April 25, 2025

Ms. Gia Scruggs, MBA, CPM
City Manager
City of Stonecrest
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Stonecrest, GA 30038
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RE: **Proposal for Design Revisions**
South River Stream Bank Restoration at Panola Shoals Trailhead
City of Stonecrest, GA
CERM Proposal No. 0724-01060

Dear Ms. Scruggs:

Corporate Environmental Risk Management (CERM) is pleased to submit this proposal for the referenced project. Our understanding of the project requirements is based on several meetings with you, site visits, and our experience with similar projects. The following will present our understanding of the project, scope of work, and our proposed associated costs to perform the stated scope of work.

1 PROJECT BACKGROUND

The South River Streambank at the Panola Shoals Trailhead is currently under construction. However, a number of historic rain events over the last 6 months have drastically impacted the hydrology of the site. The latest of which was a February 2025 severe storm, which brought heavy rain to metro Atlanta which caused flooding, widespread damage, including downed trees and power outages in multiple counties. The intense rainfall caused significant river flooding, and the South River experienced extremely high flood stages. The rapid increase in water velocity hastened erosion of the project site by removing significant earth and carrying it down river. Additionally, the impact from this episodic natural disaster has negatively affected the project's erosion control best management practices (BMP's) and has changed the existing conditions.

The contractor has halted construction until further guidance is provided from the design team to ensure that the project's construction progresses as planned and considers the worsening extreme weather that is occurring more frequently than before.

2 SCOPE OF WORK

CERM will obtain a newly revised survey of the project site to be performed (by Others). In order to

properly mitigate the potential risks associated with these extreme storm events, CERM has garnered the expertise of a specialty subconsultant that specializes in water resources engineering, CA Engineering. The scope of work consists of (1) developing an accurate hydraulic model of the South River within the project impact area, (2) conducting a scour analysis to determine the depth of impact and (3) revising and updating the construction plans and record documents. Below are the work tasks associated with this project:

Work Tasks

2.1 Project Management

This task includes administration of this contract with the Client and coordination with project's sub-consultants. Under this task, the Project Manager will establish a seamless project team effort. In addition, this task includes coordinating resources, tasks, and team members to ensure this aspect of the project is completed on time, within budget, and to the required quality. Under this task project meetings, coordination, budget and scheduling will be completed.

2.2 Review of Field Survey and Update to the Existing Conditions

CERM will revise the existing conditions with the new topographic survey (by others). In addition, we are requesting approximately nine cross-sections of the South River. The topography is required to develop an accurate model of the channel shape. In addition, as well as the as-built geometry of the bridge for input into the model. This scope will be completed by the contractor.

2.3 Hydrologic and Hydraulic Model and Scour Analysis

Specialty subconsultant CA Engineering will develop a hydraulic model based on the existing conditions and public hydrological data. They will gather and input all the preliminary data and develop and 1-D Model. CERM will verify the results using GEO-HEC RAS for a 1-Dimensional Hydrologic and Hydraulic (H&H) modeling tool.

The model will delineate a watershed of the drainage area that contributes to the South River at the project site. The model will estimate the South River peak discharges for the 1-, 2-, 4-, 10-, and 50-percent chance of occurrence (corresponding to the 100-, 50-, 25-, 10-, and 2-year return periods, respectively) using land cover data from the NLCD 2006 impervious dataset and the statistics of the USGS report 2023-5006.

The team will use the model to perform a scour analysis in the area of the proposed wall to determine the depth of scour. This parameter is crucial for ensuring the stability of the wall system, since this area is prone to floods and heavy water flow. Scour depth equations implicitly assume that an unlimited depth of material is available to be scoured. Therefore, CERM will reconcile the calculated scour depth with the actual subsurface profile. Our geotechnical engineers will identify any non-erodible layers in the channel profile.

2.4 Design

CERM will use the recommendations from the Hydrologic Model and the Scour Analysis to design additional, shoring, stabilization and hard armoring of the wall system to protect against future storms. Under this task, the construction plans and specifications will be updated.

PROJECT SCHEDULE

We have assumed a design schedule of 2 months.

FEE STRUCTURE

The fee for the scope outlined above is 75,000, as outlined below:

No.	Description	Amount ($)
2.1	Project Management	$ 5,000.00
2.2	Review of Field Survey and Update to the Existing Conditions	$ 5,000.00
2.3	Hydrologic and Hydraulic Model and Scour Analysis	$ 30,000.00
2.4	Design	$ 35,000.00
	Total	**$ 75,000.00**

EXCLUSIONS

The following services are not included under this proposal.

1. As-Built Survey
2. 2-D Hydraulic Model
3. Any other services not included in the Scope of Work

CLOSURE

This proposal is valid for 60 days. Please contact our office if you have any questions or comments regarding this proposal. Thank you for this opportunity, and we look forward to working with your team on this important project for the City of Stonecrest and its stakeholders.

Best regards,
Corporate Environmental Risk Management

Yasmin Moreno, PE
Senior Project Manager

Terrell S. Gibbs, PhD., PE*
Chief Operating Officer