

Christophers Crossing Improvements

Location: City of Frederick, Maryland



Project Description:

- Fox & Associates, Inc. provided complete design, agency review processing, permitting and construction stakeout services for the construction of approximately 1.6 miles of Christophers Crossing in the corporate limits of Frederick, MD.
- Christophers Crossing is a City major arterial roadway that once completed will serve as an outer by-pass around the City of Frederick. The road design consists of an 80' wide right-of-way with a 2-lane roadbed and median.
- The project limits extended from Thomas Johnson Drive to approximately 4,000 feet west of Opossumtown Pike and from Yellow Springs Road to Rocky Springs Road. This project was performed under contract with the developer of the North Crossing, Clover Ridge and Whittier subdivisions.
- Utilizing existing aerial photos, Fox & Associates, Inc. performed control surveys with G.P.S. receivers for photo identification points, to provide the photogrammetric mapping company with coordinates and elevations based on USGS datum. Once the mapping was completed our crews performed field topographic surveys to supplement the areas that could not be mapped, areas not included by the photo coverage or stream cross sections where sewer line crossing were anticipated.

Site Considerations:

- The design included two significant stream crossings accomplished by large pre-cast concrete culvert/bridge structures within the North Crossing and Whittier subdivisions. The most challenging of which was the new roadway associated with North Crossing over the Opossum Branch tributary while minimizing the disturbance to the stream channel. This project required MDE approval of the existing and developed condition floodplain analysis for the 605 acre drainage area of Opossum Branch and a wetland mitigation area. Fox was able to successfully permit the placement of the culvert structures and fill in the floodplain in order to construct this section of Christophers Crossing.
- Other design considerations were storm drainage facilities, water and sewer lines, curb & gutter, sidewalk, landscaping and lighting improvements. Fox was able to successfully permit the placement of the culvert structures and fill in the floodplain in order to construct this section of Christophers Crossing.
- The Whittier stream crossing of a tributary to Carroll Creek required MDE approval of the existing and developed condition floodplain for the 300 acre drainage area to the crossing.

Participants / Reference:

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