

Neighborhood/Community Affairs Committee Meeting
February 19, 2013

Discussion Regarding An Update On Upper North Bay Road Drainage Project.
Commission Item C4G, January 16, 2013
(Requested by Commissioner Tobin)

Fred Beckman, Public Works Director

ITEM #5



COMMITTEE MEMORANDUM

TO: Neighborhood / Community Affairs Committee

FROM: Kathie G. Brooks, Interim City Manager

DATE: February 19, 2013

SUBJECT: **DISCUSSION REGARDING AN UPDATE ON UPPER NORTH BAY ROAD DRAINAGE PROJECT.**

Upper North Bay Road is a part of the La Gorce Neighborhood Improvements project. The 1997 Stormwater Management Master Plan (SWMMP) identified three (3) basins within the La Gorce neighborhood as priority basins. In May 2002, the design firm of Reynolds, Smith and Hills, Inc. (RS&H) submitted a Basis of Design Report (BODR) for the La Gorce neighborhood, as part of the CIP Office's Neighborhood Improvement Program, which included proposed improvements to these three basins. As RS&H began its design, it recognized the need to include two additional drainage areas on North Bay Road. Over the next several years, RS&H held community meetings and developed preliminary plans.

Stormwater Design

Per its 2010 Drainage Report, RS&H proposed to meet the required level of service by providing new inlets, pipes, drainage wells, control structures, and outfalls in gravity systems. The final design did not re-grade any streets and designed the stormwater system for a tailwater and groundwater elevation of -0.96 feet. (All elevations are NAVD88, which is a vertical control datum established in 1991.)

The 2012 SWMMP is more comprehensive than the 1997 SWMMP. It re-evaluated the functionality of each basin and took a more in-depth look at the drainage deficiencies Citywide. It also re-defined statistical rainfall data as well as impacts associated to sea level rise. By comparison with the RS&H Drainage Report, the groundwater and tailwater elevations pursuant to the 2012 SWMMP are 0.67 feet instead of the -0.96 feet originally assumed by RS&H, an increase of 1.67 feet above the original tailwater elevation. Further, it identified additional runoff from Alton Road into the Upper North Bay Road stormwater system, which was not accounted for in the earlier design, therefore increasing the originally assumed contributing watershed in certain sub-basins.

Following an in-depth analysis of the construction plans developed by RS&H, staff determined that the stormwater design will not address nor meet the level of service required by the 2012 SWMMP and cannot be easily modified to do so. As a result, staff conducted a full re-evaluation, as well as a conceptual re-analysis, of the stormwater improvements to ensure that the five-year level of service is met per the new criteria established in the 2012 SWMMP.

The size and elevations of the proposed outfall pipes need to be adjusted, as these outfalls