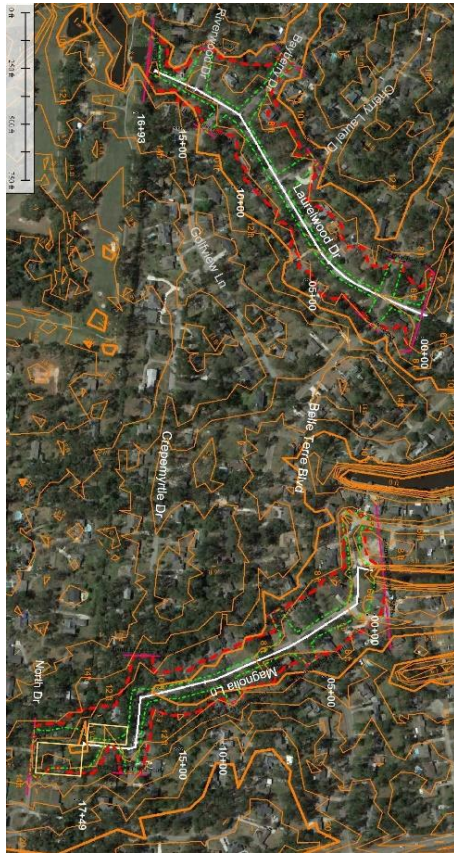


Statewide Flood Control Program (SWFCP) Grant Drainage Improvements, St. Tammany Parish, LA

Completed – 2014
\$3,000,000

Owner US Army Corps of Engineers, New Orleans District
/ St. Tammany Parish



Statewide Flood Control Program (SWFCP) grant drainage improvements, Riverwood and Country Club Estates Subdivisions, St. Tammany Parish, LA. MSMM conducted hydrologic and hydraulic (H&H) modeling of the planned drainage improvements in the two subdivisions, utilizing multiple software such as LDOTD's HydrWIN and HYDR6020, COE's HEC-HMS and HEC-RAS, EPA's SWMM, and NRCS's TR55. Both existing conditions as well as proposed conditions were evaluated via the models, while adhering to LDOTD's SWFCP grant guidelines. MSMM staff attended multiple meetings with the client as well as the grant agency to discuss and present the methodology and results of the H&H modeling work. The results of the model were utilized by MSMM staff to calculate quantities that were utilized in developing the cost opinions for use in the grant application. In course of the project, MSMM staff also reviewed available survey information and previous studies to determine existing conditions and project plans, researched FEMA's DFIRMs regarding project area, created exhibits; researched FEMA's FIS documents for flood profiles in Tchefuncte River and Pontchitola Creek, created stage-discharge curves for Tchefuncte River under multiple design storms, created 3-dimensional model of project area with survey data, drainage features and road centerlines, and prepared exhibits from the model. The model results, report and constant communication and coordination with LDOTD enabled winning successful funding for this project.

Objectives

- Hydrologic and hydraulic (H&H) modeling of the planned drainage improvements
- Created stage-discharge curves for Tchefuncte River under multiple design storms
- Created 3-D model of project area
- Apply for and obtain LDOTD Statewide Flood Control Program grant funding.

Work Elements

- Hydrologic and Hydraulic Modeling
- H&H Modeling using HydraWIN, HYDR6020, COE's HEC-HMS and HEC-RAS, EPA's SWMM and NRCS's TR55
- Prepared exhibits for Presentation from Model.