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COMMUNITY DEVELOPMENT

MEMORANDUM

Planning,  
Zoning,  
Building Safety,  
Construction Inspection Services,  
Public Health,  
Housing Inspections,  
Code Enforcement

**To:** Mayor and City Council Members  
**From:** Jodi Royal-Goodwin, Community Development Director  
**Cc:** Greg Jenkins, Interim City Administrator  
**Date:** December 19, 2019  
**Re:** Request to Approve Work Order 4 to Professional Services Contract with Bolton & Menk for Design and Construction for Taxiway A Reconstruct

**INTRODUCTION:** The City currently contracts with Bolton & Menk for engineering and project management services associated with the Muscatine Municipal Airport. The reconstruction of Taxiway A is the first priority on the Airport’s 5-year Capital Improvement Plan (CIP), and as such is anticipated to be funded by the Federal Aviation Administration (FAA) in 2020.

**BACKGROUND:** The City of Muscatine entered into a professional services contract with Bolton & Menk in 2016 following a competitive selection process. Engineering and design services provided by Bolton & Menk are required as a condition of state and federal funding.

The reconstruction of Taxiway A was adopted as part of the Airport’s CIP. It was anticipated due to funding limitations the project would need to be completed in 3 phases. However, this fall the FAA notified the City it intends to fund the FAA share (90%) of reconstruction of the entire taxiway. The cost of reconstruction is estimated at \$3,110,513, with the FAA portion being \$2,799,462.

The design must be approved by the FAA and bids opened before the grant application can be submitted. Following is the FAA proposed schedule:

- Submit 90% Engineer’s Report, Plan, Specifications, and Draft CSPP..... 3/16/20
- Open Bids..... 4/13/20
- Submit Grant Application..... 6/1/20
- Construction Begins..... August 2020

**RECOMMENDATION:** Staff recommends approve *Work Order 4 to Professional Services Contract with Bolton & Menk for Design and Construction for Taxiway A Reconstruct*.

**Supporting Documents**

*Work Order 4 to Professional Services Contract with Bolton & Menk for Design and Construction for Taxiway A Reconstruct*

"I remember Muscatine for its sunsets. I have never seen any on either side of the ocean that equaled them" – Mark Twain



Real People. Real Solutions.

**WORK ORDER 4  
TO  
PROFESSIONAL SERVICES CONTRACT  
(DESIGN, BIDDING, AND CONSTRUCTION SERVICES)**

**DESIGN AND CONSTRUCTION  
FOR TAXIWAY A RECONSTRUCT**

**MUSCATINE MUNICIPAL AIRPORT  
MUSCATINE, IOWA**

**BETWEEN:** The City of Muscatine,  
An Iowa municipal corporation **(CLIENT)**

**AND:** **(CONSULTANT)**

**EFFECTIVE DATE:** December 5, 2019

**RECITALS**

1. City owns and operates the Muscatine Municipal Airport located near Muscatine, Iowa.
2. This is Work Order # 4 (Four) to the Professional Services Contract, between City and Bolton & Menk, Inc. The Professional Services Contract effective November 3, 2016 is referred to herein as the "Master Agreement".

**AGREEMENT**

**DESCRIPTION**

The CONSULTANT agrees to provide Design, Bidding, and Construction Administration Services for the reconstruction of Taxiway A, all at the Muscatine Municipal Airport (herein referred to as the **Project**).

**PROJECT UNDERSTANDING**

The parallel taxiway for Runway 6/24 at the Muscatine Municipal Airport is beginning to show serious ASR deterioration. The city and the airport have concerns that if they wait much longer to address these ASR concerns, that FOD may become a serious issue. This project will reconstruct the parallel taxiway for the entire length of Runway 6/24. Also, the current access taxiway alignment provides direct access from the aircraft parking apron to the runway. The access taxiway from the apron to the parallel taxiway will be relocated in accordance with current FAA guidelines to eliminate this direct runway access and improve safety at the airport. Pavement alternatives include concrete, bituminous and unbonded concrete overlay.

**I.A. BASIC SERVICES****BASIC SERVICES**

For purposes of this Work Order, the Basic Services to be provided by the CONSULTANT are as follows:

**1. DESIGN & BID ADMINISTRATION****1.1. Project Scoping**

Consultant shall confer with the Sponsor on, and ascertain, project requirements, finances, schedules, and other pertinent matters and shall meet with FAA if needed and other concerned agencies and parties on matters affecting the project and shall arrive at a mutual understanding of such matters with the Sponsor. Meetings with the Sponsor shall also determine the need for topographical surveying and pavement/geotechnical testing. It is anticipated that there will be a maximum of 3 meetings with the Sponsor and/or the FAA, to review pavement eligibility and project limits.

**1.2. Project Meetings and Coordination with Sponsor, State, FAA, etc.** Consultant shall coordinate with the subconsultants, sponsor, State, FAA and other applicable agencies to complete the work elements in Phase 1.

1.2.1. The task includes one meeting at the Airport, attended by the Project Manager. The Consultant will prepare for and conduct up to two (2) meetings at the Airport Sponsor to present the findings of the design phase and any alternatives and recommendations for the project. The result of the meeting(s) will be an agreed upon project design parameters to proceed forward with final construction documents.

1.2.2. Coordination with FAA, State, Local agencies, subconsultants, etc. The Consultant shall coordinate the project parameters and criteria with the project stakeholders including the FAA, State, Sponsor, and Project Manager.

1.2.3. This task includes one progress meeting per week will be held, one-hour in duration, with all design team members through the duration of the design phase.

**1.3. Topographical Surveying**

1.3.1. Coordination to collect existing data and locate utilities. This task includes data collection, as-built plan set review, and research of available existing survey information in order to gather information on existing topography and utilities. This also includes coordination for field utility locates with the Sponsor, FAA, and IDOT.

1.3.2. Survey control. Survey control will be established and used for design surveys. The Consultant will provide a drawing showing the location of the existing or established control for the project and perform necessary bench loop and traverse procedures to verify accuracy of vertical and horizontal control points. If applicable, the Consultant will establish runway end coordinates and centerline alignments and tie these into the project survey control. One trip will be required for a two-person survey crew to establish survey control for the project.

1.3.3. Field work. Survey work will include all utilities; pavement center, edges, and intermediate shots; ground shots; lights; signs; drainage structures; and electrical duct markers and hand holes. It is anticipated that the field work will require three trips to

the airport by a two-person survey crew.

- 1.3.4. Convert survey data for design software. This work includes analyzing the topographical surveying data and preparing the data for use with computer modeling. Included are the following separate tasks:
  - Establish design coordinate plan with Sponsor/State to be used for CADD drawings
  - Input raw survey data into the computer program in order to sort data into company standard layers for efficient analyzing
  - Verify survey data from previous project with latest field survey
  - Sort all data points by layers and description for computer modeling
  - Verify surveyor horizontal and vertical control
  - Prepare digital terrain model (DTM) of existing ground contours, pavement edges, roadways, electrical equipment, drainage features, buildings, fences and other miscellaneous entities
  - Generate three-dimensional contour model from the DTM.
  - Prepare and process data for pavement profiles, grading and/or paving cross sections, and drainage features
- 1.4. Aeronautical Survey (not part of this project)
- 1.5. Geotechnical Investigation
  - 1.5.1. Coordination to schedule geotechnical work. This task includes data collection and review of available geotechnical records in order to gather information on existing soil conditions and past geotechnical or pavement test results. Coordination will be done with the geotechnical subconsultant to schedule work and establish any work constraint parameters.
  - 1.5.2. Establish project testing requirements. The Consultant shall determine the type and frequency of geotechnical testing required for the project. The testing shall consider such items as pavement type, design methodology, type of wheel loading, and weight of design aircraft. Determine soil boring locations and frequency of testing. Develop a project sketch showing location and coordinates of borings. Determine soil sampling locations and types of soils testing required.
  - 1.5.3. Field work. Field work will be performed by a qualified geotechnical subconsultant. The geotechnical investigation will include:
    - Thirty-Two (32) Soil Borings to a depth of 10 feet
    - Twelve (12) Pavement Cores of existing pavement (include photos in report)
    - Three (3) Subgrade Standard Proctors (ASTM D1883)
    - Three (3) California Bearing Ratio Tests (ASTM D698)
    - Three (3) Atterberg Limits Tests (ASTM D4318)
  - 1.5.4. Analyze data. After receiving the testing report from the geotechnical firm, the Consultant will analyze the data and any existing geotechnical data received from Sponsor, consisting of the following tasks:

- Review geotechnical recommendations
- Determine appropriate data for pavement design.
- Input data for computer modeling with topographical survey data
- Prepare pavement data and soil information for incorporation on plan sheets
- Evaluate existing pavement sections for potential recycling and reuse

#### 1.6. Project Layout Sheet

Consultant shall complete a project layout sheet that will depict the proposed improvements.

#### 1.7. FAA Pavement Design Report and Form 5100

This task will consist of using information obtained in the Geotechnical Investigation, and calculate the required pavement sections required to support the design vehicle or aircraft using FAA Advisory Circular 150/5320-6F, Airport Pavement Design and Evaluation.

The following effort will be completed under this task:

- Calculate & determine critical design aircraft in accordance with FAA AC 150/5100-17. **In accordance with FAA guidance during the pre-design meeting, the critical aircraft and traffic mix used for the recently completed reconstruction of Runway 6/24 shall be used to compare and verify information in this task item.**
- Pavement alternatives include concrete, bituminous and unbonded concrete overlay. This will require three (3) separate analysis.
- Verify the pavement section based on accepted FAA pavement design programs. The applicable design program to be used is FAARFIELD.
- Review historic frost design.
- Evaluate ultimate pavement strength that meets requirements for future development per the ALP. **As with the critical aircraft task item above, ultimate pavement strength shall be compared with that determined for Runway 6/24 to verify information in this task item.**
- Evaluate effects of pavement profile on adjacent operational areas and future runway/taxiway pavement rehabilitation for safety separation and drainage.
- Calculate sub-excavation or undercutting subgrade for stabilization if necessary.
- Prepare Life-Cycle Cost analysis for the total pavement area.
- Review proposed pavement analysis with FAA Engineer.
- Prepare pavement design narrative to describe the design procedure, historic design, and justification for the FAA and Sponsor.
- Prepare FAA Pavement Design Form 5100 for each separate pavement section. Submit pdf's of pavement design forms to the FAA.

#### 1.8. Construction Safety and Phasing Plan (CSPP)

Consultant will complete the Construction Safety and Phasing Plan (CSPP), and FAA will upload CSPP information through FAA's Obstruction Evaluation / Airport Airspace Analysis (OE/AAA) website portal. The CSPP will be prepared according to current FAA Guidelines.

**1.9. Modification of Airport Design Standards**

As needed, the Consultant will prepare a Request for Modification of Federal Construction Standards if found to be necessary for the project. The Mod to Standards will discuss modifications required under the Bid Packages. The Mod to Standards will be submitted to the Sponsor for acceptance. This document will be forwarded to the FAA for approval along with final plans, contract documents, specifications and the Pavement Design Report (if required).

**1.10. Prepare 30% and 90% Plans, Specifications and Cost Estimate**

Plans at 30% and at 90% stage will be prepared for the Project. The plan sheets will be limited to those sheets necessary to carry-out the construction of the proposed project: "Taxiway A Reconstruction". The following list of drawings will be used as a guideline. Additional drawings may be added during the design phase, if required.

**General:**

- G-001 Cover Sheet, Sheet Index & Symbols
- ~~G-002 Legend & Abbreviations~~
- ~~G-003 General Notes~~
- G-021 Project Layout Plan
- G-041 Survey Control Plan
- G-061 Project Quantity Tables
- G-081 Construction Operations & Phasing Plan

**Geotechnical:**

- B-051 Plan & Log of Soil Borings

**Civil:****General**

- ~~C-001 Civil Legend~~
- C-021 Erosion Control Plans
- C-031 Erosion Control Details
- ~~C-041 Storm Water Management Plans~~
- C-051 Demolition Plans
- C-061 Demolition Details
- C-081 Geometrics
- C-091 Existing Contours

**Site**

- C-101 Grading & Drainage Plans
- C-141 Taxiway Intersection Details
- C-201 Plan & Profiles
- C-301 Typical Sections
- C-311 Paving Details
- C-321 Jointing Plans
- C-341 Jointing Details
- ~~C-361 Pavement Grooving Plan~~

**Utility**

- ~~C-401 Plan & Profiles~~
- ~~C-501 Details~~

**Storm Sewer**

- C-441 Plan & Profiles
- C-451 Drainage Details
- C-461 Inlet Layout Plan

**Marking**

- C-651 Marking Plans
- C-671 Marking Details
- C-681 Signing Plans
- C-691 Signing Details

**X-Sections**

- C-901 Cross Sections

**Electrical:**

- E-101 Electrical Removals Plan
- E-201 Electrical Layout Plan
- E-301 Existing Signage Plan
- E-311 Proposed Signage Plan
- E-321 Sign Legend
- ~~E-401 Electrical Vault Layout~~
- ~~E-501 Wiring Diagrams~~
- E-601 Electrical Details
- ~~E-701 NAVAIDS Details~~

**1.10.1. Prepare 30% and 90% Specifications**

This work includes preparation of standard and supplemental specifications, necessary to establish the construction requirements of the project. Standard FAA specifications will be assembled and reviewed for relevancy to the project. Additional specifications will be prepared to address work items or materials that are not covered by FAA specifications. In addition, supplemental specifications will be included, where deemed necessary. If included, supplemental specifications shall not revise nor override FAA standard specifications, unless approved as a Modification to Standards (MOS).

**1.10.2. Prepare 30% and 90% Contract Documents**

The Consultant will prepare the preliminary contract documents including invitation for bids, instruction to bidders, proposal, equal employment opportunity clauses, construction contract agreement, performance bond, payment bond, State Requirements, Federal Requirements, Preliminary Bid Schedule, Wage Rates, and general provisions. Preparation will include establishing the location for the bid opening, dates for advertisement, and description of the work schedule. Preliminary contract documents will be prepared as early as possible during the design phase and submitted to the Owner for review by the Owner. Also review and incorporate the Sponsor's general provisions and contract clauses, as required.

**1.10.3. Prepare 30% and 90% Special Provisions**

The Consultant will prepare Special Provisions to address, or expand on, conditions that require additional clarification.

**1.10.4. 90% Review Set**

Following the completion of the preliminary plans and specifications, the Engineer will complete a QC review of the 90% submittal, and address all comments/updates. When the QC review is complete, the Consultant will submit a 90% set of drawings and specifications to the Sponsor for their review/comment and the FAA for their review and concurrence with the preliminary design.

**1.10.5. Prepare Preliminary Engineer's Report**

Prepare the preliminary Engineer's Report in accordance with the FAA Central Region's AIP Sponsor Guide, and submit to the FAA for their concurrence.

**1.10.6. Prepare 30% and 90% Cost Estimate and Budget**

Calculate estimated preliminary quantities for the various work items. Quantities will be consistent with the specifications and acceptable quantity calculation practices. Consultant will then use recent bid prices and industry standards to prepare a 30% and 90% cost estimates. Prepare total project budget using the FAA form "Final Project Cost Summary" format to determine FAA and Sponsor funds needed.

**1.11. Prepare Final Plans and Specifications and Cost Estimate**

1.11.1. A final set of plans, specifications and contract documents will be prepared which incorporates revisions, modifications and corrections determined during the Sponsor's review of the 90% submittal.

**1.11.2. Prepare Final Cost Estimate and Final Estimated Budget**

Using the final quantities calculated following the completion of the plans and specifications, the Consultant will prepare the construction cost estimate. The estimate will be based on information obtained from previous projects, contractors, material suppliers, and other databases available. Prepare final estimated total project budget using the FAA form "Final Project Cost Summary" format to determine FAA and Sponsor funds needed.

**1.12. Prepare Construction Management Plan**

A special condition is required in all grants which contain paving work estimated to exceed \$250,000. The CONSULTANT will complete and furnish a detailed construction management plan to the FAA for approval before the start of construction. The paving work estimated cost includes the subgrade, base courses and pavement course(s). The plan will detail the measures and procedures to be used to comply with the quality control provisions of the construction contract, including, but not limited to, all quality control and acceptance tests required by the Sponsor Certified Specifications for the particular project.

The construction management plan will be submitted to the ADO for approval a minimum of 10 working days before the start of construction.

**1.13. Prepare Disadvantaged Business Plan (DBE)**

DBE Plan Update: This is applicable for project(s) that fall within a grant year which in Airport uses at least \$250,000 in Federal funds for services that can be completed by Disadvantaged Business Enterprise (DBE) firms. Total DBE eligible costs (prime contracts) estimated to be completed is expected to exceed \$250,000 with this project, thus an updated DBE program is required.

The CONSULTANT will update the Disadvantaged Business Enterprise (DBE) program in accordance with 49 CFR Part 26 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. Specific tasks will include:

- The CONSULTANT will review the methodology for evaluating the availability of DBE businesses to provide services and products for airport projects for the next three (3) Federal fiscal years.
- The CONSULTANT will review the airport's service area by analyzing the utilization of DBE businesses on previous airport projects.
- The CONSULTANT will prepare a legal advertisement describing the revised DBE utilization goal and methodology.
- The CONSULTANT will deliver the advertisement to the CLIENT to publish in one (1) newspaper as a public notice to provide a public comment period.
- The CONSULTANT will submit the DBE program to the FAA Office of Civil Rights for review and comments.

The CONSULTANT will complete one (1) annual report to FAA Office of Civil Rights as required to report actual DBE accomplishments on the project.

#### 1.14. Prepare Advertisement for Bids and Bid Documents

Consultant shall prepare, reproduce and distribute a total of 10 sets of bidding documents for the project. Consultant will submit a copy to the Sponsor for distribution to the local and selected publications of the pending project. The Sponsor shall pay for the associated cost of advertising. In addition, electronic copies of the bid documents will be made available for download through the Quest Construction Document Network website (QuestCDN). The consultant will also keep a current list of plan holders and distribute this to interested parties upon request. This task includes coordination required to facilitate these requests.

#### 1.15. Respond to Bidders Questions

During the bidding process, the Consultant will be available to clarify bidding issues with contractors and suppliers, and for consultation with the various entities associated with the project. This item also includes contacting bidders to generate interest in the project.

#### 1.16. Prepare and Distribute Addendums

Consultant shall issue addenda as appropriate to interpret, clarify, or change the bidding documents as required by the Sponsor or the FAA. Addenda will be made available to the plan holders either through mail, electronic mail, hand delivering or via facsimile transmission. Any addenda that are generated as a sole result of the Sponsors error or omission will be considered as extra services and the Consultant shall be reimbursed for this effort as an amendment to this contract.

#### 1.17. Bid Opening

The Consultant will attend the bid opening.

#### 1.18. Bid Review and Bid Tabulation

Consultant shall advise Board as to the acceptability of any subcontractors, suppliers, and other persons and organizations proposed by the bidders and as to the acceptability of substitute materials and equipment proposed by bidders. The Consultant shall prepare a spreadsheet that

includes all bid items for the purpose evaluating the lowest bidder. The Consultant shall input the as-bid unit prices into the spreadsheet and to verify mathematical computations of the bids. The Consultant will then provide recommendations to the Sponsor as to the name of the Apparent Low Bidder.

#### 1.19. Prepare Recommendation for Award

The Consultant will prepare a recommendation of award for the Sponsor to accept or reject the bids as submitted. If rejection is recommended, the Consultant will supply an explanation for their recommendation and possible alternative actions the Sponsor can pursue to complete the project. Once the Contract Award is made the Consultant will distribute the bid tabulations on request of the Sponsor.

#### 1.20. Prepare Grant Application

The Application may be prepared after the project design has been completed and the bids accepted or the FAA may require the Application to be completed early during the design phase. Preparation of the Application will include the following:

- Prepare Federal Grant Preapplication Checklist
- SF-424
- Prepare FAA Form 5100-100 including Program Narrative, discussing the Purpose and Need of the Work and the Method of Accomplishment
- Sponsor Certification (total of six)

The Consultant will submit the Application to the Sponsor for approval and signatures. After obtaining the necessary signatures, the Sponsor will forward the signed Application to the FAA for further processing.

#### 1.21. Environmental Review, CATEX

An environmental review is required and was conducted for this project. From the FAA's Go Letter dated November 4, 2019: *"The FAA determined the proposed project is environmentally Categorically Excluded (CATEX) per paragraph(s) 5-6.4e of FAA Order 1050.1F as it relates to the National Environmental Policy Act (NEPA). No further environmental documentation for this project is needed."*

#### 1.22. Submittal Schedule

Submittals will include:

- Grant Application
- 30% Plans, Specifications and Cost Estimate
- 90% Plans, Specifications and Cost Estimate
- Final Plans, Specifications and Cost Estimate
- Construction Management Plan
- DBE Plan
- Bid Tabulation and Recommendation of Award

## **2. CONSTRUCTION ADMINISTRATION**

### **2.1. Pre-Construction Meeting**

Consultant will arrange for and conduct the pre-construction meeting. The Project Manager and the Resident Engineer will establish this meeting to review Local, State, Federal Aviation Administration (FAA) and project specific requirements prior to commencing construction. The meeting will be conducted at the Airport and will include the Sponsor/Owner, IDOT (if available), Subconsultants, FAA (if available), Contractor, Subcontractors and utility companies. This task will include:

- Scheduling the meeting, sending invitations, providing meeting materials and pre-meeting exhibit and material preparation.
- Obtain and review the project construction schedules from the contractor or contractors prior to presentation at the preconstruction meeting. The Owner should be provided copies of all construction schedules.
- Prior to preconstruction meeting, furnish the name of the Project Engineer with qualifications for approval by the Owner. Project Engineer means Engineer as defined in Section 10 (Section 10-18) of the General Provisions of the construction documents.
- Preside at the preconstruction meeting, prepare a detailed record of the meeting and submit to the Owner and all participants.
- Provide Contractor with a list of required submittals to be provided by Contractor and discussed at the meeting.
- Provide Contractor with additional copies of Construction Documents and digital data (Project Drawings) as requested.

### **2.2. Initial Construction Layout**

The Consultant will perform initial survey work to establish construction limits, survey control, locations of barricades or construction signs. The construction control/verification survey subtask will include a survey crew to establish construction field control for the project. This will include establishment of horizontal and vertical control and construction staking as per the Project Manual.

### **2.3. Prepare Construction Management Plan (QAMP)**

The Resident Project Representative (RPR) will obtain the Contractor's Quality Control (QC) Program. After reviewing the QC Program, the Project Engineer will prepare the Construction Quality Assurance and Management Plan (QAMP), which requires data to be extracted from the QC Program and combined with Sponsor information and Engineer information for project responsibilities. The plan will outline materials testing requirements as set forth in the construction documents and contained in FAA Advisory Circular 150/5370-10H. The plan will summarize the types and frequency of testing required for quality acceptance in addition to the credentials of those performing the testing.

The Construction QAMP will be submitted to the Sponsor and FAA per FAA Policy and Procedures Memorandum (PPM) 5370-4A and will be followed throughout the project.

### **2.4. Prepare Contract Manuals**

The Consultant is required to check that the construction contracts are in order, verify

Contractor has met DBE goals (or made valid good faith effort), Contractor has provided proof of insurance, the bonds have been completed, and the Owner, Contractor and applicable Agencies has been provided with adequate copies of the executed Contract Manual to include the Agreement and all addenda.

The Contract Documents will be updated to include all addenda items issued during bidding as necessary and adequate copies provided to the Contractor. Clerical will prepare the quantity sheets, field book, testing sheets, construction report format, etc. for use by the RPR.

## 2.5. Construction Management Services

The Consultant will provide Construction Administration Services the scope of which is based on the following:

- The Consultant and Client agree that construction engineering services furnished shall be to the extent necessary to determine compliance with plans and specifications, including necessary general supervision of Resident Project Representative Services authorized by the Client.
- The Consultant and Client agree that the Construction Engineering Services provided by the Consultant may actually be required to continue and exceed beyond the construction time element stated in the Client's agreement with the construction Contractor. When the extent of these construction services beyond the control of the Consultant occurs, the Client agrees that Consultant will be reimbursed for additional Construction Engineering Services in excess of the specified construction time period at a mutually acceptable fee negotiated at the time all the pertinent circumstances are known.
- Nothing herein shall be construed as imposing upon the Consultant's responsibility for the construction means, methods, techniques, sequences, safety programs, and procedures used by contractors.
- The Consultant agrees that Resident Project Representative services furnished under this Contract shall be to observe the work and to determine compliance with the plans and specifications, including representing the Client in coordination of construction activities among contractors and between contractors and utilities, and to accommodate the reasonable requirements of the Client on and around areas of construction.
- When the Consultant is on the site, documentation will be maintained regarding construction progress and delays, quantities and percentages of work, tests performed, observations made and work accepted, problems encountered and instructions given to contractors, field changes and adjustments approved, and other records required or otherwise necessary to maintain a record of the work.

The Consultant agrees to provide Construction Administration Services that include the following:

- 2.5.1. Check and monitor construction activities and certify that all project work completed under observation of the Resident Project Representative is in substantial compliance with the plans, specifications and contract documents including any modifications by Change Order or otherwise, that all required tests were performed, and that such work is recommended for acceptance.
- 2.5.2. Provide interpretation of plans and specifications as requested.
- 2.5.3. Supervise and coordinate Subconsultant contracts for field observation and testing.
- 2.5.4. Review shop drawings and certificates submitted by contractors for compliance with

design concepts, as required by the applicable sections of the technical specifications.

- 2.5.5. Review all periodic and final pay requests and explanation of variation between Contract and final quantities prepared by Resident Project Representative. Coordinate Contractor approval and signature and submit to Client for approval.
- 2.5.6. Review weekly Construction Progress and Inspection Reports (FAA Form 5370-1) as prepared by Resident Project Representative and submit to Owner and applicable Agencies.
- 2.5.7. Prepare, review and process Field Orders, Change Orders to include a cost estimate, cost/price analysis, record of negotiations, review and evaluation of "Contractor's Request for Extension of Contract Time" and make recommendations regarding approval to the Client. Notify the Contractor that no work can start until approved by the Client.
- 2.5.8. Coordinate and meet with the Client for consultation and advice during construction to include conducting construction progress meetings. Coordinate with Owner's Representative including:
  - o Review and evaluate "Contractor's Request for Extension of Contract Time" and submit recommendations to the Client.
  - o Meet with the Client for consultation and advice during construction.
- 2.5.9. Coordinate on-site inspections of construction as requested. Make recommendations for acceptance or modification of work.
- 2.5.10. Monitor that all testing required by the specifications is performed. Review and approve all materials reports prepared by the Resident Project Representative and/or Subconsultants.
- 2.5.11. Maintain record drawings from redline or working drawings prepared by Resident Project Representative as accumulated during the course of construction to show "Record Drawing" conditions.
- 2.5.12. Retain and review payroll reports of each contractor and subcontractor and monitor Contractor's compliance with paying employees as per established State Prevailing Wages and/or Federal Davis Bacon requirements.
- 2.5.13. Monitor Contractor's compliance with Disadvantaged Business Enterprise (DBE) program (i.e. determine that the firms on the job are as stated in the plan. Determine that the volume of work and equipment used complies with the plan.) Report deviations to the Sponsor.

## 2.6. Resident Project Representative (RPR)

The Client as part of this agreement authorizes Resident Engineering Services and the Consultant agrees to provide a Resident Project Representative, materials acceptance testing, and staking services in the execution of the Construction Engineering Services for the project work. The Client and Consultant agree that the Consultant may employ the Resident Project Representative on other work during periods of temporary job shutdown when such services are not required by this project. Normally, the Resident Project Representative will give intermittent part-time service on this project when construction is in progress to include temporary interruptions due to weather or mechanical failure.

For this Project **Part-Time** Resident Project Representative services will be provided. It is anticipated the Project will be completed within **75 (Seventy-Five) Working Days**. This will

include **10 (Ten)** field visits by the Project Manager.

Resident Project Representative Services shall be completed in accordance with the attached Exhibit I-1, and shall include, but are not limited to, the following:

- 2.6.1. Coordinate with the Testing Subconsultant to perform acceptance tests required to be provided by the Client in the construction Contract Documents.
- 2.6.2. Coordinate with Contractor regarding schedule, work progress, quality of work, and notify contractor of equipment and methods which do not comply with the Contract requirements. The Resident Project Representative shall notify the Client in the event that the Contractor elects to continue the use of questioned equipment and methods. Conduct wage rate interviews and provide to Project Engineer.
- 2.6.3. Maintain daily records of the Contractor's progress and activities during the course of construction, to include progress of all work. These records document work in progress, quality and quantity of materials delivered, test locations and results, instructions provided the Contractor, weather, equipment use, labor requirements, safety problems, and changes required.
- 2.6.4. Evaluate and discuss potential Field Orders and Change Orders with the Contractor as necessary.
- 2.6.5. Evaluate possible material substitutions as requested by the Contractor.
- 2.6.6. Prepare, process and distribute to Project Engineer weekly Construction Progress and Inspection Reports (FAA Form 5370-1).
- 2.6.7. Measure and compute as-built quantities of all materials incorporated in the work and items of work completed, and maintain an item record account.
- 2.6.8. Prepare periodic Pay Requests for review by the Project Engineer and Contractor.
- 2.6.9. Monitor the contractor's compliance with airport operations to include coordination with airport manager, hangar owners and airport users and with the Construction Safety Phasing Plan (CSPP).
- 2.6.10. Attend and participate in construction progress meetings.
- 2.6.11. Coordinate the necessary construction staking/layout schedule as needed by the Contractor.
- 2.6.12. Perform other services as reasonably required by the Client and as outlined in the Contract Documents.

## 2.7. Final Inspection and Documentation

### 2.7.1. Final Inspection

The Consultant will schedule and conduct a final inspection with the Sponsor, Contractor, State and FAA representatives to determine whether the project has reached substantial completion and the work is in accordance with the plans and specifications. The Consultant will document items found to be deficient.

### 2.7.2. Final Punch List

The Consultant will prepare a punch list correspondence including the deficient items and will forward this correspondence to the Contractor requiring correction of the items and request a schedule for completion. The Consultant will send a copy to the Sponsor and include a copy in the Grant Closeout Report.

### 2.7.3. Final Construction Certifications

Once all of the punch list items have been completed to the satisfaction of the Sponsor, State and FAA, the Consultant will prepare a Certification of Construction Acceptance for the project. This certification will also be included in the Grant Closeout Report. Assemble documentation for the project closeout report once the project is complete. This will include gathering all construction documentation, supplemental agreements (if applicable), weekly reports, pay requests, testing result summaries, final certification documentation, and change orders in preparation for closeout.

### 2.8. As-Built Plans

2.8.1. The project team will collaboratively assemble a set of as-built plans for the project. The as-built plans will include field constructed conditions included as part of this Project including any field surveying required to compute final quantities and the drawings will become record information. The Consultant shall provide Owner with two (2) sets of reproducible "Record Drawings" in both digital and hardcopy format.

### 2.9. Prepare Construction Management Report

2.9.1. Complete a Construction Management Report in accordance with 150/5370-12B, Quality Management for Federally Funded Airport Construction Projects. The report will be submitted to the FAA for their records.

### 2.10. Update Airport Layout Plan

CONSULTANT shall update the Airport Layout Plan (ALP) to depict as-built conditions as a result of the project. These will include updating sheets as required to reflect the work completed on the reconfigured taxiways. The CLIENT will then submit a PDF copy to FAA for review and comment. CONSULTANT will address the comments received from the FAA one time and print four (4) hard copies of the ALP will be produced for CLIENT and FAA signature. **This task is based on availability of current digital files in AutoCAD (dwg) format for use in updating the ALP. Additional work required to update ALP files in other formats or reproduce sections of the ALP beyond updates to reflect work under this project shall be considered additional work beyond this scope of work.**

### 2.11. Project Closeout

Prepare the closeout documentation in accordance with the AIP Sponsor Guide Section 1600. The CONSULTANT may prepare the closeout document within 90 days of final payment to the contractor. Closeout documentation shall include, but may not be limited to, the following:

- a. Sponsor Cover Letter
- b. Final Project Cost Summary
- c. Final SF-271 Form, Outlay Report and Request for Reimbursement for Construction Projects
- d. Final SF-425 Form, Federal Financial Report
- e. Final Construction Report
- f. Record Drawings

Assemble documentation for the project closeout report once the project is complete. This will include gathering all construction documentation, supplemental agreements (if applicable), weekly reports, pay requests, testing result summaries, final certification documentation, and

change orders in preparation for grant closeout. The closeout report elements include a project summary, final certifications, summary of grant payments, and outlay report. This work includes preparation of the report, coordination with the Airport, State, and FAA for review, and preparation of final documents for Airport approval. The CLIENT will furnish copies of all administrative costs, as well as paperwork related to previous grant reimbursement (drawdown) requests.

#### 2.12. Submittal Schedule

Submittals will include:

- Preconstruction Meeting Agenda
- Weekly Construction Reports
- Wage Rate Review
- DBE Utilization Review
- Change Orders (as needed)
- Final Construction Certification
- As-built Plans
- Construction Management Report
- ALP update sheets
- Grant Close Out

#### **I.B. ADDITIONAL SERVICES**

Consulting services performed other than those authorized under Section I.A. shall not be considered part of the Basic Services and may be authorized by the Sponsor as Additional Services. Additional Services consist of those services, which are not generally considered to be Basic Services; or exceed the requirements of the Basic Services; or are not definable prior to the commencement of the project; or vary depending on the technique, procedures or schedule of the project contractor. Additional services may consist of the following:

1. Additions to the project outside of this scope.
2. Any construction surveying required for the Project.
3. Additional geotechnical investigation required for the Project.
4. Update Airfield Signage Plans beyond those associated with this project taxiway realignment.
5. Additional Field Investigation required beyond those specified.
6. Completion of additional special studies not identified in Section I.A..
7. Periodic completion of grant reimbursement requests (i.e. Credit Applications).
8. Attendance of additional meetings beyond those identified in the above scope.
9. All other services not specifically identified in Section I.A.

**I.C. CONSIDERATION**

The services described above in Section I.A. BASIC SERVICES shall be provided as follows:

TASK 1 – DESIGN AND BIDDING SERVICES	\$ 218,200.00 (Lump Sum)
TASK 2 – CONSTRUCTION ENGINEERING	\$ 243,900.00 (Hourly, Not-to-Exceed)
<b>TOTAL AUTHORIZED FEE</b>	<b>\$ 462,100.00</b>

**Funding Layout:**

Estimated Federal Share (90%)	\$ 415,890.00
Estimated Local Share (10%)	\$ 46,210.00

Progress payments shall be made in accordance with the fee schedule attached and Section III of the Master Agreement.

**I.D. SCHEDULE**

The consulting services authorized under Section I.A. will be performed under the following schedule or as authorized by the CLIENT as the BASIC SERVICES proceed.

TASK	SERVICE DESCRIPTION	DATE
1	DESIGN AND BIDDING	November 2019 – May 2020
2	CONSTRUCTION	July – November 2020

**I.E. AUTHORIZATION**

**City of Muscatine, Iowa**

**Bolton & Menk, Inc.**

By: \_\_\_\_\_  
 Diana Broderson Date  
 Mayor

By:  \_\_\_\_\_ 12/1/2019  
 Ronald A. Roetzel, P.E. Date  
 Aviation Services Manager

Attest: \_\_\_\_\_  
 Acting City Clerk Date

**Attachments:**

Exhibit I – Project Fee Breakdown

Exhibit II – Federal Contract Provisions for A/E Agreements



PROJECT FEE ESTIMATE

CLIENT: Muscatine Municipal Airport		DATE: 11/22/2019							
PROJECT: Taxiway A Pavement Rehabilitation		PREPARED BY: RAR							
Task	Task Description	Estimated Person Hours Required							Totals
		Sr. Eng.	Sr. Eng.	Design Eng.	Eng. Tech.	Surveyor	Planner	Admin.	
<b>1</b>	<b>Design &amp; Bid Administration</b>								
1.1	Project Scoping	8	16	12	0	0	4	0	40
1.2	Project Meetings and Coordination	20	32	32	0	0	32	0	116
1.3	Topographical Survey	0	0	8	0	50	0	0	58
1.4	Aeronautical Survey	0	0	0	0	0	0	0	0
1.5	Geotechnical Investigation	0	0	8	0	0	0	0	8
1.6	Project Layout Sheet	0	0	6	0	0	16	0	22
1.7	FAA Design Report and Form 5100	0	60	120	20	0	0	0	200
1.8	Construction Safety and Phasing Plan (CSPP)	0	0	6	0	0	8	0	14
1.9	Modification of Airport Design Standards	0	4	4	0	0	0	0	8
1.10	Prepare 30% and 90% Plans, Specs., and Cost Est.	16	120	360	0	0	0	20	516
1.11	Prepare Final Plans, Specs., and Cost Est.	16	100	180	0	0	0	0	296
1.12	Prepare Construction Management Plan	0	8	10	0	0	0	0	18
1.13	Prepare Disadvantaged Business Plan (DBE)	0	0	0	0	0	0	0	0
1.14	Prepare Advertisement for Bids and Bid Docs	0	2	0	0	0	0	4	6
1.15	Respond to Bidders Questions	0	16	8	0	0	0	0	24
1.16	Prepare and Distribute Addendums	0	16	8	0	0	0	0	24
1.17	Pre-Bid Meeting and Bid Opening	0	10	24	0	0	0	0	34
1.18	Bid Review and Bid Tabulation	0	2	6	0	0	0	6	14
1.19	Prepare Recommendation for Award	0	0	4	0	0	0	2	6
1.20	Prepare Grant Application	0	4	4	0	0	0	0	8
1.21	Environmental Review, CATEX	0	0	0	0	0	0	0	0
	<b>Total Person Hours</b>	<b>60</b>	<b>390</b>	<b>800</b>	<b>20</b>	<b>50</b>	<b>60</b>	<b>32</b>	<b>1412</b>
	Total Direct Labor Cost	\$3,600.00	\$19,500.00	\$28,000.00	\$400.00	\$1,900.00	\$2,400.00	\$800.00	\$56,600.00
	Overhead	\$7,228.08	\$39,152.10	\$56,218.40	\$803.12	\$3,814.82	\$4,818.72	\$1,606.24	\$113,641.48
	<b>Subtotal Labor Cost</b>								<b>\$170,241.48</b>
	Fixed Fee x Subtotal Labor Cost								\$25,536.22
	<b>Total Task 1 (Fixed Lump Sum)</b>								<b>\$195,777.70</b>
	<b>Direct Expenses</b>								
	Electrical Engineering								\$5,000.00
	Geotechnical Investigation								\$17,400.00
	<b>Total Expenses Task 1</b>								<b>\$22,400.00</b>
	<b>Subtotal Task 1</b>								<b>\$218,177.70</b>
									<b>ROUNDED TASK 1: \$218,200.00</b>
<b>2</b>	<b>Construction Administration</b>								
2.1	Pre-Construction Meeting	4	10	10	0	0	0	0	24
2.2	Initial Construction Layout	0	0	0	0	4	0	0	4
2.3	Prepare Construction Management Plan (QAMP)	0	0	0	0	0	0	0	0
2.4	Prepare Contract Manuals	0	0	4	0	0	0	4	8
2.5	Construction Management Services	24	60	0	0	0	0	0	84
2.6	Resident Project Representative Services								
	Number of Days	0	10	75	20	1	2	0	
	Hours Per Day	10	10	10	10	10	10	10	
	Total Hours	0	100	750	200	10	20	0	1080
2.7	Final Inspection and Documentation	2	8	16	0	0	0	0	26
2.8	As-Built Plans	0	4	16	0	8	0	0	28
2.9	Prepare Construction Management Report	6	12	40	0	0	0	0	58
2.10	Update Airport Layout Plan	0	4	8	0	0	80	0	92
2.11	Project Closeout	4	20	20	0	0	0	8	52
	<b>Total Person Hours</b>	<b>40</b>	<b>218</b>	<b>864</b>	<b>200</b>	<b>22</b>	<b>100</b>	<b>12</b>	<b>1456</b>
	Total Direct Labor Cost	\$2,400.00	\$10,900.00	\$30,240.00	\$4,000.00	\$836.00	\$4,000.00	\$300.00	\$52,676.00
	Overhead	\$4,818.72	\$21,885.02	\$60,715.87	\$8,031.20	\$1,678.52	\$8,031.20	\$602.34	\$105,762.87
	<b>Subtotal Labor Cost</b>								<b>\$158,438.87</b>
	Fixed Fee x Subtotal Labor Cost								\$23,765.83
	<b>Total Task 2 (Cost Plus a Fixed Fee, NTE)</b>								<b>\$182,204.70</b>
	<b>Direct Expenses</b>								
	Electrical Engineering								\$5,000.00
	Geotechnical Investigation								\$56,700.00
	<b>Total Expenses Task 2</b>								<b>\$61,700.00</b>
	<b>Subtotal Task 2</b>								<b>\$243,904.70</b>
									<b>ROUNDED TASK 2: \$243,900.00</b>
									<b>TOTAL PROJECT FEE \$462,100.00</b>

## FEDERAL CONTRACT PROVISIONS FOR A/E AGREEMENTS

ALL REFERENCES MADE HEREIN TO "CONTRACTOR", "PRIME CONTRACTOR", "BIDDER", "OFFEROR", AND "APPLICANT" SHALL PERTAIN TO THE ARCHITECT/ENGINEER (A/E).

ALL REFERENCES MADE HEREIN TO "SUBCONTRACTOR", "SUB-TIER CONTRACTOR" OR "LOWER TIER CONTRACTOR" SHALL PERTAIN TO ANY SUBCONSULTANT UNDER CONTRACT WITH THE A/E.

ALL REFERENCES MADE HEREIN TO "SPONSOR" AND "OWNER" SHALL PERTAIN TO THE STATE, CITY, AIRPORT AUTHORITY OR OTHER PUBLIC ENTITY EXECUTING CONTRACTS WITH THE A/E.

### ACCESS TO RECORDS AND REPORTS

Reference: 2 CFR § 200.333, 2 CFR § 200.336, and FAA Order 5100.38

The contractor must maintain an acceptable cost accounting system. The contractor agrees to provide the Sponsor, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

### CIVIL RIGHTS – GENERAL

Reference: 49 USC § 47123

The contractor agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the contractor and sub-tier contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

### CIVIL RIGHTS – TITLE VI ASSURANCE

Reference: 49 USC § 47123 and FAA Order 1400.11

#### A) Title VI Solicitation Notice

The **(Name of Sponsor)**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

## **B) Title VI Clauses for Compliance with Nondiscrimination Requirements**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

- 1) **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- 2) **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
- 3) **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation 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 will be notified by the contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
- 4) **Information and Reports:** The contractor will provide all information and reports required by the Nondiscrimination Acts and Authorities, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- 5) **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
  - a. Withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. Cancelling, terminating, or suspending a contract, in whole or in part.
- 6) **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Nondiscrimination Acts and Authorities, and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

### C) Title VI List of Pertinent Nondiscrimination Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

## **DISADVANTAGED BUSINESS ENTERPRISE**

Reference: 49 CFR part 26

**Contract Assurance (§ 26.13)** - The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

**Prompt Payment (§26.29)** - The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than thirty (30) calendar days from the receipt of each payment the prime contractor receives from the Sponsor. The prime contractor agrees further to return retainage payments to each subcontractor within thirty (30) calendar days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Sponsor. This clause applies to both DBE and non-DBE subcontractors.

## **ENERGY CONSERVATION REQUIREMENTS**

Reference: 2 CFR § 200, Appendix II (H)

Contractor and each subcontractor agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201 et seq).

## **FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)**

Reference: 29 USC § 201, et seq.

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The Consultant has full responsibility to monitor compliance to the referenced statute or regulation. The Consultant must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Wage and Hour Division.

## **OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970**

Reference: 20 CFR part 1910

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Contractor retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Contractor must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

## **RIGHT TO INVENTIONS**

Reference: 2 CFR § 200 Appendix II (F) and 37 CFR §401

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within in the 37 CFR §401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental or research work.

## **SEISMIC SAFETY**

Reference: 49 CFR part 41

In the performance of design services, the Consultant agrees to furnish a building design and associated construction specification that conform to a building code standard which provides a level of seismic safety substantially equivalent to standards as established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their building code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety. At the conclusion of the design services, the Consultant agrees to furnish the Owner a "certification of compliance" that attests conformance of the building design and the construction specifications with the seismic standards of NEHRP or an equivalent building code.

## **TAX DELINQUENCY AND FELONY CONVICTION**

Reference: Sections 415 and 416 of Title IV, Division L of the Consolidated Appropriations Act, 2014 (Pub. L. 113-76) and DOT Order 4200.6

**Certification** - The applicant represents that it is not a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

**Certification** - The applicant represents that it is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months. A felony conviction means a conviction within the preceding twenty four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

## TRADE RESTRICTION CERTIFICATION

Reference: 49 USC § 50104 and 49 CFR part 30

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror:

- a) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (U.S.T.R.);
- b) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the U.S.T.R; and
- c) has not entered into any subcontract for any product to be used on the Federal on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- a) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R. or
- b) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such U.S.T.R. list or
- c) who incorporates in the public works project any product of a foreign country on such U.S.T.R. list;

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by U.S.T.R, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

## **VETERAN'S PREFERENCE**

Reference: 49 USC § 47112(c)

In the employment of labor (excluding executive, administrative, and supervisory positions), the contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 U.S.C. 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

## **PROVISIONS APPLICABLE TO CONTRACTS EXCEEDING \$3,500**

### **DISTRACTED DRIVING**

Reference: Executive Order 13513 and DOT Order 3902.10

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), the FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$3,500 and involve driving a motor vehicle in performance of work activities associated with the project.

## **PROVISIONS APPLICABLE TO CONTRACTS EXCEEDING \$10,000**

### **TERMINATION OF CONTRACT**

Reference: 2 CFR § 200 Appendix II (B)

#### **Termination for Convenience**

The Owner may, by written notice to the Consultant, terminate this Agreement for its convenience and without cause or default on the part of Consultant. Upon receipt of the notice of termination, except as explicitly directed by the Owner, the Contractor must immediately discontinue all services affected.

Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

#### **Termination by Default**

Either party may terminate this Agreement for cause if the other party fails to fulfill its obligations that are essential to the completion of the work per the terms and conditions of the Agreement. The party initiating

the termination action must allow the breaching party an opportunity to dispute or cure the breach.

The terminating party must provide the breaching party [7] days advance written notice of its intent to terminate the Agreement. The notice must specify the nature and extent of the breach, the conditions necessary to cure the breach, and the effective date of the termination action. The rights and remedies in this clause are in addition to any other rights and remedies provided by law or under this agreement.

- a) Termination by Owner: The Owner may terminate this Agreement in whole or in part, for the failure of the Consultant to:
  - 1) Perform the services within the time specified in this contract or by Owner approved extension;
  - 2) Make adequate progress so as to endanger satisfactory performance of the Project;
  - 3) Fulfill the obligations of the Agreement that are essential to the completion of the Project.

Upon receipt of the notice of termination, the Consultant must immediately discontinue all services affected unless the notice directs otherwise. Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

If, after finalization of the termination action, the Owner determines the Consultant was not in default of the Agreement, the rights and obligations of the parties shall be the same as if the Owner issued the termination for the convenience of the Owner.

- b) Termination by Consultant: The Consultant may terminate this Agreement in whole or in part, if the Owner:
  - 1) Defaults on its obligations under this Agreement;
  - 2) Fails to make payment to the Consultant in accordance with the terms of this Agreement;
  - 3) Suspends the Project for more than [180] days due to reasons beyond the control of the Consultant.

Upon receipt of a notice of termination from the Consultant, Owner agrees to cooperate with Consultant for the purpose of terminating the agreement or portion thereof, by mutual consent. If Owner and Consultant cannot reach mutual agreement on the termination settlement, the Consultant may, without prejudice to any rights and remedies it may have, proceed with terminating all or parts of this Agreement based upon the Owner's breach of the contract.

In the event of termination due to Owner breach, the Engineer is entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all justified reimbursable expenses incurred by the Consultant through the effective date of termination action. Owner agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

## PROVISIONS APPLICABLE TO CONTRACTS EXCEEDING \$25,000

### **DEBARMENT AND SUSPENSION**

Reference: 2 CFR part 180 (Subpart C), 2 CFR part 1200, and DOT Order 4200.5

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that at the time the bidder or offeror submits its proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

- 1) Checking the System for Award Management at website: <https://www.sam.gov>.
- 2) Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
- 3) Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment.

## PROVISIONS APPLICABLE TO CONTRACTS EXCEEDING \$100,000

### **CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS**

Reference: 2 CFR § 200 Appendix II (E)

#### 1) Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

#### 2) Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) above, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 above, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 above.

#### 3) Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any

other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 above.

4) Subcontractors.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section.

**LOBBYING AND INFLUENCING FEDERAL EMPLOYEES**

Reference: 31 U.S.C. § 1352 – Byrd Anti-Lobbying Amendment; 2 CFR part 200, Appendix II (J); and 49 CFR part 20, Appendix A

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- 3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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**ROVISIONS APPLICABLE TO CONTRACTS EXCEEDING \$150,000**

**BREACH OF CONTRACT TERMS**

Reference: 2 CFR § 200 Appendix II (A)

Any violation or breach of terms of this contract on the part of the contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

**CLEAN AIR AND WATER POLLUTION CONTROL**

Reference: 2 CFR § 200 Appendix II (G)

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 U.S.C. § 740-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. § 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds \$150,000.