

**VIA FEDERAL EXPRESS**

15 March 2013

Dorothy Morris  
Office of State Planning Coordination  
122 William Penn Street  
Third Floor  
Dover, DE 19901

**RE: PLUS Review  
Christiana Mall Development  
New Castle County, Delaware  
Applicant: General Growth Properties, Inc.  
Langan Project No.: 002633308**

Dear Dorothy:

We received the PLUS review dated 8/10/12, application #2012-07-03; Christiana Mall Expansion. Our responses to the comments are as follows:

**CODE REQUIREMENTS/AGENCY PERMITTING REQUIREMENTS**

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known historic resources, such as archeological sites or National Registered listed property on the parcel. The applicant will comply with Delaware's Unmarked Human Burials and Human Skeletal Remains Law. All areas of proposed development have been disturbed previously for the construction of the mall and/or the golf course site. An archaeological investigation is not necessary but will be provided if any evidence of historic resources are identified.
- There is no Federal involvement with the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- All comments have been addressed as part of the TOA process with DELDOT.

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

**Wetlands**

- The tributary to the Christiana River along the east side of the property, including the riparian buffer, will not be disturbed by the proposed development. The applicant's natural resource consultant and wetland scientist performed a site study that confirmed the absence of wetlands on the project site.
- The wetland area shown on the DNREC Statewide Wetland Mapping Project map is an existing stormwater management basin and there is no disturbance proposed.

## **TMDL's**

- The post-construction stormwater management plan will provide water quality treatment for stormwater runoff per the requirements of New Castle County.
- The Christiana Mall Expansion will reduce the post-development nitrogen and phosphorous loading from the project site by changing the land cover and by constructing numerous Best Management Practices. The proposed layout will reduce the amount of maintained lawn area by approximately 8 acres. Lawn areas are typically a primary source of nitrogen and phosphorous due to the application of fertilizer. The remaining undeveloped areas on site will be natural forested areas which do not require fertilization. In addition, the site construction will include a net increase of eight bio-facilities that will further reduce nitrogen and phosphorous. This project will not introduce bacteria into the Christina River. Bacterial pollutant loading is typically associated with sanitary sewer waste and outflows, not land development activities. The proposed sanitary sewer system will convey waste into the existing public system.
- A nutrient management plan is required for entities that apply nutrients to lands or areas of open space greater than 10 acres. The proposed development does not contain open space greater than 10 acres.

## **Water Supply**

- The sitework contractor will obtain a dewatering well construction permit from the Water Supply Section if necessary. The sitework contractor will obtain a water allocation permit if the pumping rate exceeds 50,000 gallons per day.

## **Sediment and Stormwater Program**

- The sediment and stormwater plans have been designed in accordance with the New Castle County Department of Land Use requirements.

## **Hazardous Waste Sites**

- If there is a release of a hazardous substance on the property, the applicant will provide remediation according to the Delaware Hazardous Substance Cleanup Act and the Delaware *Regulations Governing Hazardous Substance Cleanup*.

## **Tank Management Branch**

- If a release of a Regulated Substance occurs, the applicant will comply with the State of Delaware Regulations Governing Underground Storage Tank Systems.
- If a release of a Regulated Substance occurs, it will be reported to the DNREC 24-hour Release Hot Line and the DNREC Tank Management Section.

## **Air Quality**

- The applicant will comply with all applicable local and state of Delaware air quality regulations.

## **RECOMMENDATIONS/ADDITIONAL INFORMATION**

### Office of State Planning Coordination – Contact Herb Inden 302-739-3090

- The applicant has provided several pedestrian connections as part of the redevelopment.

### Department of Transportation – Contact Bill Brockenbrough 760-2109

- The applicant has coordinated with DELDOT's Subdivision Manager and has addressed all comments.

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

## **Soils Assessment**

- The applicant's natural resource consultant and wetland scientist performed a site study that confirmed the absence of wetlands on the project site area.

## **Additional information on TMDLs and water quality**

- The post-construction stormwater management plan will provide water quality treatment for stormwater runoff per the requirements of New Castle County. This includes various bio-retention islands throughout the parking lots.
- The existing forest cover will be preserved according to the protection levels in the New Castle County Unified Development Code. Only the areas needed for the redevelopment will be disturbed.
- The applicant's natural resource consultant and wetland scientist performed a site study that confirmed the absence of wetlands on the project site area.
- The site includes a riparian buffer for the stream on the east side of the property based on the criteria in the New Castle County Unified Development Code. The buffer is a minimum of 100 feet on each side of the stream. All work to be performed is outside of the buffer.
- All impervious coverages have been calculated and stormwater management measures have been designed in accordance with the regulations.
- Pervious pavement was not chosen as a BMP but we have provided water quality and water quantity control in other measures. The stormwater management system

consists of 11 bio-retention areas, one bio-filtration swale and three subsurface detention systems with "isolator rows" to provide water quality treatment. Each of these best management practices (BMP's) provides at least 80% total suspended solids (TSS) removal. In addition, the bio-retention areas and bio-filtration swale provide removal of nitrogen, phosphorous and nutrients. The bio-retention areas provide natural pollutant removal by infiltrating stormwater runoff through a modified soil/planting mix that contains organisms that provide biological treatment. The bio-filtration swale will provide pollutant removal via vegetative filtration. Per the manual titled "Green Technology: The Delaware Urban Runoff Management Approach" the proposed BMP's have been designed to reduce nutrient and bacterial pollutant loading to the Christina River Basin.

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#### **Additional information on hazardous waste**

- Previous Phase I Environmental Site Assessments have been completed on the site.
- If a release or imminent threat of a hazardous substance is discovered during the course of development, DNREC will be notified immediately.

#### **Additional information on tank management**

- If contamination is encountered, PVC pipe materials will be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

- No aboveground storage tanks are to be installed as part of the project. If they are added, they will be subject to TMS requirements accordingly.

**Additional information on air quality**

- As the buildings are designed, the applicant will follow up with information on energy efficient products. Vegetation has been designed to be planted within the buffer areas.

Please review the enclosed and if you have any questions or require any additional information, please do not hesitate to call.

Sincerely,

**Langan Engineering and Environmental Services**



Brian M. Conlon, P.E., LEED AP, CDP  
Associate

BMC:sac  
Enclosure(s)

cc: Brad Shockley, New Castle County  
James Whitcome, General Growth Properties  
Larry Tarabicos, Tarabicos Grosso

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