



Hills of Aquia, Sections 1 – 8 Stafford County, Virginia

The overall project involves the development of 245 single family detached homes, recreation areas, major roadway improvements, stormwater management and sanitary sewer outfall. A preliminary plan, stormwater management concept plan, road improvements plan, sanitary force main plan, early clearing and grading plan and site development construction plan were prepared. An overall computerized water model was completed in order to optimize the waterline sizes. The design efforts involved the coordination between several agencies, including, Stafford County, Virginia Department of Transportation, Virginia Department of Environmental Quality, Virginia Department of Natural Resources and the Corps of Engineers. Plats creating right of ways, lots and all necessary easements in conformance with the development plans were also prepared and submitted to Stafford County for recordation. Construction stakeout for the entire project was provided. As-built surveys were performed and plans submitted to Stafford County for approval.

The project consisted of the following:

- Single family detached homes
- Major roadway improvements (Rte.1)
- Design of 14,000 linear feet of new roadway
- Waterline and sanitary sewer extensions
- Stormwater Management Facilities (with BMP)
- Road crossings with major culverts
- Floodplain Alteration
- Wetlands and Stream Delineation

This project involved the movement of over one million yards of earthwork. The soils located on this site were highly expansive clays and required very creative ways to prevent slope and compaction failures. Particularly challenging was the comprehensive storm water management strategy and road crossing of a major floodplain. Detailed riverine studies were conducted to avoid impacts to adjacent properties. Stormwater management facilities were strategically located to avoid impacts to natural stream systems.