



September 13, 2011

Mr. Scott Cottrell
Sumter County Public Works
310 Anderson Avenue
Bushnell, Florida 33513

Re: Proposal for Professional Engineering Services
Stormwater Needs Assessment - Task Assignment 2
Sumter County, Florida
AMEC-BCI Project No. 600053.1

Dear Scott:

Sumter County (County) has requested AMEC-BCI Engineers & Scientists, Inc. (AMEC) to provide professional engineering services for Task 2 Stormwater Needs Assessment. AMEC completed Task Assignment 1 in March 2011 which included a report of findings for the following tasks:

1. Identify typical elements of a rural county stormwater management program (*where do we need to be*).
2. Identify and collate all current elements that could become a stormwater management program (e.g. existing GIS layers, SWFWMD permits/operations files, existing watershed management studies, etc, etc) (*where are we*).
3. Make recommendations for next steps, and cost estimates for discrete steps. (*how do we get to where we need to be from where we are*).

Task Assignment 2 includes the following tasks:

1. Identify all existing basin studies within Sumter County, along with the date the study was completed, on a map. Evaluate the need for updates to the study, and recommend additional studies.
2. Update and expand existing GIS database with all stormwater-related structures and features within the County.

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3. Develop a plan for maintenance of the County's drainage ditches, and bridges.
4. Research documentation related to existing legal access for the County's canals.
5. Identify parcels and structures impacted by changes to the FEMA DFIRMS.
6. Evaluate the County's growth trends including the rate of growth and the geographic locations of growth. Make recommendations for steps the County should take relative to stormwater management to minimize risk to the County from unplanned growth, and plan for stormwater management.
7. Evaluate the County's short term priorities related to stormwater management.
8. Prepare two concept projects and applications for submission to Southwest Florida Water Management District's Cooperative Funding Initiative.
9. Prepare a report of Findings for Tasks 2.1-2.7, which includes the cooperative funding application from Task 2.8.

The tasks to accomplish this project are described in detail below:

Task 2.1 IDENTIFY EXISTING BASIN STUDIES

A number of existing studies related to stormwater were referenced in the report delivered during Task 1. AMEC performed a search for any other existing studies available, using the internet, and by contacting FDEP, SWFWMD, and FEMA. The geographical (basin) limits of the studies and the completion dates of the studies will be listed. A map outlining the limits of all existing stormwater studies will be generated.

Task 2.2 UPDATE AND EXPAND EXISTING GIS DATABASE

The County owns and operates approximately 700 miles of roadway, 27 bridges, 20 stormwater ponds, numerous stormwater structures within the rights of way (mainly in The Villages where there are 235 miles of roadway), the South Sumter Canals and Jumper Creek Canal. AMEC will prepare a geo-database containing pertinent information for these stormwater features. The geo-database formatting will be coordinated with the formatting of the County's Pavement Management data. We will rely on existing plans made available by the County for this data. AMEC will coordinate with County staff prior to beginning any field work to understand the general locations for the stormwater features that will be located in the field. We have included time for two AMEC personnel for 30 days in the field to collect data for cross culverts, stormwater manholes and inlets, ponds and pond control structures, and bridges.

The following data will be collected:

County Roadways – Existing roadway shapefiles will be used to create a county roadway feature. Data will include road name, and length. We will coordinate with the County to include additional information for each road that has been documented as a part of the pavement management study.

Bridges – AMEC will add bridge data which has been collected by FDOT to the database. Data will include latitude, longitude, road name, bridge number, structure name, facility crossed, average daily traffic, year built, year reconstructed, last inspection date, sufficiency rating, health index NBI rating. Each bridge will be photographed during the field investigation.

Inlets/control structures – AMEC will use GPS to collect coordinates for all inlets/control structures maintained by the County. Data will include latitude, longitude, structure type, condition, and photograph for data collected in the field.

Pipes – AMEC will use GPS to create a line file for pipes maintained by the County. This information will be obtained from plans and/or field investigation. Data will include diameter, shape, upstream end and downstream end, length, and material for data collected from plans. Invert elevation data for pipes in grated inlets and at outfalls will be collected using GPS.

Mitered End Sections – AMEC will use GPS to collect coordinates for mitered end sections maintained by the County. Data will include latitude and longitude, size, shape, condition, and a photograph.

South Sumter Canals – AMEC will use existing plans, structure locations from SWFWMD and existing aerial photography to map the South Sumter Canals. Data will include canal name and canal length.

Jumper Creek – AMEC will use the existing survey and cross-sections available from SWFWMD to map Jumper Creek. Data will include canal name length, and cross section information.

Location of Complaints Submitted to the County – Data will include latitude and longitude for the location of the problem, problem description, name address and contact information of person submitting complaint, date of complaint, date of County response, name of staff responding, action taken. We assume that County staff has obtained the information listed above.

Deliverable: Geo-database and hard copy of all data.

Task 2.3 DEVELOP MAINTENANCE PLAN FOR CANALS

AMEC will prepare a maintenance plan for canals maintained by the County. The plan will include recommendations for frequency of maintenance, type of maintenance, and regulatory information as it applies to herbicide or mechanical plant management. We will include an analysis of the annual cost of maintenance for using County staff and hiring a contractor. Costs will include cost of disposal of materials if required.

Results of these analyses will be summarized in the final report to the County.

Task 2.7 **EVALUATE SHORT TERM PRIORITIES FOR STORMWATER PROJECTS**

The results of Tasks 2.1-2.6 will be used as input to a cost benefit analysis for prioritizing stormwater projects for the County. A list of projects will be developed, and prioritization parameters for the matrix will include but not be limited to:

- Condition
- Acres (or persons) effected
- Cost to correct
- Required by regulation
- Discharges to TMDL listed water body
- Safety Hazard
- Health Hazard
- Cost to ignore
- Complaint submitted

AMEC will produce a draft of the priority matrix for delivery to the County. We will meet with County staff to discuss the results, and will incorporate comments into a final priority matrix that will become a part of the final report for this task.

Task 2.8 **PREPARE COOPERATIVE FUNDING APPLICATIONS TO SWFWMD**

Applications for cooperative funding projects with SWFWMD must be filed annually by the first Friday in December. AMEC will work with Cara Martin, SWFWMD's community affairs program coordinator for Sumter County, to prepare applications for two projects for the December 2011 deadline. We understand that this application will be submitted prior to completion of the final report for this task. AMEC will meet with the County prior to final determination of the project to be submitted, review SWFWMD evaluation parameters, and research projects that have been approved within the region, in order to improve the potential for capitalizing on this funding.

Task 2.9 **TV STORMWATER PIPES**

The County has requested that AMEC include a line item in this proposal for inspecting stormwater pipes using closed circuit televising. The cost of televising pipes varies by pipe size and length per job, and will range from \$0.55 to \$1.20 per linear foot. Additional services provided by these contractors includes but is not limited to mechanical cleaning, root and tap removals, chemical and cementitious sealing, epoxy and cementitious coatings, joint sealing, point repairs, slip lining, and specialized custom reports. *(Fees not included in this proposal)*

TASK 3.0 PREPARE A REPORT OF FINDINGS FOR TASKS 2.1-2.7

AMEC will prepare a draft report of findings for Tasks 2.1-2.7. We will meet with County staff to review the report and incorporate County comments into a final report. Ten copies of the final report will be delivered.

The estimated budget for this project is listed by task below.

BUDGET ESTIMATE AND SCHEDULE

Task	Description	Cost
2.1	Identify Existing Basin Studies	\$2,756.00
2.2	Update and Expand Existing GIS Database (not to exceed)	\$67,046.96
2.3	Develop Maintenance Plan for Canals and Bridges	\$5,083.68
2.4	Research Legal Access Documentation for County Canals	\$3,682.56
2.5	Identify Parcels and Structures Impacted by Changes to FEMA DFIRMS	\$3,850.24
2.6	Analyses for Stormwater Needs Related to Growth	\$17,724.80
2.7	Evaluate Short-Term Priorities for Stormwater Projects	\$7,538.72
2.8	Prepare Cooperative Funding Applications to SWFWMD	\$9,422.56
2.9	TV Stormwater Pipes (As a separate Task Order)	\$0.00
3.0	Prepare a Report of Findings for Tasks 2.1-2.7	\$12,760.88
Total		\$129,866.40

We have provided this schedule as an estimate of the time required to complete each task. We have assumed that we will receive a Task Assignment for this project by October 17, 2011. We will prepare a more detailed work plan for delivery to the County upon receiving the task assignment.

SCHEDULE

Task Description	Begin Task	Complete Task
Prepare Cooperative Funding Applications to SWFWMD	October 17, 2011	November 28, 2011
Update and Expand Existing GIS Database	October 17, 2011	Jan 31, 2012
Identify Parcels and Structures Impacted by Changes to FEMA DFIRMS	October 31, 2011	November 14, 2011
Identify Existing Basin Studies	November 1, 2011	November 30, 2011
Analyses for Stormwater Needs Related to Growth	November 14, 2011	January 30, 2012
Develop Maintenance Plan for Canals and Bridges	December 1, 2011	December 30, 2011
Research Legal Access Documentation for County Canals	January 2, 2012	January 30, 2012
Evaluate Short-Term Priorities for Stormwater Projects	January 31, 2012	February 21, 2012
Prepare a Report of Findings for Tasks 2.1-2.7	February 22, 2012	April 23, 2012

We appreciate this opportunity to work with Sumter County. If you have any questions please do not hesitate to contact me at 352-536-7126.

Sincerely,



Terry Dykehouse, P.E.
Senior Project Manager



David W. Butcher PE, LEED AP
Director of Civil Engineering
& Water Resources

TD: jc
cc: Christopher Wert