

Memorandum



To: Jeff Kleaveland, Planner/ZDS, RLA
From: Bill Roark, PE, CPSWQ
Date: October 11, 2018
Re: **Sanderway Subdivision**

Jeff,

As requested, we are providing the following responses to review letter prepared by McAdams with regard to the Sanderway SUP submittal.

Detention Analysis:

The proposed development's original submittal included an open basin but this design was revised with the spring submittal to eliminate the open basin and instead use a combination of Filterra treatment units and pipe storage leading to a level spreader at the outlet that would dissipate flow. Detailed calculations were provided demonstrating that the pipe network could convey required design storms. However, the detention system was presented in concept with full design to be provided as a part of construction plan review.

Water Quality Calculations:

The proposed Filterra systems are approved as an SCM by NCDEQ. The manufacturer's data show TSS removal efficiencies of 86%, 70% for Phosphorus, and 34% for Nitrogen. Properly sized units should address the stormwater quality. The roofs are to be directed to the collection system and not bypass the treatment process.

Volume Control:

Composite curve number development was included in the original 2017 submittal.

E n g i n e e r i n g • P l a n n i n g • F i n a n c e

Stormwater Control Measure Design:

The details for specific stormwater components were not provided but will be required as part of the construction plan phase of the project.

Construction Drawing Review:

As mentioned above, the details for specific stormwater components were not provided but will be required as part of the construction plan phase of the project.

Additional Information:

As we have discussed, additional information has been submitted by the developers engineer that is still under review.