
COMMUNITY DEVELOPMENT

MEMORANDUM

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

To: Mayor and City Council Members

Cc: Gregg Mandsager, City Administrator
Dave Gobin, Community Development Director

From: Adam Thompson, Community Development Coordinator

Date: May 18, 2015

Re: Task Order #3: Agreement for Engineering Services for Airport Layout Plan Update

INTRODUCTION: The City of Muscatine continues to utilize Anderson-Bogert Engineers & Surveyors, Inc, for design and consultant services at the Muscatine Municipal Airport. With the completion of the Runway Reconstruction project an update to the ALP is a priority. The updated ALP is required for any future vertical infrastructure funding.

BACKGROUND: For many years, the City has entered into a professional services agreement with Anderson-Bogert for many engineering and survey activities that are required as a condition of state and federal funding. The Airport Advisory Commission and the City Council have included this project in the 5-year CIP for the airport. Anderson-Bogert Engineers & Surveyors, Inc. will provide the required professional services to update the ALP to FAA standards. The FAA has approved this project to move forward with a "Go Letter". In order for funding to be approved a contract with the airport engineer needs to be executed before the grant is submitted. The professional services agreement with Anderson Bogert totals \$157,472.76. An independent fee analysis was completed to determine the reasonableness of the fee.

RECOMMENDATION/RATIONALE: The attached professional services agreement has been reviewed by staff. The cost for the project is provided through 90% Federal, 10% local cost share and is part of the approved 5-year CIP for the airport. It is recommended that the City Council approve the Task Order #3: Agreement for Engineering Services Related to the Airport Layout Plan Update Project– with Anderson Bogert Engineers and Surveyors as attached hereto.

1. Agreement for Engineering Services

TASK ORDER NO. 3
MASTER AGREEMENT FOR ENGINEERING SERVICES
MUSCATINE MUNICIPAL AIRPORT
FFY 2014 through FFY 2018

This Task Order pertains to an AGREEMENT by and between the City of Muscatine (SPONSOR) and (CONSULTANT) dated May 1, 2014. CONSULTANT shall perform Services on the PROJECT described below as provided herein and provided in the original referenced AGREEMENT. This Task Order shall not be binding until it has been properly executed by both parties. Upon execution, this Task Order shall supplement the AGREEMENT, as it pertains to the PROJECT described below.

TASK ORDER NUMBER: 3

PROJECT NAME: UPDATE AIRPORT MASTER PLAN

PROJECT NUMBER: 3-19-0063-021

ARTICLE I. SCOPE

NARRATIVE – The last time the airport layout plan (ALP) was completely updated was in 2002, which was fourteen years ago. The FAA and IDOT typically recommend ALPs be updated every eight to ten years. This project will include the update of all thirteen sheets of the ALP drawing set and the creation of an extensive accompanying narrative report. In addition, the project scope will include imagery acquisition, ground survey (to check runway ends, profile, length, width, and threshold location), planimetric mapping, and AGIS project documentation. This update will give the City a more complete picture of development needs and priorities at the airport and will help provide a long term comprehensive planning strategy.

Professional services to be provided by the CONSULTANT shall include planning services required to accomplish the following items:

A. General

1. Attend a planning meeting with the Federal Aviation Administration and Sponsor.
2. Coordination with the Federal Aviation Administration and other regulatory agencies.

3. Create a public/stakeholder involvement program which will likely include identifying the stakeholders, identifying key issues, establishing committees, conducting an open house format public information meeting, conducting small group meetings/briefings, providing contact with affected property owners, and generating a public awareness campaign.

B. Complete the **ALP Narrative Report** in accordance with Federal Aviation Administration AC 150-5300-13, Airport Design, through Change 1, dated February 26, 2014, AC 150/5070-6B, Airport Master Plans dated May 1, 2007, and the FAA Central Region ALP Review Checklist. The report shall include the following sections:

1. Existing Conditions

- a. Iowa Aviation System Plan
- b. National Plan of Integrated Airport Systems
- c. Regional Airport Significance
- d. 5010 Master Record
- e. Airport/Facilities Directory
- f. Airport Background
- g. Inventory and Description of Existing Facilities
- h. Services
- i. Access
- j. Wind and Temperature Data
- k. Description of Regional Setting and Land Use
- l. Socioeconomic Data

2. Current and Projected Aviation Activity

- a. Forecasting Approach
- b. Designating a Forecast Model

- c. Air Traffic Activity
- d. Comparison of Estimated Operations to FAA & IDOT Forecasts
- e. Critical Design Aircraft and Reference Code

3. Facility Requirements

- a. Airside
- b. Landside

4. Alternatives

- a. Stakeholder/Public Involvement
- b. Visual and Navigational Aids
- c. Terminal Area Development
 - T-Hangars
 - Conventional Hangars
 - Snow Removal Equipment/Maintenance Hangar
 - Apron Expansion
 - Fuel Farm Relocation/Upgrade
- d. Airside and Land Side Evaluation of Each Alternative
- e. RPZ Evaluation for Alternatives, if applicable
- f. Potential Hazards for Each Alternative and Possible Mitigations
- g. Develop Ranking System for Analysis of Alternatives
- h. Discuss Preferred Alternative
- i. Obstacle Action Plan

5. Environmental Overview

- a. FAA Order 1050.1F
- b. FAA Order 5050.4B

6. Sustainability Initiatives - Airport Solid Waste and Recycling Plan

- a. Waste Audit
- b. Feasibility of Solid Waste Recycling at the Airport
- c. Minimizing the Generation of Solid Waste at the Airport
- d. Operation and Maintenance Requirement
- e. Review of Waste Management Contracts
- f. The Potential for Cost Savings or the Generation of Revenue

7. Airport Layout Plan Discussion

- a. Primary Runway
- b. Crosswind Runway
- c. Terminal Area
- d. Airport Reference Code

8. Implementation Plan

- a. Development Phases (through 20 years)
- b. Estimated Capital Costs
- c. Airport Revenue/Expenditures
- d. Federal Assistance
- e. Iowa Airport Improvement Program
- f. Private Sector Investment

g. Airport Maintenance

9. Proposed Height and Hazard Language

10. Appendix

a. Iowa Aviation System Plan Airport Summary Report

b. Existing Zoning Ordinance

c. Airport Dimensions

d. Public Involvement Documentation

e. FAA GA Apron Design Spreadsheet

f. Iowa DOT Pavement Management Report

g. Instrument Approach Plates

h. Environmental Coordination Letters/Environmental Overview Correspondence

i. Coordination with Surrounding Airports

j. Property Title/Deeds/Easements and Title Opinion

k. NAVAID Data Sheets

l. 5010 Master Record

m. Planning Meeting Minutes

n. Letters of Support

o. Affected Facilities Letters of Concurrence

p. RPZ Evaluation Documentation

q. Recycling Plan Spreadsheet

C. ALP Survey

1. Set-up project on A-GIS website
2. Survey control shall conform with AC 150/5300-16
3. Imagery shall conform with AC 150/5300-17
4. Field work shall conform with AC 150/5300-18
5. Submit survey data on A-GIS website

D. Update existing **ALP drawing set** information to meet the current standards of Federal Aviation Administration AC 150/5300-13, Airport Design, through Change 1, dated February 26, 2014 and AC 150/5070-6B, Airport Master Plans, dated May 1, 2007. The ALP drawing set shall be completed in accordance with the FAA Review and Approval of Airport Layout Plans (ALPs) review checklist. The following D size drawings will be included in the update:

1. Cover Sheet (1 Sheet)
2. Airport Layout Drawing (1 Sheet)

The Airport Layout Drawing will be prepared at a scale of 1"=300', or other appropriate scale, and will include the following:

- a. Existing and ultimate facilities including runways, taxiways, buildings, NAVAIDs, parking areas, roads, lighting, fueling facilities, tie-down areas, and other prominent airport features with dimensions.
- b. Trees, streams, power lines, towers, and other prominent natural features.
- c. Airport boundaries, runway protection zones, easements, and other areas controlled by the individual airport sponsor for aviation purposes.
- d. Adjacent non-airport property, with land use specified.
- e. Areas reserved for future aviation and non-aviation development.
- f. Topographic contours at one-foot intervals, due to the flat terrain.
- g. Location and vicinity maps.
- h. Wind information.
- i. Basic data table showing all pertinent airfield data.

j. Heights and elevations of buildings

3. Airspace Drawings (2 Sheets)

The airspace drawing, prepared in accordance with FAR Part 77, will identify the ultimate airspace areas of the airport including all horizontal, conical, approach, and transitional surfaces. The airspace plan will be prepared on screened U.S.G.S. base maps at a scale of 1" = 2,000', or other appropriate scale.

4. Innermost Portions of the Approach Zone Drawings (4 Sheets)

Plans will be prepared depicting portions of each runway approach, existing and proposed, at the airport. Existing and potential obstructions to air navigation will be described graphically and in tabular fashion, together with representations of all approach surfaces.

5. Airport Land Use Drawing (1 Sheet)

A drawing depicting existing and recommended use of all land within the ultimate airport property line and in the vicinity of the airport.

6. Airport Property Map (1 Sheet)

The Airport Property Map will be prepared to indicate various tracts, by ownership, and how and when they were acquired, on the airport.

7. Terminal Area Drawing (1 Sheet)

The Terminal Area Drawing shall depict existing conditions as well as future apron, hangars, vehicle access, and parking areas, and non-aviation uses proposed for development.

8. Runway Departure Surface Drawings (2 Sheets)

The Runway Departure Surface Drawing depicts the applicable instrument departure surfaces.

E. Provide deliverables as detailed in the table below:

Deliverables

	FAA	Sponsor	IDOT	Consultant
Draft Forecast & Critical Design Aircraft	1	1		
Final Narrative Report	1	2	1	1
Final Narrative Report Digital Files	1			
Draft ALP Drawings	1	1		
Draft ALP Drawings - pdf	1	1		
ALP Checklist	1			
Final ALP Drawing Set	1	2	1	1
Final ALP Drawing Set - CAD files	1			

ARTICLE II. COMPENSATION

The SPONSOR agrees to compensate the CONSULTANT for performing engineering services on a **LUMP SUM BASIS** as described below:

A. General	\$8,108.03
B. Narrative Report.....	\$20,286.28
C. ALP Survey.....	\$90,642.74
D. Airport Layout Plan Drawings.....	\$38,435.71
TOTAL.....	\$157,472.76

Per the following Cost Summary and Work Plan.

Cost Summary

1	Direct Salary Costs			
	<u>Title</u>	<u>Hours</u>	<u>Rate/Hour</u>	<u>Cost</u>
	Principal	10	\$86.53	\$865.30
	Project Manager	420	\$49.03	\$20,592.60
	Project Planner	248	\$23.07	\$5,721.36
	CAD Technician	82	\$33.50	\$2,747.00
	Document Specialist	27	\$28.00	\$756.00
	Public Involvement Specialist	26	\$18.75	\$487.50
	Survey Department Manager	106	\$36.53	\$3,872.18
	Surveyor	98	\$22.00	\$2,156.00
	<i>Total Direct Salary Costs</i>			\$37,197.94
2	Labor & General Administrative Overhead			
	Percentage of Direct Salary Costs 100%			\$37,197.94
3	Subtotal Items 1 & 2			\$74,395.88
4	Fixed Fee @ 15%			\$11,159.38
5	Direct Non-Salary Expense			
	Transportation			\$517.50
	Economic Data			\$400.00
	Targets for Ground Control			\$300.00
	Total Direct Non-Salary Costs			\$1,217.50
6	Imagery Acquisition			\$7,700.00
7	Planimetric Mapping			\$63,000.00
8	Grand Total (3+4+5+6+7)			\$157,472.76

Work Plan

No.	Task	Principal	Project	Project	CAD	Doc.	Pub. Inv.	Survey	Surveyor
		Hours	Manager	Planner	Tech	Spec.	Spec.	Manager	Surveyor
		Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
A. General									
1	Planning Meeting	1	8	1	0	1	0	0	0
2	Agency Coordination	0	24	0	0	1	0	0	0
3	Stakeholder Involvement	4	16	1	0	4	24	0	0
	A. Subtotal	5	48	2	0	6	24	0	0
B. Narrative Report									
1	Existing Conditions	0	20	4	0	2	0	0	0
2	Current & Projected Activity	0	20	2	0	2	0	0	0
3	Facility Requirements	1	20	2	0	2	0	0	0
4	Alternatives	1	20	0	0	2	2	0	0
5	Environmental Overview	0	10	0	0	2	0	0	0
6	Sustainability Initiatives	0	10	0	0	2	0	0	0
7	Airport Layout Plan Discussion	0	10	0	0	2	0	0	0
8	Implementation Plan	1	10	4	0	2	0	0	0
9	Proposed Height & Hazard Language	0	10	0	0	2	0	0	0
10	Appendix	0	20	4	0	3	0	0	0
	B. Subtotal	3	150	16	0	21	2	0	0
C. ALP Survey									
1	Project Set-up	0	20	8	0	0	0	40	0
2	Survey Control	0	2	0	0	0	0	16	30
3	Imagery	0	4	0	0	0	0	8	0
4	Field Work	0	2	0	0	0	0	8	40
5	Submit Data	0	20	8	12	0	0	20	20
	C. Subtotal	0	48	16	12	0	0	92	90
D. ALP Drawing Set									
1	Cover Sheet	0	2	4	0	0	0	0	0
2	Airport Layout	1	40	40	20	0	0	2	0
3	Airspace	0	24	30	10	0	0	0	0
4	Innermost Approach	0	20	40	8	0	0	0	0
5	Land Use	0	20	20	8	0	0	0	0
6	Property Map	0	8	20	8	0	0	12	8
7	Terminal Area	1	40	40	8	0	0	0	0
8	Runway Departure Surface	0	20	20	8	0	0	0	0
	D. Subtotal	2	174	214	70	0	0	14	8
	TOTALS	10	420	248	82	27	26	106	98

ARTICLE III. TENTATIVE SCHEDULE

Date	Task/Activity Description
7/6/2016	Set Ground Control
7/20/2016	Aerial Flight
8/22/2016	Conduct Public/Stakeholder Meeting
8/31/2016	Complete Mapping
10/14/2016	Submit Draft Forecast & Critical Design Aircraft
1/13/2017	Submit Draft Narrative Report
4/21/2017	Submit Final Narrative Report & Digital Files
4/21/2017	Submit Draft ALP Drawings, PDF, & ALP Checklist
7/28/2017	Submit Final ALP Drawing Set & CAD files

ARTICLE IV. EXHIBITS

All Exhibits attached hereto are incorporated herein by reference and made a part hereof for all purposes as if fully set forth herein.

IN WITNESS WHEREOF, the SPONSOR and the CONSULTANT have executed this Task Order as of the date first written.

FOR THE CONSULTANT

FOR THE SPONSOR
CITY OF MUSCATINE

Attached and Incorporated by Reference:

Exhibit A – Federal Provisions