



**ENGINEERING AND RESOURCE PROTECTION REVIEW COMMENTS
THE PROMENADE AT JOHN TYLER (WILLIAMSBURG CROSSING)
COUNTY PLAN NO. Z-003-2014/MP-003-14**

June 12, 2014

General:

1. Please reference Division comments issued on previously submitted concept plans for this site, specifically those under following concept plan cases: C-005-2014 dated January 24, 2014; C-46-2009 dated August 21, 2009; C-122-2007 dated November 20, 2007 (Preswick Square at Williamsburg Commons); C-87-2007 dated August 13, 2007 (Fountain Square at James City County).
2. Mill Creek. This project is situated in Subwatershed 203 of the Mill Creek watershed of the County. Please note that on June 28th 2011, the James City County Board of Supervisors adopted by resolution the Gordon Creek and Mill Creek Watershed Management Plans. Be advised that plans of development situated in those watersheds may be subject to the contents of the adopted watershed management plan, including strategic actions and specific subwatershed recommendations and the rezoning application should show general consistency with recommendations from the adopted watershed management plan. *(Note: Subwatershed 203 includes some very specific priority stream, stormwater management facility retrofit, and improvement recommendations associated with the Williamsburg Crossing parcel.)*
3. Our Division will need to review any proffered conditions if developed as part of the rezoning application.
4. Site Data. Section 23-9(b)(1)(b) of the County's Chesapeake Bay Preservation Ordinance states that impervious cover shall not exceed 60 percent of the site unless it can be demonstrated that the project will have the same impact on water quality as the project would have if it were 60 percent impervious. If over 60 percent, there must be some indication on how the provisions of the ordinance will be addressed.
5. Chesapeake Bay Preservation. Based on the concept plan layout, there is no evidence to support that site design is consistent with general performance standards of the County's Chesapeake Bay Preservation ordinance, Section 23-9. This includes limiting land-disturbing to the area necessary to provide the proposed use or development Section 23-9(b)(1); preserving existing vegetation to the maximum extent practicable Section 23-9(b)(2); and minimizing impervious cover and promoting infiltration Section 23-9(b)(3).
6. Stormwater Management (General). Information provided in the Community Impact Statement (CIS), Section 4.4.1, Stormwater Management, states that the subject property will not be required to meet the new stormwater regulations and VSMP program requirements effective July 1, 2014 because construction plans for the master development were approved before July 1, 2012 and as a result the property is grandfathered under prior regulations. As the locally identified VSMP authority, we are in general agreement that master plans for the parcel would show use of Pond # 3 for development on this parcel. However, to our knowledge no prior construction plan was approved for this particular parcel and there is no correspondence showing approval of a defined master stormwater

management plan for the site. In addition, language in this section of the CIS also shows that original design parameters for design of Pond # 3 will change due to development on this section. Information indicates that Pond # 3 was originally sized for a postdevelopment drainage area of 35.43 acres with a CN of 90 and time of concentration of 15 minutes. Language in the CIS goes on to say that the contributing drainage area for the postdevelopment full build-out for the subject property is “larger than what the pond was originally sized for, but contains more pervious area resulting in a smaller curve number and longer time of concentration.” Exhibit map #4 shows a postdevelopment drainage area of 42.43 acres. Although in general the local VSMP authority administrator would agree that there is general consensus that Pond # 3 was master planned for development on this parcel, changes in such go against general grandfathering provisions. Only detailed design information in the plan of development (if the rezoning application is successful) would prove reasonable adherence to original design parameters enough to support the grandfathering claim. *(Note: A meeting was held between the plan preparer and Division staff on this issue on June 3, 2014 with subsequent follow-up email from the County on June 4.)*

7. Stormwater Management. The current concept plan shows no provisions for location of proposed stormwater management facilities. If compliance will be achieved by sole use of the BMP at Riverside Health Care Center (Pond No. 3 - County BMP ID Code MC 038) it must be demonstrated at the time of plan of development that the existing or retrofitted (upgraded) design meets the following criteria:
 - a. Water quality volume requirements for all impervious areas in the contributing drainage area.
 - b. Quantity control, stream channel protection requirements, are met (24 hour detention of volume from the postdevelopment, 1-year storm)
 - c. Control structures including the low flow, principal, and emergency spillways and dam embankment soils are properly designed for increased drainage area. It is our understanding that the primary and emergency spillways for offsite BMP MC 038 was previously sized to handle a 12 inch rainfall in a 24 hour period. This analyses will need to be revisited due to increased drainage area as proposed.
 - d. Increased runoff from the site and it's proposed storm drainage system(s) must be safely conveyed to the upgraded or retrofitted Pond # 3 in compliance with Minimum Standard # 19 of the Virginia Erosion and Sediment Control Regulations; otherwise, onsite stormwater management may need to be provided.
 - e. A dam break scenario which evaluated potential impact to areas downstream of the dam embankment was also prepared as part of the approved Marywood Subdivision, County Plan No. S-91-04. Downstream lots were sited outside defined dam break zones based on previous design of Pond # 3. This dam break analyses would have to be revisited if the existing BMP will be expanded or modified due to development of the site.
 - f. There also must be some assurance that the applicant will have adequate permission to both use the BMP for stormwater compliance and perform any repairs/upgrades required to receive stormwater credit. A shared inspection/maintenance agreement may be necessary.

8. Low Impact Development. It appears most of the site is situated on Soil Mapping Units 11C (Craven-Uchee complex) and 19B (Kempsville-Emporia fine sandy loam) which are considered feasible for infiltration. Use of better site design/low-impact development principles and techniques are fully encouraged for use in site design to reduce and control impacts associated with increased stormwater runoff. This includes minimizing disturbance, minimizing impervious area, disconnection of impervious areas, saving existing trees, preserving existing topography and HSG A&B soils, use of flatter site grades, reduced slope heights, increasing time of concentration flow paths, maintaining sheet flow, increasing surface roughness coefficients, use of wide and flat stormwater conveyance channels, alternative managed porous or pervious parking lot or sidewalk materials, minimizing use of storm drain pipe, underground stormwater detention or infiltration; tree box filter units; manufactured BMPs for pretreatment; rain barrels; and use of bioretention cells with appropriate landscaping. *(Note: Conservation landscaping, bioretention, underground detention, rainwater harvesting, tree box filters, green alleys, and alternative managed permeable pavement systems at community building areas appear very feasible for this particular site.)*
9. Nutrient Management. Preservation or restoration of proper soil quality will be an important consideration for success of the turfgrass, street tree and landscaping areas shown on the conceptual development plan and will be especially important between the construction and postdevelopment phases of the project and if mass grading needs to be performed on the site. Use of nutrient turf/landscape planning, by a certified nutrient management planner, is fully encouraged for use on common open areas, parks, community building yards, and unit turf/yard areas for this site. Also, this would appear to be an excellent site to consider an urban and community forestry component (design and maintenance) due to the vast amount of street and common areas plantings and buffer plantings shown on the concept rendering.
10. Green Building Program. Due to the mixed use of commercial, residential and recreational structures proposed, it appears that this project would be a good candidate for use of Green Building Design technologies. On July 27, 2010 and September 11, 2012 the Board of Supervisors adopted resolutions to support the recommendations within the County's Green Building Design Roundtable Report dated June 2010 and to endorse Green Building Design Incentives, respectively. These policies encourage all types of development in James City County to pursue green building practices for new construction and major renovations or expansions.
11. Winston Terrace. Based on previous comments, the arrangement of the concept plan was revised to ensure no drainage from the proposed development is directed toward the existing Winston Terrace neighborhood. This directive will remain throughout the entire span of proposed development on the site. This is due to historical complaints received by our Division of persistent flooding and drainage and mosquito-vector complaints from residents of Winston Terrace. If possible, a proffer condition to this effect is preferred.