



**PURCHASING ITEM  
FOR  
COUNCIL AGENDA  
Memo No. CA12-160**

**1. Agenda Item Number:**

**14**

**2. Council Meeting Date:**  
April 12, 2012

**TO: MAYOR & COUNCIL**

**3. Date Prepared:** March 15, 2012

**THROUGH: CITY MANAGER**

**4. Requesting Department:** Economic Development

**5. SUBJECT:** Award a project agreement to Dibble Engineering for the design of a new Airport Automated Weather Observation System (AWOS), Project No. AI1204-201, in an amount not to exceed \$71,509. This project is being done under an annual contract to Dibble Engineering for Airport Facilities and Infrastructure Design, Project No. EN1005-101.

**6. RECOMMENDATION:** Staff recommends that Council award a project agreement to Dibble Engineering for the design of a new Airport Automated Weather Observation System (AWOS), Project No. AI1204-201, in an amount not to exceed \$71,509. This project is being done under an annual contract to Dibble Engineering for Airport Facilities and Infrastructure Design, Project No. EN1005-101.

**7. BACKGROUND/DISCUSSION:** The current AWOS was installed in 1991 and has multiple failing components. In addition, replacement parts are no longer available for the failed or deteriorating components due to the age of the system. This project will design a replacement for the current system in its entirety with a new AWOS III-PT with a new cable and conduit run from the new system to the existing electrical vault.

This new upgraded system not only has digital, instantaneous wind speed, temperature, and dew point indicators, it also includes a real-time precipitation gauge and lightening detector which the existing system does not have. The system is being located closer to the runway which facilitates opening up a parcel of land for future development. This and other more technical criteria included are requirements for FAA compliance.

This project is fully funded with a grant from the Federal Aviation Administration.

**8. EVALUATION:** City staff has reviewed the scope of the pre-approved design fees and found it reasonable for a project of this type.

**9. FINANCIAL IMPLICATIONS:**

Fund Source:

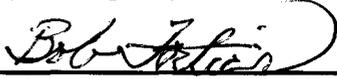
<u>Acct. No.:</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
217.4110.0.6910.6AI661	Grant-FAA	AWOS Replacement	YES	\$71,509.00

**10. PROPOSED MOTION:** Move that Council award a project agreement to Dibble Engineering for the design of a new Airport Automated Weather Observation System (AWOS), Project No. AI1204-201, in an amount not to exceed \$71,509. This project is being done under an annual contract to Dibble Engineering for Airport Facilities and Infrastructure Design, Project No. EN1005-101.

**ATTACHMENTS:** Location Map, Project Agreement

**APPROVALS**

**11. Requesting Department**



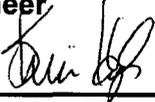
Bob Fortier, Capital Projects Manager

**13. Department Head**



Christine Mackay, Economic Development Director

**12. City Engineer**



Sheina Hughes, City Engineer

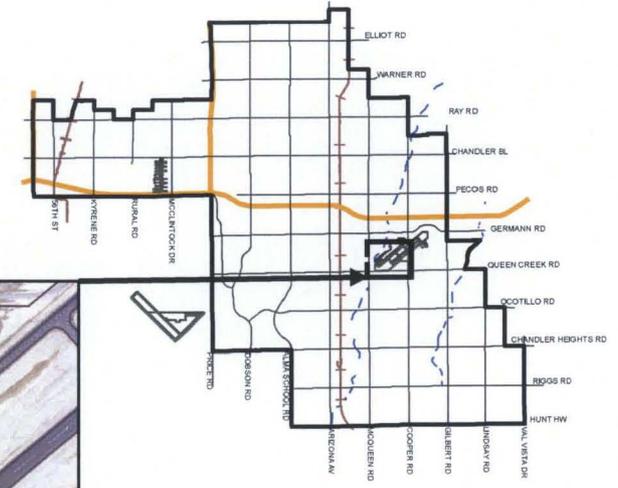
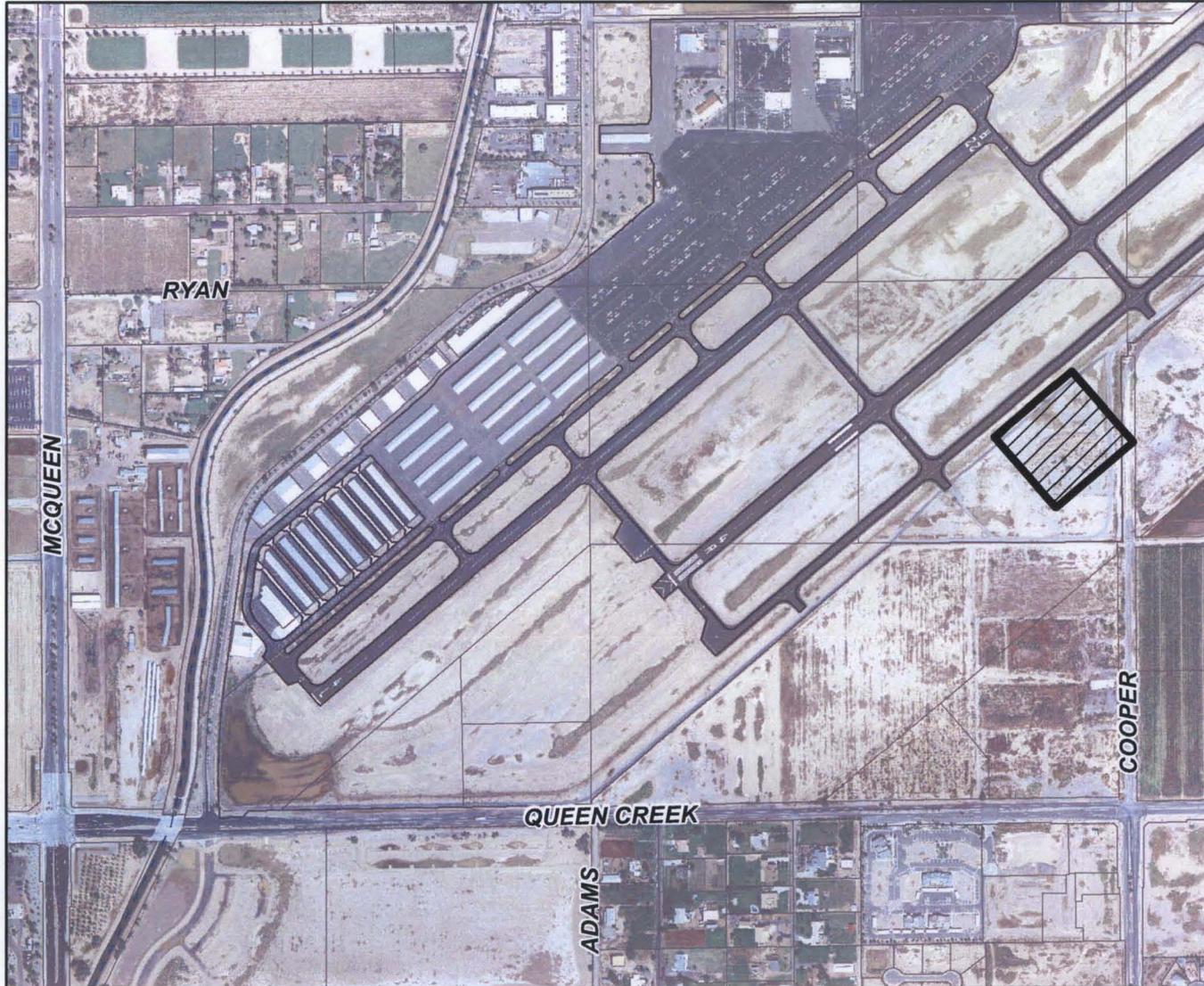
**14. City Manager**



Rich Dlugas, City Manager



# AIRPORT AWOS DESIGN PROJECT AI1204-201



**MEMO NO. CA12-160**

 **PROJECT AREA**



**PROJECT AGREEMENT  
PURSUANT TO ANNUAL CONTRACT NO. EN1005-101**

**AGREEMENT NO: AI1204-201**

This AGREEMENT is made this 13 day of March 2012, by and between the City of Chandler, a municipal corporation (hereinafter referred to as "CITY") and Dibble Engineering, (hereinafter referred to as "Annual Consultant") and is a project agreement entered into pursuant to Annual Contract No. EN1005-101.

CITY and Dibble Engineering, in consideration of the mutual covenants herein set forth, agree as follows:

**ARTICLE 1. DESCRIPTION OF WORK**

This project is Airport Automated Weather System Replacement, Project Number AI1204-201. The scope of work consists of preparing studies, design plans, special provisions, specifications, quantities, and cost estimating services for the installation of an Automated Weather Observation System (AWOS) and associated electrical cable and conduit, all as more particularly set forth in Exhibit A attached hereto and incorporated herein by reference.

The Annual Consultant shall not accept any change of scope, or change in contract provisions, unless issued in writing, as a contract amendment and signed by the Contract Administrator.

**ARTICLE 2. CONTRACT PRICE**

CITY shall pay Annual Consultant for completion of the Work in accordance with the Contract Documents a fee not to exceed Seventy One Thousand Five Hundred Nine Dollars (\$71,509) determined and payable as set forth in Annual Contract EN1005-101 and Exhibit B attached hereto and made a part hereof by reference.

**ARTICLE 3. CONTRACT TIME**

The contract time is One Hundred Twenty days and Annual Consultant agrees to complete all work within One Hundred Twenty (120) days of the date CITY issues a Notice to Proceed.

**ARTICLE 4. GENERAL**

This Project Agreement is entered into pursuant to Annual Contract No. EN1005-101 and the terms and conditions contained therein are incorporated herein by reference as if set forth in full.

**ARTICLE 5. ARIZONA PROCUREMENT LAW**

Compliance with A.R.S. § 41-4401. Pursuant to the provisions of A.R.S. § 41-4401, the Consultant hereby warrants to the City that the Consultant and each of its subcontractors ("Subconsultants") will comply with all Federal Immigration laws and regulations that relate to the immigration status of their employees and the requirement to use E-Verify set forth in A.R.S. §23-214(A) (hereinafter "Consultant Immigration Warranty").

A breach of the Consultant Immigration Warranty (Exhibit C) shall constitute a material breach of this Contract that is subject to penalties up to and including termination of the contract.

The City retains the legal right to inspect the papers of any Consultant or Subconsultant employee who works on this Contract to ensure that the Consultant or Subconsultant is complying with the Contractor Immigration Warranty. The Consultant agrees to assist the City in the conduct of any such inspections.

The City may, at its sole discretion, conduct random verifications of the employment records of the Consultant and any Subconsultant to ensure compliance with Contractors Immigration Warranty. The Consultant agrees to assist the City in performing any such random verifications.

The provisions of this Article must be included in any contract the Consultant enters into with any and all of its subcontractors who provide services under this Contract or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a consultant or subconsultant. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

In accordance with A.R.S. §35-393.06, the Consultant hereby certifies that the offeror does not have scrutinized business operations in Iran.

In accordance with A.R.S. §35-391.06, the Consultant hereby certifies that the offeror does not have scrutinized business operations in Sudan.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first written above.

This Agreement will be effective on this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

CITY OF CHANDLER

FOR THE ANNUAL:

\_\_\_\_\_  
MAYOR DATE:

By: Steven E. Rex  
Title: COO

ADDRESS FOR NOTICE  
City of Chandler  
P.O. Box 4008, Mail Stop 407  
Chandler, AZ 85244-4008  
480-782-3307

ADDRESS FOR NOTICE  
Mr. Steve Rex  
Dibble Engineering  
7800 N. Dreamy Draw Dr., Ste. 200  
Phoenix, AZ 85020

APPROVED AS TO FORM:

Phone: 602-957-1155  
Fax: 602-957-2838

ATTEST: City Attorney By: [Signature]

\_\_\_\_\_  
City Clerk

## EXHIBIT A SCOPE OF WORK

### A. Data Collection

1. **Record Information:** Gather and review all available as-built drawings, utility drawings, design drawings, studies, reports and plans relevant to the project.
2. **Site Visit:** Perform a site visit with CR Engineers (electrical engineering sub-consultant) in order to identify general ground features, utility locations and potential utility conflicts.
3. **Limited Topographical Survey:** Conduct a ground-based topographical survey of existing surface facilities and ground conditions around the proposed AWOS installation site.
4. **Base Mapping:** Utilizing topographic surveys, existing design files, photogrammetric mapping, field investigation, record drawings, and Chandler Municipal Airport's most recent Airport Layout Plan; prepare AutoCAD electronic base maps for the installation of the proposed AWOS.

### B. Site Evaluation Study

Prepare an AWOS site evaluation study, which includes the following:

- Perform wind data analysis utilizing available current wind data from the National Weather Service to confirm that Runway 4R is the primary runway direction;
- Prepare a VHF Outlet Justification Statement; and
- Analysis and recommendation of exact AWOS site (in the general area as noted in the most current Airport Layout Plan).

### C. Miscellaneous Civil Design

Prepare civil construction drawings, specifications and estimates for the following:

- Location/site plan for the AWOS installation site and Contractor staging, stockpile and borrow locations, and Contractor site access;
- Demolition for the existing AWOS;
- Grading and drainage;
- Project phasing; and
- Civil construction details for AWOS concrete pad, and pavement patching for the electrical conduit runs to the vault.

### D. Electrical Engineering

Prepare electrical construction drawings, specifications and estimates for the installation of the following:

- AWOS III-PT;
- Electrical cable and conduit from the existing vault to the proposed AWOS site;
- A second independent wind indicator;
- An independent dew point sensor; and
- A second digital altimeter setting indicator (DASI).

In addition, spare conduits will also be specified from the new vault across the airfield to the proposed AWOS site in order to provide for future electrical improvements.

### E. AWOS Pre-Installation Coordination

1. Coordinate or assist the City with coordination with the FAA Non-Federal Facilities Program Manager;

2. Coordinate or assist the City with coordination of a VHF frequency assignment request with the designated FAA Regional Airway Facilities representative;
3. Coordinate or assist the City with coordination with the FAA Flight Standards Office for revisions to the Airport Facilities Directory and published instrument approach procedures (120 days prior to the anticipated AWOS commissioning date).

#### F. FAA Documentation

1. Construction 7460's: Prepare the FAA Form 7460 "Notice of Proposed Construction or Alteration" identifying specific locations, durations, and heights of proposed equipment necessary for construction activities, as well as for the installation of the AWOS itself. 7460 documentation will be provided to the Airport Manager for submittal to the FAA, or Dibble may perform this on the Airport Manager's behalf, if desired by the Airport Manager.
2. Construction Phasing and Safety Plan (CPSP): Utilizing the FAA's CPSP template included in the new FAA AC 150/5370-2F, prepare a final project-specific CPSP at the 60% plans submittal to allow timely review by and approval of the CPSP by FAA in advance of construction grant issuance. The CPSP will incorporate all relevant project-specific phasing and safety requirements, including phasing plans, contract duration for each phase; barricading; temporary markings, staging, storage and stockpile locations; haul routes including any required flagger locations at Taxiway or Runway crossings if required; and positive identification of and protection of Taxiway and Runway Safety Areas. The final approved CPSP will be submitted as a stand-alone document for inclusion in the Construction Grant Application but will also be included as an Appendix in the Final Engineer's Report and/or Final Specifications/Contract Documents to make it a permanent part of the project documentation.
3. Engineer's Report: Prepare Draft and Final Engineer's Reports documenting design calculations and confirming conformance with FAA and City of Chandler design standards, as appropriate. The Engineer's Report will include identification of standards, any modifications to standards, facility siting and location criteria (Site Evaluation Study), Quantities and Estimates, and a Construction Safety Plan. No Drainage or Geotechnical Reports are anticipated to be completed for this project, but Dibble may reference past Airport Drainage and/or Geotechnical Reports for this project.
4. Airport Layout Plan: Update the existing AutoCAD Airport Layout Plan (ALP) to reflect the new AWOS location. The draft revised ALP will be provided to the City for review, comments will be addressed, and the final revised ALP will be provided to the FAA for review and revalidation.

It is assumed that the current ALP is in substantial conformance to FAA requirements, accurately reflects the recommendations of the most current Master Plan, and that no revisions will be necessary beyond the modifications pertaining to this project.

#### G. Specifications

1. Technical Specifications: Prepare Technical Specifications based on FAA, ADOT and MAG (as amended by the City of Chandler) requirements for all elements of the work.
2. Special Provisions/Front End Documents: Prepare FAA-based project Contract Documents/Special Provisions based on the City of Chandler's most current template for Airport construction projects.

#### H. Bid-Phase Services (if requested):

Bid-Phase Services: Engineering services during the bid phase will be provided, including assistance with advertising preparations, attending the Pre-Bid meeting, responding to contractor questions, issuing addenda to the contract documents, and assisting City and Airport staff as necessary in evaluation of bids, including preparation of a Bid Tabulation to be included in the Construction Grant Application, and making a recommendation for a construction contractor, if requested.

#### I. Design Meetings and Coordination

1. **Owner Project Meetings:** The Engineer's key staff will be available, along with sub-consultant staff as necessary, for periodic progress meetings with City and Airport staff, estimated at once per pre-final submittal (30%, 60%, 90%). As required by ADOT, the Engineer will attend the 30% and 100% design/submittal meetings in Phoenix at the ADOT Multimodal Planning Division offices.
2. **Project Coordination:** The Engineer will provide management of and coordination of the design team, and will provide coordination between design team members, City of Chandler/Chandler Municipal Airport staff, and other interested stakeholders as necessary.

**J. Miscellaneous**

1. This proposal is based on an assumed five-month design schedule for design from November 2011 through April 2011. A mutually agreed upon design and submittal schedule for this project will be developed with the City. The anticipated submittal schedule will include: 30% plans, draft Engineer's Report, Site Evaluation Study, outline specifications, quantities and estimates; 60% plans, draft specifications, quantities, and estimates; 90% pre-final plans, specifications, quantities, and estimates; 100% plans, specifications and contract documents, Final Engineer's Report, quantities and estimates; and Final/Bid Set plans, sealed specifications and contract documents, quantities and estimates.
2. All plans are to be prepared in AutoCAD Civil 3D 2011 (or current version used by City of Chandler). All work will be prepared in conformance to relevant FAA Advisory Circulars and Orders, as well as MAG standards (as amended by the City of Chandler).
3. **Design Quality Control/Quality Assurance:** The Engineer will perform quality control reviews of their own work prior to each submittal utilizing standard checking processes plus separate review of project documents by the Engineer's Quality Control Manager.
4. The Engineer will make monthly "Design and Progress Reports", including invoicing, to the City of Chandler in a format acceptable to the City.
5. The Final/Bid Set submittal for the project will include sealed mylar originals of the construction plans, electronic (CD-ROM) versions of the construction plans, PDF versions of the plans and Final Engineer's Report, and sealed hardcopies and electronic versions of the specifications.
6. Construction-Phase services are excluded; a separate proposal for these services will be submitted, upon request, at or near the 90% submittal stage.

**EXHIBIT B  
FEE SCHEDULE**

ESTIMATED MAN-HOURS									
	PRINCIPAL	SR. PROJECT MANAGER	PROJECT MANAGER	SENIOR ENGINEER	ENGINEER (P.E.)	ASSISTANT ENG. (E.I.T.)	TECHNICIAN	ADMIN. ASSISTANT	TOTAL HOURS
<b>DESIGN PHASE SERVICES</b>									
1. Project Management and Admn.	2	8	8						18
2. Site Visits			4		4				8
3. FAA/ADOT Coordination/Meetings		6	6						12
4. 30% Civil Plans		4	8		8		24		44
5. Draft Engineer's Report		2	2		4		4		12
6. 60% Civil Plans		4	8		8		12		32
7. Draft Specifications & Contract Docs.		4	16		16				36
8. 90% Civil Plans		4	8		8		12		32
9. Final Specifications & Contract Docs.		4	8		8				20
10. Final 100% Bid Set Plans		2	4		4		8		18
11. Final Engineer's Report		2	2		4		2		10
12. Construction Safety Plan		2	8		8		2		20
13. Overall QA/QC		2		12					14
<b>Total - Design Phase Services</b>	<b>2</b>	<b>44</b>	<b>82</b>	<b>12</b>	<b>72</b>	<b>0</b>	<b>64</b>	<b>0</b>	<b>276</b>
<b>BID PHASE SERVICES</b>									
1. Pre-Bid Meeting		4	4						8
2. Contractor Questions and Addenda		4	4		4	2			14
<b>Total - Bid-Phase Services</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>22</b>
<b>TOTAL DIRECT LABOR HOURS</b>	<b>2</b>	<b>52</b>	<b>90</b>	<b>12</b>	<b>76</b>	<b>2</b>	<b>64</b>	<b>0</b>	<b>298</b>
<b>LABOR FEE BY TASK</b>									
	\$154.00	\$146.00	\$137.00	\$126.00	\$121.00	\$95.00	\$82.00	\$49.00	TOTAL
	PRINCIPAL	SR. PROJECT MANAGER	PROJECT MANAGER	SENIOR ENGINEER	ENGINEER (P.E.)	ASSISTANT ENG. (E.I.T.)	TECHNICIAN	ADMIN. ASSISTANT	TASK FEE
<b>DESIGN PHASE SERVICES</b>									
1. Project Management and Admn.	\$308.00	\$1,168.00	\$1,096.00						\$2,572.00
2. Site Visits			\$548.00		\$484.00				\$1,032.00
3. FAA/ADOT Coordination/Meetings		\$876.00	\$822.00						\$1,698.00
4. 30% Civil Plans		\$584.00	\$1,096.00		\$968.00		\$1,968.00		\$4,616.00
5. Draft Engineer's Report		\$292.00	\$274.00		\$484.00		\$328.00		\$1,378.00
6. 60% Civil Plans		\$584.00	\$1,096.00		\$968.00		\$984.00		\$3,632.00
7. Draft Specifications & Contract Docs.		\$584.00	\$2,192.00		\$1,936.00				\$4,712.00
8. 90% Civil Plans		\$584.00	\$1,096.00		\$968.00		\$984.00		\$3,632.00
9. Final Specifications & Contract Docs.		\$584.00	\$1,096.00		\$968.00				\$2,648.00
10. Final 100% Bid Set Plans		\$292.00	\$548.00		\$484.00		\$656.00		\$1,980.00
11. Final Engineer's Report		\$292.00	\$274.00		\$484.00		\$164.00		\$1,214.00
12. Construction Safety Plan		\$292.00	\$1,096.00		\$968.00		\$164.00		\$2,520.00
13. Overall QA/QC		\$292.00		\$1,512.00					\$1,804.00
<b>Total - Design Phase Services</b>	<b>\$308.00</b>	<b>\$6,424.00</b>	<b>\$11,234.00</b>	<b>\$1,512.00</b>	<b>\$8,712.00</b>		<b>\$5,248.00</b>		<b>\$33,438.00</b>
<b>BID-PHASE SERVICES</b>									
1. Pre-Bid Meeting		\$584.00	\$548.00						\$1,132.00
2. Contractor Questions and Addenda		\$584.00	\$548.00		\$484.00	\$190.00			\$1,806.00
<b>Total - Bid-Phase Services</b>		<b>\$1,168.00</b>	<b>\$1,096.00</b>		<b>\$484.00</b>	<b>\$190.00</b>			<b>\$2,938.00</b>
<b>TOTAL LABOR FEE</b>	<b>\$308.00</b>	<b>\$7,592.00</b>	<b>\$12,930.00</b>	<b>\$1,512.00</b>	<b>\$9,196.00</b>	<b>\$190.00</b>	<b>\$5,248.00</b>	<b>\$0.00</b>	<b>\$36,376.00</b>
<b>DIRECT COSTS</b>									
					<b>ALLOWANCE (SUB-CONSULTANT) COSTS</b>				
<b>DESIGN PHASE SERVICES</b>									
1. Submittal Printing	\$583.00								\$2,812.00
2. Mileage	\$197.00								\$22,291.00
<b>Total - Design Phase Services</b>	<b>\$780.00</b>								<b>\$32,503.00</b>
<b>BID-PHASE SERVICES</b>									
1. Mileage	\$33.00								\$1,817.00
<b>Total - Bid-Phase Services</b>	<b>\$33.00</b>								<b>\$1,817.00</b>
<b>TOTAL DIRECT COSTS</b>	<b>\$813.00</b>								<b>\$34,320.00</b>
<b>FEE SUMMARY</b>									
Design Phase Services Labor Fee	\$33,438.00								
Bid-Phase Services Labor Fee	\$2,938.00								
Direct Costs	\$813.00								
Allowance (Sub-Consultant) Costs	\$34,320.00								
<b>TOTAL CONTRACT AMOUNT</b>	<b>\$71,509.00</b>								

EXHIBIT C

**Contractor Immigration Warranty  
To Be Completed by Consultant Prior to Execution of Contract**

A.R.S. § 41-4401 requires as a condition of your contract verification of compliance by the consultant and subconsultants with the Federal Immigration and Nationality Act (FINA), all other Federal Immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of its employees.

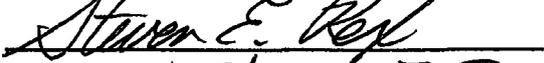
By completing and signing this form the Engineer/Annual Consultant shall attest that it and all subconsultants performing work under the cited contract meet all conditions contained herein.

Project Number: AI1204-201		
Name (as listed in the contract):		
Street Name and Number:		
City:	State: AZ	Zip Code:

I hereby attest that:

1. The Engineer/Annual Consultant complies with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of those employees performing work under this contract;
2. All subconsultants performing work under this contract comply with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of their employees; and
3. The Engineer/Annual Consultant has identified all consultant and subconsultant employees who perform work under the contract and has verified compliance with Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214.

**Signature of Engineer/ Annual Consultant (Employer) or Authorized Designee:**



Printed Name: Steven E. Rex

Title: COO

Date (month/day/year): 3/8/12