

**Loudoun County School Board  
LCPS Catoctin Elementary School Expansion  
TLSE 2019-0009  
Response to Referral Comments, dated April 24, 2020  
May 8, 2020**

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## **MODIFICATIONS AND WAIVERS**

**Comment 1:** *(New Comment)* A letter dated March 12, 2020 was submitted requesting a waiver of TLZO 11.6.1 to permit the four feet (4') wide section of sidewalk along the Catoctin Circle frontage to remain. This modification is presently under review by the Zoning Administrator. *(Project Manager Comment)*

**Response:** Acknowledged

## **SPECIAL EXCEPTION PLAT (PLAT)**

### **General**

**Comment 2:** Address the following minor comments on the proposed application *(DPR Comment #1)*:

- a. Update revisions blocks to document any changes made per Town comments.

**Response:** The revision blocks have been updated for this resubmission.

**Comment 3:** **Evergreen Trees.** *(1<sup>st</sup> CCL Comment #19)* In conjunction with discussions with staff, the Applicant has proposed evergreens trees along portions of the Property boundary adjacent to existing subdivisions (Crestwood Hamlet and Rosestone Court subdivisions) with the intent of filling in landscape screening gaps between the proposed use and existing uses.

Staff acknowledges that the applicant has contacted adjoining property owners regarding the proposed use and the proposed supplemental evergreen landscaping with the intent to “fill in the gaps”.

Staff has also been informed, at this point in time, that one adjoining property owner (Hanrahan) has notified the applicant of their desire to not have the proposed evergreen trees planted adjacent to their lot (identified as Lot “L” on Sheet 3 of the concept plan).

Consequently, staff recommends that the 9-10 evergreen trees proposed adjacent to this lot be removed consistent with the request of the adjoining property owner. *(Zoning Comment #1)*

**Response:** The Applicant has removed the 9 evergreens adjacent to Lot “L” on Sheet 3 as requested by the adjacent property owner.

### **Stormwater Management**

**Comment 4: VSMA Compliance.** *(1<sup>st</sup> CCL Comment #24)* Provide additional information and calculations to verify that the Virginia Stormwater Management Act for this site can be met. For example, the proposed layout and treatment methods as currently shown cannot be completely ascertained with this submission, as some proposed elements are missing from the application. If the applicant plans to utilize treatment currently shown on this application the following items, at a minimum, must be addressed with the next submission *(DPR Comment #2)*:

**a. Address the following items concerning Stormwater Quality Conceptual Design:**

**i.(New Comment) Revise the areas provided on the VRRM spreadsheet to utilize the correct soil types. Based on the Interpretive Guide to the Use of Soils Map of Loudoun County, VA, there is a mixture of B and D hydrologic soil groups (HSG), not just HSG D. (Sht. 8).**

**Response:** The VRRM spreadsheet calculations shown on Sheet 8 have been revised to incorporate both B and D soils, as requested and discussed in our conference call.

**ii.(New Comment) Provide the following note on Sheet 7:**

*“At the time of final site plan, a water quality analysis utilizing the VA DEQ Virginia Runoff Reduction Method Spreadsheet under the Re-Development criteria must be provided, and the proposed site must meet all required phosphorus load removal requirements. Prior to any purchase of offsite nutrient credits for water quality compliance, the applicant must provide onsite BMPs for phosphorous pollutant load removal to the maximum extent practicable”.*

**Response:** The requested note has been incorporated into the narrative under “Water Quality” as shown on Sheet 7.

**iii. (New Comment) The provided conceptual stormwater management design shows that it does not meet the necessary pollutant load removal requirement. The computations show that the 50% removal efficiency BMP Filter Unit is removing 1.11 lbs of phosphorus, which is 0.04 lbs short of the 1.15 lb phosphorus removal requirement to meet water quality concerns. Revise the stormwater management conceptual**

**design to show the pollutant load removal requirement can be met utilizing onsite facilities. (Sht. 7 and 8).**

**Response:** The VRRM spreadsheet shown on Sheet 8 has been updated. The area used to determine the required phosphorus load is the limits of clearing and grading shown on Sheets 6 and 7, and totals 2.07 acres. The area shown as “Drainage Area A” from the VRRM spreadsheet represents the existing parking lot area on the north portion of the site, as shown with hatching on Sheet 7. By treating this existing parking lot area with a manufactured BMP filter, 1.08 lb/yr of phosphorus loading has been achieved, which exceeds the required phosphorus removal of 0.63 lb/yr.

**b. Address the following items concerning Stormwater Quantity Conceptual Design:**

**i. Update the application to show locations of all proposed downspouts and splash blocks. The proposed slope of 3:1 around the classroom addition is a concern for concentrated runoff from the downspouts without a level spreader type design, or providing pop up emitter type drains at the bottom of the slope. (Sht. 7) 9VAC25-870-65. The location of the roof drains and splash blocks, as shown on the most recent submission, discharge down 3:1 slopes and then concentrate flow in a pedestrian walkway, which is not acceptable. At time of Final Site Plan, revise the design of the roof drain system to discharge below the slopes and walkways utilizing acceptable methods of spreading out the flow (such as pop-up emitters, etc.), as was previously requested.**

**Provide the following note on the plan:**

*“Computations and/or supporting documentation will be provided on the final site plan showing that sheetflow runoff will not cause down-gradient erosion, sedimentation, or flooding.”*

**Response:** The roof drains will extend to the bottom of the slope on the downgradient side of the sidewalks as shown on Sheet 6. The requested note was added as Note #3 on Sheet 6 as requested and revised to remove “..., sedimentation, or flooding.” as agreed to by Director.

**ii. As this site is located within the Upper Tuscarora Creek Watershed provide justification and/or computations to satisfy the following criteria. At a minimum, note that the Town’s Stormwater**

**Management Masterplan – Upper Tuscarora Watershed criteria will be met at the time of final site plan.: DCSM 5-321.1**

**a. Explain and/or show that the 2-year post developed peak discharge is less than the 2-year predevelopment peak discharge, OR provide the 1-year Energy Balance Equation computations. Comment remains. The applicant/engineer must justify that the “Site” meets all Upper Tuscarora Creek Watershed criteria including the 2-year storm.**

**The Engineer also states that there is an increase in runoff proposed with this development for various storm events. Please be advised that the proposed “White Oak Subdivision Pond” should NOT to be considered a part of your stormwater design, as noted in your latest application, because this pond (which is currently under design by an adjacent property developer), is not being designed as a regional pond, has not yet been constructed, and is yet to be approved and bonded.**

**If it is the intent of White Oak’s pond as a part of your proposed stormwater plan, the Catoctin Elementary School plan cannot be approved until White Oak’s drainage systems and stormwater management facilities are constructed and operating in its final configuration.**

**Update the conceptual stormwater management plan and narrative to demonstrate how the site can meet all State and Local Water Quality Regulations.**

**Response:** The BMP/SWM narrative has been updated on Sheet 7 as requested. In order to maintain a stormwater runoff coefficient equal to pre-development, an existing asphalt play court will be converted to pervious concrete. The design of the pervious concrete will be completed under Final Site Plan. As a result of decreasing the runoff coefficient, there would be no increase in runoff from the post-development condition.

**b. Explain and/or show that the 10-year post developed peak discharge is less than the 10-year predevelopment peak discharge. Comment remains. The applicant/engineer must justify that the “Site” meets the Upper Tuscarora Creek Watershed criteria for the 25-year storm, (see Comment “1” above as it relates to the White Oak Subdivision pond).**

**Response:** The post-development runoff coefficient will be equal to, or less than, existing pre-development conditions. Therefore, there will be no increase in stormwater runoff, and the narrative on Sheet 7 has been updated accordingly.

**c. Explain and/or show that the 25-year post developed peak discharge is less than the 25-year predevelopment peak discharge. Comment remains. The applicant/engineer must justify that the “Site” meets the Upper Tuscarora Creek Watershed criteria for the 25-year storm, (see Comment “1” above as it relates to the White Oak Subdivision pond).**

**Response:** The post-development runoff coefficient will be equal to, or less than, existing pre-development conditions. Therefore, there will be no increase in stormwater runoff, and the narrative on Sheet 7 has been updated accordingly.

**d. (New Comment) Provide the following note on the plan:  
“As this site is located within the Upper Tuscarora Creek watershed, justification/computations will be provided at the time of Final Site Plan showing the following:  
i. The 2-year post developed peak discharge is less than the 2-year predevelopment peak discharge, OR the 1-year Energy Balance Equation will be met.  
ii. The 10-year post developed peak discharge is less than the 10-year predevelopment peak discharge.  
iii. The 25-year post developed peak discharge is less than the 25-year predevelopment peak discharge.”**

**Response:** The requested note has been incorporated into the SWM/BMP narrative under “Stormwater Quantity” on Sheet 7 as requested.

**e. (New Comment) Based on previous correspondence after the first submission, it was Staff’s understanding that the Engineer was going to analyze the runoff at the site boundary near the southwest corner of the School site. Specifically, the engineer was going to evaluate the weighted land cover value (i.e. C or CN value) to see if (or how much) the overall site would change, with the proposed improvements, in order to determine if there was a noticeable increase in runoff at the**

**property limits in the post development condition. Based upon those calculations, the engineer may be able to utilize that evaluation as a way to justify and certify that this project does not increase discharge onto offsite properties. Staff is willing to consider this option if the Engineer would be able to demonstrate and certify that the runoff at the site boundary (i.e. outfall point) does not increase in the post development condition based on the overall weighted land cover value (i.e. does not change)**

**Response:** As discussed with Town staff during a conference call on April 30, 2020, the site will be designed to convert an existing asphalt play court into pervious pavement. The design of the pervious pavement will be completed with the Final Site Plan and will be in accordance with manufacturer recommendations for runoff coefficients. As a result of this conversion, the runoff coefficient will be equal to pre-development conditions, resulting in no increase in stormwater runoff. The SWM/BMP narrative has been updated accordingly to reflect this strategy, with an additional note added that, should pervious pavement not be able to be incorporated, additional alternatives will be designed to ensure no increase in stormwater runoff from the proposed development.