.3 pounds) per year of SO₂ (sulfur dioxide), 1.1 ton (2,295.2 pounds) per year of fine particulates and 1,765.4 tons (3,530,781.8 pounds) per year of CO₂ (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 8.5 tons

(17,025.1 pounds) per year of VOC (volatile organic compounds), 0.9 ton (1,873.3 pounds) per year of NOx (nitrogen oxides), 0.8 ton (1,554.6 pounds) per year of SO2 (sulfur dioxide), 1.0 ton (2,006.1 pounds) per year of fine particulates and 34.5 tons (69,015.8 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 3.4 tons (6,747.5 pounds) per year of NOx (nitrogen oxides), 11.7 tons (23,469.6 pounds) per year of SO2 (sulfur dioxide) and 1,730.9 tons (3,461,766.0 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	21.1	17.5	12.9	1.1	1765.4
Residential	8.5	0.9	0.8	1.0	34.5
Electrical Power		3.4	11.7		1730.9
TOTAL	29.6	21.8	25.4	2.1	3530.8

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 3.4 tons of nitrogen oxides per year and 11.7 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:**
 - 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 and Townhouses)
 - 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 of more or 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
 - For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan.

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 Indian Point 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)
- Townhouse 2-hr separation wall details shall be shown on site plans
- 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.

Department of Agriculture - Contact: Milton Melendez 698-4500

Neither the Delaware Department of Agriculture nor the Delaware Forest Service has any objections to the Indian Point Subdivision application. The site is located on a long-range designated controlled development area. The *Strategies for State Policies and Spending* encourages responsible development in areas within a Growth Level 2 Zone. We request that you consider limiting impervious cover as much as possible when designing this site. This site is a part of a “good recharge” area. The state of Delaware has mapped all ground water potential recharge areas. A “good” rating is the second highest rating and designates an area as having important groundwater recharge qualities. Maintaining pervious cover in “Excellent” and “Good” recharge areas is crucial for the overall environmental health of our state and extremely important to efforts which ensure a safe drinking water supply for future generations. Retention of pervious cover to ensure an adequate future water supply is also important for the future viability of agriculture in the First State. The loss of every acre of land designated as “excellent” and “good” recharge areas adversely impacts the future prospects for agriculture in Delaware.

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

The information provided indicates that the Tidewater Utilities will provide water to the proposed projects through a central public water system. PSC 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.

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 Jimmy Atkins 739-4263

This proposal is to develop 275 units on 56 acres located on the east side of Indian Point Road, between Andrews Lake Road, and Route 15, west of Frederica. According to the State Strategies Map, the proposal is located in an Investment Level 2 area. DSHA supports this proposal because residents will have proximity to existing services, markets, and employment opportunities. Furthermore, the proposal targets units for first time homebuyers. For informational purposes, the most recent real estate data collected by DSHA, the median home price in Kent County is \$174,015. However, families earning 80% of Kent County's median income only qualify for mortgages of \$147,099. We recommend that some of the units be set-aside at this price level to ensure that working households have access to affordable housing.

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,

A handwritten signature in cursive script that reads "Constance C. Holland".

Constance C. Holland, AICP
Director

CC: Kent County