



Date: July 14, 2011

To: Thomas J. Bonfield, City Manager
Through: Theodore L. Voorhees, Deputy City Manager
From: Marvin G. Williams, Director of Public Works
Edward Venable, Engineering and Stormwater Manager
Paul Wiebke, Assistant Stormwater Manager
Dana P. Hornkohl, Civil Engineer
Subject: Stormwater Infrastructure Concerns - Update

Executive Summary

University Drive Culvert Rerouting Project

The Engineering and Stormwater Services Division is responsible for managing the rerouting of a drainage system located at 2512 and 2514 University Drive. The City Manager awarded a contract to HDR Engineering, Inc. of the Carolinas on September 27, 2006 in the amount of \$29,988.00 to begin work on the design of the drainage system rerouting. The City Council authorized the City Manager to amend this contract in the amount of \$146, 575.00 on June 9, 2011. The resulting contract amount is \$176,563.00. The additional funds will allow for the completion of the design, permitting, and construction documents for this project. The contract amendment was executed and a Notice to Proceed was issued to the consultant on June 21, 2011. Work on the geotechnical investigation began on June 24, 2011 and is currently underway.

Engineering and Stormwater Division staff met with State Hazard Mitigation Office representatives on Monday, June 27, 2011, to conduct initial site visits and discuss three proposed flood mitigation sites (including 2512 and 2514 University Drive). The State identified additional information needed to complete their benefit/cost analyses for determining the feasibility of each project. Stormwater staff expects to have the information provided to the state by end of July. Flood mitigation funds could be used for the culvert rerouting or a possible property buyout.

At the request of Scott Howell (property owner of 2512 and 2514 University Drive) and the North Carolina Department of Transportation (NCDOT), City crews from Street Maintenance and Water Management flushed the drainage system within University Drive (NCDOT maintained right-of-way) on July 13, 2011. The crews identified and removed a blockage from the drainage system located on private property. The blockage appears to have contributed to flooding events at the two buildings. Mr. Howell, who is responsible for maintaining the drainage system, requested assistance from the City when a private contractor was unable to find and remove the blockage. Full flow at the outlet end of the drainage system and visual inspection of the system did not originally indicate a blockage could be contributing to the flooding.

Sinkhole at 2607 University Drive

Mr. Ken Fowler and Ms. Leah Weinberger contacted the Engineering & Stormwater Services Division to address a sinkhole located on their property at 2607 University Drive. Staff investigated and spoke with the property owners. A response letter was sent to the property owners on July 13, 2011.

Intense Rain Events on July 8, 2011

Several older neighborhoods in Durham including Golden Belt, Old West Durham, and Rockwood experienced intense rain and flooding on the afternoon of July 8, 2011. These areas have experienced flooding during similar events. The Engineering & Stormwater Services Division is evaluating the performance of the drainage systems in these areas in order to determine if repairs and improvements are needed. A schedule is being developed by staff to perform inspections and assessment of these systems in order to make recommendations for possible repairs and improvements.

Recommendation

The Administration recommends that the City Council receive this update report on the stormwater infrastructure concerns.