

**COUNCIL ACTION FORM**

**SUBJECT: CONSULTANT SERVICES FOR THE 2018 AIRPORT MASTER PLAN**

**BACKGROUND:**

In the 2017/18 Capital Improvements Plan there is a project to conduct an update to the Airport Master Plan. Significant changes in the growth of General Aviation have required a re-evaluation of the existing airport to determine what future action should be taken to maintain an adequate, safe, and reliable facility to meet the needs of our community.

**In accordance with federal regulations, selection for this project must be based upon qualifications only, costs cannot be considered in the selection process, which is contrary to City Purchasing Policies.** Staff received proposals from two interested firms: Bolton & Menk and Coffman Associates. A scoring team of four staff members reviewed the proposals, with the following results:

<b>Consultant</b>	<b>Score</b>
Coffman Associates, Inc.	89.3
Bolton & Menk	83.0

Coffman Associates, Inc. of Lee Summit, MO, was found to be the most qualified firm to complete the master plan update. Staff has negotiated a contract in the amount of \$318,500 with this firm. **FAA funding will cover 90% of the project in the amount of \$286,650 with the City of Ames share being (10%) in the amount of \$31,850. The local will come from the available balance in the Airport Construction fund.**

**ALTERNATIVES:**

1. Approve the contract with Coffman Associates, Inc. of Lee Summit, MO, for the 2018 Airport Master Plan in the amount of \$318,850.
2. Reject the project

**MANAGER'S RECOMMENDED ACTION:**

The Airport Master Plan update will be an important step in guiding the direction and growth of the Ames Municipal Airport. The study will take approximately 10 to 12 months to complete. It requires input from the Airport Advisory Committee, FBO, and general airport users. The final document will include a complete inventory of existing airport facilities, set a vision for the expansion of the Airport, and a general business plan to support the Airport actives. **Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.**

# AIRPORT PLANNING SERVICES CONTRACT AGREEMENT

WHEREAS, the City of Ames, Iowa has determined the need for Coffman Associates (CONSULTANT) to perform the work necessary for the Ames Municipal Airport (KAMW) Master Plan Update contingent upon the successful acquisition of a grant for the funding of this project from the Federal Aviation Administration (FAA). This Airport Planning Services Contract Agreement (this "Agreement"), entered into as of this day of \_\_\_\_\_, 2018, by and between:

**CITY OF AMES, IA**  
515 Clark Avenue  
Ames, IA 50010

hereinafter referred to  
to as the **SPONSOR**

- **AND** -

**COFFMAN ASSOCIATES, INC.**  
237 NW Blue Parkway, Suite 100  
Lee's Summit, MO 64063

hereinafter referred to  
as the **CONSULTANT**

## **FOR THE PURPOSE:**

**AIRPORT MASTER PLAN STUDY AND ALP UPDATE**  
for Ames Municipal Airport (KAMW)

hereinafter referred to  
as the **PROJECT**

THE SPONSOR AND CONSULTANT do hereby mutually agree to the following:

## **ARTICLE ONE - SERVICES AND RESPONSIBILITIES**

1.1 **Employment of the Consultant.** The Sponsor hereby agrees to engage the Consultant who in turn agrees to perform the technical and professional services necessary to produce the Project. Mr. Steven G. Benson will represent the Consultant as Principal-in-Charge, and Mr. Michael W. Dmyterko will represent the Consultant as Project Manager in the performance of this Agreement. No one else will be assigned to act in these capacities without the Sponsor's prior written approval. The Project Manager shall be responsible for directing and coordinating all the activities of the consultant necessary to complete the Scope of Services.

1.2 **Scope of Services.** The Consultant shall do, perform and carry out in a satisfactory and proper manner, as determined by the Sponsor, the services generally outlined below and specifically indicated in Exhibit A - Scope of Services, attached and incorporated by reference hereto.

1.3 **Responsibility of the Consultant.** The Consultant shall be responsible for the professional quality, technical accuracy and the coordination of all services provided by the Consultant under this Agreement.

1.4 **Responsibility of the Sponsor.** The Sponsor shall cooperate with the Consultant by making a diligent effort to provide everything reasonably necessary for the Consultant to be able to provide its services, including all previous plans, environmental studies, drawings, specifications and design and construction standards; assistance in obtaining necessary access to public and private lands; legal, accounting, and insurance information required for various projects and necessary permits and approval of governmental authorities or other individuals.

1.5 **Subcontracts.** At the time subcontracted services are anticipated, the Consultant shall notify the Sponsor of the nature of and need for such services and identify the proposed subcontracting firm. The Consultant must receive approval in writing from the Sponsor and the FAA prior to entering into an agreement with a subcontractor on FAA funded projects. Consultant shall be responsible for the work of all subcontractors notwithstanding Sponsor's approval of the subcontractor.

1.6 **Time of Performance.** The services of the Consultant shall be available on a continuous basis for a period outlined on Exhibit C as attached hereto.

## **ARTICLE TWO - COMPENSATION AND METHOD OF PAYMENT**

2.1 **Compensation.** It is expressly understood and agreed that the total compensation to be paid to the Consultant shall be a firm fixed price amount of Three Hundred Eighteen Thousand Five Hundred Dollars (\$318,500.00) for the consulting services specified in Exhibit A - Scope of Services to also include all Consultant and Sub-consultant services costs as outlined in Exhibit B - Cost Summary, attached and incorporated by reference hereto.

2.2 **Method of Payment.** The Sponsor shall pay to the Consultant not more than the fixed price amount set out in Article 2.1 above. Payments shall be at monthly intervals subject to receipt of requisitions for payments from the Consultant specifying that he has performed the work and is entitled to the amount requisitioned under the terms of this Agreement.

2.3 **Sponsor Responsibilities for Compensation.** The Sponsor agrees to pay the Consultant's invoices net upon receipt. At no time will payment of requisitions exceed thirty (30) days from the date of the invoice without written notification to the Consultant. It is expressly understood that the payment process outlined above builds in provisions for the Consultant to carry Project costs for no more than sixty (60) days to minimize interest overheads and provide more planning man-hours for each Project dollar. It is also expressly understood that the Sponsor has the right to withhold payment of any invoice if he feels that the Consultant has not performed the requisitioned work in a satisfactory manner. If the Sponsor does decide to withhold payments to the Consultant

for any reason, it must provide written notification and an explanation to the Consultant within ten (10) days of the date of the invoice.

2.4 **Consultant Responsibilities for Compensation.** The Consultant shall prepare monthly invoices which clearly indicate the progress to date and the amount of compensation due by virtue of that progress. All requisitions for payment shall be for work completed unless otherwise agreed to by the Sponsor.

### **ARTICLE THREE - CHANGES TO THE SCOPE OF SERVICES**

The Sponsor may, at any time, and by written order, make changes in the services to be performed under this Agreement. If such changes cause an increase or decrease in the Consultant's cost or time required for performance of any services under this Agreement, an equitable adjustment acceptable to the Sponsor and Consultant and as agreed in writing by the parties, shall be made and this Agreement shall be modified in writing accordingly. Any claim of the Consultant for adjustment under this clause must be submitted in writing within thirty (30) days from the date of receipt by the Consultant of the notification of change. For those projects utilizing FAA funding, review by FAA of any new, amendment to, extension or modification of an original Agreement, Authorization of Services, Task Orders, etc., is required prior to execution.

### **ARTICLE FOUR - TERMINATION OF THE AGREEMENT**

The Sponsor may, by written notice to the Consultant, terminate this Agreement in whole or in part at any time, either for the Sponsor's convenience or because of the failure of the Consultant to fulfill his Agreement obligations. Upon receipt of such notice, the Consultant shall: (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the Sponsor all data, drawings, reports, estimates, summaries, and such other information and materials as may have been accumulated by the Consultant in performing this Agreement, whether completed or in process.

This Agreement may be terminated in whole or in part by the Consultant in the event of substantial failure by the Sponsor to fulfill its obligations.

If the termination is for the convenience of the Sponsor, the Sponsor shall pay the Consultant for the services rendered prior thereto in accordance with percent completion at the time work is suspended minus previous payments.

If the termination is due to the failure of the Consultant to fulfill his Agreement obligations, the Sponsor may take over the work and prosecute the same to completion, by Agreement or otherwise.

## **ARTICLE FIVE – FEDERAL CONTRACT PROVISIONS**

CONSULTANT shall sign and comply with the statement as set forth in "Attachment 1" hereto. Where the word Contractor and/or Consultant is used in "Attachment 1" it shall mean "CONSULTANT".

## **ARTICLE SIX - SUSPENSION OF WORK**

At any time, the Sponsor may order the Consultant, in writing, to suspend all or any part of the work for such period of time as the Sponsor may determine to be appropriate for the convenience of the Sponsor.

If the performance of all or any part of the work is, for any unreasonable period of time, suspended or delayed by an act of the Sponsor in the administration of this Agreement, or by its failure to act within the time specified in this Agreement (or if no time is specified, within a reasonable time), an adjustment shall be made for any increase in cost of performance of this Agreement necessarily caused by such unreasonable suspension or delay, and the Agreement modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension or delay to the extent

(1) that performance would have been suspended or delayed by any other cause, including the fault or negligence of the Consultant, or (2) for which an equitable adjustment is provided for or excluded under any other provision of this Agreement.

## **ARTICLE SEVEN - INSURANCE**

The Consultant or any subcontractor, if specified, shall maintain during the life of this Agreement, the following minimum public liability and property damage insurance which shall protect the Consultant from claims for injuries including accidental death, as well as from claims for property damages which may arise from the performance of work under this Agreement and the limit of liability for such insurance shall be as follows:

- (a) Comprehensive general liability, including personal injury liability, blanket contractual liability, and broad form property damage liability. The combined single limit for bodily injury and property damage shall be not less than \$1,000,000.
- (b) Automobile bodily injury and property damage liability insurance covering owned, non-owned, rented, and hired cars. The combined single limit for bodily injury and property damage shall not be less than \$1,000,000.
- (c) Statutory workers compensation and employer's liability insurance for the State of Iowa.
- (d) Professional Liability Insurance (\$1,000,000).

The Consultant shall submit to the Sponsor certificates of insurance with assurances that

the Sponsor will be notified at least 30 days prior to cancellation or any policy changes. With the exception of Professional Liability Insurance, the certificate of insurance shall name the Sponsor as an additional insured.

## **ARTICLE EIGHT - INTERESTS AND BENEFITS**

8.1 **Interest of Consultant.** The Consultant covenants that he presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. The Consultant further covenants that in the performance of this Agreement, no person having any such interests, shall be employed.

8.2 **Interest of Sponsor Members and Others.** No officer, member, or employee of the Sponsor and no member of its governing body, who exercise any functions or responsibilities in the review or approval of the undertaking or carrying out of the services to be performed under this Agreement, shall participate in any decision relating to this Agreement which affects his personal interest or have any personal or pecuniary interests, direct or indirect, in this Agreement or the proceeds thereof.

## **ARTICLE NINE - ASSIGNMENT**

The Consultant shall not assign any interest in this Agreement, and shall not transfer any interest in the same without the prior written consent of the Sponsor thereto.

## **ARTICLE TEN - MISCELLANEOUS**

10.1 **Laws and venue.** The Sponsor and the Consultant agree that this Agreement and any legal actions concerning its validity, interpretation and/or performance shall be governed by the laws of the State of Iowa without regard to any conflict of laws provisions, which may apply in other jurisdictions. It is further agreed that any legal action between the Sponsor and the Consultant arising out of this Agreement or the performance of the services shall be brought exclusively in the appropriate state and federal courts in and for Story County, Iowa.

10.2 **Attorney's Fees.** In the event a party commences litigation to enforce any of the terms or conditions of this Agreement and/or to recover damages or for other relief on account of the breach of this Agreement, the prevailing party in such litigation shall be entitled to receive, in addition to all other relief to which such party shall be entitled, all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party.

10.3 **Counterparts.** This Agreement may be executed in any number of counterparts, each of which when executed shall be deemed an original, but each counterpart shall together constitute but one and the same document. In proving this Agreement, it shall

not be necessary to produce more than one subject counterpart.

10.4 **Severability and Waiver**. The invalidity or unenforceability of any provision hereof shall in no way effect the validity or enforceability of any other provision hereof. Any waivers must be in writing and signed by the party sought to be charged. The waiver by any party of a right provided thereunder shall not be deemed to be a continuing waiver of that right or a waiver of any other right.

10.5 **Construction**. The parties agree that each party has reviewed this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply to the interpretation of this Agreement.

10.6 **Interpretation**. The paragraph headings used in this Agreement are for convenience only and shall not be used in the interpretation hereof.

10.7 **Time of the Essence**. Time shall be of the essence of the terms hereof.

10.8 **Successors in Interest**. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns.

10.9 **Authorizations**. The signatories to this Agreement warrant each to the other that they have the authorization to enter into this Agreement and to bind themselves to the terms and conditions of this Agreement.

10.10 **Notices**. All notices or other communications required or provided to be given by either party shall be in writing and shall be: (i) hand delivered; or, (ii) sent via recognized overnight delivery service; or, (iii) sent by United States certified mail, postage prepaid, return receipt requested. Notices or other written communications shall be deemed given upon hand delivery, or if sent via overnight mail, 24 hours after deposit with the overnight mail service, or if mailed by certified mail, three (3) calendar days after such notice is deposited in the mail as aforesaid and addressed to the addresses for the parties set forth on page one of this Agreement.

IN WITNESS WHEREOF, the Sponsor and the Consultant have executed this AGREEMENT as of the date first written.

**FOR THE CONSULTANT**  
Coffman Associates, Inc.

**FOR THE SPONSOR**  
City of Ames, Iowa

By: \_\_\_\_\_  
Steven G. Benson, P.E.  
Chief Executive Officer

By: \_\_\_\_\_

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_



**ATTACHMENT 1**  
**FEDERAL CONTRACT PROVISIONS**  
**FOR PROFESSIONAL SERVICES (A/E) CONTRACTS**

The following provisions, if applicable, are hereby included in and made part of the attached Contract between CITY OF AMES, IOWA (SPONSOR) and COFFMAN ASSOCIATES, INC. (CONSULTANT and/or CONTRACTOR).

It is understood by the SPONSOR and the CONSULTANT that the FAA is not a part of this Agreement and will not be responsible for Project costs except as should be agreed upon by SPONSOR and the FAA under a Grant Agreement for the Project.

**ACCESS TO RECORDS AND REPORTS - 2 CFR § 200.333/2 CFR § 200.336/FAA Order 5100.38**

2 CFR § 200.333 requires a sponsor to retain records pertinent to a Federal award for a period of three years from submission of final closure documents. 2 CFR § 200.336 establishes that sponsors must provide Federal entities the right to access records pertinent to the Federal award. FAA policy extends these requirements to the sponsor's contracts and subcontracts of AIP funded projects.

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, 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.

**BREACH OF CONTRACT TERMS - 2 CFR § 200 Appendix II(A)**

This provision requires sponsors to incorporate administrative, contractual or legal remedies if contractor violate or breach contract terms. The sponsor must also include appropriate sanctions and penalties. Any violation or breach of terms of this contract on the part of Coffman Associates 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.

Owner will provide Coffman Associates written notice that describes the nature of the breach and corrective actions the Coffman Associates must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Coffman Associates must correct the breach. Owner may proceed with termination of the contract if the Coffman Associates fails to correct the breach by the deadline indicated in the Owner's notice. 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.

#### **CIVIL RIGHTS – GENERAL 49 USC § 47123**

Coffman Associates agrees to 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 subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

#### **CIVIL RIGHTS – TITLE VI ASSURANCE 49 USC § 47123/FAA Order 1400.11**

##### **Compliance with Nondiscrimination Requirements:**

During the performance of this contract, Coffman Associates, 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. **Nondiscrimination:** 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 Acts, the Regulations, 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 Acts, the Regulations, 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.

#### **Title VI List of Pertinent Nondiscrimination Acts and 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 USC § 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 USC § 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 USC § 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 USC § 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 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 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 nondiscrimination 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 USC 1681 *et seq.*).

## **CLEAN AIR AND WATER POLLUTION CONTROL - 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 USC § 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC § 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.

**A1 DEBARMENT AND SUSPENSION - 2 CFR part 180 (Subpart C)/2 CFR part 1200/DOT Order 4200.5**

The sponsor must verify that the firm or individual that it is entering into a contract with is not presently suspended, excluded, or debarred by any Federal department or agency from participating in federally assisted projects. The sponsor accomplishes this by:

- 1) Checking the System for Award Management (SAM.gov) to verify that the firm or individual is not listed in SAM.gov as being suspended, debarred, or excluded;
- 2) Collecting a certification from the firm or individual that it is not suspended, debarred, or excluded; and
- 3) Incorporating a clause in the contract that requires lower tier contracts to verify that no suspended, debarred, or excluded firm or individual is included in the project.

**DISADVANTAGED BUSINESS ENTERPRISE - 49 CFR part 26**

A sponsor that anticipates awarding \$250,000 or more in AIP funded prime contracts in a federal fiscal year must have an approved Disadvantaged Business Enterprise (DBE) program on file with the FAA Office of Civil Rights (§ 26.21). The approved DBE program will identify a 3-year overall program goal that the sponsor bases on the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on the project (§ 26.45).

The Contractor or subcontractor(s) 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 Department of Transportation-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 Owner deems appropriate, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or
- 4) Disqualifying the Contractor from future bidding as non-responsible.

**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 30 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 30 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.

#### **DISTRACTED DRIVING - Executive Order 13513/DOT Order 3902.10**

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 subgrant.

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 Federal Aviation Administration 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 subgrant.

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 that involve driving a motor vehicle in performance of work activities associated with the project.

#### **ENERGY CONSERVATION REQUIREMENTS - 2 CFR § 200, Appendix II(H)**

The Energy Conservation Requirements of 2 CFR § 200 Appendix II(H) requires this provision on energy efficiency.

Contractor and 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 USC 6201et seq).

**EQUAL EMPLOYMENT OPPORTUNITY (EEO) - 2 CFR 200, Appendix II(C)/41  
CFR § 60-1.4/41 CFR § 60-4.3/Executive Order 11246**

The purpose of this provision is to provide equal opportunity for all persons, without regard to race, color, religion, sex, or national origin who are employed or seeking employment with contractors performing under a federally assisted construction contract. There are two provisions — a construction clause and a specification clause.

41 CFR § 60-1.4 provides the mandatory **contract** language. 41 CFR § 60-4.3 provides the mandatory **specification** language.

**CONTRACT LANGUAGE**

During the performance of this contract, the Contractor agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- (3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the

administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

## **SPECIFICATIONS**

### **1. As used in these specifications:**

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
- d. "Minority" includes:
  - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
  - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
  - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and



(4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period and the Contractor shall have made a commitment to employ the

apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or female sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting

its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions, including specific review of these items, with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally), the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the

Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program)

#### **FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE) - 29 USC § 201, et seq**

The U.S. Department of Labor (DOL) Wage and Hour Division administers the Fair Labor Standards Act (FLSA). This act prescribes federal standards for basic minimum wage, overtime pay, record keeping, and child labor standards.

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 [*Contractor / Consultant*] has full responsibility to monitor compliance to the referenced statute or regulation. The [*Contractor / Consultant*] must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

#### **LOBBYING AND INFLUENCING FEDERAL EMPLOYEES - 31 USC § 1352 – Byrd Anti-Lobbying Amendment/2 CFR part 200, Appendix II(J)/49 CFR part 20, Appendix A**

Consultants and contractors that apply or bid for an award of \$100,000 or more must certify that it will not and has not used Federal appropriated funds to pay any person or organization for

influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or another award covered by 31 USC 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award.

Appendix A to 49 CFR Part 20 prescribes language the sponsor must use. The sponsor must incorporate this provision without modification.

#### **CERTIFICATION REGARDING LOBBYING**

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, subgrants, 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.

## **PROHIBITION of SEGREGATED FACILITIES - 41 CFR § 60**

The contractor must comply with the requirements of the EEO clause by ensuring that facilities they provide for employees are free of segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin. This clause must be included in all contracts that include the equal opportunity clause, regardless of the amount of the contract.

### **PROHIBITION OF SEGREGATED FACILITIES**

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

(b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

## **OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 - 29 CFR part 1910**

All contracts and subcontracts must comply with the Occupational Safety and Health Act of 1970 (OSH). The U.S. Department of Labor Occupational Safety and Health Administration (OSHA) oversees the workplace health and safety standards wage provisions from OSH.

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. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer 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). The employer 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 - 2 CFR § 200, Appendix II(F)/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 37 CFR §401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

## **TAX DELINQUENCY AND FELONY CONVICTIONS - Sections 415 and 416 of Title IV/Division L of the Consolidated Appropriations Act, 2014 (Pub. L. 113-76)/and similar provisions in subsequent appropriations acts.**

DOT Order 4200.6 - Requirements for Procurement and Non-Procurement Regarding Tax Delinquency and Felony Convictions

The sponsor must ensure that no funding goes to any contractor who:

- Has been convicted of a Federal felony within the last 24 months; or
- Has any outstanding tax liability for which all judicial and administrative remedies have lapsed or been exhausted.

The applicant must complete the following two certification statements. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

### **Certifications**

- 1) The applicant represents that it is ( ☐ ) 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.
- 2) The applicant represents that it is ( ☐ ) is not ( ☐ ) is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

### **Note**

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the sponsor has received notification from the agency



suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

#### **Term Definitions**

**Felony conviction:** Felony conviction means a conviction within the preceding twentyfour (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.

**Tax Delinquency:** 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.

### **TERMINATION OF CONTRACT – 2 CFR § 200 Appendix II(B)/FAA Advisory Circular 150/5370-10, Section 80-09**

#### **A1.1 APPLICABILITY**

##### **Termination For Convenience (Professional Services)**

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 For Default (Professional Services)**

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; or
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 Consultant 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.

## **A2 TRADE RESTRICTION CERTIFICATION - 49 USC § 50104/49 CFR part 30**

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

- 1) 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 (USTR);
- 2) 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 USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.
- 4)

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 USC 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:

- 1) 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 USTR or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or
- 3) who incorporates in the public works project any product of a foreign country on such USTR 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 USTR, 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 (FAA) 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 - 49 USC § 47112(c)**

### **A2.1 APPLICABILITY**

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 USC 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.

**EXHIBIT A - SCOPE OF SERVICES  
AMES MUNICIPAL AIRPORT  
AMES, IOWA  
AIRPORT MASTER PLAN  
VERSION 2.0  
April 2018**

**INTRODUCTION**

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This Airport Master Plan Update Scope of Services for Ames Municipal Airport (AMW) is being prepared prior to initiation of the study to establish the goals of the project and framework from which all parties to the project may participate. The objective of the master plan is to provide the Sponsor (City of Ames, Iowa) with proper guidance for future development that will satisfy aviation demands and be wholly compatible with the environment. Coordination between the Sponsor, the Federal Aviation Administration (FAA), Iowa Department of Transportation Office of Aviation (IDOT Aviation), and other parties with an interest in the airport will be essential to bringing together all facts and data relevant to the project and to developing a mutual agreement regarding future development at the airport. A Technical Advisory Committee (TAC) will be established for the study and the public at large will be directly engaged throughout the study process.

Specific objectives in this Scope will be:

- To research factors likely to affect all air transportation demand segments in the City of Ames as well as the central Iowa region over the next twenty years. The analysis will include the development of forecasts of potential increased air charter activity supporting Iowa State University athletics, business jet increases due to adjacent Industrial Research Park agribusinesses, other general aviation activity, and military demand elements;
- To determine projected needs of airport users for the next twenty years factoring: recent revisions to FAA airfield geometrical design standards, global positioning system (GPS) Next Generation (NexGen) approaches or other new technology, the impact of commercial and general aviation fleet transitions on design standards, and on-going efforts to improve general aviation services to the community. This analysis will also include considerations of military;
- To analyze the existing airfield system to determine the existing and ultimate runway length required to satisfy the airport's critical aircraft now and into the future. Business and ISU athletic charter jet aircraft operations at AMW could require a longer runway. This planning effort will have a primary goal of determining the optimum runway length necessary to properly facilitate air charter/air taxi operations for the next 20 years and beyond;
- To review future use and zoning of airport property, instrument approach areas, and

nearby developments to ensure flight safety and land use compatibility. This will involve the development of new noise exposure contours, application of current land use compatibility guidelines, review of local land use controls and plans, and analysis of land use management techniques;

- To establish a schedule of development priorities and a program for improvements proposed in the master plan, consistent with the FAA's capital improvement program planning;
- Consider sustainability efforts, specifically waste and recycling improvements as part of FAA's updated standards;
- To produce accurate base maps of existing and proposed facilities and updated Airport Layout Plan (ALP) drawings consistent with the FAA's Standard Operating Procedure (SOP) No. 2.0 and SOP 3.0 for the Airport Property Map/Exhibit A; and,
- The digital Geographic Information System (GIS) data will be submitted into FAA's Airport GIS, or AGIS, system as a "New Survey". This task will conform to the Survey Requirements Matrix contained in FAA AC 150/5300-18B. The data will be submitted to the FAA AGIS system per the Airport Layout Plan (ALP) column of Table 2-1.
- Consider passenger convenience and access.

The Airport Master Plan team will be led by Coffman Associates with support from the following firms:

- MTZ Geospatial – Aerial photography and GIS products to meet FAA 5300-18B requirements for Airports GIS (AGIS) data submittal; and,
- Foth Engineers will assist with AGIS ground survey (if optional is executed) and for probably estimates of construction costs for capital program inclusion.

## **ELEMENT 1 - STUDY INITIATION AND ORGANIZATION**

### **Task 1.1 Study Design**

**Description:** In accordance with Federal Aviation Administration guidelines for the preparation of master plans contained in Advisory Circulars 150/5070-6B, *Airport Master Plans*, and 150/5300-13, *Airport Design*, prepare an outline of the basic elements of the master planning work effort. Identify respective individual work tasks that will be necessary to meet both the requirements set by the FAA and the sponsor for each element of the master plan work scope. Prepare detailed descriptions of each individual work task that describe the specific work effort involved and identify the result or product of the work effort.

#### **Responsibilities:**

Consultant: Prepare work scope and budget.  
Sponsor: Review work scope and budget.  
Product: Work Scope and Budget.

## **Task 1.2          Conduct TAC Kickoff Meeting**

**Description:** Upon appointment by the Sponsor of a Technical Advisory Committee (TAC), conduct the initial, or kickoff meeting. This meeting of the TAC will be undertaken during the initial inventory trip by the Consultant. The consultant will also provide the opportunity to conduct an open house public workshop and/or City Council briefing during the inventory trip.

### **Responsibilities:**

Consultant:    Design and prepare workbooks for the Committee and attend kickoff meeting.  
Sponsor:        Distribute invitations and initiation materials to TAC, and provide meeting room.  
Product:        Prepare and distribute digital documents. Conduct TAC kickoff meeting and public coordination as desired by the Sponsor. The meeting will be used to help establish goals and objectives for the study process.

## **Task 1.3          Project Website – To be hosted and maintained by Coffman Associates**

**Description:** Various project materials will be hosted on a website owned and maintained by the consultant to allow public access to project materials. Materials that would be made available on the website will include all planning documentation and could include the presentation boards from the various public information workshops as well as monthly project status updates. During the planning process, all working draft materials will be available for review on the website. The public will be able to utilize the website to make comments on the contents of the Phase Reports. All pertinent comments will be included within the Final Master Plan document.

### **Responsibilities:**

Consultant:    Develop, maintain, and post on the project website.  
Sponsor:        Offer support and/or linkage to city/airport website(s).  
Product:        Website access to project materials. Encourage use of the website to comment on the draft materials during the planning process.

## **Tasks 1.4 - 1.7    Project Management**

**Description:** The project management task includes work items required to set up and manage contracts, budgets, and invoicing as well as to provide project management and coordination with the City of Ames, the FAA, and sub-consultant staff. ***The project timeline and coordination is anticipated to take place over a period of twelve (12) months.*** Project coordination in the form of semi-regular project coordination conference calls/on-line communication is also included. This task does not include on-site meetings (included in other tasks).



- |                 |   |
|-----------------|---|
| <b>Task 1.4</b> | Set up and prepare project scopes, budgets, contracts with the City of Ames and establish Subconsultant contract agreements.  |
| <b>Task 1.5</b> | Perform monthly budget invoicing and contract management.   |
| <b>Task 1.6</b> | Provide general on-going project coordination with the City of Ames. <b>This task does not include any on-site meetings with staff</b> but could include video, phone, or other distance meeting options. |
| <b>Task 1.7</b> | Provide general on-going project coordination with and project management of sub-consultants.   |

**Responsibilities:**

Consultant:	Provide project management for scheduled 12-month schedule.
Sponsor:	Aid Consultant as necessary.
Product:	Project management services.

**ELEMENT 2 - INVENTORY OF EXISTING CONDITIONS**

The purpose of this study element is to assemble and organize relevant information and data pertaining to the Ames Municipal Airport and the surrounding area. A series of inventory efforts are necessary to collect and organize a variety of specific historical, technical, legal, financial, and planning data as described in the following tasks.

**Task 2.1      Inventory Airport Facilities**

**Description:** Perform an inventory of physical facilities and existing land uses within the present boundaries of the Ames Municipal Airport. These inventories will identify and describe existing airfield and landside facilities and will include, as a minimum, the following:

- Airfield: Runways, taxiways, aprons, lighting, signage, markings, navigational aids;
- General Aviation Terminal Complex: terminal building, aircraft apron, curb frontage, and public parking;
- General Aviation Areas: Square footage of hangars, apron areas, fuel storage capacity, etc.;
- Ground Access: roadways, rental car facilities, and public transportation options;
- FBO/Specialty Operators: Leased area, airfield facilities;
- Support: Utilities, fueling facilities, maintenance areas, and local law enforcement; and,
- Other areas: Other airport tenants including non-aviation and other buildings including those with symbiotic relationships such as the Research Park.

In addition, all applicable plans, specifications, maps, photographs, drawings, and other data, including FAA Master Records (or other records maintained by the FAA), or other reports or studies considered to be relevant, will be reviewed for possible use during the study that will include but not limited to:

- Previous engineering and planning efforts for AMW;
- **Historic PCI report values of the runways and PCN values published in FAA documentation with no new PCI calculations being funded;** and,
- Current FAA Terminal Area Forecast (TAF).

**Responsibilities:**

Consultant: Offer limited, general overview of airport facilities.

Sponsor: Provide the Consultant access to the airport property and airport records as necessary.

Product: Tabulated airport facilities inventory for input to later tasks, highlighting changed conditions since the last master plan was prepared.

**Task 2.2 Inventory Air Traffic and Passenger Data**

**Description:** Perform inventories of airspace, procedures, and operations (as currently available at the airport.) No traffic counts have been budgeted under this study effort. Navigational aids and aviation communication facilities serving the area will also be identified. Proposed or existing man-made obstructions and natural features that affect the use of the airspace (existing FAA, NOAA, or engineer surveys to be utilized) will also be identified.

A review of available information pertaining to general aviation air traffic and passenger activity at the Ames Municipal Airport will be performed for the past 20-year period. Data collection will include the airport's list of aircraft based at the Airport by aircraft type, and fuel sales maintained by the Airport or fixed base operators. The information will be collected in various formats for forecasting purposes. Other air traffic activity data (as necessary) will be obtained and organized for use in developing updated air traffic projections.

**Responsibilities:**

Consultant: Assemble air traffic, passenger, and other operational data for the past 20-year period as available.

Sponsor: Assist in arranging interviews; provide pertinent operational records to include pertinent statistics, based aircraft, and list of business users.

Product: Input to later analysis

**Task 2.3 Inventory Local Plans, Land Uses, and Demographic Data**

**Description:** Obtain available information concerning local land use, economic development and

environmental plans, and demographic or economic factors that are likely to have a significant impact on the demand for air transportation in the Ames and north Iowa region as well as those factors that involve potential impact characteristics of the airport environs. Key information will include the area-wide composition, characteristics, distribution, and growth patterns of the following:

- Population;
- Economic base (business, income, and employment);
- Present and projected land uses;
- Existing and planned surface transportation;
- Environmental documentation;
- Long range transportation plan; and,
- Zoning ordinance(s).

**Responsibilities:**

Consultant: Assemble generalized and overview data based on latest information available.

Sponsor: Assist in collection of data.

Product: Input to later analysis.

**Task 2.4 Obtain Tabulated Wind Data**

**Description:** The Consultant will obtain the most current ten years of wind data for Ames Municipal Airport from the National Oceanic and Atmospheric Administration, National Climatic Center and/or on-airport weather reporting aids for use in preparing an updated wind rose for the airport layout plan. This information will be utilized to determine the optimum airfield orientation and to determine the need for the continued support of the existing two runway system.

**Responsibilities:**

Consultant: Obtain tabulated wind data.

Sponsor: Coordinate with the Consultant as necessary.

Product: Tabulated wind data for use in preparing an updated wind rose.

**Task 2.5 Environmental Inventory**

**Description:** The purpose of this task is to obtain information regarding environmental sensitivities on or near airport property. Sources of information will include past environmental documents, agency maps, existing literature, and relevant internet sources. Examples of information to be gathered include wetlands, riparian areas, threatened or endangered species, floodplains, cultural resources, air quality, parks and natural resource areas, and prime farmland. Informal consultation with various federal and state agencies will occur only if needed information is not available through resources listed above.

Existing environmental conditions at the airfield will be documented and carried into the evaluation of preferred airfield development alternatives. This effort will primarily be from existing and readily available environmental data in and around the airport confines. The on-airfield environmental review will take into consideration the major impact categories outlined in FAA Order 1020.1 as well as any specific State of Iowa regulations. Past and current land uses will be examined for potential contaminated areas. The information obtained in this task is intended to identify any potential significant environmental resources prior to the alternatives evaluation process in order to lessen or eliminate environmental requirements for potential project development.

**Responsibilities:**

Consultant: Assemble data based on latest information available.  
Sponsor: Assist in collection of data  
Product: Input into later analysis.

**Task 2.6 Prepare Inventory Working Paper**

**Description:** A working paper will be developed that will provide up-to-date information in tabular, narrative, and graphic format. This will include information on the airport facilities, applicable air traffic activity, access, overview of airspace, air traffic characteristics, and an operations data summary describing aircraft activity for use in subsequent analysis. This task involves the use of existing data for the airport.

**Responsibilities:**

Consultant: Develop complete narrative and graphics for the Inventory working paper.  
Sponsor: Review and comment.  
Product: The working papers covering each element outlined in the Inventory element will be produced and submitted online at the project website. No print copies of the phase working papers will be produced.

**ELEMENT 3 – AVIATION DEMAND FORECASTS**

This study element is intended to update the estimate of future levels of air traffic by quantity and by characteristics that will identify the demand that is projected on the Ames Municipal Airport in support of local socioeconomic characteristics contributed by regional area. The following work tasks will be carried out as part of this element.

**Task 3.1 Define Operational and Based Aircraft Service Areas**

**Description:** Based upon the closest competing airports and specific factors that influence the competitive environments, define the local air service areas for the airport. The basis for the

regional review, at a minimum, will include the FAA required 30-mile radius but will also include competing and influential airports in the region. Review the aircraft registration information within local zip code areas, the percentages that are based at Ames Municipal Airport, and define the local based aircraft service area.

**Responsibilities:**

Consultant: Collect information on competitive air facilities, aircraft registration information, and factors that have and will continue to influence aviation demand in the region.  
Sponsor: Review and comment.  
Product: Definition of the primary airport service areas.

**Task 3.2 Prepare Air Taxi Demand Forecasts**

**Description:** Using the information and data acquired or developed from previous tasks, evaluate the historical significance and inter-relationship of the area-wide economy, ISU, and Research Park agribusinesses, with non-regular charter and for-hire passenger demands. Review and validate FAA forecasts for Air Taxi operations and aircraft fleet mix for existing and future aviation activities at the Ames Municipal Airport.

The forecast update shall result in estimates of aviation demand for five, ten and twenty years including:

- Annual charter aircraft and on-demand air taxi operations detailed by type; and,
- Charter and on-demand aircraft fleet mix.

**Responsibilities:**

Consultant: Prepare air taxi demand forecasts for the 20-year planning horizon.  
Sponsor: Assist Consultant in obtaining available airport records.  
Product: Complete incremental forecasts for the years 5, 10, and 20-year planning periods. These forecasts will be coordinated with the FAA (for their approval) to ensure that the study proceeds based on generally supported assumptions.

**Task 3.3 Prepare New General Aviation and Military Demand Forecasts**

**Description:** Using the most current FAA TAF as a guide, develop new general aviation and military forecasts. The forecast update shall result in estimates of aviation demand for five, ten and twenty years including:

- Annual volume and mix of aircraft operations to include air taxi, general aviation, military, and any other relative/pertinent activities
- General aviation based aircraft and fleet mix
- Military operational aircraft mix for current and long term

**Responsibilities:**

Consultant: Prepare aviation demand forecasts for the 20-year planning horizon.  
Sponsor: Assist Consultant in obtaining available airport records.  
Product: Complete incremental forecasts for the 5, 10, and 20-year planning horizons. These forecasts will be coordinated with the FAA (for their approval) to ensure that the study proceeds with generally supported assumptions.

**Task 3.4 Prepare Forecasts of Peaking Characteristics**

**Description:** Using the new forecasts of operational activity generated at the airport, develop forecasts of peak month, day, and hourly activity that can in turn be used in subsequent facility needs evaluations. Records of peak hour passengers, fuel sales, or actual traffic counts (as available) will be used to estimate the baseline peaking levels.

**Responsibilities:**

Consultant: Develop forecasts of peaking characteristics.  
Sponsor: Review and comment.  
Product: Airport activity peaking characteristics.

**Task 3.5 Identify Existing and Future Airport Design Critical Aircraft**

**Description:** Utilizing data provided by the airport and obtained from FAA database resources, identify the current critical aircraft for the airport. The aircraft identified will be the most demanding aircraft conducting a minimum of 500 annual operations. The analysis will include a projection of aircraft operations by airport reference code (ARC) to determine future planning design standards.

**Responsibilities:**

Consultant: Determine current critical aircraft and projection of future critical aircraft by ARC.  
Sponsor: Review and comment.  
Product: Determination of existing and future critical aircraft for airfield design.

**Task 3.6 Prepare Aviation Demand Forecast Working Paper**

**Description:** A working paper will be developed that will provide detailed results of the forecasting effort. Since this data will become an important parameter for input into the remaining elements of this Study, it will be submitted to the FAA for review and approval before dependent tasks will be finalized. These forecasts will remain within the FAA's *Terminal Area Forecast constraints* of 10 percent in the five-year period, or 15 percent in the 10-year period, the forecasts will need to be coordinated with other FAA offices. The new projections and analysis

will be compared with the FAA TAF for validation/modification.

**Responsibilities:**

Consultant: Develop complete narrative and graphics for the working paper. Complete FAA checklist.

Sponsor: Review and comment.

Product: The working papers covering each element outlined in the Forecast element will be produced and submitted online at the project website. No print copies of the draft working paper will be produced. This working paper will become the basis of a chapter in the final report.

**ELEMENT 4 – DEMAND-CAPACITY AND FACILITY REQUIREMENTS**

The purpose of this study element is to determine available capacities of various facilities at the Ames Municipal Airport, their conformance or non-conformance with FAA standards, and identify the facilities that will be needed to meet compliance requirements or projected demand over the next twenty years.

**Task 4.1      Establish Physical Planning Criteria**

**Description:** Identify physical planning criteria for use in assessing the adequacy of various airport facilities to meet forecast demands. These criteria shall be based upon the latest FAA requirements and standards as they apply to the Airport Reference Code (i.e. critical turboprop and jet aircraft expected to use the airport), the level of activity identified (i.e. fixed wing vs. helicopter activity, instrument operations, etc.), new technology (GPS/WAAS/LAAS/RNP/LPV, etc.) and the role of the airport.

The critical aircraft(s) have been determined and this analysis will simply verify selection. The role of the airport will have a bearing on the types of airfield and landside facilities that need to be accommodated in the future, including the length of the runway, safety areas surrounding the runway, and types and sizes of aircraft storage hangars. These criteria shall include dimensional standards for safety, including runway/taxiway safety areas, runway protection zones, and other general physical planning requirements. A table listing all deviations from current design standards pertaining to the recommended ARC/RDC will be provided, including proposed disposition of the deviations, as necessary.

**Responsibilities:**

Consultant: Develop physical planning criteria.

Sponsor: Review and comment.

Product: Outline of physical planning criteria, summarized in table format, and itemized listing of each deviation from design standards.

## **Task 4.2      Determine Airfield Capacity and Delay**

**Description:** Using the FAA's airfield generalized capacity/delay model, *estimate* current and future levels of airfield capacity (annual service volume) and delay for Ames Municipal Airport. These analyses will be based on the existing airfield configuration, aviation demand forecasts, and an analysis of airspace capacity potentials and constraints, and will involve the investigation of management and operational procedures in order to optimize the use of the total airside (runway, taxiway, and apron). This task will NOT include full calculation of the annual service volume, only an estimate using FAA's generalized calculator (in the table) based on pertinent demand data.

### **Responsibilities:**

Consultant:    Estimate airfield capacity and delay utilizing FAA guidance.  
Sponsor:       Review and comment.  
Product:       Generalized description the airport annual service volume.

## **Task 4.3      Identify Airside Facility Requirements**

**Description:** Identify physical facility planning criteria for evaluating the adequacy of the airside facilities to meet forecast demands and FAA conformance requirements. These criteria shall be based upon the latest federal requirements and standards as they apply to the level of activity identified and the future role of the airport. Demand/capacity studies of the airfield will be performed as necessary to determine and prepare a preliminary list of airside requirements for the Ames Municipal Airport. Airside facilities to be examined will include, but not be limited to the following.

- Runways/taxiways (service volume, length, width, and configuration);
- Airfield security at all gates around the airfield perimeter;
- Airfield pavement strength (using best available data);
- Airfield marking and lighting; and,
- Airfield navigational aids and weather observation equipment.

This task will provide a basis for the ultimate length of both runways. The analysis will include an evaluation for extending Runway 1-19 that precipitated this planning effort. The analysis will utilize information obtained from existing and potential air taxi and business jet users outlined in the previous chapter to determine ideal runway length necessary to accommodate these missions. It is understood that only civilian operations can justify FAA funding assistance for runway projects; however, the analysis will consider all user needs.

Furthermore, the plan will consider the sufficiency of existing Runway 13-31. The analysis will factor user needs as well as local constraints to its expansion.



**Responsibilities:**

Consultant: Identify specific airside facility requirements.  
Sponsor: Review and comment.  
Product: Detailed description of facility requirements necessary for airside development to support forecast aviation demand through the year 2038.

**Task 4.4 Identify Terminal and Public Parking Facility Requirements**

**Description:** Identify physical facility planning criteria for evaluating the adequacy of various terminal area facilities to meet forecast demands. A generalized evaluation of long-term terminal building (total square footage) and parking needs (total spaces) will be correlated with future charter passenger demands, and defined within the terminal building by the operating characteristics of the air charter operator(s).

**Responsibilities:**

Consultant: Outline commercial passenger terminal, public parking, and rental car facility requirements.  
Sponsor: Review.  
Product: Detailed description of terminal requirements necessary for landside development to support forecast aviation demand through the 20-year planning period.

**Task 4.5 Identify General Aviation, Air Cargo, Military Requirements, and Support**

**Description:** Identify physical facility planning criteria for evaluating the adequacy of various general aviation and air cargo facilities to meet forecast demands. Using the latest federal planning standards, compare the capacity of existing facilities to projected demand, and outline the additional capacity that will be required through the planning period. Apply the latest available federal requirements for airport security in the evaluations. General aviation requirements to be examined will include the following:

- Aircraft parking apron;
- Aircraft storage hangars ;
- Aircraft FBO, maintenance and/or specialty hangars;
- Access and parking facilities;
- ARFF (if necessary or desired); and,
- Other airport support facilities (as applicable).

**Responsibilities:**

Consultant: Identify specific general aviation and military segment requirements.  
Sponsor: Review and comment.  
Product: Detailed description of general aviation, military, and general support facility

requirements necessary for landside development to support forecast aviation demand through the 20-year planning horizon.

#### **Task 4.6      Prepare Facility Requirements Working Paper**

**Description:** A working paper will be developed that will provide organized background information, analysis, and findings of the facility requirements work effort and prepare a detailed working paper in narrative and graphic format.

**Responsibilities:**

Consultant:    Develop complete narrative and graphics for the working paper.

Sponsor:       Review and comment.

Product:        The working papers covering each element outlined in the Facility Requirement element will be produced and submitted online at the project website. No print copies of the phase working papers will be produced. This working paper will become the basis of a chapter in the final report.

#### **Task 4.7      Conduct Planning Advisory Committee Meeting No. 2 and Public Outreach**

**Description:** Prepare graphic display and/or handout information necessary to adequately explain assumptions and rationale. Meet with the TAC to review the materials, as well as to review the project schedule, progress, and subsequent work efforts. The trip includes the opportunity for briefing City Council or conducting a public information workshop based on the desires of airport staff.

**Responsibilities:**

Consultant:    Provide presentation material and necessary graphics for the meeting.

Sponsor:       Distribute meeting notices and arrange for meeting room.

Product:        Conduct second TAC meeting for Master Plan study. Public outreach meetings.

### **ELEMENT 5 - AIRPORT DEVELOPMENT ALTERNATIVES**

The purpose of this study element is to develop those airport development alternatives that appear most feasible and evaluate them to determine the most prudent and feasible alternative concept available for the airport.

#### **Task 5.1      Establish Alternative Development Issues**

**Description:** Based upon the results of the demand/capacity relationships and the facility requirements necessary to meet projected demand, identify those issues that will impact the development of alternatives for the various functional areas of the airport. This task will provide

insights into the potential for (and policies constraining) the development of specific land uses within the existing or future airport boundaries. The primary issues to be analyzed include:

- Airfield capacity improvements such as the potential to extend Runway 1-19 and the adequacy of crosswind Runway 13-31;
- Airfield conformance with updated FAA geometrical design standards;
- Limited air charter terminal alternatives focused only on the long term generalized need based on potential/forecasted demand;
- General aviation and military facility development option(s) as applicable; and,
- Revenue enhancement opportunities with non-aviation development options especially options to tie-in development to support Research Park agribusiness developments.

Several other issues to be considered include: remaining useful life of existing buildings, the adequacy of existing zoning on and adjacent to airport, airport security in general, hangar and aviation business growth options, and clear definition of lands required for aviation vs. non-aviation uses.

**Responsibilities:**

Consultant: Establish alternative development issues.

Sponsor: Review and comment.

Product: Alternative development issues.

**Task 5.2 Evaluate Potential Airside Alternatives**

**Description:** The airside facility requirements developed in the previous evaluations will be translated into a series of alternative plans for comparative evaluation in relation to the established planning criteria. The analysis will address a maximum of three possible airfield alternatives (in addition to the “do nothing”). In addition, the environmental implications of airside development will be taken into consideration. The alternatives with greatest potential for meeting airside demands in the most prudent order will be evaluated. As outlined in Element 5.1, extension options for Runway 1-19, adequacy of Runway 13-31, and airfield geometry issues will be analyzed.

**Responsibilities:**

Consultant: Development of airside development alternatives. Total number of alternatives to be evaluated will not be limited to a number but only to those options with greatest opportunity for future implementation (in addition to the “do nothing”).

Sponsor: Review and comment.

Product: A series of development options, each of that will attempt to meet the forecast airfield facility demands.

**Task 5.3 Evaluate Potential Landside Alternatives**

**Description:** Based on the air charter terminal, general aviation, military, and support facility requirements developed in the previous evaluations, formulate a series of alternative plans for comparative evaluation in relation to the established planning criteria. These alternatives will attempt to use property along the existing flight lines for their highest and best use for aviation-related development, while examining remaining areas for complementary aviation use or non-aviation use. The alternatives with greatest potential for meeting landside demands in the most prudent order will be evaluated.

**Responsibilities:**

**Consultant:** Development of general aviation, military, and air cargo landside development alternatives.  
**Sponsor:** Review and comment.  
**Product:** A series of development options, each of that will attempt to meet the forecast landside facility demands.

**Task 5.4 Prepare Airport Development Alternatives Working Paper**

**Description:** A working paper describing the various airside and landside development alternatives will be prepared for submission to the TAC for review and comment. The working paper will detail the analysis involved in the assessment of the alternatives and outline the advantages and disadvantages of each to enable the logical and systematic evaluation of each alternative concept.

**Responsibilities:**

**Consultant:** Develop complete narrative and graphics for the working paper. Complete FAA checklist.  
**Sponsor:** Review and comment.  
**Product:** The working papers covering each element outlined in the Alternatives element will be produced and submitted online at the project website. No print copies of the phase working papers will be produced. This working paper will become the basis of a chapter in the final report.

**Task 5.5 Conduct Planning Advisory Committee Meeting No. 3 and Public Outreach**

**Description:** Prepare graphic display and/or handout information necessary to adequately explain assumptions and rationale supporting the airport development alternatives. Meet with the TAC to review the materials, as well as to review the project schedule, progress, and subsequent work efforts. This task will include holding an open-house style format public information workshop the evening of TAC meeting. The workshop will allow for interested members of the public to review project materials and interact with the consultant. A City Council briefing is also possible during this trip.

**Responsibilities:**

Consultant: Provide presentation and necessary graphics at the meeting.  
Sponsor: Distribute meeting notices and arrange for meeting room.  
Product: TAC and public workshop meetings for Master Plan study.

**ELEMENT 6 – AIRPORT PLANS/LAND USE COMPATIBILITY**

The purpose of this study element is to develop a revised set of airport plans and associated text for distribution and use in the administration of the airport, and to evaluate the noise exposure and land use compatibility of implementation of the plan.

**Task 6.1 Develop Recommended Master Plan Concept**

**Description:** Following input from Airport officials, airport administration, the TAC, Public Officials, and the public on the airside and landside alternatives prepared in the previous element, prepare a detailed comparative evaluation and the supporting rationale to sufficiently describe the single recommended program for development and use of airport facilities. The recommendation for the most prudent and feasible Master Plan concept will become the basis for the final refinement of development costs and scheduling.

**Responsibilities:**

Consultant: Develop a recommended master plan concept.  
Sponsor: Review and comment.  
Product: Recommended master plan concept for the airport.

**Task 6.2 Update Airport Layout Plan Drawings**

**Description:** The existing airport layout plan drawings will be updated on a computerized drafting system and disks will be delivered to the sponsor upon the completion of the project to permit future revisions. The ALP drawing set will be developed utilizing existing data as well as new GIS data obtained under tasks in Element 8. ***All plans will be prepared according to SOP 2.00 as the while the Exhibit A Property Map will be completed according SOP 3.00.*** All plans will be produced utilizing AutoCAD software.

The drawings will be completed in “paper form” and submitted to the FAA for review and approval. The GIS data will be submitted to FAA’s AGIS. The ALP drawing set will include the following drawings:

- Airport Layout Drawing (ALD);
- Terminal Area Plan Drawing(s);

- Inner Approach Surface Drawings (for each runway end for existing and ultimate conditions);
- F.A.R. Part 77 drawing;
- Departure Surface Drawings;
- **Airport Property Map based on FAA S.O.P. 3.0;** and,
- Airport Land Use Map to include aviation and non-aviation uses of airport property, noise exposure contours, and off-airport land uses contiguous to airport property

**Responsibilities:**

Consultant: Complete ALP drawings and submit to Sponsor and FAA. Submit completed ALP checklist with drawings.

Sponsor: Review drawings and provide comment.

Product: Updated Airport Layout Plan drawings for the Airport.

**Task 6.3 Prepare Aircraft Noise Exposure Contours and Compatibility Analysis**

**Description:** Compile computer batch files for development of existing and future noise exposure contours using FAA's Airport Environmental Design Tool (AEDT) Provide computer plot of 65 DNL and higher contours, at 5 DNL increments, and areas (in square miles and acres) within each contour. It is envisioned that two computer modeling runs will be developed – one for existing conditions and one for future conditions. The noise contours will be plotted on base maps utilizing aerial photography, if available, and/or best available mapping. No population impact counts will be developed under the task. Information on forecast operations will be obtained from the forecast analysis in the master plan. Information on traffic patterns and runway utilization rates will be reviewed with the airport sponsor. The results of the analysis will be included in the airport plans/land use compatibility working paper. Digital copies of the AEDT analysis can be provided to the sponsor upon conclusion if requested.

**Responsibilities:**

Consultant: Develop existing and future noise exposure contours.

Sponsor: Review traffic pattern and runway utilization assumptions.

Product: Existing and future noise exposure contours for the airport.

**Task 6.4 Environmental Overview**

**Description:** Using data collected in the Environmental Inventory, a preliminary environmental overview will be conducted to identify any potential environmental concerns that must be addressed prior to program implementation. This evaluation will be structured in a table format and will include analysis of the potential impacts on environmental resources as defined within FAA Order 5050.4B, Airport Environmental Handbook. Projects that may require further National Environmental Policy Act (NEPA) analysis will be identified at this time. Existing and future (20 year) airport noise contours will be prepared. The Environmental Overview is not intended to

serve as a formal Environmental Assessment under the NEPA. Instead it is intended to alert the airport to any potential significant environmental impacts posed by the airport development program. The environmental overview will follow guidance as described in FAA AC 150/5070-6, Section 605.

**Responsibilities:**

Consultant: Assemble data based on latest information available.  
Sponsor: Assist in collection of data.  
Product: Input to later analysis.

**Task 6.5 Waste Audit and Recycling Plan**

**Description:** The FAA Modernization and Reform Act of 2012 includes a new requirement for Airport Master Plans to address recycling.

**Responsibilities:**

Consultant: Perform recycling audit. Develop Waste Management Plan.  
Sponsor: Assist in collection of data.  
Product: Waste Management Plan.

**Task 6.6 Prepare Airport Plans/Land Use Compatibility Working Paper**

**Description:** Using the results of the preceding task, prepare a working paper summarizing the airport plans and land use compatibility recommendations. In addition, reduced full-color plans will be printed and included in the final report. The drawings will form the basis of a working paper that will describe in narrative form the proposed development. Noise contours and an off-airport land use plan will also be included in the paper.

**Responsibilities:**

Consultant: Develop complete narrative and graphics for the working paper.  
Sponsor: Review and comment.  
Product: The working papers covering each element outlined in the Airport Plans and Land Use Compatibility element will be produced and submitted online at the project website. No print copies of the phase working papers will be produced. This working paper will become the basis of a chapter in the final report.

**ELEMENT 7 - FINANCIAL MANAGEMENT AND DEVELOPMENT PROGRAM**

The purpose of this element is to analyze benefits and costs that may be associated with the recommended plan as well as determine and set out the assumptions, terms, and conditions by that agreed-upon capital improvement programs can be financially implemented for Ames

Municipal Airport.

#### **Task 7.1      Prepare Airport Development Schedules and Cost Estimates**

**Description:** Prepare the airport development schedules and cost estimates (in current dollars) for the selected Master Plan concept for Ames Municipal Airport, thereby ensuring that logical staging of improvements is given proper consideration in the development of a financial plan and capital improvement program. Items that are eligible for funding under the Airport Improvement Program will be identified in accordance with FAA Order 5100.38D, *Airport Improvement Program (AIP) Handbook*.

*Foth will assist with this task through opinions of probable costs for CIP items.*

##### **Responsibilities:**

Consultant: Prepare an airport development schedule and estimated costs.

Sponsor: Review and comment.

Product: Development schedules and cost for the improvements proposed as a part of the selected master plan concepts.

#### **Task 7.2      Perform Financial Analysis**

**Description:** Based on the projected cost estimates derived in the previous tasks, estimate the amount of funds available from federal and state grant-in-aid programs to determine the net amount of capital funds required to accomplish each proposed stage of improvement at Ames Municipal Airport.

##### **Responsibilities:**

Consultant: Prepare a financial analysis.

Sponsor: Provide information on lease income and review analysis.

Product: Financial analysis to be used in the preparation of the capital improvement program.

#### **Task 7.3      Prepare Capital Program and Financial Plan**

**Description:** Develop a recommended 20-year airport capital improvement program and a condensed financial plan suitable for Ames Municipal Airport. The airport capital improvement program will identify individual projects for each year through the first five years of the plan, then prioritize projects through the intermediate (6–10 year) and long term (11–20 year) periods.

##### **Responsibilities:**



Consultant: Develop a detailed capital program.  
Sponsor: Provide review and input.  
Product: Capital program for the 20-year planning period.

#### **Task 7.4 Prepare Financial Management and Development Program Working Paper**

**Description:** Prepare a detailed financial working paper that outlines the overall airport capital improvement program for the selected airport development alternative. Organize narrative and graphical presentations of the information in this working paper to allow for a final review and adjustment of the overall airport development concept.

**Responsibilities:**

Consultant: Develop complete narrative and graphics for the working paper.  
Sponsor: Review and comment.  
Product: The working papers covering each element outlined in the Financial Management Plan element will be produced and submitted online at the project website. No print copies of the phase working papers will be produced. This working paper will become the basis of a chapter in the final report.

#### **Task 7.5 Conduct Planning Advisory Committee Meeting No. 4 and Public Outreach**

**Description:** Meet with TAC to discuss results presented in the airport plans and financial chapters and desired revisions to be incorporated into the Final Master Plan Report. Establish project completion procedures. Conduct public meeting and/or brief City Council.

**Responsibilities:**

Consultant: Provide presentation material and necessary graphics for the meeting.  
Sponsor: Distribute meeting notices to the TAC and arrange for meeting room.  
Product: TAC and public workshop meetings for Master Plan study.

### **ELEMENT 8 – GEOGRAPHICAL INFORMATION SYSTEM (GIS) SERVICES – OPTIONAL**

In conjunction with a master plan, the Sponsor and FAA has elected to collect data to comply with table 2-1 of Advisory Circular 150/5300-18B, ALP Development column. The dataset is a high precision, digital model of the safety critical features of the airport as defined in 18B table 4-1. The process includes collection of high-resolution aerial photography, high precision surveys of safety critical airport data, (runway ends, NAVAIDS, airport elevation, airspace, obstructions and others), and compilation of collected data into a uniform, GIS, dataset. This Scope of Services is being prepared prior to initiation of the project to establish the goals of this element and a framework from that all parties may refer. The objective is to provide the Sponsor with a digital dataset of the airport and its surrounding environment in conformance with current

Federal Aviation Administration (FAA) standards set forth in the Advisory Circulars 150/5300– 13, 16A, – 17C, and –18B. *MTZ Geospatial will provide all photogrammetry, topography, and associated products for these elements.*

Specific objectives of the Airport GIS Scope of Services will be:

- To perform airspace analysis for the existing runway as well as considerations for planned development;
- To conduct a ground survey tied to the existing airport PACS/SACS, and assess their condition (***new PACS/SACS not included***). Provide updates to NGS;
- To provide current orthophotography for the airport;
- To develop a GIS dataset that meets the airports needs and is acceptable to the FAA.

#### **Task 8.1 Project Design, SOW Submittal and GAP Analysis**

**Description:** This task includes project design, initiates the project in the Airports–GIS portal, develops and submits the SOW.

*This task includes physical survey and other GIS responsibilities by Foth to aid MTZ efforts.*

##### **Responsibilities:**

Consultant: Prepare description of each work item (task) included in the Scope of Services. Work with sponsor and FAA to develop and submit a Statement of Work (SOW) to the Airports GIS portal.

Sponsor: Review GIS component in the Scope of Services. Assist consultant in developing the SOW.

Product: A refined description of the Scope of Services, and approved SOW.

#### **Task 8.2 Aerial Photography, Survey and Airspace Analysis**

**Description:** In conformance with Advisory Circulars 150/5300–16A, –17C, and –18B. Provide oversight for documentation and quality review of survey and plans, and Aerial photo acquisition and plans and review Airspace Analysis.

##### **Responsibilities:**

Consultant: Ensure FAA and airport standards are met for all survey activity on and off airport and aerial photography acquisition. Provide oversight and review as needed.

Sponsor: Liaison with survey team to provide access to airport property. Assist in providing any needed information to survey and aerial photography teams. Direct consultants as required to any safety or operational requirements for survey and aerial photography team.

Product: Approved Airports–GIS plans as required, for Geodetic Control, Imagery Plan,

## Survey and Quality Control Plan.

*This task will be assisted by Martinez and Foth.*

### **Task 8.3      Develop Airports-GIS Compliant Dataset**

**Description:** Using the newly developed planimetric data, and the existing data discovered in task 1.3 assemble data into a comprehensive GIS dataset. The dataset will be an object data enabled AutoCAD document and a corresponding ArcGIS file geodatabase. The dataset will be eALP ready and conform to the features and attributes identified in the SOW.

#### **Responsibilities:**

Consultant:    Compile GIS data into a single dataset that is eALP ready. Develop electronic standards for future data submission. Submit a .kmz file with the feature layers to view in Google Earth 3-dimensionally.

Sponsor:       Review and comment.

Product:       AutoCAD file and ArcGIS file geodatabase of the data collected in this scope of services.

### **Task 8.4      Quality Control of GIS Dataset**

**Description:** Perform rigorous quality control of newly developed dataset and testing against FAA developed tools. This includes any FAA required accuracy checks. When dataset is reviewed and accepted by Airport Staff, submit to Airports-GIS portal.

#### **Responsibilities:**

Consultant:    QA GIS dataset. Get airport approval of completed dataset.

Sponsor:       Review and comment. Provide final approval of dataset

Product:       AutoCAD, object data enabled file.

## **ELEMENT 9 - FINAL REPORTS**

### **Task 9.1      Prepare “Draft” Final Master Plan Report**

**Description:** Following the final review period for the airport plans and financial chapters of the Master Plan Report, a “Draft” Final Master Plan Report document will be prepared. This document will incorporate appropriate comments and corrections received during the review period. Ten (10) printed copies of the “Draft” Final Report will be provided. The FAA will receive one (1) of the ten copies.

This task will also include the production of an executive summary report that will summarize the

entire study in a concise manner for City Council to use for approval.

**Responsibilities:**

Consultant: Prepare and print ten (10) copies of the “Draft” Final Master Plan study. Prepare an Executive Summary document for City Council. The draft final document will also be published on the project website.

Sponsor: Review and comment.

Product: Ten (10) “Draft” Final Master Plan Reports.

**Task 9.2 Obtain Master Plan Approvals**

**Description:** Coordinate final approval of master plan with Airport administration. This task will include a presentation to the City Council seeking approval of the Master Plan. The ALP approval will be coordinated with Sponsor and the FAA.

**Responsibilities:**

Consultant: Coordination of final master plan approval.

Sponsor: Review and comment on final documents.

Product: Final master plan and airport layout drawing approvals.

**Task 9.3 Prepare Final Master Plan Report**

**Description:** Following the final review period for the “Draft” Final Master Plan Report, a Final Master Plan Report document will be prepared. This document will incorporate appropriate comments and corrections received during the review period. Ten (10) copies of the Final Report will be provided, in addition to twenty (20) digital copies of the entire plan (text and graphics) in a PDF format. Two (2) of the printed copies (and a digital copy) will be provided to the FAA and IDOT Aviation (one each).

The FAA will also be sent four (4) full sized ALP drawing sets, signed by the sponsor, for signature and circulation. A CD/DVD containing the ALP in DWG and PDF versions will also be submitted to the FAA.

**Responsibilities:**

Consultant: Prepare and print ten (10) copies of the final report (provide two copies to the FAA). Also develop twenty (20) digital copies of the final report in PDF format for submittal to the sponsor and one (1) each for the FAA and IDOT Office of Aviation.

Sponsor: Coordinate distribution of the final report.

Product: Ten (10) Final Master Plan Reports and twenty (20) digital PDF copies.

**Task 9.4 Prepare Executive Summary Brochures**

**Description:** Prepare a detailed executive summary report. The executive summary is anticipated to be a comprehensive overview of the entire study, as presented in earlier technical memorandums. The summary report will be submitted to Airport administration via pdf files delivered on CD or electronic methods, whichever is desired.

**Responsibilities:**

Consultant: Prepare the summary report.

Sponsor: Review and comment prior to distribution.

Product: Summary Report (delivered via electronic medium).

**EXHIBIT B**  
**PROJECT COST SUMMARY**  
**AIRPORT MASTER PLAN STUDY**  
**AMES MUNICIPAL AIRPORT**  
**March-18**  
**Version 1.0**

AMES MUNICIPAL AIRPORT  
March-18  
Version 1.0

ELEMENT/TASK	PERSON HOUR RATES				COSTS			TASK/ELEMENT TOTAL
	Principal	Senior Planner	Planner	Technical	COFFMAN		Sub Consultant Expense	
					LABOR	EXPENSES		
	\$300	\$252	\$182	\$130				
ELEMENT 1 - STUDY INITIATION, ADMINISTRATION, AND ORGANIZATION								
1.1 Study Design <sup>1</sup>	8	0	0	4	\$2,920	\$0	\$0	\$2,920
1.2 Prepare Materials and Conduct TAC Kick-off Meetings	8	0	8	8	4,896	1,050	0	5,946
1.3 Project Website Development and Updates	0	0	8	16	3,536	0	0	3,536
1.4 Project Management - Contracts, Budgets, Schedule Set Up	4	0	0	2	1,460	0	0	1,460
1.5 Project Management - Monthly Invoicing/Contract Management	4	0	0	8	2,240	0	0	2,240
1.6 Project Management - Ongoing Project Coordination w/Ames	8	0	8	4	4,376	0	0	4,376
1.7 Project Management - Coordination with Subconsultants	0	0	4	4	1,248	0	0	1,248
SUBTOTAL - ELEMENT 1	32	0	28	46	\$20,676	\$1,050	\$0	\$21,726
ELEMENT 2 - INVENTORY OF EXISTING CONDITIONS								
2.1 Inventory Airport Facilities	0	4	8	8	\$3,504	\$0	\$0	\$3,504
2.2 Inventory Air Traffic and Passenger Data	0	4	4	2	1,996	0	0	1,996
2.3 Inventory Local Plans, Land Use, and Demographic Data	0	4	4	2	1,996	0	0	1,996
2.4 Obtain Wind Data	0	4	4	2	1,996	0	0	1,996
2.5 Environmental Inventory	0	4	12	8	4,232	0	0	4,232
2.6 Prepare Inventory Working Paper (No Prints)	4	4	12	16	6,472	200	0	6,672
SUBTOTAL - ELEMENT 2	4	24	44	38	\$20,196	\$200	\$0	\$20,396
ELEMENT 3 - AVIATION DEMAND FORECASTS								
3.1 Define Operational and Based Aircraft Service Areas	0	4	4	8	\$2,776	\$0	\$0	\$2,776
3.2 Prepare Air Taxi Demand Forecasts	0	0	8	0	1,456	0	0	1,456
3.3 Prepare General Aviation and Military Demand Forecasts	0	4	8	4	2,984	0	0	2,984
3.4 Prepare Forecasts of Peaking Characteristics	0	0	8	0	1,456	0	0	1,456
3.5 Identify Existing and Future Critical Aircraft Forecasts	0	8	8	4	3,992	0	0	3,992
3.6 Prepare Aviation Demand Forecast Working Paper (No Prints)	4	8	12	16	7,480	200	0	7,680
SUBTOTAL - ELEMENT 3	4	24	48	32	\$20,144	\$200	\$0	\$20,344
ELEMENT 4 - DEMAND CATACTY-FACILITY REQUIREMENTS								
4.1 Establish Airport Physical Planning Criteria	0	0	4	4	\$1,248	\$0	\$0	\$1,248
4.2 Determine Airfield Capacity and Delay	0	0	4	4	1,248	0	0	1,248
4.3 Identify Airside Facility Requirements	4	0	8	12	4,216	0	0	4,216
4.4 Identify Terminal and Public Parking Requirements	0	0	8	4	1,976	0	0	1,976
4.5 Identify General Aviation, Air Cargo, and Military Requirements	0	0	8	8	2,496	0	0	2,496
4.6 Prepare Phase I Report (No Prints)	4	0	16	16	6,192	200	0	6,392
4.7 Conduct Second TAC Meeting and Public Outreach Meeting	8	0	8	8	4,896	1,050	0	5,946
SUBTOTAL - ELEMENT 4	16	0	56	56	\$22,272	\$1,250	\$0	\$23,522

### ELEMENT 5 - AIRPORT DEVELOPMENT ALTERNATIVES

5.1	Establish Alternative Development Issues	4	0	8	0	\$2,656	\$0	\$0	\$2,656
5.2	Evaluation Potential Airfield with Runway Extension Alternatives	8	8	16	8	8,368	0	0	8,368
5.3	Evaluate Landside and Support Alts	4	8	8	8	5,712	0	0	5,712
5.4	Prepare Airport Alternatives Working Paper (No Prints)	8	0	24	24	9,888	200	0	10,088
5.5	Conduct TAC Meeting #3/Public Workshop #2	8	0	8	8	4,896	1,050	0	5,946
<b>SUBTOTAL - ELEMENT 5</b>		<b>32</b>	<b>16</b>	<b>64</b>	<b>48</b>	<b>\$31,520</b>	<b>\$1,250</b>	<b>\$0</b>	<b>\$32,770</b>

### ELEMENT 6 - AIRPORT LAYOUT PLANS AND LAND USE COMPATIBILITY

6.1	Develop Recommended Master Plan Concept	8	0	8	16	\$5,936	\$0	\$0	\$5,936
6.2	Update ALP Drawings	4	4	16	200	31,120	5,000	0	36,120
6.3	Prepare Airport Noise Exposure Contours	0	8	0	4	2,536	0	0	2,536
6.4	Prepare Environmental Overview	0	4	8	16	4,544	0	0	4,544
6.5	Waste Audit and Recycling Plan	0	0	4	4	1,248	0	0	1,248
6.6	Prepare Airport Plans and Land Use Working Paper (No Prints)	4	8	8	16	6,752	200	0	6,952
<b>SUBTOTAL - ELEMENT 6</b>		<b>16</b>	<b>24</b>	<b>44</b>	<b>256</b>	<b>\$52,136</b>	<b>\$5,200</b>	<b>\$0</b>	<b>\$57,336</b>

### ELEMENT 7 - FINANCIAL MANAGEMENT AND DEVELOPMENT PROGRAM

7.1	Prepare Airport Development Schedule and Cost Estimates <sup>1</sup>	0	4	4	4	\$2,256	\$0	\$6,500	\$8,756
7.2	Perform Financial Analysis	0	16	0	4	4,552	0	0	4,552
7.3	Prepare Capital Program and Financial Plan	4	4	8	8	4,704	0	0	4,704
7.4	Prepare Financial Plan Working Paper (No Prints)	4	8	8	16	6,752	200	0	6,952
7.5	Conduct TAC Meeting #4/Public Workshop #3	8	8	8	8	6,912	1,050	0	7,962
<b>SUBTOTAL - ELEMENT 7</b>		<b>16</b>	<b>40</b>	<b>28</b>	<b>40</b>	<b>\$25,176</b>	<b>\$1,250</b>	<b>\$6,500</b>	<b>\$32,926</b>

### ELEMENT 8 - GEOGRAPHICAL INFORMATION SYSTEM (GIS) SERVICES

8.1	Project Design, SOW Submittal, and GAP Analysis	0	8	0	8	\$3,056	\$0	\$0	\$3,056
8.2	Aerial Photography, Survey, and AisTACe Analysis <sup>1,2</sup>	0	8	0	8	3,056	0	80,952	84,008
8.3	Develop Airports-GIS Compliant Dataset	0	8	0	8	3,056	0	0	3,056
8.4	Quality Control of GIS Dataset	0	8	0	8	3,056	0	0	3,056
<b>SUBTOTAL - ELEMENT 8</b>		<b>0</b>	<b>32</b>	<b>0</b>	<b>32</b>	<b>\$12,224</b>	<b>\$0</b>	<b>\$80,952</b>	<b>\$93,176</b>

### ELEMENT 9 - FINAL REPORTS

9.1	Prepare Draft Final Report (10 cps)	0	0	8	12	\$3,016	\$1,400	\$0	\$4,416
9.2	Obtain Master Plan Approvals from City of Ames	8	0	8	4	4,376	600	0	4,976
9.3	Prepare Final Reports (10 cps/20 cds)	0	0	8	8	2,496	1,400	0	3,896
9.4	Prepare Executive Summary Brochure (delivered pdf)	0	0	8	12	3,016	0	0	3,016
<b>SUBTOTAL - ELEMENT 9</b>		<b>8</b>	<b>0</b>	<b>32</b>	<b>36</b>	<b>\$12,904</b>	<b>\$3,400</b>	<b>\$0</b>	<b>\$16,304</b>

### MASTER PLAN TOTALS

<b>128</b>	<b>160</b>	<b>344</b>	<b>584</b>	<b>\$217,248</b>	<b>\$13,800</b>	<b>\$87,452</b>	<b>\$318,500</b>
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Subconsultant Expense Reference:

<sup>1</sup> Work effort to be completed by Forth Engineering

<sup>2</sup> Work effort to be completed by Martinez Geospatial



EXHIBIT C PROJECT SCHEDULE AMES MUNICIPAL AIRPORT AIRPORT MASTER PLAN																	
ELEMENT		MONTHS															
	Notice to Proceed	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initiation																	
Inventory																	
Forecasts																	
Facility Requirements																	
Airport Alternatives																	
Safety Risk Assessment																	
Master Plan Concept																	
Financial Program																	
GIS Products and Analysis																	
Final Review/Documentation																	
PAC Meetings		◆		◆		◆			◆								
Public Workshops		◆		◆		◆			◆								
City Commission Approval												◆					



## **EXHIBIT D**

### **SUBCONSULTANTS SCOPE AND FEE MATERIALS**

### **AMES MUNICIPAL AIRPORT MASTER PLAN STUDY**



A GEOSPATIAL SERVICE PROVIDER

## Scope and Fee Proposal

Digital Orthophotography, Planimetric/Topographic Mapping,  
Obstruction Surveys, and Airports-GIS Services

Ames Municipal Airport (AMW)

3/13/2018

## 10cm Option

2915 Waters Road Suite 100 Eagan, Minnesota 55121

Tel: 651-686-8424 • [www.mtzgeo.com](http://www.mtzgeo.com)

## PROJECT SUMMARY

CLIENT	Coffman Associates
CLIENT CONTACT	Tim Kahmann
CLIENT ADDRESS	237 NW Blue Parkway, Suite 100 Lee's Summit, MO 64063
PROJECT LOCATION	Ames Municipal Airport (AMW)

**Martinez Geospatial, Inc. (MTZ)** will provide **Coffman Associates** with remote-sensing and photogrammetry services in support of a Master Plan Update/ALP. The main objective of this effort will be to fulfill the data-collection requirements for updating a paper ALP.

This proposal also includes tasks required to comply with FAA Airports-GIS program standards. All survey and photogrammetry work will be accomplished in accordance with the following Advisory Circulars:

AC-150/5300-16A (16A)
AC-150/5300-17C (17C)
AC-150/5300-18B (18B)

The Airports-GIS objective for this project is to collect and submit *Safety-Critical* data for the airport. Furthermore, base-mapping (planimetric & topographic data) collected in support of the ALP update will also be formatted and submitted to Airports-GIS. Specifically, acquisition of data will include an Airport Airspace Analysis for the existing runways, NAVAID inventory & survey, Runway Ends & Profiles survey, and collection (through remote-sensing) of planimetric & topographic data.

MTZ will fulfill the data collection, formatting, and delivery requirements of the FAA Airports-GIS program. In general, MTZ's approach to fulfilling the GIS requirements will be accomplishing those required tasks as outlined in **Table 2-1 (Survey Requirements Matrix)** of **18B, Column "Airport Layout Plan."**

## PROJECT SPECIFICATIONS

STATE	IOWA
COUNTY	STORY
PROJECT TYPE	AVIATION (AIRPORTS-GIS INCLUDED)
COORDINATE SYSTEM	IOWA STATE PLANE – NORTH ZONE
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88 (GEOID12B)
FIELD-SURVEY PROVIDED BY	FOTH (AS A SUB TO COFFMAN)
MAPPING SCALE	1"=100', 2' CONTOURS
MAPPING FORMATS REQUIRED	STANDARD CAD w/ DTM and AIRPORTS-GIS
ORTHO RES & PHOTO FORMAT	0.5' GSD, TIF & TFW FORMAT

## PROJECT AREA DEFINITION

The total project area consists of three major components:

<b>AREA A</b>	<b>Planimetric &amp; Topographic Mapping Limit</b> - This area defines the limit for the compilation of planimetric & topographic data, necessary for the ALP update.
<b>AREA B</b>	<b>Part 77/TSS/TERPS Airspace Analysis Limits</b> - Horizontal Limits of the applicable the applicable Obstruction Identification Surfaces (OIS) as defined by FAR Part 77.
<b>AREA C</b>	<b>Airports-GIS Airspace Analysis Limits</b> - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined in AC-150/5300-18B.

## PROJECT TASKS

### Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Consultation

MTZ will assist Coffman in developing, submitting, and gaining approval of the "Statement of Work" for the project through the ADO and FAA Airports-GIS. MTZ will develop, submit, and gain approval of the "Imagery/Remote Sensing Plan" and the "Survey & Quality Control Plan" required by the FAA Airports-GIS Program. MTZ will work directly with the field-surveyor to ensure project specifications and FAA requirements are met.

### Aerial Imagery Acquisition

New color aerial imagery will be captured for all areas defined in the **PROJECT AREA DEFINITION** section of this proposal utilizing a digital photogrammetric camera. The aerial imagery acquisition flight mission will be executed in accordance with all guidelines and specifications within FAA AC 150/5300-17C.

The aerial imagery acquisition flight mission will consist of two separate "blocks" of imagery, collected to the following specifications:

<b>IMAGERY RESOLUTION</b>	<b>PURPOSE/USE</b>
10cm	Covering the airport and entire airspace analysis area / full horizontal extents of the Part 77/TSS/TERPS Surfaces and AGIS Surfaces. This imagery will be used for planimetric & topographic mapping. Will also be utilized for obstruction surveys/airspace analysis. Ortho-imagery will also be generated of portions of this area.

Upon completion of the flight mission, the imagery will be reviewed through in-house Quality Assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

#### Geodetic Control / Validate PACS & SACS (FOTH TASK)

There are currently one PACS monument and two SACS monuments published for the airport. Surveyors will validate/utilize these monuments to serve as the project tie to the NSRS. If the existing PACS/SACS monuments are determined to be damaged or the validation is unsuccessful the surveyors will establish temporary geodetic control points, as required. Geodetic data will be tied to the NSRS using the latest published adjustment (2011).

Following are the specific PACS & SACS locations to be used:

Station Type	Designation	PID	Horizontal Datum	Vertical Datum	GEOID
PACS	AMW D	AJ8301	NAD83(2011)	NAVD88	GEOID12B
SACS	AMW E	AJ8302	NAD83(2011)	NAVD88	GEOID12B
SACS	AMW F	AJ8303	NAD83(2011)	NAVD88	GEOID12B

#### Survey Imagery Photo Control (FOTH TASK)

A combination of photo-identifiable control points and artificial targets will be selected or set/surveyed for use as imagery ground control. Imagery Control will be set, surveyed (properly tied to NSRS), and documented in accordance with AC-150/5300-17C and FAA Airports-GIS requirements. Ground Control data and documentation will be submitted to FAA Airports-GIS along with the AP Acquisition Report.

#### Aero Triangulation

The digital aerial imagery will be imported onto a digital photogrammetric workstation where it will be oriented with field-surveyed ground control. This procedure will establish both horizontal and vertical control for orienting individual photogrammetric models. This orientation will be accomplished using Soft Copy Aerial Triangulation methods.

#### Create Digital Ortho Imagery

Digital orthophotos will be produced to meet the needs of Coffman Associates and the Airport as well as to comply with the requirements of the FAA Airports-GIS program and AC 150/5300-17C. One sets of ortho imagery will be produced, covering the following defined area and meeting the following specifications:

RESOLUTION	COVERAGE LIMIT
0.50' GSD	PORTIONS OF AREA C (SEE EXHIBIT)

#### Runway Surveys (FOTH TASK)

Surveyors will accomplish survey of both runways at AMW (1/19& 13/31). Survey tasks will include survey of runway-end-points and runway-profiles. For each runway-end-point, a monument will be set, surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline-profiles will be surveyed at 50-foot stations. Runway survey data will be utilized for the Airport Airspace Analysis/Obstruction Surveys task. Runway survey data will be properly formatted by MTZ and reported in the FAA Airports-GIS deliverable.

### NAVAID Surveys (FOTH TASK)

Surveyors will accomplish survey of NAVAIDs associated with AMW. Each NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be properly formatted by MTZ and reported in the FAA Airports-GIS deliverable. The NAVAID Survey will include the following:

<i>Airport Beacon</i>	<i>1 GLIDESLOPE</i>
<i>1 LOCALIZER</i>	<i>1 MALSR</i>
<i>19 VASI</i>	<i>13 VASI</i>
<i>31 VASI</i>	

### Airport Airspace Analysis/Obstruction Surveys

#### 18B/AGIS

An Airport Airspace Analysis will be performed in accordance with AC 150/5300-18B. This task will be performed in order to comply with the requirements of the FAA Airports-GIS Program for projects involving Airport Layout Plan updates. The Airport Airspace Analysis will meet the following specifications:

<b>RUNWAY</b>	<b>ANALYSIS TYPE</b>
1/19	Runways-With-Vertical-Guidance
13/31	Runways-With-Vertical-Guidance

Formatting of final reported 18B/AGIS obstacles will adhere to the specifications of AC 150/5300-18B, Chapter 5 *Airport Data Features*.

#### Part 77/TSS

An FAR Part 77/TSS Obstruction Survey will be performed in support of the Airport Layout Plan Update. Using the digital stereo imagery, the prescribed Part 77 & TSS Obstruction-Identification-Surfaces will be examined and analyzed to identify natural and manmade objects penetrating the surfaces.

There will be two phases to the Part 77/TSS Obstruction Survey. Phase 1 will examine the existing conditions for each Runway End. Phase 2, will examine the future/ultimate conditions for each Runway End.

**The Part 77/TSS Obstruction Survey will meet specifications shown in Attachment A.** It is understood that the Future/Ultime conditions identified in **Attachment A** are an estimate at this time and are subject to change during the course of the Coffman Airspace Study. Once Phase 1 data has been delivered, Coffman will conduct their airspace studies and notify MTZ of the final future/ultimate conditions required for Phase 2.

### **Part 77/TSS Collection Criteria**

The obstruction-identification-surfaces, defined in the previous section, will be digitally referenced with the 3D Stereo Imagery. Using the 3D imagery, trained technicians will visually examine all surfaces and collect X-Y-Z point data for objects seemingly meeting collection criteria. Collected data will then be mathematically analyzed against the surfaces using custom script processes to produce a final dataset. Multiple Quality-Assurance processes are performed for obstruction data through the project life cycle to ensure accuracy and completeness. Data will be collected to fulfill the following criteria:

- 1) A single X-Y-Z point will be collected / analyzed for any manmade or natural object penetrating a surface. The point will be placed on the highest point of the object. The X-Y location will correspond to the horizontal position of the highest portion of the object, not necessarily the center or middle.
- 2) If a large group of trees or terrain (obstruction area) is found to penetrate a surface, representative selection criteria will be used. In this case, the obstruction area will be outlined with a bounding polygon in order to represent the horizontal extents of the area. A grid will then be overlaid on the area. Within each grid sector, the highest object will be collected. Within the primary surface, the transitional surface, and within the first 5,000 feet of the approach surface, 100-foot grid spacing will be used. Within 10,000 feet of the approach surface, but outside 5,000 feet, 200-foot grid spacing will be used. 200-foot grid spacing will also be used within the horizontal surface. Outside of 10,000 feet of the approach surface and within the conical surface, 500-foot grid spacing will be used.

### **TERPS 40:1 Surface**

MTZ will complete raw obstacle data collection for Coffman off the ends of each runway. The horizontal extents of the TERPS 40:1 Surface will serve as the limits for the raw obstacle collection. Within the first 5,000 feet of the TERPS 40:1 Surface, MTZ will collect manmade and natural objects with no regards to penetration value. For manmade objects, all buildings, utility poles, antennas, towers, and prominent objects will be collected (small objects, such as mailboxes, posts, and utility boxes will be ignored). For vegetation, singular trees/shrubs will be collected to the extent possible/feasible. In large areas of dense vegetation, a bounding polygon will be drawn to show the extents of the area. A 100-foot grid will be applied and the highest vegetation point within each grid-sector will be collected.

### **Deliverable Format for Part 77, TSS, and TERPS Obstruction Data**

<b>DELIVERABLE</b>	<b>DESCRIPTION</b>
Shapefile	This file will contain the following pieces of data: <ol style="list-style-type: none"> <li>1) Obstruction Surface Linework</li> <li>2) Obstruction X-Y-Z Points</li> <li>3) Obstruction Area Polygon (if applicable)</li> <li>4) Obstruction Area Grid (if applicable)</li> </ol>
Shapefile Object Data	Shapefiles will contain the following pieces of object data: <ul style="list-style-type: none"> <li>• Object type</li> <li>• Northing / Easting / Elevation</li> <li>• Latitude/Longitude</li> <li>• Penetration Value (if applicable)</li> <li>• Surface Affected &amp; Slope (if applicable)</li> <li>• AGL (Not included for TERPS or P77 Horizontal/Conical)</li> </ul>



### Planimetric & Topographic Mapping Compilation

Utilizing the aerotriangulated digital imagery, photographic stereo pairs will be oriented and compiled on digital photogrammetric workstations within **AREA A**. Mapping data will be compiled meeting the following specifications:

<b>PLANIMETRIC DATA SCALE</b>	1"=100' SCALE (CLASS II STANDARDS)
<b>TOPOGRAPHIC DATA SCALE</b>	2' CONTOUR INTERVAL (CLASS II STANDARDS)

<b>MAPPING DELIVERABLE</b>	<b>FORMAT</b>
PLANIMETRIC FILE	AUTOCAD (Other formats available upon request)
CONTOUR FILE	AUTOCAD (Other formats available upon request)
DIGITAL-TERRAIN-MODEL FILE	AUTOCAD (Other formats available upon request)

The CAD products defined above will be delivered directly to **Coffman Associates** for the updating of ALP drawings.

### Mapping Edit and GIS Formatting

In addition to generating mapping data in CAD formats, all collected data will be edited and formatted in the appropriate AGIS format. In terms of GIS-attributes, MTZ will be responsible for populating all geospatial-related and/or critical attributes required for upload. Delivery of completed AGIS files will be made directly to Coffman Associates. In general terms, the final AGIS file created by MTZ will include both Safety-Critical and Non-Safety-Critical Data. This includes the following:

- 1) **Safety-Critical**
  - a. Airport Airspace Analysis Data (Obstructions)
  - b. Runway Survey Data
  - c. NAVAID Survey Data
- 2) **Non-Safety-Critical**
  - a. Planimetric Data
  - b. Topographic Data

Final GIS data will meet the following specifications:

<b>GIS DATA-MODEL UTILIZED</b>	FAA Airports-GIS (AC 150/5300-18B, Chapter 5)
<b>GIS DELIVERY FORMAT</b>	ArcGIS Shapefile

### Airports-GIS Data Submission and Final Reporting

All data will be formatted into compliant Airports-GIS format and prepared for submission. Prior to submission, the survey-files will be tested using the FAA's survey-file-test tool in order to ensure acceptability. A "Final Report" will be generated in accordance with Advisory Circular 150/5300-18B and submitted with the final project file. Project close-out will also consist of ensuring receipt and acceptance of the obstruction survey and digital mapping data by Coffman, the FAA and NGS.



## DELIVERABLE OVERVIEW

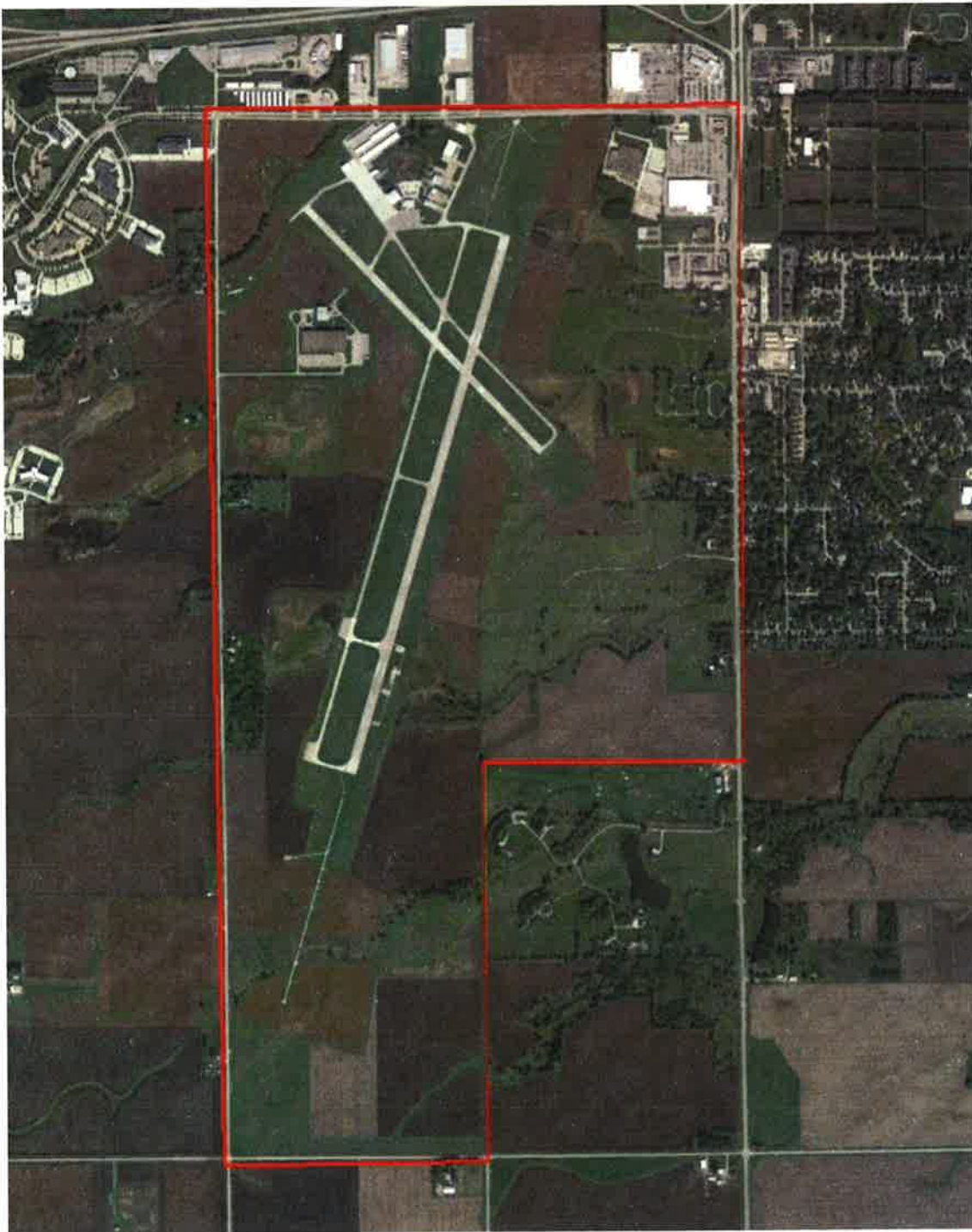
DELIVERABLE	NOTES
FAA AIRPORTS-GIS STATEMENT-OF-WORK	MTZ WILL SUBMIT
FAA AIRPORTS-GIS IMAGERY PLAN	MTZ WILL SUBMIT
FAA AIRPORTS-GIS SURVEY/QUALITY CONTROL PLAN	MTZ WILL SUBMIT
AP ACQUISITION REPORT (RAW AERIAL IMAGERY, CONTROL DATA, AND A.T. REPORT)	MTZ WILL SUBMIT
AIRPORTS-GIS AIRPORT AIRSPACE ANALYSIS DATA	SHAPEFILE
PART 77/TSS/TERPS DATA	SHAPEFILE
PLANIMETRIC MAPPING DATA	AutoCAD (Standard Formatting of Data)
TOPOGRAPHIC MAPPING DATA	AutoCAD (Standard Formatting of Data)
COMPREHENSIVE AIRPORTS-GIS COMPLIANT DATA FILE, INCLUDING: 1) Safety Critical Data (Airspace, Runways, NAVAID) 2) Non-Safety-Critical Data (Plan/Topo Mapping)	SHAPEFILE
DIGITAL ORTHO IMAGERY OF PORTIONS OF AREA 'C' (0.50' GSD)	MULTIPLE COPIES WILL BE PROVIDED
FAA AIRPORTS-GIS FINAL REPORT	MTZ WILL SUBMIT

## FEE SCHEDULE

It is understood that compensation for this project will be on a **LUMP SUM** basis. MTZ will invoice Coffman Associates monthly based on percent-complete of each category below. The following is a proposed fee schedule based on major production processes/work category:

TASK	FEE
Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Consultation	\$5,192.10
Imagery Acquisition (Flight Mission)	\$12,500.00
Aerotriangulation	\$1,944.00
Orthophoto Production (0.50' GSD)	\$6,385.50
Planimetric/Topographic Mapping	\$12,113.64
Airspace Analysis/Obstruction Survey (Airports-GIS, Part 77, TSS)	\$16,920.00
Mapping Edit, GIS Formatting / FAA Compliance (Mapping & Obstruction Survey)	\$5,396.16
Field-Survey Services (FOTH)	Not Included
<b>TOTAL</b>	<b>\$ 60,451.40</b>

## Area A - Planimetric & Topographic Mapping



Red Limit - Planimetric & Topographic Mapping Limit

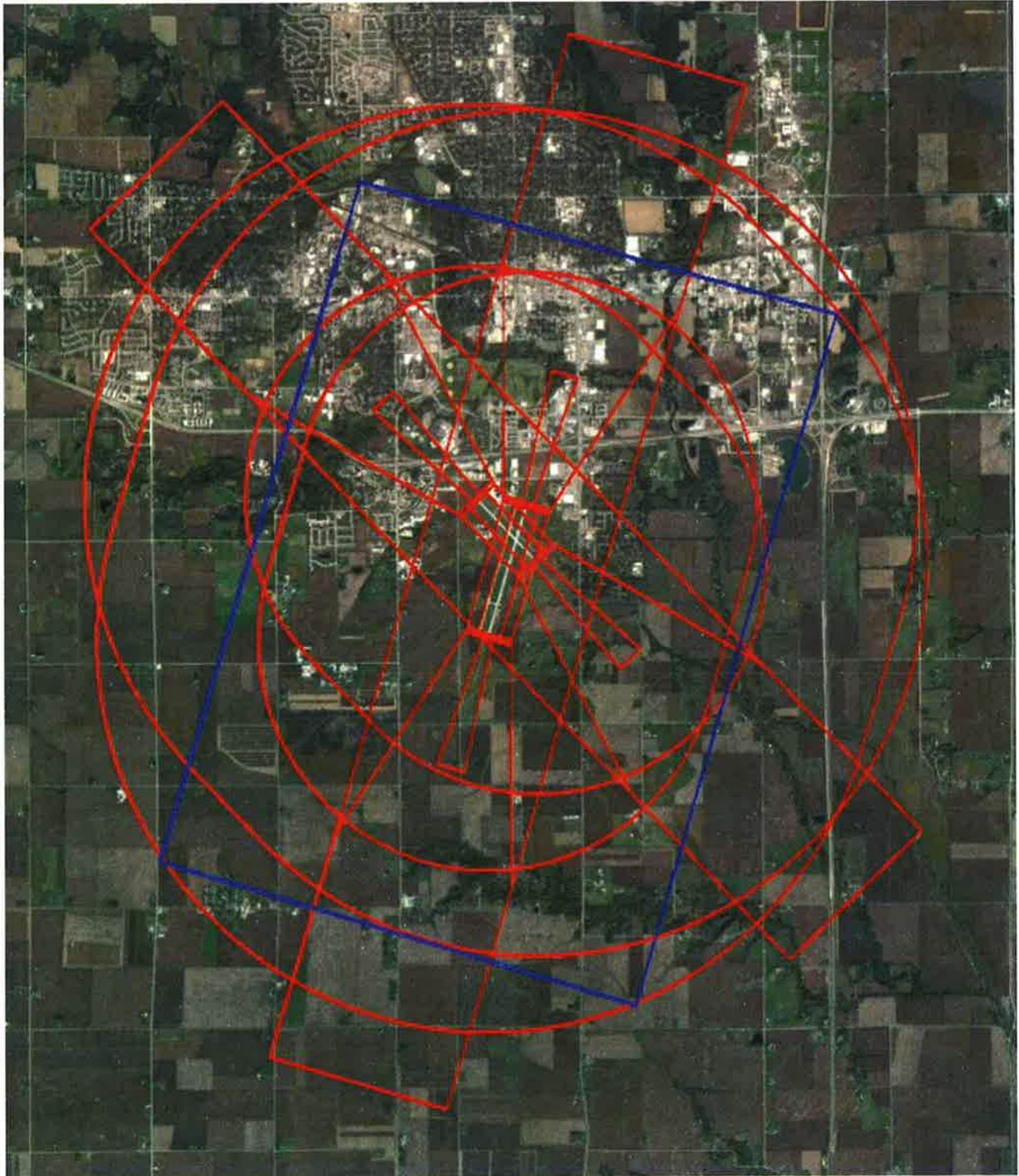


**MTZ | Martinez Geospatial**  
2915 Waters Road Suite 100  
Eagan, Minnesota 55121  
Tel: 651.686.8424 Fax: 651.686.8399





## Area C - Airports-GIS Airspace Analysis Limits



Red Limit - 18B/Airports-GIS Obstruction Identification Surfaces

Blue Limit - 0.50' GSD Ortho Imagery Limit



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## Attachment A

Ames Municipal Airport	AMW							
<b>EXISTING Runway End ID</b>	1	19	13	31				
<b>AGIS</b>								
Vertically Guided	x	x	x	x				
Non-Vertically-Guided								
<b>PART 77</b>								
PIR (Out to 20,000 feet)	x							
PIR (Full 50,000 feet)								
Non-Precision-D								
Non-Precision-C		x	x	x				
Non-Precision-A (ANP)								
Visual Utility (AV)								
Visual Other-Than-Utility (BV)								
<b>AC-13A Table 3-2</b>								
TSS 1								
TSS 2								
TSS 3								
TSS 4								
TSS 5								
TSS 6		x	x	x				
TSS 7	x							
TSS 8 (GQS)								
TSS 9 (departure not-OEI)	x	x						
<b>EXISTING Horizontal ARC Distance</b>	10,000	10,000						
<b>EXISTING Conical Dist from Horizontal</b>	4,000	4,000						
<b>FUTURE Runway End ID</b>								
	1*	19	13	31*				
<b>AGIS</b>								
Vertically Guided	x	x	x	x				
Non-Vertically-Guided								
<b>PART 77</b>								
PIR (Out to 20,000 feet)	x							
PIR (Full 50,000 feet)								
Non-Precision-D		x	x	x				
Non-Precision-C								
Non-Precision-A (ANP)								
Visual Utility (AV)								
Visual Other-Than-Utility (BV)								
<b>AC-13A Table 3-2</b>								
TSS 1								
TSS 2								
TSS 3								
TSS 4								
TSS 5								
TSS 6		x	x	x				
TSS 7	x							
TSS 8 (GQS)								
TSS 9 (departure not-OEI)	x	x						
<b>FUTURE Horizontal ARC Distance</b>	10,000	10,000						
<b>FUTURE Conical Dist from Horizontal</b>	4,000	4,000						

ALL RUNWAY HAVE LPV

potential extension to the south maybe as much as 3000ft  
The runaway may also shift or displace extend North  
potential extension on 13/31 to the SE

NOTE - Please include an asterisk next to any Future Runway End IDs that will involve a planned runway end change (runway extension or shortening). In this case, the Client must provide Martinez with X-Y-Z coordinates for the future runway end position.  
Horizontal surface is 150 ft above airport elevation. Airport elevation may change as a result of the planning study  
The conical surface extends out uniformly from the horizontal surface at a slope of 20:1.  
Primary Surface width is uniform, and is the widest extent. Example: A PIR on one end and NP-C on the other still has a primary surface width of 1,000ft

**ATTACHMENT No. 1 - SCOPE OF SERVICES  
AMES MUNICIPAL AIRPORT  
AMES, IOWA  
AIRPORT MASTER PLAN UPDATE**

**INTRODUCTION**

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This Airport Master Plan Update Scope of Services for Ames Municipal Airport (AMW) is being prepared prior to initiation of the study, to establish the goals of the project and framework from which all parties to the project may participate. The objective of the master plan is to provide the sponsor (City of Ames, Iowa) with proper guidance for future development which will satisfy aviation demands and be wholly compatible with the environment. Coordination between the Sponsor, the Federal Aviation Administration (FAA), and other parties with an interest in the airport will be essential to bringing together all facts and data relevant to the project and to developing a mutual agreement regarding future development at the airport. A Planning Advisory Committee (PAC) will be established for the study.

For purposes of this Scope of Services, the Consultant is Coffman Associates, The Subconsultant is Foth Infrastructure & Environment, LLC, and the Sponsor is the City of Ames.

**ELEMENT 7 - FINANCIAL MANAGEMENT AND DEVELOPMENT PROGRAM**

The purpose of this element is to analyze benefits and costs that may be associated with the recommended plan as well as determine and set out the assumptions, terms, and conditions by which agreed-upon capital improvement programs can be financially implemented for Ames Municipal Airport.

**Task 7.1      Prepare Airport Development Schedules and Cost Estimates**

**Description:** Prepare the airport development schedules and cost estimates (in current dollars) for the selected Master Plan concept for Ames Municipal Airport, thereby ensuring that logical staging of improvements are given proper consideration in the development of a financial plan and capital improvement program. Items that are eligible for funding under the Airport Improvement Program will be identified in accordance with FAA Order 5100.38D, *Airport Improvement Program (AIP) Handbook*.

**Responsibilities:**

Consultant:      Prepare an airport development schedule and estimated costs.

***Subconsultant: Prepare cost estimates for selected development alternative.***

Sponsor:        Review.

Product:        Development schedules and cost for the improvements proposed as a part of the selected master plan concepts.

## **ELEMENT 8 – GEOGRAPHICAL INFORMATION SYSTEM (GIS) SERVICES**

In conjunction with a master plan has elected to collect data to comply with table 2-1 of Advisory Circular 150/5300-18B, column Instrument Procedure Development. The dataset is a high precision, digital model of the safety critical features of the airport as defined in 18B table 4-1. The process includes collection of high-resolution aerial photography, high precision surveys of safety critical airport data, (runway ends, NAVAIDS, airport elevation, airspace, obstructions and others), and compilation of collected data into a uniform, GIS, dataset. This Scope of Services is being prepared prior to initiation of the project to establish the goals of this element and a framework from which all parties may refer. The objective is to provide the Sponsor with a digital dataset of the airport and its surrounding environment in conformance with current Federal Aviation Administration (FAA) standards set forth in the Advisory Circulars 150/5300- 13, 16A, - 17C, and -18B.

Specific objectives of the Airport GIS Scope of Services will be:

- To perform airspace analysis for the existing runways as well as considerations for planned development.
- To conduct a ground survey tied to the airport PACS/SACS, and assess their condition. Provide updates to NGS.
- To provide current orthophotography for the airport.
- To develop a GIS dataset that meets the airports needs and is acceptable to the FAA.

### **Task 8.2          Aerial Photography, Survey and Airspace Analysis**

**Description:** In conformance with Advisory Circulars 150/5300-16A, -17C, and -18B. Provide oversight for documentation and quality review of survey and plans, and Aerial photo acquisition and plans and review Airspace Analysis.

#### ***Responsibilities:***

**Consultant:**      Ensure FAA and airport standards are met for all survey activity on and off airport and aerial photography acquisition. Provide oversight and review as needed.

**Subconsultant:** *Perform field survey to support aerial imagery acquisition. Includes the following:*

**1) PACS/SACS Validation (Does not include setting permanent control points). In the event that PAC/SACS validation is not successful, we will establish temporary control points established through OPUS.**

**2) Imagery Control Survey (40 points)**

**3) OPUS Checkpoints (5 points)**

**4) NAVAID Survey**

**5) Runway Endpoint & Profiles Survey (Two Runways)**

**Sponsor:**      Liaison with survey team to provide access to airport property. Assist in providing any needed information to survey and aerial photography teams. Direct consultants as required to any safety or operational requirements for survey and aerial photography team.

**Product:**      Completion of all required documentation as it relates to our scope of work, including standard forms, location sketches, and point photos.

**Budget Estimate**

Element 7	Cost Estimating	\$6,500
Element 8	Field Survey	\$20,500
Total		\$27,000