

AMENDMENT NO. 3 TO TASK WORK ORDER NO. 2

REQUESTED BY: Mark Denmark

DATE: 01/06/2021

CLIENT: Savannah Airport Commission
Savannah / Hilton Head International Airport

REFERENCE AECOM JOB NO.: 60611019

ADDRESS: 400 Airways Avenue, Savannah GA 31408

CLIENT JOB. NO.: 30596

To confirm your authorization for additional services as they relate to our existing Task Work Order No. 2, dated July 10, 2019, AECOM will furnish the following: See Attachment "A" Scope of Services and Fee Estimate for "**Southeast Quadrant Storm Drainage Improvements – Design Amendment**".

Client agrees to pay AECOM as compensation for its services on a monthly basis as invoices are submitted. One of the following methods of payments will be used:

- 1-() According to the hourly rate schedule attached and dated _____.
- 2-() According to the provisions set forth for additional services in the original Agreement.
- 3-(X) A **Not-To-Exceed** fee of **\$56,810.00**.
- 4-() Other method as described in Attachment _____.

The above services will be completed within **4 months**. All other provisions of our original Task Work Order No. 2 dated July 10, 2019 remain in effect.

If the above meets with your approval, please sign in the appropriate space on both copies of this Authorization, retain one copy for your files, and return one copy to AECOM.

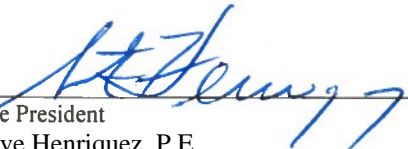
Agreed to:

Agreed to:

SAVANNAH AIRPORT COMMISSION
(CLIENT'S NAME)

AECOM Technical Services, Inc.

BY: _____
Chairman
Stephen Green

BY: 
Vice President
Steve Henriquez, P.E.

Date: 01/06/2021

Date: 12/14/20

ATTEST: _____
Executive Director
Gregory B. Kelly, A.A.E

ATTEST: 

Date: 01/06/2021

Date: 12.14.20

Savannah Hilton Head International Airport

Southeast Quadrant Storm Drainage Improvements

Attachment A Scope of Services for Design Amendment

1. INTRODUCTION

AECOM is currently in the final stages of designing the storm drainage improvements for the Southeast Quadrant Storm Drainage Improvement Project at the Savannah Hilton Head International Airport (SAV) for the Savannah Airport Commission under Task Order No. 2 that was fully executed on July 10, 2019. One of the tasks in the project scope requires AECOM to submit a Site Development Permit Application to the City of Savannah Development Services Department for their review and approval that the design meets requirements associated with stormwater, utilities, streets and traffic and park and trees.

AECOM submitted the Site Development Permit Application to the City of Savannah on September 3, 2020 and received comments from the City of Savannah on September 23, 2020. Comment Numbers 16, 17 and 18 from William Buckley, RLA, with the City of Savannah Park and Tree Department identified several trees in the plans specified to be removed with diameters at breast height (DBH) ranging from 26-inches to 58-inches to be assessed by an ISA certified arborists to eliminate or verify the status of the trees as specimens or exceptional. The Savannah Airport Commission approved an amendment to Work Order No. 2 to provide funding for an arborist to make this assessment. AECOM directed their sub-contractor, the Coleman Company, to mobilize the arborist, Ossabaw Consulting, LLC, to make the assessment. Ossabaw Consulting issued a report summarizing their assessment of the trees on November 8, 2020. The report indicated that the trees identified as 6, 7, 8 located along the north side of Armstead Avenue and the one tree identified as 29 located within the existing forested wetland where Pond No. 2 is proposed have the potential to be considered a specimen or exceptional.

The report from Ossabaw Consulting was submitted to the City of Savannah on November 20, 2020 and the City determined that the three Trees along Armstead Avenue are specimens and will require mitigation if they are removed. There is no feasible alternative to the proposed storm sewer system along Armstead Avenue to save Trees 6, 7 and 8. The Savannah Airport Commission will request if the existing tree preserve located on Airport property can satisfy the mitigation requirements to remove these three trees. Therefore, this scope of services does not include the preparation of a mitigation plan to remove the three trees along Armstead Avenue. An additional amendment to this task order will be required if the City does not approve using the tree preserve to compensate of removing the three trees along Armstead Avenue and the Savannah Airport Commission requests AECOM to prepare the mitigation plan.

The City indicated they will have to inspect Tree No. 29 to determine if the tree is a specimen or exceptional. The City Tree Ordinance does not allow trees classified as exceptional to be removed. Tree No. 29 is a 55-inch diameter Southern Red Oak that the Savannah Airport Commission determined they want preserved no matter what status the City classifies the tree. Therefore, the Savannah Airport Commission is directing AECOM to revise the grading design for Pond No. 2 to preserve the 55-inch diameter Southern Red Oak. The City of Savannah requires that an undisturbed protective radius equal to one foot for each inch of diameter at breast height be provided. Therefore, Pond No. 2 will be redesigned such that no disturbance will occur within 55-feet of Tree No. 29.

2. SCOPE OF WORK

The Scope of work by AECOM staff for this design amendment is comprised of 5 tasks described herein in Attachment A. The additional scope of services for the design of relocations for existing sanitary and water utilities unrelated to the redesign efforts to preserve the tree but were not included in the original scope are performed by our sub-consultant the Coleman Company and are described in Attachment B. The scope of services for additional environmental permitting services also not related to preserving the tree but were not included in the original scope are performed by our sub-consultant Environmental Services, Inc. are described in Attachment B.

Task 1: Amendment Setup and Management

Upon approval of this amendment to the work order from the Savannah Airport Commission, the AECOM will add the tasks for this amendment to the existing project work plan for internal use in managing the project tasks associated with this amendment and communicating the work to be done with AECOM staff members and subcontractors performing the environmental permitting tasks and utility relocation tasks. This work plan will include updating the task work order with the Savannah Airport Commission, and inputting staffing assignments, definition of work tasks, anticipated deliverables, task and sub-task budgets, and schedules into the AECOM internal project management system. AECOM will develop a project schedule identifying all project tasks and the time required to complete all tasks. This task also includes general project management duties such as monitoring the project schedule, project budget and issuing invoices.

Task 2: Hydrologic/Hydraulic Model Update

AECOM will update the proposed condition and future condition ICPR, Version 4.03.02 models that were submitted to the City Savannah as part of the Site Development Permit Application. The updates to the model will include the following:

- Revising drainage sub-basins that changed to conform to the new grading for Pond No. 2.
- Recalculating curve numbers and time of concentrations for the each of the revised drainage sub-basins.
- Determining the new storage volume for the drainage node for Pond No. 2 and inputting the volume as stage versus area in half foot increments from the pond bottom to the top of bank.
- Revising the length of the triple barrel 60-inch equalizer pipe that connects Pond No. 2 to Pond No. 1.

- Revising the outfall structures for Pond No. 1 and Pond No. 2 if required to ensure City of Savannah permit requirements are met.

The project design and updated model will be evaluated through several iterations and refined to ensure the permitting stormwater runoff reduction criteria, stormwater quality protection, aquatic resource protection, overbank flood protection and extreme flood protection criteria mandated by the City of Savannah Stormwater Department are satisfied.

The drainage report to reflect the revised changes to Pond No. 2 and the updated input and output for the proposed condition and future condition ICPR models.

Task 3: Design Plan Revisions

AECOM will update the construction plans (in AutoCAD) for the project area in non-SI (English) units that were submitted to the Savannah Airport Commission for the 100% submittal. The updated design plans will include a revised grading design for Pond No. 2 that results in changes to select cross sections for Pond No. 2 and the limits of disturbance. These design changes will require revisions to the plans that show horizontal control, geometry, phasing, demolition, tree clearing, fencing, wetland impacts and sediment and erosion control best management practices (BMPs),

It is anticipated that the following plan 56 plan sheets will require revisions:

- Sheet G1.01 Summary of Project Quantities
- Sheet G1.04 Contract Layout Plan
- Sheet G2.01 Overall Phasing Plan and Notes
- Sheet G2.03 Phasing Plan (2)
- Sheet G4.01 Horizontal & Vertical Control Plan
- Sheet G5.01 Waste Material Location Plan
- Sheet C1.01 New Storm Drain Pond No. 2 Wetland Identification Plan
- Sheet C1.03 Tree Clearing Demolition Plan (2)
- Sheet C1.05 Temporary Fencing Plan (2)
- Sheets C2.15 & C2.16 Existing Condition & Demolition Plan (5) & (6) (2 Sheets)
- Sheet C3.04 New Storm Sewer Plan & Profile (4) SD25 to SD29
- Sheet C3.05 New Storm Sewer Plan & Profile (5) SD03 to SD04
- Sheet C4.02 Geometric Control – G.A.N.G. Fitness Track & Wet Detention Pond No. 1
- Sheet C4.03 Geometric Control – Wet Detention Pond No. 2
- Sheets C4.05 & C4.06 Geometric Control – Project Alignments (2) & (3) (2 Sheets)
- Sheets C4.15 & C4.16 Grading and Drainage Plan (5) & (6) (2 Sheets)
- Sheets C4.30 & C4.32 Drainage Structure and Pipe Data Schedule (1) & (3) (2 Sheets)
- Sheet C5.01 Erosion and Sediment Control Notes (1)
- Sheet C5.02 Erosion and Sediment Control Notes (2)
- Sheet C5.04 Erosion and Sediment Control Notes (4)
- Sheet C5.05 Soils Series Delineation Plan

- Sheet C5.06 Sampling Plan
- Sheet C5.07 Existing Drainage Basins
- Sheet C5.08 Proposed Drainage Basins
- Sheets C5.25 & C5.26 Erosion Control Plans Initial Phase (5) & (6) (2 Sheets)
- Sheets C5.45 & C5.46 Erosion Control Plan Intermediate Phase (5) & (6) (2 Sheets)
- Sheets C5.65 & C5.66 Erosion Control Plan Final Phase (5) & (6) (2 Sheets)
- Sheets C6.02 & C6.03 Fencing Plan (2) & (3) (2 Sheets)
- Sheets C7.05 & C7.06 Existing Utilities & Relocation Plan (2 Sheets)
- Sheet C7.13 Utility Profiles (2)
- Sheet X1.00 Master Cross Section Plan Pond No. 1 & Pond No. 2
- Sheets X1.01 through X1.08 G.A.N.G. Pond No. 1 Cross Sections (1) through (8) (8 Sheets)
- Sheets X2.01 through X2.08 Wet Detention Pond No. 2 Cross Sections (1) through (8) (8 sheets)

Task 4: Cost Estimate and Specifications

AECOM will update the probable construction cost estimate for the proposed storm sewer improvements that was submitted with the 100% submittal. It is anticipated the quantities and costs for the several items, including those below, submitted in the probable construction cost estimate will change as a result of the revised design.

Number 7, Item No. P-151-4.2 Heavy Clearing and Grubbing

Number 8, Item No. P-152-4.2 Excavation and Embankment

Number 9 Item Number P-156-5.1 Staked Silt Fence

Number 28, Item Number F152-5.6 G.A.N.G. 8' Type E Galvanized Chain Link Fence

Number 39 Item Number D-701-5.9 60" RCP, Class III

The cost estimate will be based on the best available information for item unit costs.

Relevant sections of the specifications will be updated to account for the changes in quantities to specific bid items resulting from the revised design.

Task 5: Quality Assurance and Quality Control

AECOM will conduct a detailed review of all deliverables included with this design amendment prior to submittal to the Savannah Airport Commission. The review will be conducted by qualified AECOM staff members who have not worked on the project to ensure an unbiased and independent review is performed. The review includes written comments with responses for each.

Project Deliverables to be provided to the City by AECOM

The following items will be provided by AECOM to the Savannah Airport Commission as part of the design amendment for this project.

- Updated Drainage Report and calculations (3 copies) (certified)

- Environmental Report (3 copies)
- Updated Final Construction Plans (3 copies, one signed and sealed set, plus flash drive of AutoCAD files including all needed external references)
- Updated Cost Estimate

Exclusions

The following tasks are not included in this Scope of Services.

- Revising the design to preserve additional trees other than the 55-inch diameter Southern Red Oak identified as Tree No. 29 in the Ossabaw Arborists Report.
- The preparation of a mitigation plan for the removal of the three trees along Armstead Avenue identified as Trees 6, 7 and 8 in the Ossabaw Arborists Report.

3. COMPENSATION

The Savannah Airport Commission will compensate AECOM for labor and expenses and subconsultant work associated with all tasks described in this scope of services. The lump sum Fee Estimate is detailed in Attachment B.

4. SUBCONSULTANT WORK

Subconsultants Environmental Services, Inc. and Coleman Company, Inc. have each indicated that they have/will be performing services beyond the scope and fee limits of their original proposals. Attached are additional services request letters from each are included in Attachment B.

Savannah Hilton Head International Airport

**Southeast Quadrant
Storm Drainage Improvements**

**Attachment B
Fee Summary**

AECOM	\$33,810.00 LS
Coleman Company, Inc.	\$3,000.00 LS
Environmental Services, Inc.	\$20,000.00 NTE
TOTAL	\$56,810.00 NTE

**Savannah Hillton Head International Airport
Southeast Quadrant Storm Drainage Improvements
Attachment B**

Fees for Design Amendment

Tasks	QA/QC Engineer		Project Manager		Designer AutoCAD		Administrative		Procurement		Totals		
	Ed Figueroa	Russell Pratt	Norma Pressley	Diana Kline	Lisa Lamer	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate	Hr. Rate
Task 1: Amendment Setup and Management													
APIC Documentation	\$0.00	\$174.00	\$0.00	\$0.00	\$0.00	1	\$174.00	6	\$432.00	\$0.00	\$0.00	7	\$606.00
Amend Utility Subcontract	\$0.00	\$174.00	\$0.00	\$0.00	\$0.00	1	\$174.00		\$0.00	\$0.00	\$0.00	4	\$408.00
Amend Environmental Subcontract	\$0.00	\$174.00	\$0.00	\$0.00	\$0.00	1	\$174.00		\$0.00	\$0.00	\$0.00	4	\$408.00
Invoices and General Administration	\$0.00	\$696.00	\$0.00	\$0.00	\$0.00	4	\$696.00		\$0.00	\$0.00	\$0.00	4	\$696.00
Subtotal	0	\$0.00	7	\$1,218.00	0	\$0.00	\$432.00	6	\$468.00	0	\$0.00	19	2118
Task 2: Hydrologic/Hydraulic Model Update													
Proposed Conditions Model Update	\$0.00	\$3,480.00	\$0.00	\$0.00	\$0.00	20	\$3,480.00		\$0.00	\$0.00	\$0.00	20	\$3,480.00
Future Conditions Model Update	\$0.00	\$3,480.00	\$0.00	\$0.00	\$0.00	20	\$3,480.00		\$0.00	\$0.00	\$0.00	20	\$3,480.00
Update Drainage Report	\$0.00	\$2,784.00	\$0.00	\$0.00	\$0.00	16	\$2,784.00		\$0.00	\$0.00	\$0.00	16	\$2,784.00
Subtotal	0	\$0.00	40	\$6,960.00	0	\$0.00	\$0.00	0	\$0.00	0	\$0.00	40	\$6,960.00
Task 3: Design Plan Revision													
Final Design	\$0.00	\$4,176.00	100	\$15,300.00	2	\$144.00	\$0.00		\$0.00	\$0.00	\$0.00	126	\$19,620.00
Sub-Total	0	\$0.00	24	\$4,176.00	100	\$15,300.00	2	\$144.00	0	\$0.00	0	126	\$19,620.00
Task 4: Cost Estimate and Specifications													
Final Design	\$0.00	\$696.00	12	\$1,836.00	8	\$576.00	\$0.00		\$0.00	\$0.00	\$0.00	24	\$3,108.00
Sub-Total	0	\$0.00	4	\$696.00	12	\$1,836.00	8	\$576.00	0	\$0.00	0	24	\$3,108.00
Task 5: QA/QC													
Hydrologic/Hydraulic Model and Drainage Report	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	\$0.00		\$0.00	\$0.00	\$0.00	0	\$0.00
Design Plans	\$1,504.00	\$0.00	\$0.00	\$0.00	\$0.00	8	\$1,504.00		\$0.00	\$0.00	\$0.00	8	\$1,504.00
Cost Estimate	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	\$0.00		\$0.00	\$0.00	\$0.00	0	\$0.00
Sub-Total	8	\$1,504.00	0	\$0.00	0	\$0.00	\$0.00	0	\$0.00	0	\$0.00	8	\$1,504.00
Labor Totals	8	\$1,504.00	75	\$13,056.00	112	\$17,136.00	16	\$1,152.00	6	\$468.00	0	217	\$33,310.00
Expenses													
Printing													\$500.00
Expenses Totals													\$500.00
Subconsultants													
Utility Subconsultant (Coleman)													
Environmental Subconsultant (ESI)													
Subconsultant Totals													\$0.00
Total													\$33,810.00



**AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 2**

The Effective Date of this Amendment is: December 1, 2020.

Background Data

Effective Date of Owner-Engineer Agreement: August 10, 2020

Client: Mr. Steve Henriquez, P.E.

Engineer: Coleman Company, Inc.

Project: Savannah/Hilton Head International Airport SE Quadrant

CCI Project No.: 19-236.000

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

Additional Services to be performed by Engineer

Description of Modifications:

A. Additional Pot Holing and Utility Locates due to change in storm design and project area.

FEE: \$ 3,000.00



Agreement Summary:

Original agreement amount:	\$ 122,99000
Net change for prior amendments:	\$ 2,500.00
This amendment amount:	\$ 3,000.00
Adjusted Agreement amount:	\$ 128,490.00

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in the project Scope of Services or General Conditions.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect.

CLIENT: Mr. Steve Henriquez, P.E.

ENGINEER: Coleman Company, Inc.

By: _____
Print name: _____

Title: _____

Date Signed: _____

By: 
Print name: Greg Coleman

Title: CFO

Date Signed: December 2, 2020



2201 Rowland Ave.
Savannah, Georgia 31404
P (912) 629 4000
F (912) 629 4001
environmentalservicesinc.com

14 December 2020

Mr. Steve Henriquez
AECOM
4650 Courtney Campbell Causeway
Tampa, Florida 33607

**Subject: SAV SE Quad Drainage Improvements – Budget Modification (HM197024)
Chatham County, Georgia**

Dear Mr. Henriquez:

Environmental Services, Inc., A Terracon Company (“ESI”) appreciates the opportunity to present AECOM with this change order to the previously signed contract. An outline of the changes are provided in the following sections, as well as in the attached.

ESI is requesting approval of an additional \$10,000 for Task III (ACOE Permit Application), as well as an additional \$10,000 for Task VII (General Consultation). The total budget increase of \$20,000 is detailed in the attached spreadsheet.

We appreciate your consideration of this change order. If you should have any questions or comments regarding this proposal, please contact either of the undersigned.

Sincerely yours,

ENVIRONMENTAL SERVICES, INC.
A TERRACON COMPANY

Michael J. DeMell
Department Manager I

Kristen Deason
Senior Staff Scientist

Attachments:

Amendment to Purchase Order No. 116337; dated July 29, 2019



Environmental Services, Inc. - A Terracon Company
 Amendment to Purchase Order No. 116337; Dated July 29, 2019.

Amendment Request date December 11, 2020
 HM197024 - SE Quad Drainage Improvements

	Budget Amount	Amount Spent thru 11/28/20	Task Budget Deduction	Task Budget Credit	Exceeded Budget Amount	Proposed Budget Increase
Task I - Project Team Orientation & Meetings	\$4,350.00	\$2,904.00	\$1,446.00			
Task II - Pre application Meetings	\$2,450.00	\$5,524.00		\$3,074.00		
Task III - ACOE Permit Application	\$30,000.00	\$28,663.00				\$10,000.00
Task IV - Protective Species Assessment	\$3,500.00	\$1,391.00	\$2,109.00			
Task V - Cultural Resources	\$3,000.00	\$0.00	\$3,000.00			
Task VI - Mitigation Purchase Coordination	\$1,800.00	\$965.00				
Task VII - General Consultation	\$5,000.00	\$13,297.00		\$3,481.00	\$4,816.00	\$10,000.00
Total	\$50,100.00	\$52,744.00	(\$6,555.00)	\$6,555.00	\$4,816.00	\$20,000.00

Notes:

- 1 - Task Deductions are dollars not spent on said task.
- 2 - Task Budget Credits are generated from Task Deductions
- 3 - Task VII Gen Con exceeded budget is a result of additional work requested by AECOM and SAV detailed elsewhere.
- 4 - Existing budget overage in Task 7 will be accounted for by the proposed budget increase.
- 5 - Total Budget increase request is \$ 20,000.00

Amendment Summary:

Original Contract Amount:	\$50,100.00
This Amendment Amount:	\$20,000.00
Adjusted Contract Amount:	\$70,100.00