

Stonecreek Subdivision - Section 2

The site is located at the intersection of Kansas and Seib Road in Center Township, Vanderburgh County.

The site consists of flat ground that has been previously cultivated. The entire site drains directly to Firlick Creek. The Floodway boundary is depicted on the enclosed utility/drainage plan drawing along with the 100 yr/25 yr. storm elevations provided by the Department of Natural Resources.

Three retention basins will be constructed on site to provide more than adequate storm water detention. Storm water runoff will be conveyed to the basin via storm sewers, swales, and overland flow. Due to the topography, storm runoff from part of the site will be allowed to exit the property undetained. The total allowable discharge for the site was determined to be 9.70 cfs, which is the peak runoff rate for the 10-year storm under undeveloped conditions. When taking into account the undetained runoff leaving the site, the allowable discharge rate for a 25 year storm for developed conditions is -1.19 cfs. Due to the additional runoff the Section 1 basin will capture and retain (+11.78 cfs), we are proposing to use 4.69 cfs of the excess which will give an allowable discharge rate of 3.50 cfs for Section 2. The required storm water detention volumes from the Form 800 were calculated for the overall site, basin #1, and basin #3 separately. The volume required for the overall site was calculated to be 80,114 cubic feet for the 25 year storm. The total storage volume available from all three basins was calculated to be 386,328 cubic feet which is 382% more than required.

Retention basins #1 have been connected together by a 21" RCP. The basins have the same pool and emergency spillway elevations and basically act as one basin. Utilizing a 12" RCP as the primary spillway outlet at elevation 389.25 feet, the total storage volume provided at a release rate of 2.0 cfs is 224,298 cubic feet at elevation 393.22 feet for a 25 year storm.

Retention basin #3 utilizes a 12" RCP as the primary spillway outlet at elevation 391.00 feet. The total storage volume provided at a release rate of 1.5 cfs is 162,030 cubic feet at elevation 394.78 feet for a 25 year storm.

The primary spillway pipes from Basins #1, and Basin #3 empty directly into a fourth basin located within the Floodway. The fourth basin will not be used for any retention purposes and is denoted on the utility/drainage plan as a borrow basin with a riprapped spillway directly to Firlick Creek.

Before any construction can occur within the Floodway, a construction in a floodway permit will have to be obtained from the Indiana Department of Natural Resources, Division of Water. We ask that final drainage approval be given on condition that a DNR permit be obtained and submitted to the County Surveyor's Office.