WORK AUTHORIZATION

ENGINEERING CONSULTING SERVICES BY:
TALBERT, BRIGHT & ELLINGTON, INC.

FOR:
GLIDESLOPE REPLACEMENT

AT:
MID-CAROLINA REGIONAL AIRPORT

REFERENCING:
NCDOT-DOA #: TBD

TBE #3708-1801

November 28, 2018

I. PROJECT SUMMARY

This project includes one (1) schedule of work contained in one (1) set of bid documents.

The bid documents will include the removal and replacement of the entire End-fire Glideslope system at Mid-Carolina Regional Airport. The approximate location of the glideslope is depicted the project sketch within this Work Authorization.

The design, bidding, and construction administration of this project will be funded using FAA Non-Primary Entitlement Funding. The Construction Safety and Phasing Plan (CSPP) will be prepared using this input and FAA Advisory Circular 150/5370-2F "Operational Safety on Airports During Construction". The CSPP will be submitted to NCDOA for review prior to submitting to OE/AAA.

Included in this project will be the completion of a Simple Written Record (SWR). It is anticipated that this project will not require an environmental assessment. Permitting and mitigation are not anticipated.

The construction phase services for this project include coordination with the Owner for award of the construction contract; preparation and distribution of Contract Documents and Released For Construction plans and specifications to the Contractor; follow up with FAA on 7460; coordinating and conducting the Preconstruction Conference and preparation of minutes; review project schedule and updated schedules submitted by Contractor; coordination and review of Contractor submittals; Bi-Weekly Construction visits/Progress Meetings outlines and meeting minutes; review field change requests and related correspondence; prepare and distribute general construction correspondence through the project; review and process Contractor pay requests; conduct a Final Inspection and prepare/distribute punch list items letter; develop record drawings; assist Rowan County with Grant Closeout and prepare Grant closeout paperwork.

II. CONSULTANT'S SCOPE OF WORK OVERVIEW

Engineering Services will be provided for construction administration, and Quality Assurance Testing of the contract drawings for the proposed Glideslope Replacement project, as depicted in the attached exhibit, for Mid-Carolina Regional Airport in accordance with the Master Contract dated January 9, 2014.

The method of payment shall be on a lump sum basis in accordance with Section V, Paragraph A1 and B of the Master Contract. The work shall be performed in accordance with the Master Contract as a lump sum of **$50,471.71** including **$2,837.91** for expenses. If a second bid opening is required to meet the North Carolina Bidding Statutes, additional bidding phase services shall be performed in accordance with the Master Contract as a lump sum of **$5,847.15** including **$1,462.74** for expenses. The total value of this Work Authorization shall not exceed **$56,318.86** without additional authorization.

III. DESIGN CRITERIA AND REQUIREMENTS

- ADO Generated "Airport Sponsor Grant Expectations"
- FAA AC 150/5300-13A; Airport Design
- FAA AC 150/5370-2E; Operational Safety On Airports During Construction
- FAA AC 150/5370-10G; Standards for Specifying Construction of Airports
- FAA Order 6750.16D ; Siting Criteria for Instrument Landing Systems

*Advisory Circulars and Orders used will be most up to date versions.

IV. WORK TASKS

BASIC SERVICES

The Engineer will prepare one (1) set of plans and specifications as part of the Design Phase services. One schedule of work will include all of the proposed work. The approximate location of the glideslope is depicted on the project sketch within this Work Authorization.

DESIGN PHASE SUBMITTAL (90%):

The Engineer will provide hard copies of the 90% design documents for review and comment by the client and local authorities/stakeholders, and will provide electronic files of the 90% design documents to the NCDOT-Division of Aviation for review and comment.

The intended deliverables for this submittal shall include:

A. Itemized estimated cost of construction with 12% contingency
B. List of general conditions, special provisions and technical specifications intended for bidding in PDF format

C. Preliminary plans including in PDF format:
   1. Cover Sheet
   2. Quantities and General Notes
   3. Construction Safety and Phasing Plan
   4. Phasing Notes and Details
   5. Electrical Layout Plan
   6. Miscellaneous Details

F. Coordination and Review Meetings: The consultant shall engage in a 90% design review meeting at the client's office with the airport representatives AND the state/federal agency providing the funding for the project approximately 2-3 weeks after submission of the Design Phase Submittal Deliverables.

G. Any other information deemed germane to the submittal.

DESIGN PHASE SUBMITTAL (100%):

This design phase is intended to reflect the final design that incorporates comments from the 90% design submittal and an in-house QA review by the Engineer. The Engineer will provide hard copies of the 100% design documents for review and comment by the client and local authorities/stakeholders, and will provide electronic files of the 100% design documents to the NCDOT-Division of Aviation for review and comment.

The intended deliverables for this submittal shall include:

A. Itemized estimated cost of construction with 10% contingency

B. List of general conditions, copies of special provisions and technical specifications intended for bidding in PDF format

C. Final plans including in PDF format:
   1. Cover Sheet
   2. Quantities and General Notes
   3. Construction Safety and Phasing Plan
   4. Phasing Notes and Details
   5. Electrical Layout Plan
   6. Miscellaneous Details

E. Any other information deemed germane to the submittal.

BIDDING PHASE:

It is anticipated that two (2) bid openings will be required as it will be difficult to obtain the three (3) bidders for this project needed to meet North Carolina Bidding Statutes. To account for this anticipated outcome, an alternate fee will be incorporated into this Work Authorization to provide bidding phase services for the second bid opening if it is required. The Engineer will place and pay for all classified advertisements for Rowan County. Engineer will attend one (1) bid opening per advertisement (maximum of two (2)) and provide a bid tabulation of bids received, and submittal of MBE/WBE participation proposed by lowest responsive bidder to NC Division of Aviation for review and concurrence by the NC Division of Aviation. Upon receipt of written approval from NC Division of Aviation, Engineer will provide written summary of bids received and construction

contract award recommendation for consideration by the Owner, including a letter stating how bidder is pre-qualified with NCDOT.

CONSTRUCTION ADMINISTRATION PHASE:
The Engineer will provide a Released for Construction set of plans and specifications to the NCDOA, Sponsor and three (3) sets requested by the Contractor. The Engineer will also provide minutes for the Preconstruction Conference in PDF format, along with minutes for Progress Meetings in PDF format. The Engineer will prepare each monthly contractor pay request and the final pay request at project closeout. Preparation of final grant closeout paperwork will also be included.

Note: This Work Authorization does not include preparing a WBE/MBE plan or goal. The WBE/MBE goal is to be provided by NCDOT-DOA. TBE will send construction estimate to NCDOT-DOA in order for NCDOA to set goal.

V. PROJECT SCHEDULE

Work shall be completed in accordance with the schedule established and agreed upon by the Owner and Engineer.

VI. GENERAL ASSUMPTIONS AND CLARIFICATIONS

It is assumed that the design will follow standard FAA requirements and one (1) primary schedule of work (in one plan/specification set) will be provided, with the intent of funding being provided by one grant. It is assumed that no grading will be required for the replacement of this system and that no survey or grading plan will be required. Also, it is assumed that three (3) responsive bids will not be obtained during the first bid opening, and a second bid opening is required, consistent with North Carolina Bidding Statutes. See Sections "I" and "II" above for additional assumptions related to the proposed scope of services. It is also assumed that no As-Built Survey, Record Drawings or Quality Assurance Testing will be required for this project.

VII. OTHER

The NCDOT-Division of Aviation shall provide confirmation on the applicable WBE/MBE construction goals, to incorporate into the bidding documents based on the funding source for the project.

VIII. CONTACT/CLOSING

Agreed as to Scope of Services, Time Schedule, and Budget:

OWNER:
ROWAN COUNTY
130 West Innes Street
Salisbury, NC 28144
704-216-8180

BY:

TITLE:

7-11-19
DATE:

WITNESS:

ENGINEER:
TALBERT, BRIGHT & ELLINGTON, INC.
3525 Whitehall Park Drive
Suite 210
Charlotte, NC 28273
704-426-6070

BY:

Vice President
TITLE:

8/1/2019
DATE:

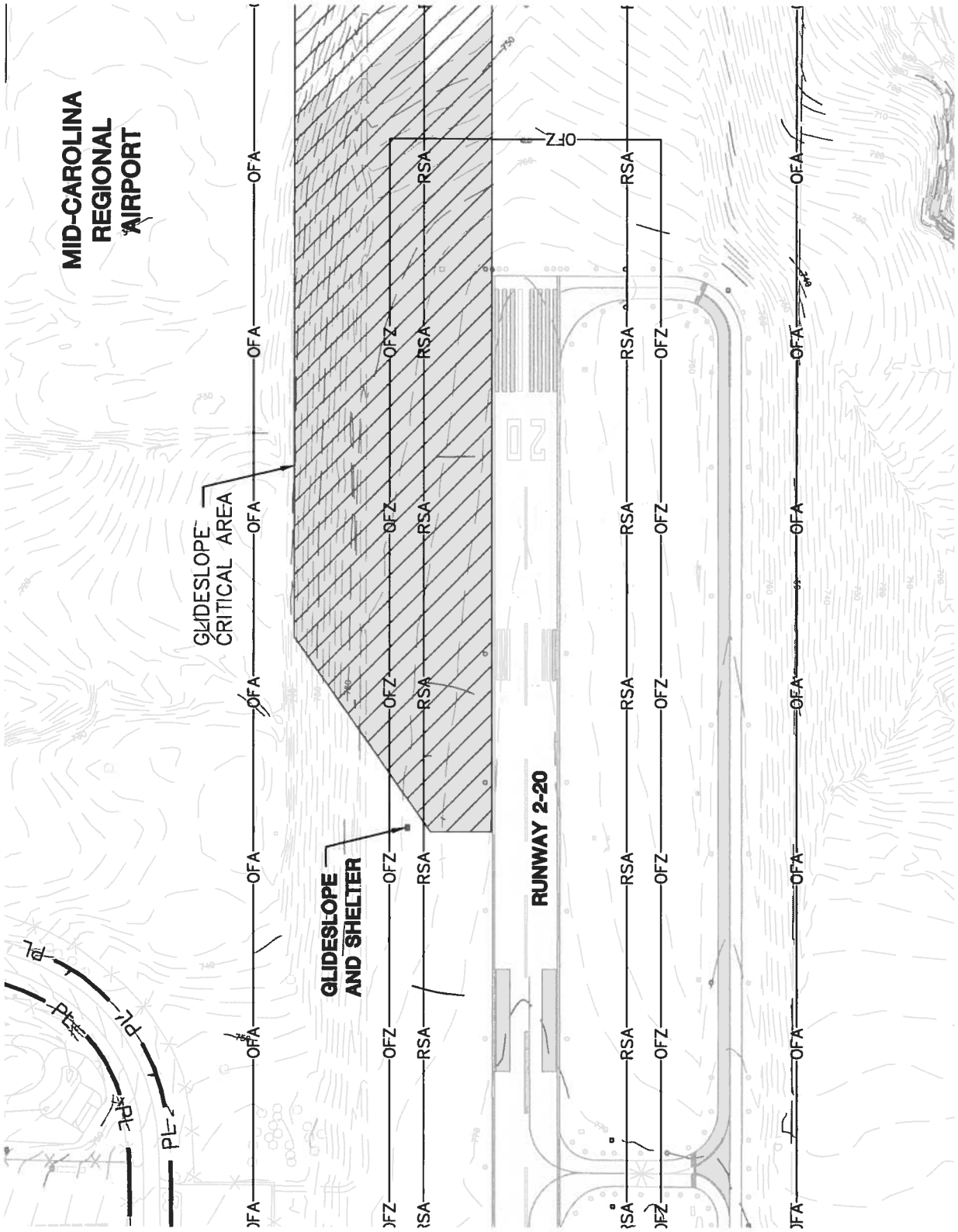
WITNESS:

ENGINEER PROJECT MANAGER CONTACT INFORMATION:

J. Andrew Shook, P.E.
Talbert, Bright & Ellington, Inc.
3525 Whitehall Park Drive
Suite 210
Charlotte, NC 28273
704-426-6070

THIS INSTRUMENT HAS BEEN PREAUDITED IN THE MANNER REQUIRED BY THE LOCAL GOVERNMENT BUDGET AND FISCAL CONTROL ACT.

FINANCE DIRECTOR



Project Sketch

APPENDIX A: DRAWING SHEET LIST

1. Cover Sheet
2. Quantities and General Notes
3. Construction Safety and Phasing Plan
4. Phasing Notes and Details
5. Electrical Layout Plan
6. Miscellaneous Details

APPENDIX B: CONTRACT CHECKLIST FROM FAA ADVISORY CIRCULAR 15/5100-14E

The following checklist identifies important items and provisions to be considered in preparing any contract for consultant services. It is not intended to be all-inclusive, as each contract will vary based on the unique requirements of the project scope of services, but should be reviewed by the consultant and sponsor to ensure the general intent and content of the scoping document are fully developed.

a. Effective date of contract.
b. Names and descriptions of the parties to the agreement with their addresses and, in the case of a corporate body, the legal description of the corporation.
c. Nature, extent, and character of the project, the location thereof, and the time limitations.
d. Services, including performance and delivery schedules, to be rendered by the consultant.
e. Delineation of responsibilities of the consultant, the sponsor, and other consultants and parties involved in the performance of the project, particularly key personnel such as the project manager.
f. Delineation of the duties and responsibilities of the resident engineer/inspector.
g. Inclusion of mandatory contract provisions identified in paragraph 3-4 (of the Advisory Circular).
h. Provision for renegotiation of the contract on the basis of change in the scope of the project, changes in conditions, additional work, etc.
i. Provision that reproducible copies of planning and design drawings and specifications be made available to the sponsor upon request.
j. Compensation, including methods of payment and payment schedules, for services to be rendered by consultants.
k. Provision for the termination of the consultant services before completion of work.
l. Provision for preparation of a Quality Control Plan as required by the special provisions of the grant agreement.
m. Provision for preparation of an Engineer's Design Report and Final Report.

APPENDIX C: BASIC SERVICES LUMP SUM FEE AND NOT TO EXCEED

TALBERT, BRIGHT & ELLINGTON	MAN-HOUR/FEE ESTIMATE SUMMARY PAGE MID-CAROLINA REGIONAL AIRPORT GLIDESLOPE REPLACEMENT	DIVISION OF AVIATION

GENERAL NOTE: Information in red and applicable shaded areas on task sheets are available for data entry. All other cells are protected.

BASIC AND SPECIAL SERVICES: LABOR SUMMARY

MAJOR TASK:	MAJOR TASK DESCRIPTION:	COST:
TASK A - LABOR	(A-102) ENVIRONMENTAL PHASE	$3,179.70
TASK B - LABOR	(A-104) DESIGN PHASE	$17,155.56
TASK C - LABOR	(A-104) BIDDING PHASE (BASE)	$9,221.73
TASK D - LABOR	(A-104) BIDDING PHASE (ADDITIVE)	$4,384.41
TASK E - LABOR	(A-104) CONSTRUCTION ADMINISTRATION PHASE	$18,076.81
TASK F - LABOR		$0.00
TASK G - LABOR		$0.00
TASK H - LABOR		$0.00
TASK I - LABOR		$0.00
TASK J - LABOR		$0.00
TASK K - LABOR		$0.00
	SUBTOTAL LABOR:	**$52,018.21**

BASIC AND SPECIAL SERVICES: NON-SALARY DIRECT COST

TASK A - EXPENSES	(A-102) ENVIRONMENTAL PHASE	$58.50
TASK B - EXPENSES	(A-104) DESIGN PHASE	$284.79
TASK C - EXPENSES	(A-104) BIDDING PHASE (BASE)	$1,893.88
TASK D - EXPENSES	(A-104) BIDDING PHASE (ADDITIVE)	$1,462.74
TASK E - EXPENSES	(A-104) CONSTRUCTION ADMINISTRATION PHASE	$600.74
TASK F - EXPENSES		$0.00
TASK G - EXPENSES		$0.00
TASK H - EXPENSES		$0.00
TASK I - EXPENSES		$0.00
TASK J - EXPENSES		$0.00
TASK K - EXPENSES		$0.00
	SUBTOTAL NON-SALARY DIRECT COSTS:	**$4,300.65**

SUBCONSULTANTS OR SUBCONTRACTORS

	PROVIDED BY:	
	PROVIDED BY:	
	PROVIDED BY:	
	PROVIDED BY:	
	PROVIDED BY:	
	PROVIDED BY:	
	PROVIDED BY:	
	PROVIDED BY:	
	PROVIDED BY:	
	PROVIDED BY:	
	SUBTOTAL OF SUBCONSULTANTS:	**$0.00**

TOTAL FEE: $56,318.86

PREPARED BY:	J. ANDREW SHOOK, P.E.	SPONSOR:	KEVIN DAVIS
TITLE:	PROJECT MANAGER	TITLE:	AIRPORT DIRECTOR
REPRESENTING:	TALBERT, BRIGHT & ELLINGTON, INC.	WBS NUMBER:	36244.56.10.1
DATE:	11/14/2018	SIGNATURE:	

AV Fee Estimate (AV-201) (Template Date: 10/2014)

TALBERT, BRIGHT & ELLINGTON

MAN-HOUR FEE ESTIMATE
MID-CAROLINA REGIONAL
GLIDESLOPE REPLACEMENT

DIVISION OF AVIATION

DATE: 11/14/2018

BASIC AND SPECIAL SERVICES: DIRECT LABOR COSTS

TASK A	(A-102) ENVIRONMENTAL PHASE	Principal	Project Manager	Senior Planner	Enginner 5	Engineer 4	Engineer 3	Engineer 2	Cad Tech	Admin	RPR	Total Hours Per Task	Total Task Cost
Task A.1	Simple Written Record		2	10				6	4	4		26	$ 1,032.00
Task A.2												0	$ -
Task A.3												0	$ -
Task A.4												0	$ -
Task A.5												0	$ -
Task A.6												0	$ -
Task A.7												0	$ -
Task A.8												0	$ -
Task A.9												0	$ -
Task A.10												0	$ -
Task A.11												0	$ -
Task A.12												0	$ -
Task A.13												0	$ -
Task A.14												0	$ -
Task A.15												0	$ -
Task A.16												0	$ -
Task A.17												0	$ -
Task A.18												0	$ -
Task A.19												0	$ -
Task A.20												0	$ -
Task A.21												0	$ -
Task A.22												0	$ -
Task A.23												0	$ -
Task A.24												0	$ -
TOTAL MAN-HOURS		0	2	10	0	0	0	6	4	4	0	26	
RAW LABOR COSTS PER HOUR		$71.00	$65.00	$47.00	$56.00	$44.00	$37.00	$32.00	$34.00	$26.00	$30.00		
TOTAL LABOR FEES (Without Multiplier)		$0.00	$130.00	$470.00	$0.00	$0.00	$0.00	$192.00	$136.00	$104.00	$0.00		$ 1,032.00

TOTAL DIRECT LABOR COSTS:			$ 1,032.00
STATE AUDITED OVERHEAD RATES:		Apply Multiplier of:	2.801
		Overhead Subtotal:	$ 2,890.63
PROFIT:	10.00%	Profit: +	$ 289.06
COST OF CAPITAL:	0.000%	Capital Costs: +	$ -
TOTAL LABOR COSTS THIS TASK			$ 3,179.70

AV FeeEstimate (AV-201)

(Template Date: 05/2014)

TALBERT, BRIGHT & ELLINGTON

MAN-HOUR FEE ESTIMATE
MID-CAROLINA REGIONAL
GLIDESLOPE REPLACEMENT

DIVISION OF AVIATION

DATE: 11/14/2018

BASIC AND SPECIAL SERVICES: DIRECT LABOR COSTS

TASK B	(A-104) DESIGN PHASE	Principal	Project Manager	Senior Planner	Enginner 5	Engineer 4	Engineer 3	Engineer 2	Cad Tech	Admin	RPR	Total Hours Per Task	Total Task Cost
Task B.1	Preliminary Project Review with Owner	2	2	1						1		6	$ 345.00
Task B.2	Develop Project Scope / Contract / Schedule	2	2	1			6			2		13	$ 593.00
Task B.3	Determine Project Approach	1	2				2					5	$ 275.00
Task B.4	Project Scope / Contract / Schedule Revisions	1	2	1			2			1		7	$ 348.00
Task B.5	Request for Aid / Grant Procurement Assistance		2				4			4		10	$ 382.00
Task B.6	Coordination / Meetings with Client / NCDOA / FAA	2	8				4			2		16	$ 862.00
Task B.7	Construction Phasing and Safety Plan (CSPP)		2				8	6	4			20	$ 754.00
Task B.8	Specifications		6				4		4			14	$ 674.00
Task B.9	Quantities & Estimate		2				2					4	$ 204.00
Task B.10	Quality Assurance		6									6	$ 390.00
Task B.11	Quality Assurance Revisions		2				2					4	$ 204.00
Task B.12	Grant Administration Assistance		2				4			2		8	$ 330.00
Task B.13	7460 Submittal		1				2		2			5	$ 207.00
Task B.14												0	$ -
Task B.15												0	$ -
Task B.16												0	$ -
Task B.17												0	$ -
Task B.18												0	$ -
Task B.19												0	$ -
Task B.20												0	$ -
Task B.21												0	$ -
Task B.22												0	$ -
Task B.23												0	$ -
Task B.24												0	$ -
TOTAL MAN-HOURS		8	39	3	0	0	40	6	10	12	0	118	
RAW LABOR COSTS PER HOUR		$71.00	$65.00	$47.00	$56.00	$44.00	$37.00	$32.00	$34.00	$26.00	$30.00		
TOTAL LABOR FEES (Without Multiplier)		$568.00	$2,535.00	$141.00	$0.00	$0.00	$1,480.00	$192.00	$340.00	$312.00	$0.00		$ 5,568.00

TOTAL DIRECT LABOR COSTS:			$ 5,568.00
STATE AUDITED OVERHEAD RATES:		Apply Multiplier of:	2.801
		Overhead Subtotal:	$ 15,595.97
PROFIT:	10.00%	Profit: +	$ 1,559.60
COST OF CAPITAL:	0.00%	Capital Costs: +	$ -
TOTAL LABOR COSTS THIS TASK			$ 17,155.56

AV FeeEstimate (AV-201)

(Template Date: 05/2014)

TALBERT, BRIGHT & ELLINGTON

MAN-HOUR FEE ESTIMATE
MID-CAROLINA REGIONAL
GLIDESLOPE REPLACEMENT

DIVISION OF AVIATION
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DATE: 11/14/2018

BASIC AND SPECIAL SERVICES: DIRECT LABOR COSTS

TASK C	(A-104) BIDDING PHASE (BASE)	Principal	Project Manager	Senior Planner	Enginner 5	Engineer 4	Engineer 3	Engineer 2	Cad Tech	Admin	RPR	Total Hours Per Task	Total Task Cost
Task C.1	Coordinate Advertisement		1				2			2		5	$ 191.00
Task C.2	Distribute Bid Documents		2				4			4		10	$ 382.00
Task C.3	Pre-bid Conference		4				2					6	$ 334.00
Task C.4	Bidder Questions & Answers	2	6				2			2		12	$ 658.00
Task C.5	Prepare Addenda		6				2		2	2		12	$ 584.00
Task C.6	Bid Opening Tabulation		3				2			2		7	$ 321.00
Task C.7	Recommendation of Award		2				1			1		4	$ 193.00
Task C.8	Grant Administration Assistance		2				4			2		8	$ 330.00
Task C.9												0	$ -
Task C.10												0	$ -
Task C.11												0	$ -
Task C.12												0	$ -
Task C.13												0	$ -
Task C.14												0	$ -
Task C.15												0	$ -
Task C.16												0	$ -
Task C.17												0	$ -
Task C.18												0	$ -
Task C.19												0	$ -
Task C.20												0	$ -
Task C.21												0	$ -
Task C.22												0	$ -
Task C.23												0	$ -
Task C.24												0	$ -
TOTAL MAN-HOURS		2	26	0	0	0	19	0	2	15	0	64	
RAW LABOR COSTS PER HOUR		$71.00	$65.00	$47.00	$56.00	$44.00	$37.00	$32.00	$34.00	$26.00	$30.00		
TOTAL LABOR FEES (Without Multiplier)		$142.00	$1,690.00	$0.00	$0.00	$0.00	$703.00	$0.00	$68.00	$390.00	$0.00		$ 2,993.00

TOTAL DIRECT LABOR COSTS:			$ 2,993.00
STATE AUDITED OVERHEAD RATES:		Apply Multiplier of:	2.801
		Overhead Subtotal:	$ 8,383.39
PROFIT:	10.00%	Profit: +	$ 838.34
COST OF CAPITAL:	0.00%	Capital Costs: +	$ -
TOTAL LABOR COSTS THIS TASK			$ 9,221.73

\ WFeeEstimate (AV-201)

(Template Date: 05/2014)

TALBERT, BRIGHT & ELLINGTON

MAN-HOUR FEE ESTIMATE
MID-CAROLINA REGIONAL
GLIDESLOPE REPLACEMENT

DIVISION OF AVIATION
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DATE: 11/14/2018

BASIC AND SPECIAL SERVICES: DIRECT LABOR COSTS

TASK D	(A-104) BIDDING PHASE (ADDITIVE)	Principal	Project Manager	Senior Planner	Enginner 5	Engineer 4	Engineer 3	Engineer 2	Cad Tech	Admin	RPR	Total Hours Per Task	Total Task Cost
Task D.1	Coordinate Re-Advertisement		1				2			2		5	$ 191.00
Task D.2	Bidder Questions & Answers	1	4				2			2		9	$ 457.00
Task D.3	Prepare Addenda		4				2		2	2		10	$ 454.00
Task D.4	Bid Opening Tabulation		3				2			2		7	$ 321.00
Task D.5												0	$ -
Task D.6												0	$ -
Task D.7												0	$ -
Task D.8												0	$ -
Task D.9												0	$ -
Task D.10												0	$ -
Task D.11												0	$ -
Task D.12												0	$ -
Task D.13												0	$ -
Task D.14												0	$ -
Task D.15												0	$ -
Task D.16												0	$ -
Task D.17												0	$ -
Task D.18												0	$ -
Task D.19												0	$ -
Task D.20												0	$ -
Task D.21												0	$ -
Task D.22												0	$ -
Task D.23												0	$ -
Task D.24												0	$ -
TOTAL MAN-HOURS		1	12	0	0	0	8	0	2	8	0	31	
RAW LABOR COSTS PER HOUR		$71.00	$65.00	$47.00	$56.00	$44.00	$37.00	$32.00	$34.00	$26.00	$30.00		
TOTAL LABOR FEES (Without Multiplier)		$71.00	$780.00	$0.00	$0.00	$0.00	$296.00	$0.00	$68.00	$208.00	$0.00		$ 1,423.00

TOTAL DIRECT LABOR COSTS:			$ 1,423.00
STATE AUDITED OVERHEAD RATES:		Apply Multiplier of:	2.801
		Overhead Subtotal:	$ 3,985.82
PROFIT:	10.00%	Profit: +	$ 398.58
COST OF CAPITAL:	0.00%	Capital Costs: +	$ -
TOTAL LABOR COSTS THIS TASK			$ 4,384.41

AV FeeEstimate (AV-201)

(Template Date: 05/2014)

TALBERT, BRIGHT & ELLINGTON

MAN-HOUR FEE ESTIMATE
MID-CAROLINA REGIONAL
GLIDESLOPE REPLACEMENT

DIVISION OF AVIATION

DATE: 11/14/2018

BASIC AND SPECIAL SERVICES: DIRECT LABOR COSTS

TASK E	A-104) CONSTRUCTION ADMINISTRATION PHAS	Principal	Project Manager	Senior Planner	Enginner 5	Engineer 4	Engineer 3	Engineer 2	Cad Tech	Admin	RPR	Total Hours Per Task	Total Task Cost
Task E.1	Coordination Award of Contract		2							2		4	$ 182.00
Task E.2	Coordinate / Conduct Preconstruction Conference		4				2			2		8	$ 386.00
Task E.3	Preconstruction Minutes		4				2			1		7	$ 360.00
Task E.4	Coordinate / Review Project Schedule		2				2					4	$ 204.00
Task E.5	Coordinate / Review Submittals		4				6			2		12	$ 534.00
Task E.6	Progress Meetings and Minutes		8				4			2		14	$ 720.00
Task E.7	Construction Site Visits		6				3					9	$ 501.00
Task E.8	Construction Observation Reports		2				2					4	$ 204.00
Task E.9	Coordinate / Review Field Changes	2	4				4			2		12	$ 602.00
Task E.10	Construction Correspondence		6				2			1		9	$ 490.00
Task E.11	Process Contractor Pay Requests		4				2			2		8	$ 386.00
Task E.12	Flight Check Coordination		4				6			2		12	$ 534.00
Task E.13	Grant Administration Assistance		2				6			2		10	$ 404.00
Task E.14	Final Inspection and Punch List		4				2			1		7	$ 360.00
Task E.15												0	$ -
Task E.16												0	$ -
Task E.17												0	$ -
Task E.18												0	$ -
Task E.19												0	$ -
Task E.20												0	$ -
Task E.21												0	$ -
Task E.22												0	$ -
Task E.23												0	$ -
Task E.24												0	$ -
TOTAL MAN-HOURS		2	56	0	0	0	43	0	0	19	0	120	
RAW LABOR COSTS PER HOUR		$71.00	$65.00	$47.00	$56.00	$44.00	$37.00	$32.00	$34.00	$26.00	$30.00		
TOTAL LABOR FEES (Without Multiplier)		$142.00	$3,640.00	$0.00	$0.00	$0.00	$1,591.00	$0.00	$0.00	$494.00	$0.00		$ 5,867.00

TOTAL DIRECT LABOR COSTS:			$ 5,867.00
STATE AUDITED OVERHEAD RATES:		Apply Multiplier of:	2.801
		Overhead Subtotal:	$ 16,433.47
PROFIT:	10.00%	Profit: +	$ 1,643.35
COST OF CAPITAL:	0.00%	Capital Costs: +	$ -
TOTAL LABOR COSTS THIS TASK			$ 18,076.81

AV FeeEstimate (AV-201)

(Template Date: 05/2014)

TALBERT, BRIGHT & ELLINGTO	MAN-HOUR FEE ESTIMATE MID-CAROLINA REGIONAL AIRPORT GLIDESLOPE REPLACEMENT	DIVISION OF AVIATION

11/14/2018

BASIC AND SPECIAL SERVICES: REIMBURSABLE DIRECT COST

(A-102) ENVIRONMENTAL PHASE

GENERAL PROJECT WORK:

	QTY	DESCRIPTION			UNIT COST	
Travel:						
Personal Mileage	0	Trip(s) in Sedan @	0	miles @	$0.545	$0.00
	0	Trip(s) in Carry-All @	0	miles @	$0.565	$0.00
Per Diem:	0	Breakfast		each	$8.40	$0.00
	0	Lunch		each	$11.00	$0.00
	0	Dinner		each	$18.90	$0.00
	0	Day		each	$38.30	$0.00
	0	Lodging		each	$71.20	$0.00
	0	Incidental Expenses		each	$5.00	$0.00
Rental Car	0	Sedan			$45.00	$0.00
	0	Mileage for Rental Car Only		miles @	$0.20	$0.00
Airfare	0	Flight Origin/Destination & Rate:		each	$250.00	$0.00
Reproduction:	150	8 1/2 x 11 B & W Copies		each	$0.04	$6.00
	0	11 x 17 B & W Copies		each	$0.10	$0.00
	50	8 1/2 x 11 Color Copies		each	$0.25	$12.50
	0	11 x 17 Color Copies		each	$0.50	$0.00
	0	SQ. FT. of Plots (B & W) - Bond		sq. ft	$0.42	$0.00
Shipping / Posta	2	Express Shipping		each	$20.00	$40.00
	0	USPS Postage		each	$5.00	$0.00
					Subtotal	**$58.50**

MISCELLANEOUS DIRECT EXPENSES:

ITEM	QTY	DESCRIPTION		UNIT	UNIT COST	
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
					Subtotal	**$0.00**
					TOTAL:	**$58.50**

TALBERT, BRIGHT & ELLINGTO	MAN-HOUR FEE ESTIMATE MID-CAROLINA REGIONAL AIRPORT GLIDESLOPE REPLACEMENT	DIVISION OF AVIATION

11/14/2018

BASIC AND SPECIAL SERVICES: REIMBURSABLE DIRECT COST

(A-104) DESIGN PHASE

GENERAL PROJECT WORK:

	QTY	DESCRIPTION			UNIT COST	
Travel:						
Personal Mileage	1	Trip(s) in Sedan @	102	miles @	$0.545	$55.59
	0	Trip(s) in Carry-All @	102	miles @	$0.565	$0.00
Per Diem:	0	Breakfast		each	$8.40	$0.00
	0	Lunch		each	$11.00	$0.00
	0	Dinner		each	$18.90	$0.00
	0	Day		each	$38.30	$0.00
	0	Lodging (on lump sum Incl. taxes)		each	$71.20	$0.00
	0	Incidental Expenses		each	$5.00	$0.00
Rental Car	0	Sedan			$45.00	$0.00
	0	Mileage for Rental Car Only		miles @	$0.20	$0.00
Airfare	0	Flight Origin/Destination & Rate:		each	$250.00	$0.00
Reproduction:	800	8 1/2 x 11 B & W Copies		each	$0.04	$32.00
	20	11 x 17 B & W Copies		each	$0.10	$2.00
	200	8 1/2 x 11 Color Copies		each	$0.25	$50.00
	40	11 x 17 Color Copies		each	$0.50	$20.00
	60	SQ. FT. of Plots (B & W) - Bond		sq. ft	$0.42	$25.20
Shipping / Posta	4	Express Shipping		each	$20.00	$80.00
	4	USPS Postage		each	$5.00	$20.00
					Subtotal	**$284.79**

MISCELLANEOUS DIRECT EXPENSES:

ITEM	QTY	DESCRIPTION		UNIT	UNIT COST	
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
					Subtotal	**$0.00**
					TOTAL:	**$284.79**

TALBERT, BRIGHT & ELLINGTON	MAN-HOUR FEE ESTIMATE MID-CAROLINA REGIONAL AIRPORT GLIDESLOPE REPLACEMENT	DIVISION OF AVIATION

11/14/2018

BASIC AND SPECIAL SERVICES: REIMBURSABLE DIRECT COST

(A-104) BIDDING PHASE (BASE)

GENERAL PROJECT WORK:

	QTY	DESCRIPTION			UNIT COST	
Travel:						
Personal Mileage	2	Trip(s) in Sedan @	102	miles @	$0.545	$111.18
	0	Trip(s) in Carry-All @	102	miles @	$0.565	$0.00
Per Diem:	0	Breakfast		each	$8.40	$0.00
	0	Lunch		each	$11.00	$0.00
	0	Dinner		each	$18.90	$0.00
	0	Day		each	$38.30	$0.00
	0	Lodging (on lump sum Incl. taxes)		each	$71.20	$0.00
	0	Incidental Expenses		each	$5.00	$0.00
Rental Car	0	Sedan			$45.00	$0.00
	0	Mileage for Rental Car Only		miles @	$0.20	$0.00
Airfare	0	Flight Origin/Destination & Rate:		each	$250.00	$0.00
Reproduction:	4000	8 1/2 x 11 B & W Copies		each	$0.04	$160.00
	50	11 x 17 B & W Copies		each	$0.10	$5.00
	50	8 1/2 x 11 Color Copies		each	$0.25	$12.50
	20	11 x 17 Color Copies		each	$0.50	$10.00
	60	SQ. FT. of Plots (B & W) - Bond		sq. ft	$0.42	$25.20
Shipping / Posta	12	Express Shipping		each	$20.00	$240.00
	6	USPS Postage		each	$5.00	$30.00
					Subtotal	**$593.88**

MISCELLANEOUS DIRECT EXPENSES:

ITEM	QTY	DESCRIPTION		UNIT	UNIT COST	
ADV	1	Advertisement		1	$ 1,300.00	$1,300.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
					Subtotal	**$1,300.00**
					TOTAL:	**$1,893.88**

TALBERT, BRIGHT & ELLINGTON	MAN-HOUR FEE ESTIMATE MID-CAROLINA REGIONAL AIRPORT GLIDESLOPE REPLACEMENT	DIVISION OF AVIATION

11/14/2018

BASIC AND SPECIAL SERVICES: REIMBURSABLE DIRECT COST

(A-104) BIDDING PHASE (ADDITIVE)

GENERAL PROJECT WORK:

	QTY	DESCRIPTION			UNIT COST	
Travel:						
Personal Mileage	1	Trip(s) in Sedan @	102	miles @	$0.545	$55.59
	0	Trip(s) in Carry-All @	102	miles @	$0.565	$0.00
Per Diem:	0	Breakfast		each	$8.40	$0.00
	0	Lunch		each	$11.00	$0.00
	0	Dinner		each	$18.90	$0.00
	0	Day		each	$38.30	$0.00
	0	Lodging (on lump sum Incl. taxes)		each	$71.20	$0.00
	0	Incidental Expenses		each	$5.00	$0.00
Rental Car	0	Sedan			$45.00	$0.00
	0	Mileage for Rental Car Only		miles @	$0.20	$0.00
Airfare	0	Flight Origin/Destination & Rate:		each	$250.00	$0.00
Reproduction:	1000	8 1/2 x 11 B & W Copies		each	$0.04	$40.00
	25	11 x 17 B & W Copies		each	$0.10	$2.50
	25	8 1/2 x 11 Color Copies		each	$0.25	$6.25
	10	11 x 17 Color Copies		each	$0.50	$5.00
	20	SQ. FT. of Plots (B & W) - Bond		sq. ft	$0.42	$8.40
Shipping / Posta	2	Express Shipping		each	$20.00	$40.00
	1	USPS Postage		each	$5.00	$5.00
					Subtotal	**$162.74**

MISCELLANEOUS DIRECT EXPENSES:

ITEM	QTY	DESCRIPTION		UNIT	UNIT COST	
ADV	1	Advertisement		1	$ 1,300.00	$1,300.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
					Subtotal	**$1,300.00**
					TOTAL:	**$1,462.74**

AV FeeEstimate (AV-201) (5/14)

TALBERT, BRIGHT & ELLINGTON	MAN-HOUR FEE ESTIMATE MID-CAROLINA REGIONAL AIRPORT GLIDESLOPE REPLACEMENT	DIVISION OF AVIATION

11/14/2018

BASIC AND SPECIAL SERVICES: REIMBURSABLE DIRECT COST

(A-104) CONSTRUCTION ADMINISTRATION PHASE

GENERAL PROJECT WORK:

	QTY	DESCRIPTION			UNIT COST	
Travel:						
Personal Mileage	6	Trip(s) in Sedan @	102	miles @	$0.545	$333.54
	0	Trip(s) in Carry-All @	102	miles @	$0.565	$0.00
Per Diem:	0	Breakfast		each	$8.40	$0.00
	0	Lunch		each	$11.00	$0.00
	0	Dinner		each	$18.90	$0.00
	0	Day		each	$38.30	$0.00
	0	Lodging (on lump sum Incl. taxes)		each	$71.20	$0.00
	0	Incidental Expenses		each	$5.00	$0.00
Rental Car	0	Sedan			$45.00	$0.00
	0	Mileage for Rental Car Only		miles @	$0.20	$0.00
Airfare	0	Flight Origin/Destination & Rate:		each	$250.00	$0.00
Reproduction:	400	8 1/2 x 11 B & W Copies		each	$0.04	$16.00
	10	11 x 17 B & W Copies		each	$0.10	$1.00
	200	8 1/2 x 11 Color Copies		each	$0.25	$50.00
	10	11 x 17 Color Copies		each	$0.50	$5.00
	60	SQ. FT. of Plots (B & W) - Bond		sq. ft	$0.42	$25.20
Shipping / Posta	6	Express Shipping		each	$20.00	$120.00
	10	USPS Postage		each	$5.00	$50.00
					Subtotal	**$600.74**

MISCELLANEOUS DIRECT EXPENSES:

ITEM	QTY	DESCRIPTION		UNIT	UNIT COST	
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
					Subtotal	**$0.00**
					TOTAL:	**$600.74**

AV FeeEstimate (AV-201) (5/14)

APPENDIX D: SCANNED ORIGINAL OF EXECUTED MASTER CONTRACT BETWEEN ENGINEER AND OWNER

CONTRACT

FOR ENGINEERING, PLANNING AND RELATED SERVICES
FOR
ROWAN COUNTY

This AGREEMENT is made this 9th day of January, 2014 by and between ROWAN COUNTY, a body politic and corporate under the laws of the State of North Carolina, hereinafter called the **OWNER**, and TALBERT, BRIGHT & ELLINGTON, INC., a corporation organized and existing under the laws of the State of North Carolina, hereinafter called the **ENGINEER**.

WHEREAS, the **OWNER** intends planning and engineering services for the future development of Rowan County Airport and other improvements and such other work for the **OWNER** as may be mutually agreed to, hereinafter called the Project, and

WHEREAS, the **OWNER** desires to engage a qualified and experienced engineer to perform professional engineering services for a period of five (5) years with an option of extending such services for an additional five (5) years and hereinafter set forth, and the **ENGINEER** has represented that it is qualified to provide such services and desires to do so.

NOW THEREFORE, the **OWNER** and the **ENGINEER**, for the considerations hereinafter set forth, agree as follows:

GENERAL

For the purpose of this CONTRACT, the Airport Manager is hereby designated as the **OWNER**'s representative to act for the **OWNER** in giving approvals and authorizations for the **OWNER** as hereinafter required and set forth. The **ENGINEER** will be notified in writing of any change in representation.

When mutually agreed by the **OWNER** and the **ENGINEER**, and after having received from the **OWNER** written approval of the **ENGINEER**'s Work Authorization, including an estimated cost for specified services, the **ENGINEER** shall provide professional engineering services as described below.

SECTION I – BASIC SERVICES

A. **Project Development Phase:** After authorization to proceed the **ENGINEER** shall:

1. Consult with **OWNER**, state, and federal government agencies (when required) to clarify and define the requirements for the Project and review available data.

2. Advise **OWNER** as to the necessity of **OWNER**'s providing or obtaining from others data or services of the types described in Section II – Special Services. Assist the **OWNER** in contracting for such services.

3. Prepare preliminary design necessary to determine the type, size, and scope of the improvement Project based upon projected aviation activity and current airport standards in effect at the date of this Contract.

4. Prepare preliminary cost estimate for the Project.

5. Make minor revisions to the airport layout plan as necessary to reflect the details of the Project.

6. Prepare preapplications for federal and/or state assistance grants for funding of the Project.

7. Furnish five (5) copies of drawings, sketches, forms, and reports as appropriate to the **OWNER** for submission to government agencies.

8. Assist the **OWNER** in obtaining financing for project.

9. Perform additional work as described and required by the work authorizations.

B. **Design Phase:** After written authorization to proceed the **ENGINEER** shall:

1. In consultation with the **OWNER** and other government agencies through conferences, meetings, or submission of preliminary reports as appropriate, determine the extent of the Project and the design criteria to be used in the final design.

2. Prepare an **ENGINEER**'s report in accordance with FAA criteria, which shall include but not necessarily be limited to:

   a. An analysis and reasons for the design choices;
   b. An analysis of the manner in which the work will be accomplished; and
   c. A project cost estimate based upon the final design.

3. Advise the **OWNER** of needed special services as described in Section II – Special Services and assist the **OWNER** in the evaluation and selection of other professionals to provide special services, such as soil borings, laboratory tests and surveys, or provide such services in accordance with this Contract and any related Work Authorization(s).

4. Prepare final design, contract drawings, specifications, and contract documents. Prepare for review and approval by **OWNER**, his legal counsel, and other advisors contract agreement forms, general conditions, and supplementary conditions, and (where appropriate) bid forms, invitation to bid, and instructions to bidders, and assist in the preparation of other related documents.

5. Assist **OWNER** in submitting appropriate documents to state and federal agencies for necessary approvals and permits.

6. Furnish to the **OWNER** two (2) copies of completed drawings, specifications, reports, estimates, and contract documents.

7. Perform additional work as described and required by work authorizations.

C. **Construction Phase:** During the Construction Phase, the **ENGINEER** shall provide the following services:

1. Assistance to the **OWNER** in obtaining bids, tabulations, and analysis of bid results, and furnishing recommendations in connection with the award of construction contracts.

2. Assistance in preparation of formal contract documents for the award of construction contract.

3. Consult with and advise the **OWNER** and act as provided in the approved construction specifications and contract documents.

4. Make visits to the site at intervals appropriate to the various stages of construction to observe as experienced and qualified design professionals the progress and quality of the executed work of Contractor(s) and to determine in general if such work is proceeding in accordance with the contract documents. **ENGINEER** shall not be required to make exhaustive or continuous on-site observations to check the quality or quantity of such work. **ENGINEER** shall not be responsible for the means, methods, techniques, sequences, or procedures of construction selected by Contractor(s), or the safety precautions and programs incident to the work of Contractor(s). **ENGINEER**'s efforts will be directed toward providing a greater degree of confidence for **OWNER** that the completed work of Contractor(s) will conform to the contract documents, but **ENGINEER** shall not be responsible for the failure of Contractor(s) to perform the work in accordance with the contract documents. During such visits and on the basis of on-site observations, **ENGINEER** shall keep **OWNER** informed of

the progress of the work, shall endeavor to guard **OWNER** against defects and deficiencies in such work and may disapprove or reject work failing to conform to the contract documents.

5. Review and approve (or take other appropriate action in respect of) shop drawings and samples, the results of tests and inspections, and other data which each Contractor is required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the contract documents (but such review and approval or other action shall not extend to means, methods, sequences, techniques, or procedures of construction, or to safety precautions and programs incident thereto; determine the acceptability of substitute materials and equipment proposed by Contractor(s); and receive and review (for general content as required by specifications) maintenance and operating instructions, schedules, guarantees, bonds, and certificates of inspection which are to be assembled by Contractor(s) in accordance with the contract documents.

6. Review laboratory, shop, and mill test reports and prepare a tabulation or summary of laboratory test results to assist in monitoring the quality of construction.

7. Recommend to **OWNER** change orders and/or supplemental agreements to the construction contract incidental to existing field conditions or improvements in the Project design. Prepare estimates of cost or saving from proposed change order(s), prepare change order(s) along with basis for recommendation, and negotiate on behalf of **OWNER** with the Contractor to arrive, if possible, at an appropriate compensation resulting from the proposed revisions. The **ENGINEER** is not required by this provision to accomplish extensive design revisions and drawings resulting from a change in Project scope or major changes in design concept previously accepted by the **OWNER** where changes are due to causes beyond the **ENGINEER**'s control.

8. Advise the **OWNER** of needed special services and assist the **OWNER** in acquisition of such services as appropriate.

9. Based upon **ENGINEER**'s on-site observations as an experienced and qualified design professional and on review of applications for payment and the accompanying data and schedules, determine the amounts owing to Contractor(s) and recommend in writing payments to Contractor(s) in such amounts; such recommendations of payment will constitute a representation to **OWNER**, based on such observation and review, that the work has progressed to the point indicated, that to the best of **ENGINEER**'s knowledge, information, and belief, the quality of such work is in accordance with the contract documents (subject to an evaluation of such work as a functioning project upon substantial completion, to the results of any subsequent tests called for in the contract documents, and to any qualifications stated in his recommendation), and that payment of the amount recommended is due Contractor(s); but by recommending any payment **ENGINEER** will not thereby be deemed to have represented that continuous or exhaustive examinations have

been made by **ENGINEER** to check the quality or quantity of the work or to review the means, methods, sequences, techniques, or procedures of construction or safety precautions or programs incident thereto or that **ENGINEER** has made an examination to ascertain how or for what purposes any Contractor has used the monies paid on account of the contract price, or that title to any of the work, materials or equipment has passed to **OWNER** free and clear of any lien, claims, security interests, or encumbrances, or that Contractor(s) have completed their work exactly in accordance with the contract documents.

10. Prepare **OWNER**'s applications for partial and final payments for submission to government agencies.

11. Conduct an inspection to determine if the Project is substantially complete and a final inspection to determine if the work has been completed in accordance with the contract documents and if each Contractor has fulfilled all of his obligations thereunder so that **ENGINEER** may recommend, in writing, final payment to each Contractor and may give written notice to **OWNER** and the Contractor(s) that the work is acceptable (subject to any conditions therein expressed), but such recommendation and notice shall be subject to the limitations expressed herein.

12. **ENGINEER** will prepare for **OWNER**, on request, a set of record drawing prints showing those changes made during the construction process, based upon the marked-up prints, drawings, and other data furnished by Contractor(s) to **ENGINEER** and which **ENGINEER** considers significant.

13. The **ENGINEER** shall not be responsible for the acts of omission of any Contractor, or subcontractor, or any of the Contractor(s) or subcontractor(s)' agents or employees or any other persons (except **ENGINEER**'s own employees and agents) at the site or otherwise performing any of the contractor(s)' work; however, nothing contained herein shall be construed to release the **ENGINEER** from liability for failure to perform properly duties undertaken by the **ENGINEER** under this Contract.

SECTION II – SPECIAL SERVICES

At written request of the **OWNER**, the **ENGINEER** shall accomplish such special services as required by the **OWNER** to complete the Project. At the option of the **OWNER**, special services may be provided by the **OWNER** through contracts with other professionals or may be provided by the **ENGINEER**. When the **ENGINEER** is requested to provide special services, such services may be provided by **ENGINEER**'s own forces or through subcontracts with other professionals. Compensation for Special Services provided by **ENGINEER** shall be in accordance with one of the methods identified in Section V – Payment of Services. Special services, which may be requested include, but are not necessarily limited to the following:

A. Land surveys as necessary to establish property boundaries required for property acquisition purposes or preparation of property maps.

B. Soils and material investigations including test boring, laboratory testing of soils and materials, related analyses, and recommendations.

C. Engineering surveys (for design and construction) to include topographic surveys, base line surveys, cross section surveys, etc.

D. Technical inspection of construction by full time Resident Project Representative, as required and approved by the **OWNER**. When authorized by the **OWNER** the duties, responsibilities and limitations of authority shall be described in Section IV – Duties, Responsibilities, and Limitations of Authority of the Resident Project Representative.

E. Reproduction of additional copies of reports, contract documents, and specifications above the specified number furnished in Section I – Basic Services.

F. Assistance to the **OWNER** as expert witness in litigation arising from development or construction of the Project.

G. The accomplishment of special surveys and investigations, and the preparation of special reports and drawings as may be requested or authorized in writing by the **OWNER** in connection with the Project.

H. Extra work created by design changes, after approval of plans and specifications by the **OWNER** and FAA, and beyond the control of the **ENGINEER**, that may be requested or authorized in writing by the **OWNER** in connection with the Project.

I. Extra work required to revise or prepare contract documents, plans, and specifications to facilitate the award of more than one construction contract, in the event the **OWNER** adopts such construction program.

J. Services resulting from significant changes in extent of the Project or its design including, but not limited to, changes in size, complexity, **OWNER**'s schedule, or character of construction or method of financing; and revising previously accepted studies, reports, design documents, or contract documents when such studies, reports, design documents, or contract documents when such revisions are due to causes beyond **ENGINEER**'s control.

K. Providing renderings or models for **OWNER**'s use.

L. Investigations involving detailed consideration of operations, maintenance, and overhead expenses; providing value engineering during the course of design; the preparation of feasibility studies, cash flow, and economic evaluations, rate schedules and appraisals; assistance in

obtaining financing for Project; detailed quantity surveys of material, equipment, and labor; and audits or inventories required in connection with construction performed by **OWNER**.

M. Additional or extended services during construction made necessary by:

1. Work damaged by fire or other cause during construction.
2. A significant amount of defective or neglected work of Contractor(s).
3. Prolongation of the contract time of any prime contract by more than ten (10) days.
4. Acceleration of the process schedule involving services beyond normal working hours.
5. Default by Contractor(s).
6. The furnishing of a resident project representative other than an employee of the **ENGINEER.**

N. Preparation of operating and maintenance manuals; protracted or extensive assistance in the utilization of any equipment or system (such as initial start-up, testing, adjusting, and balancing); and training personnel for operation and maintenance.

O. Services after completion of the construction phase, such as inspections during any guarantee period and reporting observed discrepancies under guarantees called for in any contract for the Project.

SECTION III – RESPONSIBILITIES OF THE OWNER

As a party to this Contract, the **OWNER** shall:

A. Make available for **ENGINEER**'s use all record drawings, maps, soil data, etc.

B. Designate a person to act with authority on **OWNER**'s behalf and respond in a timely manner to submissions by **ENGINEER** providing approvals and authorizations as appropriate so that work may continue at a normal pace.

C. Pay all costs associated with special services authorized by the **OWNER**, and all costs associated with obtaining bids from contractors.

D. Furnish **ENGINEER** as required for performance of **ENGINEER**'s basic services, data prepared by or services of others, including without limitation, core borings, probings, and subsurface explorations, hydrographic surveys, laboratory tests and inspections of samples,

materials, and equipment; appropriate professional interpretations of all the foregoing; environmental assessment and impact statements; property, boundary, easement, right-of-way, topographic, and utility surveys, property descriptions; zoning, deed, and other land use restrictions; and other special data or consultations not covered herein; all of which **ENGINEER** may rely upon in performing his services.

E. Arrange for access to and make all provisions for **ENGINEER** to enter upon public and private property as required for **ENGINEER** to perform his services.

F. Examine all studies, reports, sketches, drawings, specifications, proposals, and other documents presented by **ENGINEER**, obtain advice of an attorney, insurance counselor, and other consultants as **OWNER** deems appropriate for such examination and render decisions pertaining thereto within a reasonable time so as not to delay the services of **ENGINEER**.

G. Furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consent from others as may be necessary for completion of the Project.

H. Provide such accounting, independent cost estimating, and insurance counseling services as may be required for the Project, such legal services as **OWNER** may require or **ENGINEER** may reasonably request with regard to legal issues pertaining to the Project including any that may be raised by Contractor(s), such auditing services as **OWNER** may require to ascertain how or for what purpose any Contractor has used the monies paid to him under the construction contract, and such inspection services as **OWNER** may require to ascertain that Contractor(s) are complying with any law, rule or regulation applicable to their performance of the work.

I. Give prompt written notice to **ENGINEER** whenever **OWNER** observes or otherwise becomes aware of any development that affects the scope of timing of the **ENGINEER**'s services, or any defect in the work of Contractor(s).

SECTION IV – DUTIES, RESPONSIBILITIES, AND LIMITATIONS OF AUTHORITY OF THE RESIDENT PROJECT REPRESENTATIVE

ENGINEER may furnish a Resident Project Representative, assistants, and other field staff to assist **ENGINEER** in observing performance of the work of the Contractor.

Through more extensive on-site observations of the work in progress and field checks of materials and equipment by the Resident Project Representative and assistants, **ENGINEER** shall endeavor to provide further protection for **OWNER** against defects and deficiencies in the work; but, the furnishing of such services will not make **ENGINEER** responsible for or give **ENGINEER** control over construction means, methods, techniques, sequences or procedures or for safety precautions or

programs, or responsibility for Contractor's failure to perform the work in accordance with the contract documents.

The duties and responsibilities of the Resident Project Representative are limited to those of **ENGINEER** in **ENGINEER**'s agreement with the **OWNER** and in the construction contract documents, and are further limited and described as follows:

A. **General:** Resident Project Representative is **ENGINEER**'s agent at the site, will act as directed by and under the supervision of **ENGINEER**, and will confer with **ENGINEER** regarding his actions. Resident Project Representative's involvement in matters pertaining to the on-site work shall in general be with the **ENGINEER** and Contractor, keeping **OWNER** advised as necessary. Resident Project Representative's contact with subcontractors shall only be through or with the full knowledge and approval of Contractor. Resident Project Representative shall generally communicate with **OWNER** with the knowledge of and under the direction of **ENGINEER**.

B. **Duties and Responsibilities of Resident Project Representative:**

1. Schedules: Review the progress schedule, schedule of shop drawing submittals, and schedule of values prepared by Contractor and consult with **ENGINEER** concerning acceptability.

2. Conferences and Meetings: Attend meetings with Contractor, such as pre-construction conferences, progress meetings, job conferences, and other Project related meetings, and prepare and circulate copies of minutes thereof.

3. Liaison:

   a. Serve as **ENGINEER**'s liaison with Contractor, working principally through Contractor's superintendent and assist in understanding the intent of the contract documents; and assist **ENGINEER** in serving as **OWNER**'s liaison with Contractor when Contractor's operations affect **OWNER**'s on-site operations; and

   b. Assist in obtaining from **OWNER** additional details or information, when required for proper execution of the work, according to the contract documents.

4. Shop Drawings and Samples:

   a. Record date of receipt of shop drawings and samples;

   b. Receive samples, which are furnished at the site by Contractor, and notify **ENGINEER** of availability of samples for examination; and

   c. Advise **ENGINEER** and Contractor of the commencement of any work requiring a shop drawing or sample if the ENGINEER has not accepted the submittal.

5. Review of Work, Rejection of Defective Work, Inspections and Tests:

   a. Conduct on-site observations of the work in progress to assist **ENGINEER** in determining if the work is, in general, proceeding in accordance with the contract documents;

   b. Report to **ENGINEER** whenever Resident Project Representative believes that any work is unsatisfactory, faulty, or defective, or does not conform to the contract documents, or has been damaged, or does not meet the requirements of any inspections, test, or approval required to be made; and advise **ENGINEER** of work that Resident Project Representative believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval;

   c. Verify that tests, equipment, and systems startup, and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof; and observe, record, and report to **ENGINEER** appropriate details relative to tests, procedures, and startups; and

   d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of the inspections, and report to **ENGINEER**.

6. Interpretation of Contract Documents: Report to **ENGINEER** when clarifications and interpretations of the contract documents are needed and transmit to Contractor clarifications and interpretations as issued by **ENGINEER**.

7. Modifications: Consider and evaluate Contractor's suggestions for modifications in drawings or specifications and report with Resident Project Representative's recommendations to **ENGINEER**. Transmit to Contractor decisions as issued by **ENGINEER**.

8. Records:

   a. Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and samples, reproductions of original contract documents including all work directive changes, addenda, change orders, field orders, additional drawings issued subsequent to the execution of the Contract, **ENGINEER**'s clarifications and interpretations of the contract documents, progress reports, and other Project-related documents; and

   b. Keep a diary or log book, recording Contractor hours on the job site, weather conditions, data relative to questions of work directive changes, change orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to **ENGINEER**.

c. Record names, addresses, and telephone numbers of all Contractors, subcontractors, and major suppliers of material and equipment.

9. Reports:

   a. Furnish **ENGINEER** periodic reports as required of progress of the work and of Contractor's compliance with the progress schedule and schedule of shop drawings and sample submittals;
   b. Consult with **ENGINEER** in advance of scheduled major tests, inspections, or start of important phases of the work;
   c. Draft proposed change orders and work directive changes, obtaining backup material from Contractor and recommend to **ENGINEER** change orders, work directive changes, and field orders; and
   d. Report immediately to **ENGINEER** and **OWNER** upon the occurrence of any accident.

10. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to **ENGINEER**, noting particularly the relationship of the payment requested to the schedule of values, work completed, and materials and equipment delivered at the site but not incorporated in the work.

11. Certificates, Maintenance, and Operations Manuals: During the course of the work, verify that certificates, maintenance and operation manuals, and other data required to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the contract documents, and have this material delivered to **ENGINEER** for review and forwarding to **OWNER** prior to final payment for work.

12. Completion:

   a. Before **ENGINEER** issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction;
   b. Conduct on-site review in the company of **ENGINEER**, **OWNER**, and Contractor and prepare a final list of items to be completed or corrected; and
   c. Observe that all items on final list have been completed or corrected and make recommendations to **ENGINEER** concerning acceptance.

C. **Limitations of Authority:** Resident Project Representative shall not:

1. Authorize any deviation from the contract documents or substitution of materials or equipment, unless authorized by **ENGINEER**.

2. Exceed limitations of **ENGINEER**'s authority as set forth in the contract documents.

3. Undertake any of the responsibilities of Contractor, subcontractors, or Contractor's superintendent.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of construction unless such advice or directions are specifically required by the contract documents.

5. Advise on, issue directions regarding or assume control over safety precautions and programs in connection with the work.

6. Accept shop drawing or sample submittals from anyone other than Contractor.

7. Authorize **OWNER** to occupy the Project in whole or in part.

8. Participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by **ENGINEER**.

SECTION V – PAYMENT OF SERVICES

The **OWNER** agrees to compensate the **ENGINEER** for services performed in accordance with one of the following methods as hereinafter set forth. The method of payment and the amount for specified services shall be detailed in a Work Authorization, which shall be prepared by the **ENGINEER** and submitted to the **OWNER** for review and approval. The receipt of an approved Work Authorization will constitute the **ENGINEER**'s Notice-to-Proceed.

The **ENGINEER** is not to undertake any work prior to the receipt of an approved Work Authorization executed and approved by the **OWNER**.

A. **Methods of Payment:** One or more of the following methods of payment shall be used and the method for each phase of the work shall be stated in the appropriate Work Authorization:

1. Per Diem: Under this method of payment, the **ENGINEER**'s compensation will be equal to the hours expended on a Project times the rates established in a Work Authorization, which shall be inclusive of all overhead and profit; plus payment for direct nonsalary expenses. The

current rates for labor include salaries, payroll costs, overhead and profit. These rates are adjusted annually by the **ENGINEER** in July of each year.

2. Lump Sum: For work that can be defined and delineated in advance, payment to the **ENGINEER** will be made on the basis of a lump sum. The agreed lump sum shall represent full payment for all payroll, overhead, profit, and other direct nonsalary expenses as hereinafter described. The lump sum will neither increase nor decrease unless there should be a change in the scope, complexity, or duration of the work. In that event, the lump sum would be subject to renegotiation.

B. **Terms and Conditions:** The basis of compensation described is based upon the following conditions:

1. Time charged to the Project by office engineering personnel will include the time that the applicable employees are engaged in actual work on the Project at the **ENGINEER**'s office, at the site of the Project, or travel status in connection with the Project.

2. Only the personnel needed and required to accomplish the services in keeping with the prescribed schedule shall be assigned to the Project.

3. Charges will not be made to the Project during periods of sickness, vacation, or at any other times when personnel assigned are not gainfully employed on the work.

C. **Payment Schedules:**

1. Invoices shall be due and payable within 30 days after the date of invoice. A service charge of one (1) percent per month shall be added to all overdue accounts.

SECTION VI – MISCELLANEOUS PROVISIONS

A. **Estimates:** Since the **ENGINEER** has no control over the cost of labor and materials or over competitive bidding market conditions, the estimates of construction cost provided for herein are to be made on the basis of experience and qualifications, but the **ENGINEER** does not guarantee the accuracy of such estimates as compared to the Contractor's bids of the Project construction cost.

B. **Extra Work:** It is mutually understood and agreed that the **OWNER** will compensate the **ENGINEER** for services resulting from significant changes in general scope of the Project or its design, including but not necessarily limited to, changes in size, complexity, Project schedules, character of construction, revisions to previously accepted studies, reports, design documents, or contract documents, and for preparation of documents for separate bids, when such revisions are due to causes beyond the **ENGINEER**'s control and when requested or authorized by the

OWNER. Extra work may also include special services as identified in Section II – Special Services. Compensation for extra work and any associated special services shall be in accordance with one of the methods identified in Section V – Payment of Services.

C. **Reuse of Documents:** All documents, including drawings and specifications prepared by **ENGINEER** pursuant to this Contract, are instruments of service in respect of the Project. They are not intended or represented to be suitable for reuse by **OWNER** or others on extensions of the Project or on any other Project. Any reuse without written verification or adaptation by **ENGINEER** for the specific purposes intended will be at **OWNER**'s sole risk and without liability or legal exposure to **ENGINEER**; and **OWNER** shall indemnify and hold harmless **ENGINEER** from all claims, damages, losses, and expenses including attorney's fees arising out of or resulting therefrom. Any such verification or adaptation will entitle **ENGINEER** to further compensation at rates to be agreed upon by **OWNER** and **ENGINEER**. Notwithstanding these provisions the **OWNER** shall be provided upon request a reproducible copy of any drawing produced under this Contract at the cost of reproduction.

D. **Responsibility of the ENGINEER:**

1. The **ENGINEER** shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all designs, drawings, specifications, reports, and other services furnished by the **ENGINEER** under this Contract.

2. Approval by the **OWNER** or FAA of drawings, designs, specifications, reports, and incidental engineering work or materials furnished hereunder shall not in any way relieve the **ENGINEER** of his responsibility for the technical adequacy of his work.

E. **Period of Services:**

1. The provisions of this Section and the various rates of compensation for **ENGINEER**'s services provided for elsewhere in this Contract have been agreed to in anticipation of the orderly and continuous progress of the Project through completion of the construction phase. **ENGINEER**'s obligation to render services hereunder will extend for a period, which may reasonably be required for the design, award of contracts, and construction of the Project.

2. If **OWNER** has requested significant modifications or changes in the extent of the Project, the time of performance of **ENGINEER**'s services and his various rates of compensation shall be adjusted appropriately.

3. If **OWNER** fails to give prompt written authorization to proceed with any phase of services after completion of the immediately preceding phase, **ENGINEER** may, after giving seven (7) days' written notice to **OWNER**, suspend services under this Contract.
4. If **ENGINEER**'s services for design or during construction of the Project are delayed or suspended in whole or in part for reasons beyond **ENGINEER**'s control, **ENGINEER** shall

on written demand to **OWNER** (but without termination of this Contract) be paid as provided for in Section V – Payment of Services. If such delay or suspension extends for more than one (1) year for reasons beyond **ENGINEER**'s control, or if **ENGINEER** for any reason is required to render services more than one (1) year after substantial completion, the various rates of compensation provided for elsewhere in this Contract shall be subject to an increase not to exceed ten (10) percent per year.

F. **Termination:**

1. This Contract may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligation under this Contract through no fault of the terminating party provided that no such termination may be effected unless the other party is given:

   a. Not less than ten (10) calendar days written notice of intent to terminate; and
   b. An opportunity for consultation with the terminating party prior to termination.

2. This Contract may be terminated in whole or in part in writing by the **OWNER** for its convenience provided that such termination is for good cause (such as legal or financial reasons or major changes in the work program requirements) and that the **ENGINEER** is given:

   a. Not less than ten (10) calendar days written notice of the intent to terminate; and
   b. An opportunity for consultation with the terminating party prior to termination.

3. This Contract may be terminated in whole or in part in writing by the **OWNER** for its convenience provided that such termination occurs at the completion of a phase of work or work authorization and that the **ENGINEER** is given:

   a. Not less than ten (10) calendar days written notice of the intent to terminate; and
   b. An opportunity for consultation with the terminating party prior to termination.

4. Upon receipt of a termination notice, the **ENGINEER** shall promptly discontinue all services affected (unless the notice directs otherwise) and deliver or otherwise make available to the **OWNER** copies of all data, drawings, specifications, report estimates, summaries, and such other information and materials as may be accumulated by the **ENGINEER** performing this Contract, whether completed or in process.

5. If this Contract is terminated by either party, the **ENGINEER** shall be paid for services rendered and any expenses incurred prior to termination in addition to termination settlement costs reasonably incurred by the **ENGINEER** relating to commitments, which have become firm prior to termination. If the termination of the Contract occurs at the conclusion of one

phase and prior to authorization of the **OWNER** to begin the next phase, payment by the **OWNER** of the completed phase shall be considered full compensation due the **ENGINEER**. If Contract is terminated by the **OWNER** for default of the **ENGINEER**, the amount due the **ENGINEER** may be adjusted to the extent of any additional cost incurred by the **OWNER** as a result of the **ENGINEER**'s default.

G. **Remedies:** Except as may be otherwise provided in this Contract all claims, counter claims, disputes, and other matters in question between **OWNER** and the **ENGINEER** arising out of or related to this Contract or the breach thereof will be decided by arbitration if the parties hereto mutually agree, or in a court of competent jurisdiction within the state in which the **OWNER** is located.

H. **Professional Liability: ENGINEER** maintains professional liability coverage for damages as a result of our negligent acts, errors, or omissions. Our liability for this project will be limited to $1,000,000 for its negligent acts, errors, or omissions. If the OWNER desires a higher limit of liability, then an additional fee to offset the additional cost associated with a higher limit of liability can be negotiated. Upon request, a certificate of insurance will be provided as proof of coverage.

I. **Audit: Access to Records:**

1. The **ENGINEER** shall maintain books, records, documents, and other evidence directly pertinent to the work under this Contract in accordance with generally accepted accounting principles and practices. The **OWNER**, FAA, Comptroller General of the United States, or any of their duly authorized representatives shall have access to any books, documents, papers, records, and other evidence which relates directly to the Project for the purpose of examination, audit, excerpts, and transcriptions.

2. Records described above shall be maintained and made available during the performance under this Contract and for a period of three (3) years after the **OWNER** makes final payment.

J. **Civil Right Assurance:** During the performance of this Contract, the **ENGINEER**, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

1. Compliance with Regulations: The Contractor shall comply with the regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations) which are herein incorporated by reference and made a part of this Contract.

2. Nondiscrimination: The Contractor, with regard to the work performed by it during the Contract, shall not discriminate on the ground of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including practices when the Contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for Subcontractors, including procurements of materials and equipments. In all solicitations either by competitive bidding or negotiations made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

4. Information and Report: The Contract shall provide all information and reports required by Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, and other sources of information, and its facilities as may be determined by the **OWNER** or FAA to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information the Contractor shall set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the **OWNER** shall impose such Contract sanctions as it or the FAA determine to be appropriate, including but not limited to:

   a. Withholding of payments to the Contractor under the Contract until the Contractor complies; and/or

   b. Cancellation, termination, or suspension of the Contract, in whole or in part.

6. Incorporation of Provisions: The Contractor shall include the provisions of paragraphs 1 through 5 of Section VI, J, in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Contractor shall take such action with respect to any subcontract or procurement as the **OWNER** or FAA may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with subcontractor or supplier as a result of such direction, the Contractor may request the **OWNER** to enter into such litigation to protect the interests of the **OWNER** and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

K. **Minority Business Enterprise (MBE) Assurances:**

1. Policy: It is the policy of the DOT that minority business enterprises as defined in 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds under this Contract. Consequently, the MBE requirements of 49 CFR Part 23 apply to this Contract.

2. MBE Obligation: The Contractor agrees to ensure that minority business enterprises as defined in 49 CFR Part 23 have the maximum opportunity to participate in the performance of Contracts and subcontracts financed in whole or in part with federal funds provided under this Contract. In this regard, all Contractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 23 to ensure that minority business enterprises have the maximum opportunity to compete for and perform Contracts. Contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of DOT-assisted Contracts.

IN WITNESS WHEREOF, the parties hereto have made and executed this Contract as of the date and year first written above.

OWNER:	**ENGINEER:**
ROWAN COUNTY	TALBERT, BRIGHT & ELLINGTON, INC.
BY:	BY:
TITLE: Manager	TITLE: Vice President
DATE: 1/9/14	DATE: 3/27/14
WITNESS: Carolyn Karger	WITNESS: Yvonne M. Cook
ADDRESS: 130 West Innes Street Salisbury, NC 28144	ADDRESS: 4944 Parkway Plaza Boulevard Suite 350 Charlotte, NC 28217

EXHIBIT A
ROWAN COUNTY
ROWAN COUNTY AIRPORT
SALISBURY, NORTH CAROLINA
(insert project name)
WORK AUTHORIZATION FOR PROFESSIONAL SERVICES
WORK AUTHORIZATION NO. ***insert number (i.e., xx-xx)***
DATED: ***(insert date)***
TBI PROJECT NO. ***(insert project number)***

It is agreed to undertake the following work in accordance with the provisions of our Contract for Professional Services.

Scope of Services: ***(insert description of work to be performed)***

Time Schedule: Work shall be completed in accordance with the schedule established and agreed upon by the Owner and Engineer. ***(OR insert time frame agreed upon)***

Cost of Services: The method of payment shall be in accordance with Section V – Payment of Services of the Master Contract (dated ***insert master contract date)***. Paragraphs A and B of Section V will apply. The total value of this Work Authorization shall not exceed ***$insert amount*** without additional authorization.

Agreed as to Scope of Services, Time Schedule, and Cost of Services:

OWNER: **ROWAN COUNTY**	**ENGINEER:** **TALBERT, BRIGHT & ELLINGTON, INC.**
BY:	BY: Vice President
TITLE:	TITLE:
DATE:	DATE:
WITNESS:	WITNESS:

Exhibit A-1
SCOPE OF SERVICES

Exhibit A-2
PROFESSIONAL FEE SUMMARY

Exhibit A-3
SPECIAL SERVICES