



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF MANAGEMENT AND BUDGET
Budget Development, Planning and Administration
State Planning Coordination

June 18, 2009

Mr. Denis Hulme
Woodin & Associates, LLC
111 Patriot Drive, Ste. D
Middletown, DE 19709

RE: PLUS review – 2009-05-09; Lands of Bunker Hill Associates

Dear Hulme:

Thank you for meeting with State agency planners on May 27, 2009 to discuss the proposed plans for the Lands of Bunker Hill Associates project to be located north of the intersection of US Route 301 and Levels Road.

According to the information received, you are seeking site plan approval through the Town of Middletown for a multi-family residential community with 385 units.

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 the Town of Middletown is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the Town.

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 3 according to the Strategies for State Policies and Spending. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. In general, state investments will support growth in these areas as long as there are no other higher priorities for state funds. We encourage you to design the site with respect for the environmental features which may be present. That said, we also note that this is part of the Westown Master Plan. As a master planned area we do expect to see the principles of Smart Growth put into practice, such as, connectivity and walkability as previously discussed with regard to the Westown plan. We do support the implementation of this master plan and thus we have no objection to this project.

Street Design and Transportation

- The site access shown is inconsistent with the larger Westown plan, which shows the land being accessed through the Spring Arbor at South Ridge subdivision by means of two streets, Pergola Lane and Garden Gate Drive.
- As drawn, the plan provides only one driveway serving 385 condominium apartments. A second driveway would seem extremely desirable in case the first one should become blocked. At a minimum, emergency access should be provided, through a gate on Pergola Lane or Garden Gate Drive. However, we recommend that the developer and the Town plan for a second regular access through other adjoining lands.

Natural and Cultural Resources

- A review of the database has revealed that there may be suitable habitat for the federally listed bog turtle (*Glyptemys muhlenbergii*) associated with wetlands along the tributary to Sandy Branch. It is impossible to discern based on the site plan submitted where wetlands occur in relation to the proposed disturbance. It is standard procedure to require Phase I surveys for bog turtle habitat if project activities are within 300 feet of potential habitat or if changes to hydrology are expected (according to the application, a ‘wooded ravine’ along Sandy Branch is the intended stormwater outlet).

This office has received the following comments from State agencies:

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

This project is located in Investment Level 3 according to the Strategies for State Policies and Spending. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or

other constraints to development. In general, state investments will support growth in these areas as long as there are no other higher priorities for state funds. We encourage you to design the site with respect for the environmental features which may be present. That said, we also note that this is part of the Westown Master Plan. As a master planned area we do expect to see the principles of Smart Growth put into practice, such as, connectivity and walkability as previously discussed with regard to the Westown plan. We do support the implementation of this master plan and thus we have no objection to this project.

State Historic Preservation Office (SHPO) – Contact: Terrence Burns 739-5685

The role of the Division of Historical & Cultural Affairs in the Preliminary Land Use Service (PLUS) process is to provide information on the development's impacts to historic properties and archaeological sites and is an advocate for their protection. In addition, all of the information is according to the reference and resource materials at the State Historic Preservation Office, which is the central research repository of the Division of Historical and Cultural Affairs. Preserving Delaware's heritage and showcasing the historic legacy of our state are the guiding principles of our agency, and through active historic preservation efforts, the Division is committed to enhancing Delaware's quality of life by helping people connect with those aspects of our past that have made this state what it is today.

In accordance with the Preliminary Land Use Service (PLUS) outlined in [Chapter 92 of Title 29](#) of the Delaware Code, here are the following observations:

There is one known historic property in this project area and another nearby. The one that is in the area is the Rumsey Farm (N-113), which is listed in the National Register of Historic Places. This farm consists of a house and farm, along with a few outbuildings (barns and sheds). The other property nearby is the C. Polk House (N-5221), located on Route 71 just north of Road 444 on the west side. It consists of a house with outbuildings (barn and shed). The Pomeroy and Beers Atlas of 1868 show the Rumsey Farm and the C. Polk House, but the Rumsey Farm is shown as the Charles Cochran homestead. Historic farms or homesteads, such as the Rumsey Farm, and the C. Polk House are often associated with small, rural or family cemeteries nearby. Such cemeteries are usually located a good distance behind or to the side of the house. In addition, the USGS Topographic Map of 1931 shows dwellings in the same location as Rumsey Farm and the C. Polk House.

In reference to the observations that were presented above, it is a possibility that there may be other historic resources within this project area that have not been discovered, such as a historic or prehistoric archaeological sites, or a cemetery. The developer should be aware of the Delaware Unmarked Human Remains Act of 1987, outlined in Chapter 54 of Title 7 of the Delaware Code, which pertains to 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. In addition, DelDOT has conducted extensive background research of this general area for the US

301 project. Based on this research, the DE SHPO finds that the area subject to the proposed development has a moderate to high potential to contain archaeological sites, including pre-contact Native American sites, and potentially very early historic period sites. An archaeological survey should be conducted."

Finally, prior to any demolition or ground-disturbing activities, the developer may want to consider hiring a archaeological consultant to examine the project area to see if there are archaeological resources here, especially a cemetery with unmarked human remains. In addition, the Division also recommends that the developer keep the outbuildings on larger lots, especially the Rumsey Farm, which is already recognized as a significant property by its National Register listing. If you need any technical assistance, or would like to discuss these issues further, please contact Alice Guerrant at 302-736-7412 or by email at Alice.Guerrant@state.de.us.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Bunker Hill Associates, LLC seeks to develop a 385-unit condominium apartment complex on a 30-acre assemblage of parcels (Tax Parcel 13-021.00-029 and part of Tax Parcel 10-021.00-013) located between the existing and proposed alignments of US Route 301 and more generally on the southwest side of Middletown. The land is zoned C-3 in the Town of Middletown would be developed by right.

DelDOT comments are as follows:

- 1) This proposal does not match that which was included on Exhibit B in the Middletown Transportation Infrastructure Development Agreement. The Exhibit shows 300 age-restricted units on 115 acres in the first phase and 50 units on 19 acres in the second phase. This proposed development is for 385 garden apartments on 44 acres. If the combined total of Phase I and Phase II is greater than originally proposed, then additional contributions will be due to the Infrastructure Fund.
- 2) It appears from the plan that the western portion of the development and its proposed storm water management will encroach on the right-of-way for the future US Route 301. More specifically the right-of-way for the ramp from westbound Levels Road extended to northbound new US 301 and a temporary haul road will affect the western boundary. DelDOT will need to work with the developer to have the ramp and haul road right-of-way incorporated in their plans and adjustments made accordingly. Also, if the berm for Southridge is to be extended to also screen Spring Arbor II, then this extension will have to be addressed as well. DelDOT recommends that the developer's site engineer contact the DelDOT manager for the US Route 301 project, Ms. Diane Bernardo in these regards. Ms. Bernardo may be reached at (302) 326-4487.

- 3) On the general subject of site access, DelDOT have two comments:
- a) The site access shown is inconsistent with the larger Westown plan, which shows the land being accessed though the Spring Arbor at South Ridge subdivision by means of two streets, Pergola Lane and Garden Gate Drive. Those streets, are as yet unbuilt, but as presently recorded they would stub into the property line for the subject land. DelDOT does not recommend using those streets to serve the proposed condominium complex, but some provision should be made to connect those two streets to form a loop, or at least to provide proper turnarounds where they terminate.
 - b) As drawn, the plan provides only one driveway serving 385 condominium apartments. A second driveway would seem extremely desirable in case the first one should become blocked. At a minimum, emergency access should be provided, through a gate on Pergola Lane or Garden Gate Drive. However, we recommend that the developer and the Town plan for a second regular access through other adjoining lands.

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

Fish and Wildlife

Rare Species. Our field scientists have not surveyed this project area; therefore, we are unable to provide information pertaining to the existence of state-rare or federally listed plants, animals or natural communities at this project site. In the absence of site-specific information, we offer the following comments:

Bog Turtle

A review of our database has revealed that there may be suitable habitat for the federally listed bog turtle (*Glyptemys muhlenbergii*) associated with wetlands along the tributary to Sandy Branch. It is impossible to discern based on the site plan submitted where wetlands occur in relation to the proposed disturbance. It is standard procedure to require Phase I surveys for bog turtle habitat if project activities are within 300 feet of potential habitat or if changes to hydrology are expected (according to the application, a 'wooded ravine' along Sandy Branch is the intended stormwater outlet).

To ensure that the project will not impact bog turtles or their habitat, Phase I surveys should be completed on any wetlands within 300 feet of project boundaries. The applicant for PLUS 2007-10-10 Spring Arbor II, was informed of the need to conduct Phase I surveys for proposed development of these parcels. According to our records, we have not received a copy of a Phase I report. If surveys have already been completed,

please forward a copy of the report to Holly Niederriter, Natural Heritage and Endangered Species Program, 4876 Hay Point Landing Rd, Smyrna, DE 19977.

If surveys have not been completed, please note that a Delaware-approved bog turtle surveyor must be used to conduct the surveys. Phase I surveys can be conducted any time of year when snow cover is not present. If potential habitat is found, however, please note there is a time of year restriction during which Phase II surveys for bog turtles must be conducted.

If potential bog turtle habitat is found during Phase I surveys, you are required to either:

- 1) Completely avoid all direct and indirect project impacts to the wetland, in consultation with the U.S. Fish and Wildlife Service and Delaware Division of Fish and Wildlife; OR
- 2) Have Phase II surveys conducted to determine if bog turtles are present. In accordance with Delaware's bog turtle site survey procedures, surveys must be conducted by a State-approved bog turtle surveyor between April 15 and June 15.

Nuisance Waterfowl. Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. 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, including tall grasses, wildflowers, shrubs, and trees at the edge and within an adequate buffer (15-30 feet in width) around the ponds, to be planted in accordance with the Sediment and Stormwater Plan approval agency requirements. When the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond.

At this time, we do not recommend using monofilament grids due to the potential for birds and other wildlife to become entangled if the grids are not properly installed and maintained. In addition, the on-going maintenance (removing entangled trash, etc.) may become a burden to the homeowners association or land manager.

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. *Edna Stetzar - (302) 653-2880, Edna.Stetzar@state.de.us*

Soil and Water

Sediment and Stormwater Program. A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the

reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. 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. The plan review and approval as well as construction inspection will be coordinated through the Town of Middletown. Contact the Town of Middletown at (302) 378-9120 for details regarding submittal requirements and fees.

Prior applications for this parcel have received the comment to consider a regional stormwater management approach for this and the surrounding parcels. Stormwater green technology best management practices should be utilized in conjunction with regional stormwater management to reduce the pollutant load to Sandy Branch.

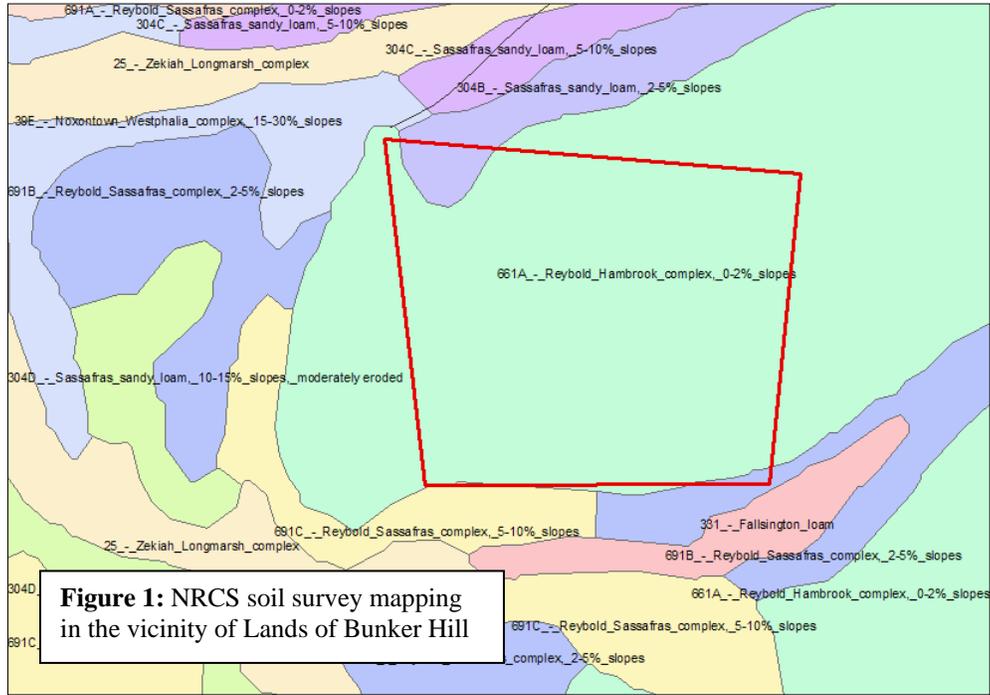
Drainage Program. The Drainage Program is not aware of any problems with drainage of this site.

Sediment/Stormwater and Drainage comments provided by James Sullivan - (302) 739-9921, James.Sullivan@state.de.us

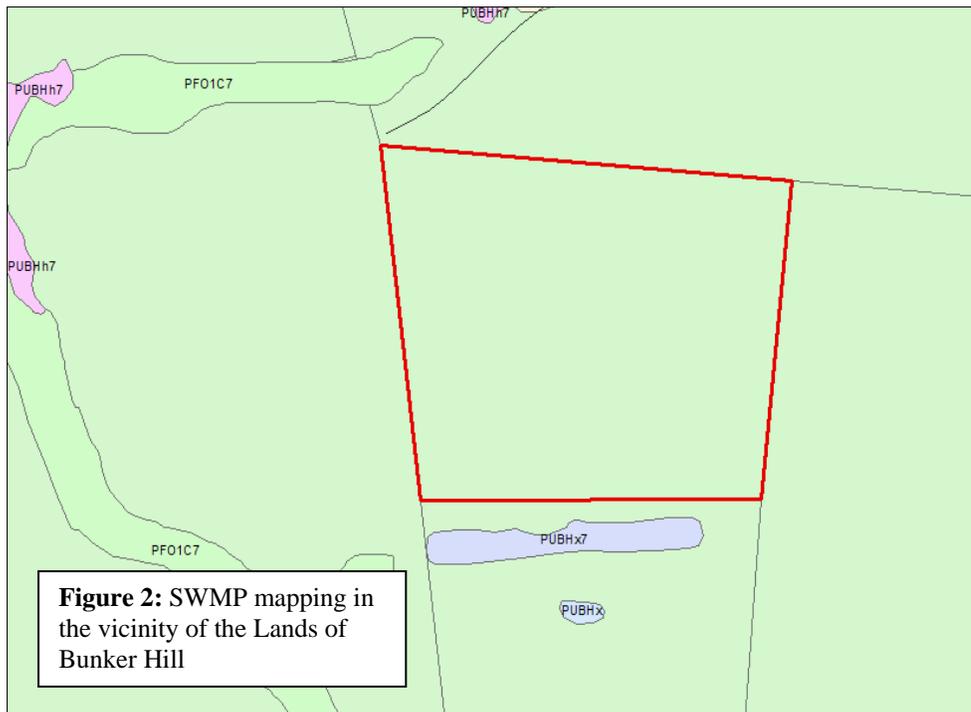
Flood Management. This subdivision proposal is not located in a Special Flood Hazard Area, as indicated on FEMA FIRM panel 10003C300J and 305J. However, the Northeast portion of 2009-05-09 is located in a Zone A floodplain for Sandy Branch, for which no base flood elevation has been established. It is not clear if further development will occur NE of the tentative 301 corridor. *Gregory Williams - (302) 739-9921, Gregory.Williams@state.de.us*

Water Resources

Soils Assessment. Based on the New Castle County soil survey update, Reybold-Hambrook complex and Sassafras were mapped on subject parcel. Reybold-Hambrook complex and Sassafras are well-drained upland soils that, generally, have few limitations for development (Figure 1).



Wetlands. According to the Statewide Wetland Mapping Project (SWMP) mapping, no wetlands were mapped on subject parcel (Figure 2).



Impervious Surfaces and Best Management Practices. Based on information provided by the applicant in the PLUS application form, this projects post-development surface imperviousness is estimated to reach about 45%. According to the TR-55 methodology for determining impervious cover, residential developments of 1/8 acre or less average lot size (typically, townhouses; this project involves multi-family units) average 65 percent impervious area. When calculating surface imperviousness it is important to include all forms of constructed surface imperviousness (i.e., rooftops, parking lots, sidewalks, stormwater management structures, and roads) in the calculation for surface imperviousness; this will ensure a realistic assessment of this project's likely post-construction environmental impacts.

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of its 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 help reduce surface imperviousness.

TMDLs. The Elk River watershed does not currently have total maximum daily load (TMDL) reduction requirements for nutrients or other pollutants. However, the applicant should still strive to implement best management practices (BMPs) that reduce surface imperviousness (e.g., use of pervious paving materials where practicable). The applicant should also strive to increase the amount of passive wooded open space and employ green-technology stormwater management treatment trains instead of open-water stormwater management structures.

Soils, wetlands, subaqueous lands and TMDL comments provided by John Martin, Watershed Assessment Section, (302) 739-9939, John.Martin@state.de.us

Water Supply. The information provided indicates that the Town of Middletown/Artesian Water Company will provide water to the proposed projects through a public water system. Our files reflect that the Town of Middletown/Artesian Water Company 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 302-736-7547. Should an on-site public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area, and 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. *Ricardo Rios* - (302) 739-9944, Ricardo.Rios@state.de.us

Water Resource Protection Areas. The DNREC Water Supply Section Ground-Water Protection Branch (GPB) has determined that a significant portion falls within an excellent ground-water recharge area for the Town of Middletown (see attached map).

GPB acknowledges that the Town of Middletown has adopted a source water protection ordinance. The Town's Ordinance Section 1104 (C), requires the volume and quality of groundwater recharge shall be maintained at predevelopment levels. The proposed development would change the impervious over from 0% to approximately 45%. The developer on the PLUS application provided these numbers. It appears that the amount of impervious cover in the portion of the parcel within the excellent ground-water recharge area exceeds 45%. We applaud the Town's requirement to maintain recharge as if impervious cover did not exist. We are unsure how this will be achieved since there does not appear to enough open space to assure recharge of the volume of runoff this site will generate.

In addition, because the excellent ground water recharge area can quickly affect the underlying aquifer if contaminants are spilled or discharged across the area, the storage of hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program. *Anne Mundel* - (302) 739-9945, Anne.Mundel@state.de.us



Air and Waste

Air Quality. Housing developments may unnecessarily emit, or cause to be emitted, significant amounts of air contaminants into Delaware’s air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:

- Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
- The emission of greenhouse gases which are associated with climate change, and
- The emission of air toxics.

Air emissions generated from housing developments include emissions from:

- Area sources like painting, lawn and garden equipment and the use of consumer products like roof coatings and roof primers.

- The generation of electricity needed to support the homes in your development, and
- Car and truck activity associated with the homes in your new development.

These three air emissions components (i.e., area, electric power generation, and mobile sources) are quantified below, based on a per household/residential unit emission factor that was developed using 2002 Delaware data. These emissions in the table represent the actual impact the Bunker Hill development may have.

Emissions Attributable to Bunker Hill Subdivision (Tons per Year)

	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Direct Residential	11.9	1.3	1.1	1.4	48.3
Electrical Power Generation	ND*	4.7	16.4	ND*	2,423.2
Mobile	17.6	18.4	0.5	0.2	11,378.7
Total	29.5	24.4	18.0	1.6	13,850.2

(*) Indicates data is not available.

Note that emissions associated with the actual construction of the subdivision, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

Recommendations:

The applicant shall comply with all applicable Delaware air quality regulations. These regulations include:

Regulation 6 - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none"> • Using dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. • Using covers on trucks that transport material to and from site to prevent visible emissions.
Regulation 1113 – Open Burning	<ul style="list-style-type: none"> • Prohibiting open burns statewide during the Ozone Season from May 1-Sept. 30 each year. • Prohibiting the burning of land clearing debris. • Prohibiting the burning of trash or building materials/debris.
Regulation 1145 – Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> • Restricting idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:

- **Constructing only energy efficient homes.** Energy Star qualified homes are up to 30% more energy efficient than typical homes. These savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of increased energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.
- **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.
- **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** These measures can significantly reduce mobile source emissions.
- **Funding a lawnmower exchange program.** New lawn and garden equipment emits significantly less than equipment as little as 7 years old, and may significantly reduce emissions from this new development. The builder could fund such a program for the new occupants.

Additionally, the following measures will reduce emissions associated with the actual construction phase of the development:

- **Using retrofitted diesel engines during construction.** This includes equipment that are on-site as well as equipment used to transport materials to and from site.
- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees at residential units and in vegetative buffer areas.** Trees reduce emissions by trapping dust particles and by replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development on air quality. The applicant should submit a plan to the DNREC Air Quality Management Section which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Bunker Hill development. Air Quality Management Section points of contact are Phil Wheeler

and Deanna Morozowich, and they may be reached at (302) 739-9402. *Deanna Morozowich* - (302) 739-9402, Deanna.Morozowich@state.de.us

Hazardous Waste Sites. DNREC's Site Investigation and Restoration Branch (SIRB) has reviewed the proposed project. No SIRB sites or salvage yards were found within a ½-mile radius of the proposed development. However, based on the previous agricultural use of the proposed project site, which may have involved the use of pesticides and herbicides, SIRB recommends that a Phase I Environmental Site Assessment be performed prior to development. In addition, should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions. *Krystal Stanley* - (302) 395-2644, Krystal.Stanley@state.de.us

Tank Management Branch. The Delaware Department of Natural Resources and Environmental Control-Tank Management Branch (TMB) appreciates the opportunity to comment on the proposed development. The parcel ID provided within the PLUS system could not be matched to a polygon with DNREC's GIS system; therefore, the project was based on the closest match, Parcel ID: 1302100013. There is one inactive LUST site located near the proposed project.

Name: 301 Truck Plaza Inc.
Facility ID: 3-000280
Project: N9709136

No environmental impact is expected from the above inactive LUST sites. However, should any underground storage tanks or petroleum contaminated soil be discovered by any person during construction, the DNREC-TMB at (302) 395-2500 and the DNREC Emergency Response Hotline at (800) 662-8802 must be notified within 24 hours.

Should any unanticipated contamination be encountered, PVC pipe materials would have to be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

Also, please note that if any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMB. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMB. *Elizabeth Wolff* - (302) 395-2500, Elizabeth.Wolff@state.de.us

State Fire Marshal's Office – Contact: Duane Fox 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 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.
- Where a water distribution system is proposed for multi-family sites, 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 the main thoroughfare 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.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact: Scott Blaier 739-4811

The Department of Agriculture has no objections to the proposed project. The project is located within the Town of Middletown, and the *Strategies for State Policies and Spending* encourages environmentally responsible development in Investment Level 2 areas.

The proposed project is adjacent to a property permanently protected through the State’s Agricultural Lands Preservation Program (Baker Farms District, (Parcel 1302100010)). Therefore, the activities conducted on this preserved property are protected by the agricultural use protections outlined in Title 3, Del. C., Chapter 9. These protections effect adjoining developing properties. The 300 foot notification requirement affects **all new deeds** in a subdivision located in whole or part within 300 feet of an Agricultural District. Please take note of these restrictions as follows:

§ 910. Agricultural use protections.

(a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm

operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

(1) For any new subdivision development located in whole or in part within 300 feet of the boundary of an Agricultural Preservation District, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

This property is located in the vicinity of an established Agricultural Preservation District in which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities."

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

(b) Normal agricultural uses and activities conducted in accordance with good husbandry and best management practices in Agricultural Preservation Districts shall be deemed protected actions and not subject to any claim or complaint of nuisance, including any such claims under any existing or future county or municipal code or ordinance. In the event a formal complaint alleging nuisance related to normal agricultural uses and activities is filed against an owner of lands located in an Agricultural Preservation District, such owner, upon prevailing in any such action, shall be entitled to recover reasonably incurred costs and expenses related to the defense of any such action, including reasonable attorney's fees (68 Del. Laws, c. 118, § 2.).

In addition, if any wells are to be installed, Section 4.01(A)(2) of the Delaware Regulations Governing the Construction and Use of Wells will apply. This regulation states:

(2) For any parcel, lot, or subdivision created or recorded within fifty (50) feet of, or within the boundaries of, an Agricultural Lands Preservation District (as defined in Title 3, Del. C., Chapter 9); all wells constructed on such parcels shall be located a minimum of fifty (50) feet from any boundary of the Agricultural Lands Preservation District. This requirement does not

apply to parcels recorded prior to the implementation date of these Regulations. However, it is recommended that all wells be placed the maximum distance possible from lands which are or have been used for the production of crops which have been subjected to the application of land applied federally regulated chemicals.

The Department urges the developer to establish a wide and effective buffer between the preserved farm to the northwest and their project. The exiting riparian corridor along the property boundary may be sufficient, but should be evaluated for effectiveness none the less. This is especially important because the adjacent farm contains a large number of active poultry houses, which often generate dust, odors, noise, etc. An effective buffer is essential for separating inherently disparate land uses (agriculture and residential) and mitigating the potential conflicts that may arise.

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.

Do Not Plant List

Due to the high risk of mortality from insects and disease, the Delaware Forest Service does not recommend planting any of the following species:

Callery Pear
Leyland Cypress
Red Oak (except for Willow Oak)
Ash Trees

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.

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 Economic Development Office – Contact: Jeff Stone 672-6849

No comments were received regarding this project.

Delaware Division of Public Health- Health Promotion Bureau- Contact: Michelle Eichinger (302) 744-1011

Ensuring that new residential and commercial development incorporates pedestrian- and bicycle-friendly features allows people to travel by foot or by bicycle and promotes physical activity as part of daily routines. Regular physical activity offers a number of health benefits, including maintenance of weight and prevention of heart disease, type 2 diabetes and other chronic diseases.¹ Research shows that incorporating physical activity into daily routines has the potential to be a more effective and sustainable public health strategy than structured exercise programs.² This is particularly important considering about 65% of adult Delawareans are either overweight or obese.³ This current obesity crisis is also affecting children. Approximately 37% of Delaware’s children are overweight or obese⁴, which places them at risk for a range of health consequences that include abnormal cholesterol, high blood pressure, type 2 diabetes, asthma, depression and anxiety.¹

In Delaware, as in other states across the nation, certain patterns of land use can act as a barrier to physical activity and healthy eating for children and adults alike. Examples of such barriers include neighborhoods constructed without sidewalks or parks and shopping centers with full-service grocery stores situated too far from residential areas to allow for walking or biking between them.

This proposed development is in a Level 2 area. Developing in such an area is consistent with the *Strategies for State Policies and Spending*. DPH is committed to the *Strategies* and therefore, does support development in the proposed area.

DPH supports new development in and around existing towns and municipalities where compact and mixed land use patterns facilitate physical activity. As a way to promote physical activity and access to healthy foods, we recommend that the following amenities be included in the Lands of Bunker Hill:

Amenities to encourage active transportation

- The plan to connect to the adjacent commercial development is to be commended. Ensure there are sidewalks, crosswalks and walking/bicycling paths connecting the developments.

- Ensure safe connectivity with sidewalks, crosswalks and walking/bicycling paths within the site, especially around the proposed site for active recreation and the proposed transit site.
- Designate bike paths to supplement the sidewalks already so that residents can travel by foot or by bicycle to the site. In addition, install bike racks throughout the development in convenient and safe locations within the site.

Amenities to encourage recreation

- Although the developer is commended for including amenities for active recreation, it is recommended that these amenities are centrally located in the site plan, and away from the main entrance to the site. Having the amenities too close to the entrance poses a safety concern due to the traffic volume in and out of the development. Having the amenities centrally located would encourage optimal use and accessibility.

¹ Nemours Health and Prevention Services (2005). *Delaware Children's Health Chartbook*, Newark, DE.

² Active Living by Design. *Transportation Fact Sheet*. Retrieved May 17, 2007, from http://www.activelivingbydesign.org/fileadmin/template/documents/factsheets/Transportation_Factsheet.pdf.

³ Delaware Health and Social Services (2008), *Division of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), 1990-2007*.

⁴ Nemours Health and Prevention Services (2007). *2006 Delaware Survey of Children's Health Descriptive Statistics Summary, Volume 1*.

Delaware State Housing Authority – Contact Valerie Miller 739-4263

This proposal is for a site plan review of 385 residential units on 30 acres, located 2,000 feet north of the intersection of US Route 301 and Levels Road in the Town of Middletown. 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. Additionally, we support the fact that this proposal targets first-time homebuyers.

Department of Education – Contact: John Marinucci 735-4055

This proposed development is within the Appoquinimink School District. DOE offers the following comments on behalf of the Appoquinimink School District.

1. Using the DOE standard formula, this development will generate an estimated 193 students.
2. DOE records indicate that the Appoquinimink School Districts' *elementary schools are at or beyond 100% of current capacity* based on September 30, 2008 elementary enrollment.
3. DOE records indicate that the Appoquinimink School Districts' *secondary schools are at or beyond 100% of current capacity* based on September 30, 2008 secondary enrollment.

4. The Appoquinimink School District is the fastest growing district in the State of Delaware given the number of active, planned and recorded residential subdivisions within district boundaries.
5. This development will create significant additional elementary and secondary student population growth which will further compound the existing shortage of space experienced by the Appoquinimink School District.
6. This development will be subject to the Voluntary School Assessment laws and requirements for New Castle County School Districts. See Title 9, Chapter 26, § 2661, et al Delaware Code.
7. DOE requests developer work with the Appoquinimink 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 school district.
8. Furthermore, this development will border lands owned by the Appoquinimink School District. The developer is requested to contact the school district administration to address and coordinate parcel boundary issues and concerns.

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: Town of Middletown