

# CITY COUNCIL AGENDA

CITY COUNCIL CHAMBERS . 11465 WEST CIVIC CENTER DRIVE . AVONDALE, AZ 85323

**REGULAR MEETING**  
January 24, 2011  
7:00 PM

**CALL TO ORDER BY MAYOR ROGERS**  
**PLEDGE OF ALLEGIANCE**  
**MOMENT OF REFLECTION**

**1 ROLL CALL AND STATEMENT OF PARTICIPATION BY THE CITY CLERK**

**2 UNSCHEDULED PUBLIC APPEARANCES**

(Limit three minutes per person. Please state your name.)

**3 CONSENT AGENDA**

Items on the consent agenda are of a routine nature or have been previously studied by the City Council at a work session. They are intended to be acted upon in one motion. Council members may pull items from consent if they would like them considered separately.

**a. APPROVAL OF MINUTES**

1. Regular Meeting of January 3, 2011
2. Work Session of January 10, 2011

**b. FINAL PLAT FOR REPLAT LOT 4, AVONDALE CITY CENTER PHASE 1**

City Council will consider a request to approve the final plat for the "Re-plat of Lot 4, Avondale City Center Phase 1". Council will take the appropriate action.

**c. PURCHASE AGREEMENT - IKON OFFICE SOLUTIONS**

City Council will consider a request to approve a purchase agreement with Ikon Office Solutions to purchase 12 copiers in the amount of \$88,809, enter into an annual maintenance agreement for \$14,000 and authorize the Mayor or City Manager and City Clerk to execute the necessary documents. The Council will take appropriate action.

**d. PROFESSIONAL SERVICES AGREEMENT - KIMLEY-HORN AND ASSOCIATES, INC. - SOUTH AVONDALE CADD SERVICES**

City Council will consider a request to approve a Professional Services Agreement with Kimley-Horn and Associates for South Avondale CADD Services in the amount of \$58,797, and authorize the Mayor or City Manager and City Clerk to execute the necessary documents. The Council will take appropriate action.

**e. PROFESSIONAL SERVICES AGREEMENT - BROWN & CALDWELL, INC. - PHOENIX INTERNATIONAL RACEWAY LIFT STATION STUDY & DESIGN**

City Council will consider a request to approve a Professional Services Agreement with Brown and Caldwell for the Phoenix International Raceway Lift Station Study, Preliminary and Final Design in an amount not to exceed \$148,279, and authorize the Mayor or City Manager and City Clerk to execute the necessary documents. The Council will take appropriate action.

**4 PUBLIC HEARING, PAD ZONING EXTENSION, AVONDALE CROSSING (PL-10-0104)**

City Council will hold a public hearing and consider a request by Ms. Lisa Chasteen of LaPour Partners, Inc. for extension of Planned Area Development (PAD) zoning for Avondale Crossing, located on approximately 29.64 acres of land at the northeast corner of El Mirage Road and Corporate Drive. The Council will take appropriate action.

**5 EXECUTIVE SESSION**

a. The Council may hold an executive session pursuant to ARIZ. REV. STAT. § 38-431.03 (A)(4) for discussion or consultation with the City's Attorney in order to consider its position and instruct the City Attorney regarding the Council's position regarding the *Stone v. City of Avondale* litigation.

**6 ADJOURNMENT**

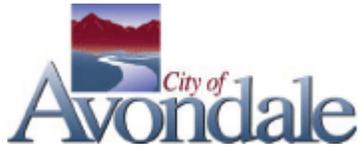
Respectfully submitted,



Carmen Martinez  
City Clerk

Individuals with special accessibility needs, including sight or hearing impaired, large print, or interpreter, should contact the City Clerk at 623-333-1200 or TDD 623-333-0010 at least two business days prior to the Council Meeting.

Personas con necesidades especiales de accesibilidad, incluyendo personas con impedimentos de vista u oído, o con necesidad de impresión grande o interprete, deben comunicarse con la Secretaria de la Ciudad at 623-333-1200 o TDD 623-333-0010 cuando menos dos días hábiles antes de la junta del Concejo.



# CITY COUNCIL REPORT

**SUBJECT:**  
APPROVAL OF MINUTES

**MEETING DATE:**  
January 24, 2011

**TO:** Mayor and Council  
**FROM:** Carmen Martinez, City Clerk (623) 333-1214  
**THROUGH:** Charlie McClendon, City Manager

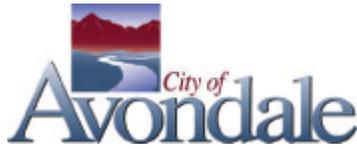
**PURPOSE:**

1. Regular Meeting of January 3, 2011
2. Work Session of January 10, 2011

**ATTACHMENTS:**

[Click to download](#)

No Attachments Available



# DEVELOPMENT SERVICES

**SUBJECT:**  
Final Plat for Replat Lot 4, Avondale City Center  
Phase 1

**MEETING DATE:**  
January 24, 2011

**TO:** Mayor and Council  
**FROM:** Sue McDermott, P.E., Director of Development Services & Engineering, 623-333-4211  
**THROUGH:** Charlie McClendon, City Manager

---

**REQUEST:** Final Plat Approval for "Re-plat Lot 4, Avondale City Center Phase 1"

**PARCEL SIZE:** 4.013 acres

**LOCATION:** Northeast Corner of City Center Drive and 114th Avenue

**APPLICANT:** City of Avondale

**OWNER:** City of Avondale

**BACKGROUND:**

The final plat for Avondale City Center Phase 1 was approved April 20, 2009. On August 3, 2009 the area was rezoned CCD (City Center District). The American Sports Center was substantially completed on November 1, 2010 and the retail complex is currently under construction on portions of Lot 4.

**SUMMARY OF REQUEST:**

This is a request to:

1. Subdivide Lot 4 of Avondale City Center property into three (3) lots for various uses. The proposed subdivided lots are as follows:  
Lot 4a - Retail is proposed to be 0.844 acres  
Lot 4b - American Sports Center is proposed to be 2.201 acres  
Lot 4c - Multifamily Residential is proposed to be 0.968 acres  
The re-plat is needed in advance of a Commercial Condominium Plat which will further subdivide Lot 4a - Retail into four (4) units for sale.
2. Create easements for public access, storm and utilities.
3. Allow patio, canopy and roof overhangs into the right-of-way.
4. Rename Corporate Drive to Dale Earnhardt Drive.

**PARTICIPATION:**

Public notification and hearing is not required for final plats.

**ANALYSIS:**

The proposed commercial plat meets all development standards for the CCD zoning district.

**FINDINGS:**

The proposed plat meets the following findings:

1. It meets the land use and design objectives of the General Plan.
2. It is consistent with the requirements of the CCD zoning.
3. It conforms to the City's Subdivision Regulations.

**RECOMMENDATION:**

Staff recommends that the City Council approve the proposed final plat.

**ATTACHMENTS:**

Click to download

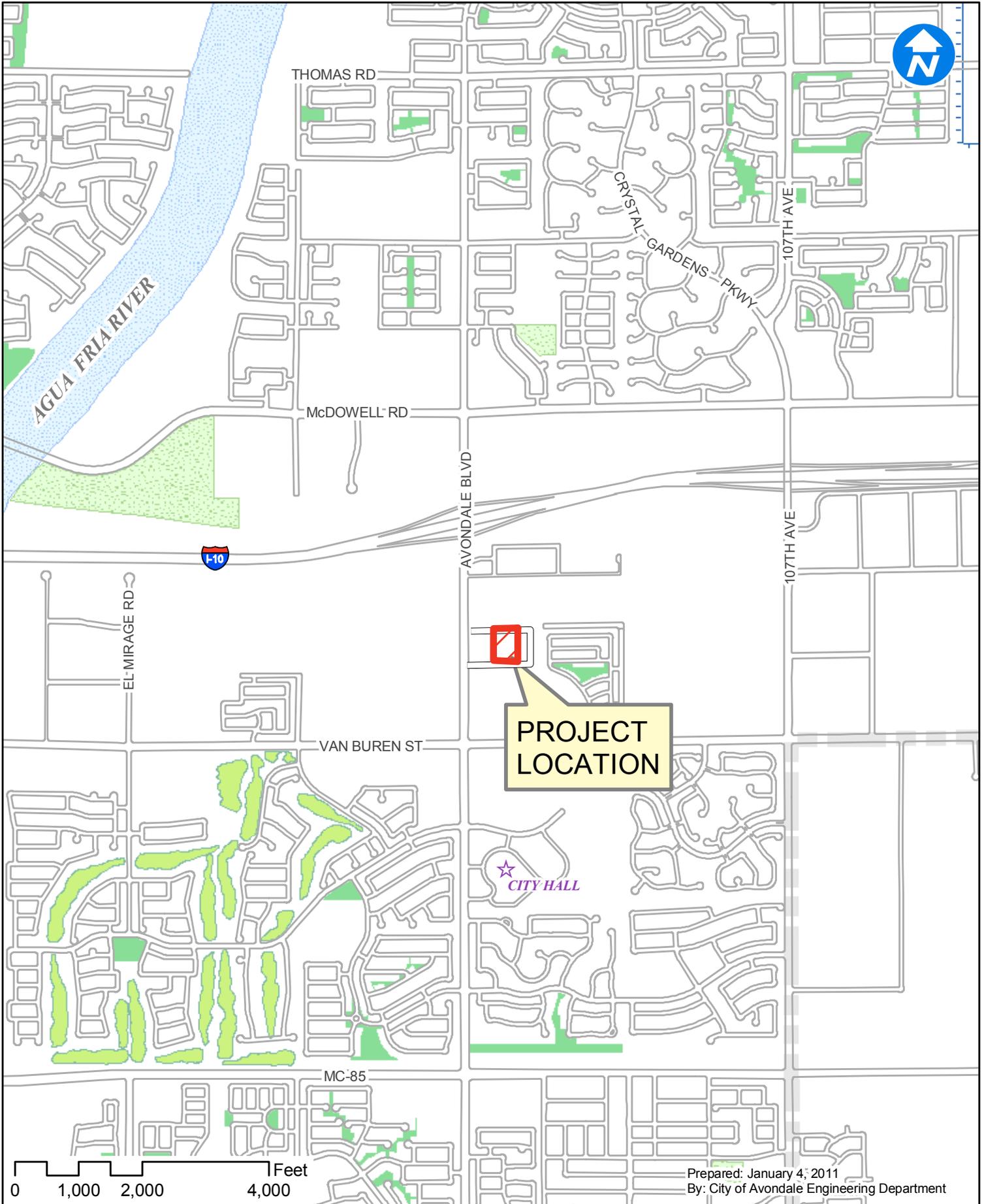
 [Vicinity Map](#)

 [Final Plat for Replat of Lot 4, Avondale City Center Phase 1 sealed December 28, 2010](#)

**PROJECT MANAGER:**

Lari Spire, RLS

# VICINITY MAP



## Replat Lot 4 Avondale City Center

Prepared: January 4, 2011  
By: City of Avondale Engineering Department

**FINAL PLAT  
FOR**

**REPLAT OF LOT 4 OF AVONDALE CITY CENTER PHASE 1  
AVONDALE, ARIZONA**

A PORTION OF THE PLAT RECORDED IN BOOK 1027, PAGE 31,  
MARICOPA COUNTY RECORDERS OFFICE RECORDS  
AND BEING LOCATED IN THE SOUTHWEST QUARTER OF  
SECTION 6, TOWNSHIP 1 NORTH, RANGE 1 EAST OF THE  
GILA AND SALT RIVER MERIDIAN  
MARICOPA COUNTY, ARIZONA



**SHEET INDEX**

- 1-----COVER SHEET
- 2-----FINAL PLAT
- 3-----PLAT DETAILS

**VICINITY MAP**  
NOT TO SCALE

**LEGAL DESCRIPTION**

LOT 4 OF THE FINAL PLAT  
AVONDALE CITY CENTER PHASE 1  
RECORDED IN MARICOPA COUNTY RECORDERS OFFICE  
BOOK 1027 OF MAPS, PAGE 31  
AN APRIL 2009 PLAT.

**OWNER/DEVELOPER**

CITY OF AVONDALE  
11465 W. CIVIC CENTER DRIVE, SUITE 120  
AVONDALE, ARIZONA 85323-6804  
PHONE: (623) 333-4200  
CONTACT: LARI SPIRE, RLS

**SURVEYOR**

CONSULTANT REGISTERED SURVEYING, INC.  
8732 E. PICCADILLY ROAD  
SCOTTSDALE, ARIZONA 85251  
PHONE 480-620-1382  
CONTACT CARL SITTERLEY, RLS, ARIZONA 28742

**BENCHMARK**

CITY OF AVONDALE BENCHMARK CIVIC CENTER NGS HORIZONTAL  
CONTROL DISK STAMPED CIVIC CENTER 2006,  
THE ELEVATION BEING NAVD88 DATUM=996.80

**100 YEAR ASSURED WATER SUPPLY**

THIS AREA PLATTED HEREON WITH THE DOMESTIC WATER SERVICE  
AREAS OF THE CITY OF AVONDALE WHICH IS DEDICATED AS HAVING  
AN ASSURED SUPPLY PURSUANT TO SECTION 45-576 ARIZONA  
REVISED STATUTES.

**BASIS OF BEARING**

THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 6,  
TOWNSHIP 1 NORTH, RANGE 1 EAST, G&SRM, HAVING A BEARING OF  
NORTH 00°02'19" WEST, PER RECORD OF SURVEY AVONDALE CITY  
CENTER RECORDED IN THE MARICOPA COUNTY RECORDERS OFFICE IN  
BOOK 1023 OF MAPS, PAGE 35. SAID BASIS OF BEARING SAME AS  
THE ABOVE STATED FINAL PLAT OF AVONDALE CITY CENTER PHASE 1.

**APPROVALS**

Approved by the Council of the City of Avondale, Arizona,  
this \_\_\_\_\_ day of \_\_\_\_\_, 2011

\_\_\_\_\_  
Mayor Date: \_\_\_\_\_

\_\_\_\_\_  
Attest, City Clerk Date: \_\_\_\_\_

\_\_\_\_\_  
City Engineer Date: \_\_\_\_\_

**GENERAL NOTES**

- CONSTRUCTION WITHIN PUBLIC UTILITY EASEMENTS SHALL BE LIMITED TO UTILITIES AND LANDSCAPING UNLESS APPROVED OTHERWISE BY THE CITY OF AVONDALE.
- ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.
- ALL ELECTRIC AND COMMUNICATION LINES TO BE CONSTRUCTED UNDERGROUND AS REQUIRED BY THE ARIZONA CORPORATION COMMISSION.
- NO ALTERATIONS SHALL BE MADE TO THE STORM WATER DRAINAGE FACILITIES THAT ARE A PART OF THESE PREMISES WITHOUT WRITTEN APPROVAL BY THE CITY OF AVONDALE.
- NO STRUCTURES SHALL BE CONSTRUCTED IN OR ACROSS NOR SHALL OTHER IMPROVEMENTS OR ALTERATIONS BE MADE TO THE DRAINAGE FACILITIES THAT ARE A PART OF THIS SUBDIVISION WITHOUT WRITTEN AUTHORIZATION BY THE CITY OF AVONDALE.
- A 1/2 INCH REBAR WITH 3/4 INCH BRASS TAG ATTACHED AND STAMPED CRS 28742 WILL BE SET AT ALL LOT CORNERS AT THE COMPLETION OF THE PROJECT, UNLESS SAID REBAR IS NOT PRACTICAL, AND A COMPETENT SURVEY MONUMENT WILL BE SET AND FULLY DESCRIBED ON A RECORDED ADDITIONAL RESULTS OF SURVEY TO MEET "ARIZONA BOUNDARY SURVEY MINIMUM STANDARDS" IF THE STATED MONUMENT IS NOT SHOWN HEREON THIS PLAT.
- BEARINGS AND DISTANCES SHOWN ARE MEASURED UNLESS OTHERWISE INDICATED AS CALCULATED (COMPUTED) OR OF RECORD.
- MAINTENANCE OF PATIO EASEMENT AREAS IS THE RESPONSIBILITY OF THE LOT OWNERS.

**LOT AREA TABLE**

LOT NUMBER	AREA IN SQUARE FEET	AREA IN ACRES
4A	36,749 Sq. Ft.	0.844 Ac.
4B	95,862 Sq. Ft.	2.201 Ac.
4C	42,153 Sq. Ft.	0.968 Ac.

**LEGEND**

- R.L.S. = REGISTERED LAND SURVEYOR
- G&SRM = GILA AND SALT RIVER MERIDIAN
- GDACS = GEODETIC DENSIFICATION AND CADASTRAL SURVEY
- R/W = RIGHT OF WAY ROADWAY
- PUE = PUBLIC UTILITY EASEMENT
- NGS = NATIONAL GEODETIC SURVEY
- NAVD88 = NORTH AMERICAN VERTICAL DATUM 1988

- = EXTERIOR SUBDIVISION LINE (LOT 4 OF R2)
- = STREET CENTERLINE (PER PLAT R2)
- = PLAT EASEMENT LINES
- = PATIO OR PUE EASEMENT LINES
- = PLAT INTERIOR LOT LINES

- ⊙ = FOUND MONUMENT PER DESCRIPTION ON PLAT
- = BRASS 3" STREET MONUMENT CITY OF AVONDALE SET IN CONCRETE FLUSH OR IN HANDHOLE WITH PUNCH AND STAMPED "LS 31038" PER MARICOPA COUNTY RECORDERS OFFICE MAP BOOK 1071, PAGE 11.
- = 1/2 REBAR WITH "CRS 28742" 3/4 BRASS TAG ATTACHED WITH PIN WIRE FLAG UNLESS OTHERWISE DESCRIBED HEREON.

**SURVEY REFERENCES**

- R1 = MCR PLATS BOOK 694, PAGE 38
- R2 = MCR PLATS BOOK 1027, PAGE 31
- R3 = MCR PLATS BOOK 686, PAGE 43
- R4 = MCR PLATS BOOK 1071, PAGE 11

**DEDICATION**

STATE OF ARIZONA )  
                                  )SS  
COUNTY OF MARICOPA )

KNOW ALL MEN BY THESE PRESENTS:

THAT THE CITY OF AVONDALE, AS OWNER, HAS SUBDIVIDED UNDER THE NAME OF "REPLAT OF LOT 4 OF AVONDALE CITY CENTER PHASE 1", A PLANNED AREA DEVELOPMENT LOCATED WITHIN A PORTION OF THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 1 NORTH, RANGE 1 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AS SHOWN HEREON AND HEREBY DECLARES THAT THE PLAT OF SAID "REPLAT OF LOT 4 OF AVONDALE CITY CENTER PHASE 1" AND HEREBY DECLARES THAT SAID PLAT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF THE LOTS, STREETS AND EASEMENTS CONSTITUTING SAME, AND THAT EACH LOT, AND STREET SHALL BE KNOWN BY THE NUMBER AND LETTER OR NAME GIVEN EACH RESPECTIVELY ON SAID PLAT, AND THAT THE CITY OF AVONDALE, AS OWNER HEREBY DEDICATES TO THE PUBLIC FOR USE AS SUCH STREETS EASEMENTS ON SAID PLAT AND INCLUDED IN THE ABOVE DESCRIBED PREMISES.

ROOF, CANOPY AND DOOR OVERHANG EASEMENTS SHOWN HEREON ARE HEREBY GRANTED TO THE OWNERS OF LOT 4A AS NON-EXCLUSIVE EASEMENTS FOR SUCH PURPOSES.

PATIO EASEMENTS SHOWN HEREON ARE HEREBY GRANTED TO THE OWNERS OF LOT 4A FOR SUCH PURPOSE.

PUBLIC UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED TO THE CITY OF AVONDALE AS NON-EXCLUSIVE EASEMENTS FOR PUBLIC UTILITIES.

IN WITNESS WHEREOF:

THE CITY OF AVONDALE, AN ARIZONA MUNICIPAL CORPORATION, AS OWNER, HAS HEREUNDER CAUSED ITS NAME TO BE SIGNED AND THE SAME TO BE ATTESTED BY THE SIGNATURE OF MARIE LOPEZ ROGERS, ITS MAYOR, THEREUNTO DULY AUTHORIZED  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011.

BY: THE CITY OF AVONDALE,  
AN ARIZONA MUNICIPAL CORPORATION

BY: MARIE LOPEZ ROGERS \_\_\_\_\_  
MAYOR

**ACKNOWLEDGMENT**

STATE OF ARIZONA )  
                                  )SS  
COUNTY OF MARICOPA )

BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011, BEFORE ME THE UNDERSIGNED OFFICER PERSONALLY APPEARED MARIE LOPEZ ROGERS WHO ACKNOWLEDGED HERSELF TO BE MAYOR OF THE CITY OF AVONDALE, AN ARIZONA MUNICIPAL CORPORATION, THE LEGAL OWNER OF THE PROPERTY PLATTED HEREON AND ACKNOWLEDGED THAT SHE, IN SUCH CAPACITY, BEING DULY AUTHORIZED SO TO DO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES CONTAINED THEREIN.

IN WITNESS WHEREOF:

I HEREBY SET MY HAND AND OFFICIAL SEAL \_\_\_\_\_

BY: \_\_\_\_\_ COMMISSION EXPIRES:

**SURVEYORS CERTIFICATION**

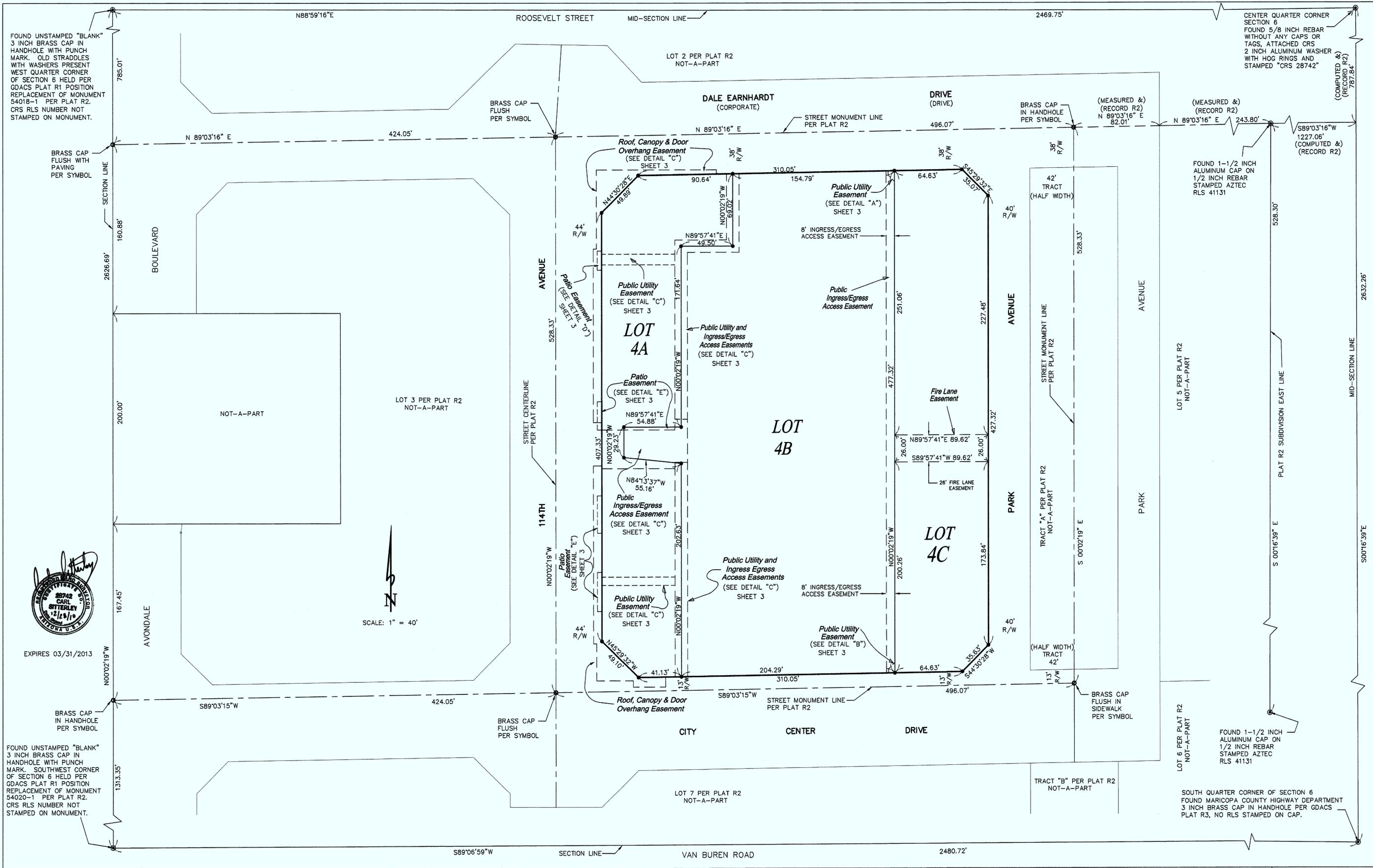
THIS IS TO CERTIFY THAT THE SURVEY SHOWN HEREON FOR THE STATED SECTION 6 AND PLATTED AS A FINAL PLAT WAS MADE DIRECTLY BY MYSELF DURING THE MONTHS OF OCTOBER, NOVEMBER, AND DECEMBER 2010, THAT THE MONUMENTS SHOWN ACTUALLY EXIST OR WILL BE SET AS SHOWN HEREON, AND THAT THE MONUMENTS AND POSITIONS SHOWN ARE PER CURRENT "ARIZONA BOUNDARY SURVEY MINIMUM STANDARDS" AND SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

CARL SITTERLEY, REGISTERED LAND SURVEYOR 28742



EXPIRES 03/31/2013

DATE	REVISIONS		<p align="center"><b>CRS</b> CONSULTANT REGISTERED SURVEYING, INC. 8732 E. PICCADILLY ROAD SCOTTSDALE, ARIZONA 480-620-1382</p>	<p align="center">CITY OF AVONDALE---FINAL PLAT REPLAT OF LOT 4 OF THE AVONDALE CITY CENTER PHASE 1 SECTION 6, TOWNSHIP 1 NORTH, RANGE 1 EAST, GILA &amp; SALT RIVER MERIDIAN</p>	DATE: 12/28/2010
					SCALE: VARIES
					DRAWN BY: CRS
					APPROVED BY: CRS
					SHEET 1 OF 3



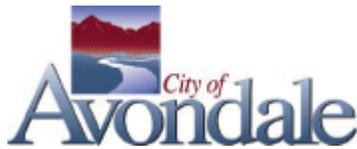
DATE	REVISIONS


  
**CRS**  
**CONSULTANT REGISTERED SURVEYING, INC.**  
 8732 E. PICCADILLY ROAD  
 SCOTTSDALE, ARIZONA  
 480-620-1382

**CITY OF AVONDALE---FINAL PLAT**  
**REPLAT OF LOT 4 OF THE AVONDALE CITY CENTER PHASE I**  
**SECTION 6, TOWNSHIP 1 NORTH, RANGE 1 EAST, GILA & SALT RIVER MERIDIAN**

DATE:	12/28/2010
SCALE:	1 INCH = 40 FEET
DRAWN BY:	CRS
APPROVED BY:	CRS
SHEET	2 OF 3





# CITY COUNCIL REPORT

**SUBJECT:**  
Purchase Agreement - Ikon Office Solutions

**MEETING DATE:**  
January 24, 2011

**TO:** Mayor and Council  
**FROM:** Kevin Hinderleider, IT Director (623) 333-5007  
**THROUGH:** Charlie McClendon, City Manager

**PURPOSE:**

Staff is requesting that the City Council approve a purchase agreement with Ikon Office Solutions to purchase 12 copiers in the amount of \$88,809, enter into an annual maintenance agreement for \$14,000 and authorize the Mayor or City Manager and City Clerk to execute the necessary documents.

**BACKGROUND:**

Over the past 7 years, a number of new Xerox copiers have been purchased to provide printing, copying, scanning & faxing capabilities to departments and divisions. After many years of useage these multifunction copiers are in need of replacement due to regular wear and tear.

**DISCUSSION:**

The city has identified a total of 16 units that need to be replaced throughout the City; however, to minimize an impact to the printer/copier fund only 12 will be replaced and four existing units will be used to swap out other equipment in need. The 12 new units will be installed at the Police Department allowing officers to use the same equipment throughout the department and minimize frustrations over dissimilar equipment.

A total of four copiers will be moved to replace equipment at Public Works, Neighborhood & Family Services and Fire Department. This will allow for the reutilization of existing copy equipment in areas that need replacement but do not have sufficient funding in this fiscal year equipment replacement fund.

**BUDGETARY IMPACT:**

The printer/copier fund has been created to recover the costs of replacing these units. As departments print or make copies they are charged an internal fee per page to recover the costs of the device replacement, paper and maintenance charges. The costs of replacing these items is budgeted in fund 604-5300-00-8010. The maintenance is budgeted in 604-5300-00-6310. Ikon office solutions is also on Arizona State Contract EPS060122-A5.

**RECOMMENDATION:**

Staff recommends that the City Council approve a purchase agreement with Ikon Office Solutions to purchase 12 copiers in the amount of \$88,809, enter into an annual maintenance contract for \$14,000 and authorize the Mayor or City Manager and City Clerk to execute the necessary documents.

**ATTACHMENTS:**

Click to download

[Purchase Agreement](#)

**PURCHASE AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
IKON OFFICE SOLUTIONS, INC.**

THIS PURCHASE AGREEMENT (this "Agreement") is made as of January 24, 2011, between the City of Avondale, an Arizona municipal corporation ("City"), and IKON Office Solutions, Inc., an Ohio corporation (the "Contractor").

RECITALS

A. After a competitive bidding process, the State of Arizona, State Procurement Office (the "State") entered into contract number EPS060122-3-A13, as amended, with the Contractor to provide copying machine equipment, supplies and service (the "State Contract"). The State Contract is attached hereto as Exhibit A and incorporated herein by reference.

B. The City is permitted pursuant to Section 25-24 of the City Code to make purchases under the State Contract without further public bidding, and the State Contract permits its cooperative use by other public entities including the City.

C. The City desires to purchase copying machine equipment (the "Equipment"), supplies and service (the "Services") from the Contractor under the terms and conditions of the State Contract for a lower cost than would otherwise be available.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and the Contractor hereby agree as follows:

1. Term of Agreement. This Agreement shall be effective as of the date first set forth above and shall remain in full force and effect until December 14, 2011 (the "Initial Term"), unless terminated as otherwise provided pursuant to the terms and conditions of the State Contract. After the expiration of the Initial Term, this Agreement shall automatically renew for up to four successive one-year terms (each a "Renewal Term") subject to termination at the City's sole discretion, if (a) it is deemed in the best interests of the City, subject to availability and appropriation of funds for renewal in each subsequent year and (b) the term of the State Contract has been extended pursuant to its renewal options. At least 30 days prior to the termination of either the Initial Term or any of the Renewal Terms, either party may provide written notification to the other party of its intention not to renew this Agreement.

2. Scope of Work. The Contractor shall provide the Equipment and Services under the terms and conditions of the State Contract, attached hereto as Exhibit A.

3. Compensation. The City shall pay Contractor an amount not to exceed \$88,808.44 for the Equipment, as more particularly set forth in the Pricing Quote, attached hereto as Exhibit B and incorporated herein by reference. The City shall pay Contractor an annual aggregate amount not to exceed \$14,000.00 for the Services for the Initial Term, as more particularly set forth in the Pricing Quote, attached hereto as Exhibit B. Thereafter, for each subsequent Renewal Term, if any, the City shall pay the Contractor an annual aggregate amount not to exceed \$14,000.00 for the Services, as more particularly set forth in the Pricing Quote, attached hereto as Exhibit B.

4. Payments. The City shall pay the Contractor based upon materials delivered and work performed to date, and upon submission and approval of invoices. All invoices shall document and itemize all work completed to date. The invoice statement shall include a record of time expended and work performed in sufficient detail to justify payment.

5. E-verify Requirements. To the extent applicable under ARIZ. REV. STAT. § 41-4401, the Contractor and its subcontractors warrant compliance with all federal immigration laws and regulations that relate to their employees and compliance with the E-verify requirements under ARIZ. REV. STAT. § 23-214(A). Contractor's or its subcontractor's failure to comply with such warranty shall be deemed a material breach of this Agreement and may result in the termination of this Agreement by the City.

6. Scrutinized Business Operations. Pursuant to ARIZ. REV. STAT. §§ 35-391.06 and 35-393.06, the Contractor certifies that it does not have scrutinized business operations in Sudan or Iran. For the purpose of this section the term "scrutinized business operations" shall have the meanings set forth in ARIZ. REV. STAT. §§ 35-391 or 35-393, as applicable. If the City determines that the Contractor submitted a false certification, the City may impose remedies as provided by law including terminating this Agreement.

7. Conflict of Interest. This Agreement may be cancelled by the City pursuant to ARIZ. REV. STAT. § 38-511.

8. Applicable Law; Venue. In the performance of this Agreement, Contractor shall abide by and conform to any and all laws of the United States, State of Arizona and City of Avondale, including but not limited to, federal and state executive orders providing for equal employment and procurement opportunities, the Federal Occupational Safety and Health Act and any other federal or state laws applicable to this Agreement. This Agreement shall be governed by the laws of the State of Arizona and a suit pertaining to this Agreement may be brought only in courts in the State of Arizona.

9. Agreement Subject to Appropriation. The provisions of this Agreement for payment of funds by the City shall be effective when funds are appropriated for purposes of this Contractor and are actually available for payment. The City shall be the sole judge and authority in determining the availability of funds under this Agreement and the City shall keep the Contractor fully informed as to the availability of funds for the Agreement. The obligation of the City to make any payment pursuant to this Agreement is a current expense of the City, payable exclusively from such annual appropriations, and is not a general obligation or indebtedness of the City. If the City Council fails to appropriate money sufficient to pay the amounts as set forth

in this Agreement during any immediately succeeding fiscal year, this Agreement shall terminate at the end of then-current fiscal year and the City and the Contractor shall be relieved of any subsequent obligation under this Agreement.

10. Conflicting Terms. In the event of any inconsistency, conflict or ambiguity among this Agreement, the State Contract and the Pricing Quote, the documents shall govern in the order listed herein.

11. Indemnification; Insurance. The City shall be afforded all of the rights, privileges and indemnifications afforded to the State under the State Contract, and such rights, privileges and indemnifications shall accrue and apply with equal effect to the City under this Agreement including, but not limited to, the Contractor's obligation to provide the indemnification and insurance.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date and year first set forth above.

**“City”**

CITY OF AVONDALE, an Arizona  
municipal corporation

\_\_\_\_\_  
Charles P. McClendon, City Manager

ATTEST:

\_\_\_\_\_  
Carmen Martinez, City Clerk

**“Contractor”**

IKON OFFICE SOLUTIONS, INC., an  
Ohio corporation

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

Name: \_\_\_\_\_

Title: \_\_\_\_\_



EXHIBIT A  
TO  
PURCHASE AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
IKON OFFICE SOLUTIONS, INC.

[State Contract]

See following pages.



# Contract Amendment

CONTRACT: EPS060122-3, COPIERS - MFDs, SERVICES and SUPPLIES

PAGE 1

AMENDMENT: Thirteen(13)

OF 1

State of Arizona  
State Procurement Office  
100 N 15th Ave., Suite 104  
Phoenix, AZ 85007

**AGENCY:** Arizona Department of Administration  
State Procurement Office  
100 N. 15<sup>th</sup> Ave., Suite 104  
Phoenix, AZ 85007

**VENDOR:** Ikon Office Solutions  
1910 W University Dr  
Tempe, AZ 85281-3262

**CONTACT:** Christine Fruitman  
(602) 542-9158  
christine.fruitman@azdoa.gov

**CONTACT:** Joe Zavislak  
(480)379-7469  
jzavislak@ikon.com

### THE ABOVE REFERENCED CONTRACT IS AMENDED AS FOLLOWS:

Pursuant to the Contract Terms and Conditions, this contract is extended for an additional one (1) year period through December 31, 2010.

All other Terms and Conditions remain unchanged.

### ALL OTHER PROVISIONS OF THE CONTRACT SHALL REMAIN IN THEIR ENTIRETY.

Contractor hereby acknowledges receipt of and agreement with the amendment. A signed copy must be filed with the State Procurement Office.

THE ABOVE REFERENCED CONTRACT AMENDMENT IS HEREBY EXECUTED THIS DATE BY THE STATE.

Joseph S. Zavislak 12-30-09  
AUTHORIZED SIGNATURE DATE

Christine Fruitman 12-30-09  
AUTHORIZED SIGNATURE DATE

Joseph S. Zavislak SAE  
PRINTED NAME AND TITLE

Christine Fruitman, Sr. Procurement Specialist  
PRINTED NAME AND TITLE

## Contract

Solicitation # EPS060122-A5

### Document Information

Type:	Supplier	Amendment:	Yes	Amend #:	12
Requisition #:	ADSM-6PNKTV	Solicitation #:	EPS060122-A5	Contract #:	EPS060122-3-A12
PO Assigned:	LeAnn Wong/ADSM-5KAM9N	Date Completed:	08/04/2009		
PM Assigned:	James Scarboro/ADSM-5KAM9N	PA Assigned:	James Scarboro/ADSM-5KAM9N		
Supplier Name:	ikon office solutions	Proposal #:	ADSM-6R7VFC-1		
Gov't Entity:	Arizona State Procurement Office	Type:	Statewide		
Process Status:	Complete	Status:	Complete		
Total/Not to Exceed	0	External Contract:			
Cost:					

### Contract Information

NOTE: As a State Agency, you are only allowed to use contracts that are either Statewide Contracts or contracts that are assigned to your Agency. You are not allowed to use other Agency Contracts.

Start Date:	1/1/09	End Date:	12/31/09
Term:	1 Year(s)	FOB:	Destination
Payment Terms:	net30	Delivery:	5A.R.O. Days
Contract Extension Allowed		Max Extension:	3 Year(s)

### Amendment Information

#### Amendment #12

The file "Promotion thru 11\_30\_2009" has been added to the Attachments.

#### Amendment #11

Promotional pricing has been approved and the file "Promotion thru 8\_31\_2009.pdf" as been added to the Attachments.

All other terms and conditions remain the same.

#### Amendment #10

In accordance with this Contract's Terms and Conditions under Amendments, this Contract is hereby amended to ADD the following:

Compliance Requirements for A.R.S. § 41-4401, Government Procurement; E-Verify Requirement

1. The contractor warrants compliance with all Federal immigration laws and regulations relating to employees and warrants its compliance with Section A.R.S. § 23-214, Subsection A. (That subsection reads: After December 31, 2007, every employer, after hiring an employee, shall verify the employment eligibility of the employee through the e-verify program.)

2. A breach of a warranty regarding compliance with immigration laws and regulations shall be deemed a material breach of the contract and the contractor may be subject to penalties up to and including termination of the contract.

3. Failure to comply with a State audit process to randomly verify the employment records of contractors and subcontractors shall be deemed a material breach of the contract and the contractor may be subject to penalties up to and including termination of the contract.

4. The State Agency retains the legal right to inspect the papers of any employee who works on the contract to ensure that the contractor or subcontractor is complying with the warranty under paragraph 1. (above).

All other terms and conditions remain unchanged.

#### Amendment #9

The file "MSRP Ricoh 03-02-09.pdf" has been added to the Attachments section of the contract.

All other terms and conditions remain the same.

#### Amendment#8

Added file "Promotion through March\_26\_2009.doc".

All other terms and conditions remain the same.

#### Amendment 7

##### Administrative Fee

Upon written notice from the Procurement Officer, the Contractor shall begin assessing administrative fees in the amount of one percent (1%) of all sales occurring under the contract, not including taxes, to members of the State Purchasing Cooperative. An updated list of State Purchasing Cooperative members may be found at the following URL: <http://azdoa.gov/spo/agency-resources/az-purchasing-coop/arizona-purchasing-cooperative>. At its option, the State may expand the applicability of this fee. Contractor shall not assess the administrative fee in the form of a line item in their invoices. Rather, the Contractor shall include the amount of the administrative fee in their unit prices for all products and services available under the contract. All administrative fees shall be remitted to the State Procurement Office, at 100 N. 15th Avenue, Suite 104 Phoenix, AZ 85007, no later than thirty (30) days following the end of the calendar quarter in which the fee was assessed. Calendar quarters shall include the months of January through March, April through June, July through September, and October through December. Contractor's failure to collect or remit administrative fees in a timely manner may result in the State exercising any recourse available under the contract or as provided for by law.

Also, in accordance with Terms and Conditions, the contract is hereby extended for 12 months to 12/31/2009.

All other terms and conditions remain the same.

#### Amendment 6

The Contract is hereby amended to add the following language to Term 1.9.4 Termination for Convenience: The State agrees that the 'Contract', for purposes of this subsection, does not include rental units accepted and in place prior to the effective date of termination, and such rental units will continue for the duration of their respective rental term.

In addition, the Contractor will provide additional discounts on existing rental equipment as detailed below. These discount are only applicable for customers that already have a rental agreement in place for a minimum of twelve month. The additional discounts are as follows:

Twelve month extension 5%

Twenty four month 11%

Thirty six month 18%

An example is a current three year rental contract, installed for twelve months. If this customer extended twelve months, they would begin a new three year rental and would receive an immediate five percent discount on the remaining months. If this customer extended using a thirty six month option the immediate savings would be 18% for the remaining sixty months.

All other Terms and Conditions remain unchanged.

#### Amendment 5

The Contract is hereby amended to update Legacy pricing as detailed in "Legacy Pricing 8-1-08.xls" and to provide special pricing as detailed in "Legacy Ricoh 70ppm Special 7-6-08.xls".

All other Terms and Conditions remain unchanged.

#### Amendment 4

The Contract is hereby amended to update the Ricoh MSRP as detailed in "MSRP Ricoh June 2008 .pdf" within the the "Contract Pricing.zip" attachment.

All Terms and Conditions remain unchanged.

Amendment 3

This amendment is hereby in remove the attached file titled: MSRP Ricoh Jan08.pdf as it contains two products that are not covered under this contract.

All other Terms and Condidtions Shall remain the same.

Amendment 2

This amendment is hereby in place to update the attached file titled Contract Pricing.zip

All other Terms and Condidtions Shall remain the same.

Contract Reassignment

N/A

Contractor Amendment Approval

N/A

**Solicitation Information**

Title: COPIERS – MFDs, SERVICES and SUPPLIES

Type: RFP

Description:

Copiers, Copier MFDs, Services, Supplies, toner, developer, drums, cartridges, staples, paper, scanner, fax, maintenance

# Contract

Solicitation # EPS060122-A5

## Special Instructions

### Additional Special Instructions

Offerors shall see the Attachments within the Solicitation for Additional Special Instructions associated with this Solicitation.

### Attachment Formats

All attachments shall be submitted in a format acceptable to the State. Acceptable formats include .doc (Microsoft Word document), .xls (Microsoft Excel spreadsheet), and .pdf (Adobe Acrobat portable document format). Prospective offerors that wish to submit attachments in other formats shall submit an inquiry to the Procurement Officer.

### Brand Name Only

Any manufacturer's names, trade names, brand names or catalog numbers used in the specifications are for the purpose of describing and/or establishing the specific quality, design and performance required.

### Clarifications

Upon receipt and opening of proposals submitted in response to this solicitation, the State may request oral or written clarifications, including demonstrations or questions and answers, for the sole purpose of information gathering or of eliminating minor informalities or correcting nonjudgmental mistakes in proposals. Clarifications shall not otherwise afford the offerors the opportunity to alter or change its proposal.

### Competitive Range

If the Procurement Officer determines that the number of Proposals that would otherwise be in the Competitive Range exceeds the number at which an efficient competition can be conducted, the Procurement Officer may limit the number of proposals in the Competitive Range to the greatest number that will permit an efficient competition among the most highly advantageous proposals.

### Confidential Information

If a person believes that any portion of a proposal, bid, offer, specification, protest or correspondence contains information that should be withheld, then the Procurement Officer shall be so advised in writing (Price is not confidential and will not be withheld). Such material shall be identified as confidential wherever it appears. The State, pursuant to A.C.R.R. R2-7-104, shall review all requests for confidentiality and provide a written determination. If the confidential request is denied, such information shall be disclosed as public information, unless the person utilizes the 'Protest' provision as noted in §41-2611 through §41-2616.

### Conformance with Terms and Conditions

Offerors shall provide an electronic document or file entitled 'EPS060122' [Offeror Name], Conformance with Terms and Conditions. Multiple documents may be provided in a single file so long as this file is named in accordance with the aforementioned format and each of the included documents are similarly labeled differing only to indicate their respective contents. Offerors shall include in this document their response to all portions of the solicitation's Uniform Terms and Conditions and Special Terms and Conditions. Offerors shall clearly state their understanding and acceptance of all Uniform and Special Terms and Conditions, noting any exceptions they take, either within the text of the Uniform and Special Terms and Conditions or in a sub-section of such exceptions. Offerors taking exceptions may propose alternate language for the State's consideration. Exceptions taken to the Uniform and Special Terms and Conditions may negatively effect the State's evaluation of the offerors proposals.

### Current Product (Software)

All software offered in this solicitation shall be in current and ongoing production, shall have been formally announced for general marketing purposes; shall be a version currently functioning in a user (pay customer) environment and capable of meeting or exceeding all specifications and requirements set forth in this solicitation at the time of offer submission.

### Current Products

All products offered in response to this solicitation shall be in current and ongoing production; shall have been formally announced for general marketing purposes; shall be a model or type currently functioning in a user (paying customer) environment and capable of meeting or exceeding all specifications and requirements set forth in this solicitation.

### Descriptive Literature 01

All offers must include complete manufacturer's descriptive literature regarding the equipment they propose to furnish.

### Discussions

In accordance with A.R.S. 41-2534, after the initial receipt of proposals, the State may conduct discussions with those offerors who submit proposals determined by the State to be reasonably susceptible of being selected for award.

Discussions may be in writing or in person and may include presentations, site visits or demonstrations.

### Electronic Documents

This solicitation document is provided in an electronic format. Any unidentified alteration or modification to any solicitation documents, to any attachments, exhibits, forms, charts or illustrations contained herein shall be null and void. In those instances where modifications are identified, the original document published by the State shall take precedence. As provided in the Uniform Instructions to Offerors, offerors are responsible for clearly identifying any and all changes or modifications to any solicitations document upon submission to the State.

**Eligible Agencies (Statewide)**

Any contract resulting from this solicitation shall be for the use of all State of Arizona departments, agencies, commissions and boards. In addition, eligible universities, political subdivisions and nonprofit educational or public health institutions may participate at their discretion. In order to participate in any resultant contract, a university, political subdivision, or nonprofit educational or public health institution must have entered into a cooperative purchasing agreement with the State Procurement Office as required by Arizona Revised Statutes 41–2632.

**Estimated Quantities (Considerable)**

The state anticipates considerable activity under contract(s) awarded as a result of this solicitation, however, no commitment of any kind is made concerning quantities actually acquired and that fact should be taken into consideration by the contractor.

**Evaluation**

In accordance with the Arizona Procurement Code 41–2534, Competitive Sealed Proposals, awards shall be made to the responsible offeror whose proposal is determined in writing to be the most advantageous to the State based upon the evaluation criteria listed below. The evaluation factors are listed in their relative order of importance.

1. Cost
2. Capacity of Offeror
3. Equipment and Desirable Technical Requirements
4. Conformance with Terms and Conditions
5. Conformance to the RFP Requirements

**Federal Immigration and Nationality Act**

By signing the Offer the Offeror warrants that it and all proposed subcontractors are in compliance with the Federal Immigration and Nationality Act (FINA) and all other Federal immigration laws and regulations related to the immigration status of its employees. The Offeror shall obtain statements from all proposed subcontractors certifying compliance with this requirement and shall furnish the statements to the Procurement Officer upon request.

**IT 508 Compliance**

Any electronic or information technology offered to the State of Arizona under this solicitation shall comply with A.R.S. 41–2531 and 2532 and Section 508 of the Rehabilitation Act of 1973, which requires that employees and members of the public shall have access to and use of information technology that is comparable to the access and use by employees and members of the public who are not individuals with disabilities. Any exceptions shall be declared in writing in the offer.

**Offer Acceptance Period**

An Offeror submitting an Offer under this Solicitation shall hold its Offer open for the number of days from the Offer due date that is stated in the Solicitation. If the Solicitation does not specifically state a number of days for Offer acceptance, the number of days shall be one hundred–twenty (120). If a Best and Final Offer is requested pursuant to a Request for Proposals, an Offeror shall hold its Offer open for one hundred–twenty (120) days from the Best and Final Offer due date.

**Offerors Responsibility**

The offeror is cautioned that it is the offerors sole responsibility to submit information related to the evaluation categories and that the State of Arizona is under no obligation to solicit such information if it is not included with the offerors proposal. Failure by the offeror to submit such information may cause an adverse impact on the evaluation of the offerors proposal.

**Offshore Performance of Work**

Due to security and identity protection concerns, direct services under this contract shall be performed within the borders of the United States. Any services that are described in the specifications or scope of work that directly serve the State of Arizona or its clients and may involve access to secure or sensitive data or personal client data or development or modification of software for the State shall be performed within the borders of the United States. Unless specifically stated otherwise in the specifications, this definition does not apply to indirect or 'overhead' services, redundant back–up services or services that are incidental to the performance of the contract. This provision applies to work performed by subcontractors at all tiers. Offerors shall declare all anticipated offshore services in the proposal.

**PRE–OFFER CONFERENCE**

A Pre–Offer Conference will be held at the time and place indicated on the cover sheet; attendance is not required. The purpose of the conference will be to clarify the contents of the solicitation in order to prevent any misunderstanding of the State of Arizona's position. Any doubt as to the requirements of the solicitation or any apparent omission or discrepancy should be presented to the State at the conference. The State of Arizona will then determine the appropriate action necessary, if any, and issue a written amendment to the solicitation if required. Oral statements or instructions will not constitute an amendment to the solicitation.

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, or this document in an alternative format, by contacting Daniel Mille at (602) 542–9142. Requests should be made as early as possible to allow sufficient time to arrange for accommodation.

**Proposals: SPIRIT Submission Requirement**

In accordance with the Uniform Instructions 3.1, Forms: No Facsimile, Telegraphic or Electronic Mail Offers; proposals to this solicitation shall be submitted in an acceptable electronic format, as described herein, using the State's online eProcurement application SPIRIT. Submission of offers by means other than the SPIRIT system will not be accepted. Potential offerors with questions in this regard shall contact the State Procurement Office prior to the solicitations due date and time.

**Purpose**

Pursuant to provisions of the Arizona Procurement Code, ARS 41–2501 et seq., the State of Arizona, State Procurement Office intends to establish a contract for the materials or services as listed herein.

**Responsibility, Responsiveness and Acceptability**

In accordance with A.R.S. 41–2534(G), A.A.C. R2–7–330 and R2–7–354, State shall consider the following in determining offerors' responsibility as well as the responsiveness and acceptability of their proposals. Offerors may not be considered responsible if they have been debarred from the practice of their profession that would otherwise be necessary in the provision of goods and services under any resulting contract. Offerors may not be considered responsible if they have had a contract with the State, within the last three–years, that was terminated for cause, due to breach or similar failure to comply with the terms of any such contract. Offerors may also not be considered responsible if there is factual evidence of their frequent and reoccurring failure to satisfy the terms of their agreements and contractual relationships, both with the State or other government entities. Factual evidence shall consist of any documented vendor performance reports, customer complaints and/or negative references.

Proposals may not be considered responsive and/or acceptable if they do not contain information sufficient to evaluate the proposal in accordance with the factors identified in the solicitation or other necessary proposal components. Necessary components include: an indication of the Offeror's intent to be bound, price proposal, solicitation amendments, bond and reference data as required.

# Contract

Solicitation # EPS060122-A5

## Special Terms and Conditions

### Billing

All billing notices shall include delivery time, and contractual payment terms. Items are to be identified by the name, model number, contract number, line item number, and serial number if applicable. Any contract release order issued by the requesting agency shall refer to the contract number and line item number(s).

### Cancellation of Rental Agreement

Notwithstanding the provisions of Availability of Funds for the Current State Fiscal year and Availability of Funds for the Next State Fiscal Year, the Using Entity will provide a thirty (30) day written notice of cancellation. Cancellation within a period of time less than the full agreement may result in the using entity to be charged certain fees and other applicable charges not to exceed the residual value as specified in the contract.

The cancellation notice, as provided by the Using Entity shall include the following information:

- a. Copier location by agency/activity, building and room number
- b. Copier model and serial number
- c. Meter reading
- d. Date copier will be available for removal

### Confidentiality of Records

The contractor shall establish and maintain procedures and controls acceptable to the State for the purpose of assuring that information or data in its possession is not mishandled, misused, released, disclosed, or used in an inappropriate manner by it, its agents, officers, or employees. This includes information contained in its records obtained from the State or others, necessary for contract performance. The contractor shall take all reasonable steps and precautions to safeguard this information and data and shall not divulge the information or data to parties other than those needed for the performance of duties under the contract.

### Confidentiality (End-users)

Notwithstanding aggregate usage statistics used for reporting purposes, Contractor shall keep confidential all information concerning individual end-users. Contractor shall not, under any conditions, resell, transfer or convey information about end-users to any third party. Contractor shall not retain or reuse information about the end-users in their own operations.

### Contraband

Any person who takes into or out of, or attempts to take into or out of a correctional facility or the grounds belonging to adjacent to a correctional facility, any item not specifically authorized by the correctional facility shall be prosecuted under the provisions of the Arizona Revised Statutes. All persons, including employees and visitors, entering upon these confines are subject to routine searches of their person, vehicles, property of packages.

DEFINITION – A.R.S. § 13-2501

Contraband means any dangerous drug, narcotic drug, intoxication liquor of any kind, deadly weapon, dangerous instrument, explosive or any other article whose use or possession would endanger the safety, security, or preservation of order in a correctional institution or any person therein. (Any other article includes any substance which could cause abnormal behavior, i.e. marijuana, non-prescription medication, etc.)

PROMOTING PRISON CONTRABAND – A.R.S. § 13-2505

1. A person, not otherwise authorized by law, commits promoting prison contraband:

A. By knowingly taking contraband into a correctional facility or the grounds of such a facility; or

B. By knowingly conveying contraband to any person confined in a correctional facility; or

C. By knowingly making, obtaining or possessing contraband while being confined in a correctional facility.

2. Promoting prison contraband is a Class 5 felony.

### Contract

The contract between the State of Arizona and the contractor shall consist of the solicitation as amended, any requests for clarifications and/or best and final offers, the proposal submitted by the contractor, their responses to any requests for clarifications and/or their best and final offer. In the event of a conflict in language between the documents referenced above, the provisions and requirements set forth and/or referenced in the solicitation as amended shall govern. However, the State reserves the right to clarify any contractual relationship in writing, and such written clarification shall govern in case of conflict with the applicable requirements stated in the solicitation as amended or the contractor's proposal. In all other matters not affected by the written clarification, if any, the solicitation shall govern.

**Contract Restructure After Award**

The State may clarify any Contract following award. This clarification shall not substantially alter the contents of the Contract, but shall only edit and reformat the Contract in a manner that will facilitate ease of use, contract administration, and concurrence of the Parties.

**Contract Type (Firm)**

The Contract shall be Fixed-price with price adjustment.

**Defective Products**

All defective products shall be replaced and exchanged by the contractor. The cost of transportation, unpacking, inspection, repacking, reshipping or other like expenses shall be paid by the vendor. All replacement products must be received by the state within seven (7) days of initial notification.

**Eligible Agencies (Statewide)**

This contract shall be for the use of all State of Arizona departments, agencies, commissions and boards. In addition, eligible universities, political subdivisions and nonprofit educational or public health institutions may participate at their discretion. In order to participate in this contract, a university, political subdivision, or nonprofit educational or public health institution shall have entered into a Cooperative Purchasing Agreement with the Department of Administration, Enterprise Procurement Services as required by Arizona Revised Statutes 41-2632.

**EPA Energy Star Products**

HB 2324, Chapter 114, A.R.S. 34-451 requires that the State of Arizona purchase Energy Star products or products certified by the Federal Energy Management Program as energy efficient for all product classifications available. If an Energy Star product or certified product is available, documentation of the Energy Star status or certification must be submitted with the offer. Failure to submit the required documentation may deem the offer as non-responsive.

**Federal Immigration and Nationality Act**

By entering into the Contract, the Contractor warrants compliance with the Federal Immigration and Nationality Act (FINA) and all other Federal immigration laws and regulations related to the immigration status of its employees. The Contractor shall obtain statements from its subcontractors certifying compliance and shall furnish the statements to the Procurement Officer upon request. These warranties shall remain in effect through the term of the Contract. The Contractor and its subcontractors shall also maintain Employment Eligibility Verification forms (I-9) as required by the U.S. Department of Labor's Immigration and Control Act, for all employees performing work under the Contract. I-9 forms are available for download at USCIS.GOV.

The State may request verification of compliance for any Contractor or subcontractor performing work under the Contract. Should the State suspect or find that the Contractor or any of its subcontractors are not in compliance, the State may pursue any and all remedies allowed by law, including, but not limited to: suspension of work, termination of the Contract for default, and suspension and/or debarment of the Contractor. All costs necessary to verify compliance are the responsibility of the Contractor.

**Gratuities**

The State may, by written notice, terminate this Contract, in whole or in part, if the State determines that employment or a Gratuity was offered or made by the Contractor or a representative of the Contractor to any officer or employee of the State for the purpose of influencing the outcome of the procurement or securing the Contract, an amendment to the Contract, or favorable treatment concerning the Contract, including the making of any determination or decision about contract performance. The State, in addition to any other rights or remedies, shall be entitled to recover exemplary damages in the amount of three times the value of the Gratuity offered by the Contractor.

**Installation**

Prices shall include installation of the equipment to a fully operational status including connectivity to the State's network. All installation and removal charges shall be included in the Product Percent of List Price.

The Contractor shall provide at not cost the State, a starter kit which includes toner, developer, staples, etc. Paper is not required as there is a separate statewide mandatory contract. The system shall be put in operable condition and producing acceptable copies upon installation.

**Insurance****Insurance Indemnification Clause**

Contractor shall indemnify, defend, save and hold harmless the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Contractor or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by Contractor from and against any and all claims. It is agreed that Contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. In consideration of the award of this contract, the Contractor agrees

to waive all rights of subrogation against the State of Arizona, its officers, officials, agents and employees for losses arising from the work performed by the Contractor for the State of Arizona.

#### Insurance Requirements

Contractor and subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract, are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors. The insurance requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The State of Arizona in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this contract by the Contractor, its agents, representatives, employees or subcontractors, and Contractor is free to purchase additional insurance.

#### Minimum Commercial General Liability

Policy shall include bodily injury, property damage, personal injury and broad form contractual liability coverage.

General Aggregate \$2,000,000

Products ? Completed Operations Aggregate \$1,000,000

Personal and Advertising Injury \$1,000,000

Blanket Contractual Liability ? Written and Oral \$1,000,000

Fire Legal Liability \$ 50,000

Each Occurrence \$1,000,000

The policy shall be endorsed to include the following additional insured language: 'The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall be named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor'. Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

#### Minimum Automobile Liability

Bodily Injury and Property Damage for any owned, hired, and/or non-owned vehicles used in the performance of this Contract.

Combined Single Limit (CSL) \$1,000,000

The policy shall be endorsed to include the following additional insured language: 'The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall be named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor, involving automobiles owned, leased, hired or borrowed by the Contractor'.

Minimum Worker's Compensation and Employer's Liability

Workers' Compensation Statutory

Employers' Liability

Each Accident \$ 500,000

Disease ? Each Employee \$ 500,000

Disease ? Policy Limit \$1,000,000

Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor. This requirement shall not apply to: Separately, EACH contractor or subcontractor exempt under A.R.S. 23-901, AND when such contractor or subcontractor executes the appropriate waiver (Sole Proprietor/Independent Contractor) form.

#### Minimum Professional Liability (Errors and Omissions Liability)

Each Claim \$1,000,000

Annual Aggregate \$2,000,000

In the event that the professional liability insurance required by this Contract is written on a claims-made basis, Contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Contract is completed. Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor. The policy shall cover professional misconduct or lack of ordinary skill for those positions defined in the Scope of Work of this contract.

#### Additional Insurance Requirements

The policies shall include, or be endorsed to include, the following provisions. The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees wherever additional insured status is required such additional insured shall be covered to the full limits of liability purchased by the Contractor, even if those limits of liability are in excess of those required by this Contract. The Contractor's insurance coverage shall be primary insurance with respect to all other available sources. Coverage provided by the Contractor shall not be limited to the liability assumed under the indemnification provisions of this Contract.

#### Notice of Cancellation

Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty (30) days prior written notice has been given to the State of Arizona. Such notice shall be sent directly to the Contract Administrator in the Enterprise Procurement Services Division of the State of Arizona Department of Administration and shall be sent by certified mail, return receipt requested.

#### Acceptability of Insurers

Insurance is to be placed with duly licensed or approved non-admitted insurers in the state of Arizona with an A.M. Best rating of not less than A- VII. The State of Arizona in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

#### Subcontractors

Contractors' certificate(s) shall include all subcontractors as insureds under its policies or Contractor shall furnish to the State of Arizona separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum requirements identified above.

#### Approval

Any modification or variation from the insurance requirements in this Contract shall be made by the Department of Administration, Risk Management Section, whose decision shall be final. Such action will not require a formal Contract amendment, but may be made by administrative action.

#### Exceptions

In the event the Contractor or sub-contractor(s) is/are a public entity, then the Insurance Requirements shall not apply. Such public entity shall provide a Certificate of Self-Insurance. If the contractor or sub-contractor(s) is/are a State of Arizona agency, board, commission, or university, none of the above shall apply.

#### Verification of Coverage ? Certificate of Insurance

Contractor shall furnish the State of Arizona with Certificate(s) of Insurance (ACORD form or equivalent approved by the State of Arizona) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be received and approved by the State of Arizona before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract. All certificates required by this Contract shall be sent directly to the Contract Administrator in the Enterprise Procurement Services Division of the State of Arizona Department of Administration. The State of Arizona project/contract number and project description shall be noted on the certificate of insurance. The State of Arizona reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time. **DO NOT SEND CERTIFICATES OF INSURANCE TO THE STATE OF ARIZONA'S RISK MANAGEMENT SECTION**

#### **IT 508 Compliance**

Unless specifically authorized in the Contract, any electronic or information technology offered to the State of Arizona under this solicitation shall comply with A.R.S. 41-2531 and 2532 and Section 508 of the Rehabilitation Act of 1973, which requires that employees and members of the public shall have access to and use of information technology that is comparable to the access and use by employees and members of the public who are not individuals with disabilities.

#### **Licenses**

Contractor shall maintain in current status all Federal, State and Local licenses and permits required for the operation of a business conducted by the contractor.

#### **Maintenance Pricing**

Any proposal for Maintenance or Maintenance Service Rate Per Hour shall include coverage to all geographic regions within the State of Arizona. Service areas are divided into two sections, urban and rural. The Offeror may establish a single price for Urban areas and a single price for Rural areas. All cities specified as Urban shall consider the entire city as Urban regardless if any portion of the city is beyond the specified radius. The major urban areas within the State of Arizona are;

- Flagstaff with a 20 mile radius from city center
- Yuma with a 20 mile radius from city center
- Tucson with a 25 mile radius from city center
- Phoenix with a 30 mile radius from city center
- Avondale, Chandler, El Mirage, Glendale, Goodyear, Litchfield Park, Mesa, Peoria, Scottsdale, Tempe, Tolleson

#### **Manufacturer's Representative**

Dealers who submit an offer as a manufacturer's representative must supplement the offer with a letter from each manufacturer involved certifying that the vendor is a bona fide dealer for the specific equipment presented, that the vendor is authorized to submit an offer on such equipment, and guarantees that should the dealer fail to satisfactorily fulfill any obligations established as a result of the anticipated contract awards. The manufacturer, upon assignment by the state, will either assume and discharge such obligations or provide for their competent assumption by one or more bona fide dealers

for the balance of the contract period.

**Manufacturer Full-line Evidence**

The State may at any time during the solicitation or after Contract award require evidence that the Vendor is authorized to sell and distribute the full line of products offered by any manufacturer the Vendor is Offering or awarded. This evidence may include a letter from the manufacturer verifying the Vendor's full line authorization.

**New Equipment**

All equipment, materials, parts and other components incorporated in the work or an item covered by this contract shall be new, of the latest model and of the most suitable grade for the purpose intended. Any and all work under this contract shall be performed in a skilled and workmanlike manner.

**Non-Exclusive Contract**

This contract has been awarded with the understanding and agreement that it is for the sole convenience of the State of Arizona. The State reserves the right to obtain like goods or services from another source when necessary. Off-contract purchase authorization(s) may be approved by either the agency (within an agencies delegated authority) or by the State Procurement Office. Approvals shall be at the exclusive discretion of the State and shall be final. Off-contract procurement shall be consistent with the Arizona Procurement Code.

**Offshore Performance of Work Prohibited**

Due to security and identity protection concerns, direct services under this contract shall be performed within the borders of the United States. Any services that are described in the specifications or scope of work that directly serve the State of Arizona or its clients and may involve access to secure or sensitive data or personal client data or development or modification of software for the State shall be performed within the borders of the United States. Unless specifically stated otherwise in the specifications, this definition does not apply to indirect or 'overhead' services, redundant back-up services or services that are incidental to the performance of the contract. This provision applies to work performed by subcontractors at all tiers.

**Order Acknowledgement**

Contractor shall acknowledge acceptance of all Orders. Contractor shall notify the Customer, in writing or electronically, within five (5) days of Order receipt. Orders that are not accepted or not specifically rejected by the Contractor within the five (5) days shall be considered accepted. Customers may accept verbal Order acceptance when time and circumstances require. Order acceptance shall include the reservation of all elements necessary to deploy the Ordered and accepted products and services.

Upon receipt of Products and Services, and/or commencement of continual Services, the Customer shall determine whether all delivered Products and Services meet the applicable Product and Services specifications and quality requirements established herein.

Products and Services shall be considered accepted at the time of Order Delivery.

If agreed upon in the Order between the Customer and the Contractor, the Customer shall, within seven (7) days from the date of Order Delivery, issue a written notice of acceptance, partial acceptance or rejection of the Products and Services. If such a notice is not issued in the given timeframe, such Product and Service shall be deemed accepted.

No payment shall be made for any Products and Services until the Customer has accepted the Products and Services ordered.

**Order Delivery and Installation**

Unless otherwise agreed upon in writing, delivery of equipment, start-up supplies, and consumables shall be within thirty (30) calendar days after receipt of order. For orders that include five or more copiers, delivery of equipment shall be with forty-five days. Equipment shall be F.O.B. destination delivered to the specified receiving point at any location within the State of Arizona, as required by the customer agency at the time of order.

Installation must be included in the cost of the equipment. Contractors shall not charge for equipment that is delivered to the Contractor's facilities prior to delivery and installation at the user's location.

Contractor shall retain title and control of all goods until they are delivered, received, and contract of coverage has been completed. All risk of transportation and all related charges shall be the responsibility of the contractor. All claims for visible and concealed damage shall be filed by the contractor. The State will notify the contractor promptly of any damaged goods and shall assist the contractor in arranging for inspection.

All copiers will be delivered and set up at no additional cost. State Agencies shall ensure that the space selected for installation is of adequate size for proper installation and use. The Contractor shall perform complete installation and verify operation of all equipment. Responsibility and liability for loss or damage shall remain with the contractor until installation and set up is complete and until the final inspection and acceptance is completed by the user.

**Ordering Process**

1. For the purposes of this contract, contract release order/purchase orders are those that are issued by an eligible agency any of the following forms:

- 1.1. Hard copy, one time only or blanket (term type) type;
- 1.2. Electronically transmitted through facsimile equipment;
- 1.3. Electronically transmitted as an e-mail attachment;
- 1.4. Electronically transmitted through a contractor's Electronic Data Interchange (EDI) system or secured internet/web portal, i.e. those that provide electronic commerce assistance for the electronic submission of purchase orders, purchase order tracking and reporting.
  - 1.4.1. Such systems shall not allow for purchase orders to be placed for non-contract or excluded items.
  - 1.4.2. Use of such systems shall be at the sole discretion of the eligible agency and all cost associated with set-up, maintenance and support shall be borne by the contractor.
- 1.5. Electronically through State's or eligible agencies p-card program.

2. This contract was awarded in accordance with the Arizona Procurement Code and all transactions and procedures required by the code for competitive source selection have been met. A contract release order/purchase order, initiated in accordance with the requirements contained herein, that cites the correct Arizona contract number is the only document required for the agency to order and the contractor to deliver the material and /or service.

3. Any attempt to represent any material and/or service not specifically awarded, as being under contract with the State of Arizona is a violation of the contract and the Arizona Procurement Code. Any such action is subject to the legal and contractual remedies available to the state inclusive of, but not limited to, contract cancellation, suspension and/or debarment of the contractor.  
and/or debarment of the contractor.

**PERFORMANCE STANDARDS**

**MACHINE PERFORMANCE**

Unit Purchase: The copier shall be required to operate satisfactorily and produce acceptable copy quality at a 95% effectiveness level during any month of a five-year period beginning at the date of acceptance. The effectiveness level for a copier shall be computed by dividing the total productive time by the sum of that time plus the machine failure downtime. The copier failure rate shall not average more than two (2) malfunctions (breakdowns) per month, requiring Contractor corrections, for the highest monthly volume (the manufacturer's maximum recommended monthly volume) recommended in the BLI Specification Guide. Machines which develop a trend of requiring an excessive number of service calls (6 service calls in a three-month period) shall be reported by the using agency to the Contractor and the Procurement Officer for documentation and review. Service calls will be counted in this timeframe due to machine malfunction only, not operator error or preventative maintenance calls. The copier must have been continuously covered by a maintenance agreement. During years two through five the Contractor shall replace the non-compliant machine with a machine having equal or greater features and equal operating cycles.

Unit Rentals: The copier shall be required to operate satisfactorily and produce acceptable copy quality at a 95% effectiveness level during any month during the rental agreement. The effectiveness level for a copier shall be computed by dividing the total productive time by the sum of that time plus the machine failure downtime. The copier failure rate shall not average more than two (2) malfunctions (breakdowns) per month, requiring Contractor corrections, for the highest monthly volume (the manufacturer's maximum recommended monthly volume) recommended in the BLI Specification Guide. Machines which develop a trend of requiring an excessive number of service calls (6 service calls in a three-month period) shall be reported by the using agency to the Contractor and the Procurement Officer for documentation and review. Service calls will be counted in this timeframe due to machine malfunction only, not operator error or preventative maintenance calls. The Contractor shall replace the non-compliant machine with a new machine matching all requirements.

**Post Award Meetings**

Upon award, any or all contractors should avail themselves to participating in post award meetings with state and political subdivision users and buyers.

Meetings may be held either as many as two (2) times in metropolitan ('metro') Phoenix during each contract year or once within metro Phoenix and once in another user city within the state each contract year.

The meetings may include a pre-conference with state personnel to discuss mutual contractual responsibilities and other performance related items.

**Price Increase (After One Year)**

The State Procurement Office may review a fully documented request for a price increase only after the contract has been in effect for one (1) year. A price increase adjustment shall only be considered at the time of a contract extension and shall be a factor in the extension review process. The State Procurement Office shall determine whether the requested price increase or an alternate option is in the best interest of the state.

The price increase adjustment, if approved, will be effective upon the effective date of the contract extension.

**Price Reductions**

Price reductions may be submitted to the state for consideration at any time during the contract period. The contractor shall offer the state a price reduction on the contract product(s) concurrent with a published price reduction made to other customers. The state at its own discretion may accept a price reduction. The contractor shall request, in writing, a price reduction. The contractor shall request, in writing, a price reduction and provide the following:

1. A formal announcement from the manufacturer that the cost of the contract product has been reduced.
2. Documentation, i.e., published cost lists, from the manufacturer showing, to the satisfaction of the state, the actual cost reduction.
3. Documentation showing that the published cost reductions have been offered to other distributors.

**Price Reductions (Temporary)**

The Contractor may offer promotional or volume discounts at any time during the Contract without written consent of the Procurement Officer such that the price is at or below the specified price within the Contract.

**Product Discontinuance**

The Contractor shall submit in writing a formal announcement from the manufacturer stating that the product(s) have been discontinued.

**Purchase of Maintenance/Service Agreements**

Maintenance Agreements and Maintenance Service Agreements (Per Hour Rate) shall be made available for purchase on new units at any time during the 90-day warranty period. The Contractor shall also allow the State to purchase the maintenance/service agreements up to nine months after the 90-day warranty period expires (one year after installation of the equipment) with out incurring an update charge.

Maintenance/Service Agreements purchased after the one year installation of equipment will be subject to a one-time flat fee update charge to bring the copier up to factory standard performance levels.

**Recycled Paper**

Whenever practicable, the Contractor shall ensure that all printed materials produced by the Contractor in performance of this contract are duplexed (two-sided copies), printed on recycled paper and labeled as such.

In accordance with state legislation, recycled paper shall contain at least 40% recovered wastepaper with 10% of that being post consumer material.

**Relocation of Equipment**

The State, on occasion, may have reason to require the relocation of equipment. A purchasing entity shall not move or relocate contractor-installed equipment without prior notice to and approval by the contractor. The contractor will prepare the copier for transport, pick-up and deliver, and set the copier up at the new location. The contractor may impose a flat relocation fee as indicated on the Offer Form 1 – Manufacturer.

The purchasing entity shall not be responsible for damage caused by the contractor during an approved relocation of the equipment by the contractor. The contractor shall be responsible for any additional costs associated with restoring the equipment to its original performance.

**Removal of Equipment**

Should the State terminate the requirements of the this contract in accordance with terms and conditions, the Contractor shall retain all rights to rental equipment provided and shall remove such equipment within fifteen (15) days of notice of termination. If the Contractor fails to remove the rental equipment in a timely manner, the State shall dispose of the equipment in accordance with established Surplus Procedures.

**Restocking of Equipment**

The Contractor may impose a one-time flat restocking fee for each item returned and/or rejected prior to initial acceptance of equipment. This restocking fee shall include applicable delivery charges for items to be returned to the Contractor and shall not be billed separately.

**Safety Standards**

All items supplied on this contract must comply with the current applicable occupational safety and health standards of the State of Arizona Industrial Commission, The National Electric Code, and The National Fire Protection Association Standards.

**Secure Location Deliveries**

The Contractor will be responsible for contacting the secure location (such as Arizona Department of Corrections) for security clearance, hours of operation, dress code, and other related rule when scheduling a delivery or service call. Lack of familiarity with the locations or policies will not relieve a contractor of their responsibilities in fulfillment of the delivery, installation, maintenance/service agreement, and contract requirements.

**Serial Numbers**

The contract is for equipment on which the original manufacturers' serial number has not been altered in any way. Throughout the contract term, the state reserves the right to reject any altered equipment.

**Service and Performance**

#### Service Hours:

Corrective and preventative service will be performed during normal working hours, 8:00 a.m. to 5:00 p.m., Monday through Friday. Exceptions from these hours include State observed holidays.

Holidays: State observed holidays include New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day.

Maintenance/service performed on copiers that have opted not to purchase the service agreement after the 90-day warranty, will be charged on an hourly rate basis and will also be responsible for any parts necessary to repair the equipment.

#### After Hours Service Calls:

The Contractor shall also make services available after normal working hours and during State observed holidays. This service shall be provided at a separate service call rate per hour. The after hours service rate will not charge for parts and supplies covered under the maintenance/service agreement.

State Entities electing to utilize this service, and not covered under a maintenance/service agreement after the 90-day warranty, will be responsible for both after hours service rate charge and any parts or supplies necessary.

#### Response Time:

On-site response time shall be as follows:

URBAN: On-site response shall not exceed 3 working hours

RURAL: On-site response shall not exceed 8 working hours within rural location. Service Technician must provide a call to location within 2 hours of initial service call.

Calls made after 3:00 p.m. shall be serviced the next business day. The service technician shall report to the service site, no later than 9:00 a.m. or at time expressly agreed upon by the requesting State Entity.

Network Connected Machines: The Contractor shall maintain a phone support help-line(s) staff with factory-trained technicians. Technicians shall assist using entities with identifying whether or not the problem occurring is with the using entity's side of connectivity, or if it is an issue with the copier/software contractor side of connectivity which requires on-site support (above service response times apply). Through phone support, technicians shall be able to provide assistance and solutions in resolving the using entity's connectivity problems. Phone support help-line calls shall be resolved within two (2) business hours. If the problem has not been resolved within the set time frame, the Contractor shall dispatch an on-site service technician. Service response time as stated above will begin once a determination that an on-site technician is required.

#### Scheduled / Preventative Maintenance

Scheduled/preventative maintenance shall be based on the specific needs of the individual machines as determined by the Manufacturer. The Contractor shall schedule regular preventative maintenance service appointment 30 working days prior to the appointment by calling in advance to the agency. Scheduled preventative maintenance calls will not be considered as downtime. The calls shall include, but not limit to, routine cleaning, lubrication, necessary adjustments, and replacement of unserviceable parts. Scheduled/preventative maintenance shall be performed in accordance with the manufacturer's recommendations.

#### Service Log

A service log shall be provided by the Contractor at the time of installation and attached to each machine. The make, model number, and date of installation shall be recorded by the Contractor. Thereafter the agency shall maintain and complete the log each time service is requested, including on-site response and Phone-line support. The log shall list the issue/problem, response time, cause of breakdown, downtime, and time for repairs and the resolution.

In the case of an on-site service response, the Contractor's representative will fill in the "cause of breakdown" and sign the log when service has been completed. The log shall be countersigned by the person in the agency designated as in charge of that particular copier. Should the cause of a service call be determined as operator error, misuse or abuse by the user, the repair time and the associated travel time shall not be a factor in determining satisfactory machine performance.

Schedule/preventative maintenance performed shall also be maintained in this log.

If, during the first two (2) years of operation, any single machine is out of operation for related problems that require six (6) service calls or more with a three (3) month period, the contractor shall replace and install the piece of equipment free of cost

with a new machine.

**Labels:**

The Contractor will be required to affix a label or decal to the equipment at the time of installation, showing the date of installation, the name, address and telephone number of the local representative responsible for servicing the equipment.

**Loaner Equipment:**

Copiers, including all hardware accessories and software furnished under this contract, shall be capable of continuous operation. Should the copiers, any accessories, or software become inoperable for a period of (48) consecutive working hours, the Contractor shall, at the agency's option and at no additional cost to the State, provide a loaner copier or accessory of equal capability of the non-performing piece of equipment to what was purchased or rented.

All replacement copiers must be new or greater than or equal to original. Back-up copiers (loaners) are defined as copier(s) that will be installed on a temporary basis while the malfunctioning copier(s) is repaired or until a replacement copier(s) is installed. Back-up equipment will be replaced within 30 days with the original machine or a new replacement.

**Site Clean Up**

Contractor shall at all times keep the premises and the areas in which the work is performed free from accumulation of waste materials or rubbish as well as the tools, installation equipment, machinery and surplus materials during the progress of the work and until completion thereof. The Contractor shall remove from the premises all crates, wrappings and other flammable waste materials or trash from the building. If the premises are not maintained properly, the State may have any accumulations of non-recyclable waste materials or trash removed with costs to be incurred by the Contractor as deemed appropriate.

**Term of Contract (2 Years)**

The term of any resultant contract shall commence on the first day of the month following the date of award and shall continue for a period of two (2) years thereafter, unless terminated, canceled or extended as otherwise provided herein. At its option, the State may extend any resultant contract for 3 additional one-year periods or portions thereof for a total contract term not to exceed 5 years.

**Termination for Convenience**

The State reserves the right to terminate the Contract, in whole or in part at any time, when in the best interests of the State without penalty or recourse. Upon receipt of the written notice, the Contractor shall stop all work, as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the State. In the event of termination under this paragraph, all documents, data and reports prepared by the Contractor under the Contract shall become the property of and be delivered to the State upon demand. The Contractor shall be entitled to receive just and equitable compensation for work in progress, work completed and materials accepted before the effective date of the termination. The cost principles and procedures provided in A.A.C. R2-7-701 shall apply.

**Termination for Default**

The State reserves the right to terminate the whole or any part of the contract due to failure of the Contractor to carry out any term, promise, or condition of the contract. The State will issue a written ten (10) day notice of default to the Contractor for failure to adequately perform, or there is reason for the State to believe that the Contractor cannot or will not adequately perform the requirements of the contract.

**Trade-Ins**

Trade-ins are encouraged whenever possible to offset capital costs for purchasing entities and to take advantage of technology changes. Purchasing entities may request a trade-in allowance for the contracted equipment and the contractor may accept or decline the request. The trade-in amount will be given in the form of a credit and subtracted from the equipment purchase price or rental agreement. All trade-in equipment is presented on an as-is basis with no actual or implied guarantee to its condition. The purchasing entity must make the trade-in equipment available for inspection by the Contractor before trade-in and must comply with all State Surplus, GITA, and IT Standards. All trade-in equipment will be maintained by the purchasing entity in a reasonable manner until removal.

**Usage Report**

The contractor shall furnish the state, to the contract officer whose name appears on the contract, a usage report delineating the acquisition activity governed by the contract at no additional cost to the State.

The usage report shall identify all using agencies, products purchased, list of Purchase Order (PO) numbers, and total dollar volumes purchased by each using agency during the reporting period.

Reports shall be due at the end of each 3-month contract period to be furnished to the contract officer of record no later than 15 days after the end of each 3-month contract period. Reports shall be submitted in electronic format (CD, excel, etc.). The format of the report shall be approved by the state.

The information contained in these contract reports and the accurate and timely submission thereof are deemed critical. Failure by the contractor to submit accurate and timely contract reports against this contract may be cause for cancellation of

the contract.

**Warranty (90 Days)**

All equipment supplied under this specification shall be fully guaranteed by the contractor for a minimum period of 90 days from the date of acceptance by the state. Any defects of design, workmanship, or materials, that would result in non-compliance with the contract specification, shall be fully corrected by the contractor (including parts and labor) without cost to the state. The written warranty shall be included with the delivered products to the using entity.

# Contract

Solicitation # EPS060122-A5

## Uniform Instructions

### 1 Definition of Terms

As used in these Instructions, the terms listed below are defined as follows:

#### 1.2 Contract

the combination of the Solicitation, including the Uniform and Special Instructions to Offerors, the Uniform and Special Terms and Conditions, and the Specifications and Statement of Scope of Work; the Offer and any Best and Final Offers, and any Solicitation Amendments or Contract Amendments and any terms applied by law.

#### 1.3 Contract Amendment

a written document signed by the Procurement Officer that is issued for the purpose of making changes in the Contract.

#### 1.4 Contractor

any person who has a Contract with the State

#### 1.5 Days

calendar days unless otherwise specified.

#### 1.6 Exhibit

any item labeled as an Exhibit in the Solicitation or placed in the Exhibits section of the Solicitation

#### 1.7 Offer

bid, proposal or quotation.

#### 1.8 Offeror

a vendor who responds to a Solicitation.

#### 1.9 Procurement Officer

the person, or his or her designee, duly authorized by the State to enter into and administer Contracts and make written determinations with respect to the Contract.

#### 1.10 Solicitation

an Invitation for Bids ('IFB'), a Request for Proposals ('RFP'), or a Request for Quotations ('RFQ').

#### 1.11 Solicitation Amendment

a written document that is signed by the Procurement Officer and issued for the purpose of making changes to the Solicitation.

#### 1.12 Subcontract

means any Contract, express or implied, between the Contractor and another party or between a subcontractor and another party delegating or assigning, in whole or in part, the making or furnishing of any material or any service required for the performance of the Contract.

#### 1.13 State

the State of Arizona and Department or Agency of the State that executes the Contract.

### 2 Inquiries

Inquiries

#### 2.1 Duty to Examine

It is the responsibility of each Offeror to examine the entire Solicitation, seek clarification in writing (inquiries), and examine its Offer for accuracy before submitting the Offer. Lack of care in preparing an Offer shall not be grounds for modifying or withdrawing the Offer after the Offer due date and time, nor shall it give rise to any Contract claim.

#### 2.2 Solicitation Contact Person

Any inquiry related to a Solicitation, including any requests for or inquiries regarding standards referenced in the Solicitation, shall be directed solely to the Solicitation contact person. The Offeror shall not contact or direct inquiries concerning this Solicitation to any other State employee unless the Solicitation specifically identifies a person other than the Solicitation contact person as a contact.

#### 2.3 Submission of Inquiries

The Procurement Officer or the person identified in the Solicitation as the contact for inquiries may except at the Pre-Offer Conference, require that an inquiry be submitted in writing. Any inquiry related to a Solicitation shall refer to the appropriate Solicitation number, page and paragraph. Do not place the Solicitation number on the outside of the envelope containing that inquiry, since it may then be identified as an Offer and not be opened until after the Offer due date and time. The State shall consider the relevancy of the inquiry but is not required to respond in writing.

#### 2.4 Timeliness

Any inquiry or exception to the solicitation shall be submitted as soon as possible and should be submitted at least seven days before the Offer due date and time for review and determination by the State. Failure to do so may result in the inquiry not being considered for a Solicitation Amendment.

#### 2.5 No Right to Rely on Verbal Responses

An offeror shall not rely on verbal responses to inquiries. A verbal reply to an inquiry does not constitute a modification of the

solicitation.

**2.6 Solicitation Amendments**

The Solicitation shall only be modified by a Solicitation Amendment.

**2.7 Pre-Offer Conference**

If a pre-Offer conference has been scheduled under this Solicitation, the date, time and location shall appear on the Solicitation cover sheet or elsewhere in the Solicitation. Offerors should raise any questions about the Solicitation or the procurement at that time. An Offeror may not rely on any verbal responses to questions at the conference. Material issues raised at the conference that result in changes to the Solicitation shall be answered solely through a written Solicitation Amendment.

**2.8 Persons With Disabilities**

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting the Solicitation contact person. Requests shall be made as early as possible to allow time to arrange the accommodation.

**3 Offer Preparation**

Offer Preparation

**3.1 Forms: No Facsimile, Telegraphic or Electronic Mail Offers**

Telegraphic or Electronic Mail Offers. An Offer shall be submitted either on the forms provided in this Solicitation or their substantial equivalent. Any substitute document for the forms provided in this Solicitation must be legible and contain the same information requested on the forms, unless the solicitation indicates otherwise. A facsimile, telegraphic, mailgram or electronic mail Offer shall be rejected if submitted in response to requests for proposals or invitations for bids, unless the solicitation indicates otherwise.

**3.2 Typed or Ink; Corrections**

The Offer shall be typed or in ink. Erasures, interlineations or other modifications in the Offer shall be initialed in ink by the person signing the Offer. Modifications shall not be permitted after Offers have been opened except as otherwise provided under applicable law.

**3.3 Evidence of Intent to be Bound**

The Offer and Acceptance form within the Solicitation shall be submitted with the Offer and shall include a signature (or acknowledgement for electronic submissions, when authorized) by a person authorized to sign the Offer. The signature shall signify the Offeror's intent to be bound by the Offer and the terms of the Solicitation and that the information provided is true, accurate and complete. Failure to submit verifiable evidence of an intent to be bound, such as an original signature, shall result in rejection of the Offer.

**3.4 Exceptions to Terms and Conditions**

All exceptions included with the Offer shall be submitted in a clearly identified separate section of the Offer in which the Offeror clearly identifies the specific paragraphs of the Solicitation where the exceptions occur. Any exceptions not included in such a section shall be without force and effect in any resulting Contract unless such exception is specifically accepted by the Procurement Officer in a written statement. The Offeror's preprinted or standard terms will not be considered by the State as a part of any resulting Contract.

i. Invitation for Bids. An Offer that takes exception to a material requirement of any part of the Solicitation, including terms and conditions, shall be rejected. [ALL]

ii. Request for Proposals. All exceptions that are contained in the Offer may negatively affect the State's proposal evaluation based on the evaluation criteria stated in the Solicitation or result in rejection of the Offer. An offer that takes exception to any material requirement of the solicitation may be rejected.

**3.5 Subcontracts**

Offeror shall clearly list any proposed subcontractors and the subcontractor's proposed responsibilities in the Offer.

**3.6 Cost of Offer Preparation**

The State will not reimburse any Offeror the cost of responding to a Solicitation.

**3.7 Solicitation Amendments**

Each Solicitation Amendment shall be signed with an original signature by the person signing the Offer, and shall be submitted no later than the Offer due date and time. Failure to return a signed (or acknowledgment for electronic submission, when authorized) copy of a Solicitation Amendment may result in rejection of the Offer.

**3.8 Federal Excise Tax**

The State of Arizona is exempt from certain Federal Excise Tax on manufactured goods. Exemption Certificates will be provided by the State.

**3.9 Provision of Tax Identification Numbers**

Offerors are required to provide their Arizona Transaction Privilege Tax Number and/or Federal Tax Identification number in the space provided on the Offer and Acceptance Form.

**3.10 Employee Identification**

Offeror agrees to provide an employee identification number or social security number to the State for the purposes of reporting to appropriate taxing authorities, monies paid by the State under this contract. If the federal identifier of the offeror is a social security number, this number is being requested solely for tax reporting purposes and will be shared only with

appropriate state and federal officials. This submission is mandatory under 26 U.S.C. § 6041A.

**3.11 Identification of Taxes in Offer**

The State of Arizona is subject to all applicable state and local transaction privilege taxes. All applicable taxes shall be identified as a separate item offered in the solicitation when applicable, the tax rate and amount shall be identified on the price sheet. At all times, payment of taxes and the determination of applicable taxes are the sole responsibility of the contractor.

**3.12 Disclosure**

If the firm, business or person submitting this Offer has been debarred, suspended or otherwise lawfully precluded from participating in any public procurement activity, including being disapproved as a subcontractor with any Federal, state or local government, or if any such preclusion from participation from any public procurement activity is currently pending, the Offeror shall fully explain the circumstances relating to the preclusion or proposed preclusion in the Offer. The Offeror shall include a letter with its Offer setting forth the name and address of the governmental unit, the effective date of this suspension or debarment, the duration of the suspension or debarment, and the relevant circumstances relating to the suspension or debarment. If suspension or debarment is currently pending, a detailed description of all relevant circumstances including the details enumerated above shall be provided.

**3.13 Solicitation Order of Precedence**

In the event of a conflict in the provisions of this Solicitation, the following shall prevail in the order set forth below:

- 3.13.1 Special Terms and Conditions;
- 3.13.2 Uniform Terms and Conditions;
- 3.1.3 Statement or Scope of Work;
- 3.13.4 Specifications;
- 3.13.5 Attachments;
- 3.13.6 Exhibits;
- 3.13.7 Special Instructions to Offerors;
- 3.13.8 Uniform Instructions to Offerors.3.13.9 Other documents referenced or included in the Solicitation.

**3.14 Delivery**

Unless stated otherwise in the Solicitation, all prices shall be F.O.B. Destination and shall include all freight, delivery and unloading at the destination(s).

**4 Submission of Offer**

Submission of Offer

**4.1 Sealed Envelope or Package**

Except for electronic submissions, when authorized, each Offer shall be submitted to the submittal location identified in this Solicitation. Offers should be submitted in a sealed envelope or container. The envelope or container should be clearly identified with name of the Offeror and Solicitation number. The State may open envelopes or containers to identify contents if the envelope or container is not clearly identified.

**4.2 Offer Amendment or Withdrawal**

An Offer may not be amended or withdrawn after the Offer due date and time except as otherwise provided under applicable law.

**4.3 Public Record**

All Offers submitted and opened are public records and must be retained by the State. Offers shall be open to public inspection after Contract award, except for such Offers deemed to be confidential by the State. If an Offeror believes that information in its Offer should remain confidential, it shall indicate as confidential the specific information and submit a statement with its Offer detailing the reasons that the information should not be disclosed. Such reasons shall include the specific harm or prejudice which may arise. The State shall determine whether the identified information is confidential pursuant to the Arizona Procurement Code.

**4.4 Non-collusion, Employment, and Services**

By signing the Offer and Acceptance Form or other official contract form, the Offeror certifies that:

4.4.1 i. The Offeror did not engage in collusion or other anti-competitive practices in connection with the preparation or submission of its Offer; and

4.4.2 ii. The Offeror does not discriminate against any employee or applicant for employment or person to whom it provides services because of race, color, religion, sex, national origin, or disability, and that it complies with all applicable Federal, state and local laws and executive orders regarding employment.

**5 Evaluation**

Evaluation

- 1. Cost
- 2. Capacity of Offeror
- 3. Equipment and Desirable Technical Requirements
- 4. Conformance with Terms and Conditions
- 5. Conformance to the RFP Requirements

**5.1 Unit Price Prevails**

In the case of discrepancy between the unit price or rate and the extension of that unit price or rate, the unit price or rate shall govern.

**5.2 Taxes**

Arizona transaction privilege and use taxes shall not be considered for evaluation.

**5.3 Late Offers**

An Offer submitted after the exact Offer due date and time shall be rejected.

**5.4 Disqualification**

An Offeror (including any of its' principals) who is currently debarred, suspended or otherwise lawfully prohibited from any public procurement activity shall have its offer rejected.

**5.5 Offer Acceptance Period**

An Offeror submitting an Offer under this Solicitation shall hold its Offer open for the number of days from the Offer due date that is stated in the Solicitation. If the Solicitation does not specifically state a number of days for Offer acceptance, the number of days shall be one hundred–twenty (120). If a Best and Final Offer is requested pursuant to a Request for Proposals, an Offeror shall hold its Offer open for one hundred–twenty (120) days from the Best and Final Offer due date.

**5.6 Waiver and Rejection Rights**

Notwithstanding any other provision of the Solicitation, the State reserves the right to:

5.6.1 Waive any minor informality;

5.6.2 Reject any and all Offers or portions thereof; or

5.6.3 Cancel the Solicitation.

**6 Award**

Award

**6.1 Number or Types of Awards**

The State reserves the right to make multiple awards or to award a Contract by individual line items or alternatives, by group of line items or alternatives, or to make an aggregate award, or regional awards, whichever is most advantageous to the State. If the Procurement Officer determines that an aggregate award to one Offeror is not in the State's best interest, 'all or none' Offers shall be rejected.

**6.2 Contract Inception**

An Offer does not constitute a Contract nor does it confer any rights on the Offeror to the award of a Contract. A Contract is not created until the Offer is accepted in writing by the Procurement Officer's signature on the Offer and Acceptance Form. A notice of award or of the intent to award shall not constitute acceptance of the Offer.

**6.3 Effective Date**

The effective date of this Contract shall be the date that the Procurement Officer signs the Offer and Acceptance form or other official contract form, unless another date is specifically stated in the Contract.

**7 Protests**

A protest shall comply with and be resolved according to Arizona Revised Statutes Title 41, Chapter 23, Article 9 and rules adopted thereunder. Protests shall be in writing and be filed with both the Procurement Officer of the purchasing agency and with the State Procurement Administrator. A protest of a Solicitation shall be received by the Procurement Officer before the Offer due date. A protest of a proposed award or of an award shall be filed within ten (10) days after the protester knows or should have known the basis of the protest. A protest shall include:

7.1 The name, address and telephone number of the protester;

7.2 The signature of the protester or its representative;

7.3 Identification of the purchasing agency and the Solicitation or Contract number;

7.4 A detailed statement of the legal and factual grounds of the protest including copies of relevant documents; and

7.5 The form of relief requested.

**8 Comments Welcome**

The State Procurement Office periodically reviews the Uniform Instructions to Offerors and welcomes any comments you may have. Please submit your comments to: State Procurement Administrator, State Procurement Office, 100 North 15th Avenue, Suite 104, Phoenix, Arizona, 85007.

# Contract

Solicitation # EPS060122-A5

## Uniform Terms and Conditions

### 1 Definition of Terms

As used in this Solicitation and any resulting Contract, the terms listed below are defined as follows:

#### 1.1 Attachment

any item the Solicitation requires the Offeror to submit as part of the Offer.

#### 1.2 Contract

the combination of the Solicitation, including the Uniform and Special Instructions to Offerors, the Uniform and Special Terms and Conditions, and the Specifications and Statement or Scope of Work; the Offer and any Best and Final Offers; and any Solicitation Amendments or Contract Amendments.

#### 1.3 Contract Amendment

a written document signed by the Procurement Officer that is issued for the purpose of making changes in the Contract.

#### 1.4 Contractor

any person who has a Contract with the State.

#### 1.5 Days

calendar days unless otherwise specified

#### 1.6 Exhibit

any item labeled as an Exhibit in the Solicitation or placed in the Exhibits section of the Solicitation.

#### 1.7 Gratuity

a payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value is received.

#### 1.8 Materials

all property, including equipment, supplies, printing, insurance and leases of property but does not include land, a permanent interest in land or real property or leasing space.

#### 1.9 Procurement Officer

the person, or his or her designee, duly authorized by the State to enter into and administer Contracts and make written determinations with respect to the Contract.

#### 1.10 Services

the furnishing of labor, time or effort by a contractor or subcontractor which does not involve the delivery of a specific end product other than required reports and performance, but does not include employment agreements or collective bargaining agreements.

#### 1.11 Subcontract

any Contract, express or implied, between the Contractor and another party or between a subcontractor and another party delegating or assigning, in whole or in part, the making or furnishing of any material or any service required for the performance of the Contract.

#### 1.12 State

the State of Arizona and Department or Agency of the State that executes the Contract.

#### 1.13 State Fiscal Year

the period beginning with July 1 and ending June 30,

### 2 Contract Interpretation

Contract Interpretation

#### 2.1 Arizona Law

The Arizona law applies to this Contract including, where applicable, the Uniform Commercial Code as adopted by the State of Arizona and the Arizona Procurement Code, Arizona Revised Statutes (A.R.S.) Title 41, Chapter 23, and its implementing rules, Arizona Administrative Code (A.A.C.) Title 2, Chapter 7.

#### 2.2 Implied Contract Terms

Each provision of law and any terms required by law to be in this Contract are a part of this Contract as if fully stated in it.

#### 2.3 Contract Order of Precedence

In the event of a conflict in the provisions of the Contract, as accepted by the State and as they may be amended, the following shall prevail in the order set forth below:

2.3.1 Special Terms and Conditions;

2.3.2 Uniform Terms and Conditions;

2.3.3 Statement or Scope of Work;

2.3.4 Specifications;

2.3.5 Attachments;

2.3.6 Exhibits;

2.3.7 Documents referenced or included in the Solicitation.

#### 2.4 Relationship of Parties

The Contractor under this Contract is an independent Contractor. Neither party to this Contract shall be deemed to be the employee or agent of the other party to the Contract.

**2.5 Severability**

The provisions of this Contract are severable. Any term or condition deemed illegal or invalid shall not affect any other term or condition of the Contract.

**2.6 No Parole Evidence**

This Contract is intended by the parties as a final and complete expression of their agreement. No course of prior dealings between the parties and no usage of the trade shall supplement or explain any terms used in this document and no other understanding either oral or in writing shall be binding.

**2.7 No Waiver**

Either party's failure to insist on strict performance of any term or condition of the Contract shall not be deemed a waiver of that term or condition even if the party accepting or acquiescing in the nonconforming performance knows of the nature of the performance and fails to object to it.

**3 Contract Administration and Operation**

Contract Administration and Operation.

**3.1 Records**

Under A.R.S. § 35–214 and § 35–215, the Contractor shall retain and shall contractually require each subcontractor to retain all data and other 'records' relating to the acquisition and performance of the Contract for a period of five years after the completion of the Contract. All records shall be subject to inspection and audit by the State at reasonable times. Upon request, the Contractor shall produce a legible copy of any or all such records.

**3.2 Non-Discrimination**

The Contractor shall comply with State Executive Order No. 99–4 and all other applicable Federal and State laws, rules and regulations, including the Americans with Disabilities Act.

**3.3 Audit**

Pursuant to ARS § 35–214, at any time during the term of this Contract and five (5) years thereafter, the Contractor's or any subcontractor's books and records shall be subject to audit by the State and, where applicable, the Federal Government, to the extent that the books and records relate to the performance of the Contract or Subcontract.

**3.4 Facilities Inspection and Materials Testing**

The Contractor agrees to permit access to its facilities, subcontractor facilities and the Contractor's processes or services, at reasonable times for inspection of the facilities or materials covered under this Contract. The State shall also have the right to test, at its own cost, the materials to be supplied under this Contract. Neither inspection of the Contractor's facilities nor materials testing shall constitute final acceptance of the materials or services. If the State determines non-compliance of the materials, the Contractor shall be responsible for the payment of all costs incurred by the State for testing and inspection.

**3.5 Notices**

Notices to the Contractor required by this Contract shall be made by the State to the person indicated on the Offer and Acceptance form submitted by the Contractor unless otherwise stated in the Contract. Notices to the State required by the Contract shall be made by the Contractor to the Solicitation Contact Person indicated on the Solicitation cover sheet, unless otherwise stated in the Contract. An authorized Procurement Officer and an authorized Contractor representative may change their respective person to whom notice shall be given by written notice to the other and an amendment to the Contract shall not be necessary.

**3.6 Advertising, Publishing and Promotion of Contract**

The Contractor shall not use, advertise or promote information for commercial benefit concerning this Contract without the prior written approval of the Procurement Officer.

**3.7 Property of the State**

Any materials, including reports, computer programs and other deliverables, created under this Contract are the sole property of the State. The Contractor is not entitled to a patent or copyright on those materials and may not transfer the patent or copyright to anyone else. The Contractor shall not use or release these materials without the prior written consent of the State.

**3.8 Ownership of Intellectual Property**

Any and all intellectual property, including but not limited to copyright, invention, trademark, tradename, service mark, and/or trade secrets created or conceived pursuant to or as a result of this contract and any related subcontract ('Intellectual Property'), shall be work made for hire and the State shall be considered the creator of such Intellectual Property. The agency, department, division, board or commission of the State of Arizona requesting the issuance of this contract shall own (for and on behalf of the State) the entire right, title and interest to the Intellectual Property throughout the world. Contractor shall notify the State, within thirty (30) days, of the creation of any Intellectual Property by it or its subcontractor(s).

Contractor, on behalf of itself and any subcontractor (s), agrees to execute any and all document(s) necessary to assure ownership of the Intellectual Property vests in the State and shall take no affirmative actions that might have the effect of vesting all or part of the Intellectual Property in any entity other than the State. The Intellectual Property shall not be disclosed by contractor or its subcontractor(s) to any entity not the State without the express written authorization of the agency, department, division, board or commission of the State of Arizona requesting the issuance of this contract.

**4 Costs and Payments**

Costs and Payments

#### **4.1 Payments**

Payments shall comply with the requirements of A.R.S. Titles 35 and 41, Net 30 days. Upon receipt and acceptance of goods or services, the Contractor shall submit a complete and accurate invoice for payment from the State within thirty (30) days.

#### **4.2 Delivery**

Unless stated otherwise in the Contract, all prices shall be F.O.B. Destination and shall include all freight delivery and unloading at the destination.

#### **4.3 Applicable Taxes**

4.3.1 Payment of Taxes. The Contractor shall be responsible for paying all applicable taxes.

4.3.2 State and Local Transaction Privilege Taxes. The State of Arizona is subject to all applicable state and local transaction privilege taxes. Transaction privilege taxes apply to the sale and are the responsibility of the seller to remit. Failure to collect such taxes from the buyer does not relieve the seller from its obligation to remit taxes.

4.3.3 Tax Indemnification. Contractor and all subcontractors shall pay all Federal, state and local taxes applicable to its operation and any persons employed by the Contractor. Contractor shall, and require all subcontractors to hold the State harmless from any responsibility for taxes, damages and interest, if applicable, contributions required under Federal, and/or state and local laws and regulations and any other costs including transaction privilege taxes, unemployment compensation insurance, Social Security and Worker's Compensation.

4.3.4 IRS W9 Form. In order to receive payment the Contractor shall have a current I.R.S. W9 Form on file with the State of Arizona, unless not required by law.

#### **4.4 Availability of Funds for the Next State Fiscal Year**

Funds may not presently be available for performance under this Contract beyond the current state fiscal year. No legal liability on the part of the State for any payment may arise under this Contract beyond the current state fiscal year until funds are made available for performance of this Contract.

#### **4.5 Availability of Funds for the Current State Fiscal Year**

Should the State Legislature enter back into session and reduce the appropriations or for any reason and these goods or services are not funded, the State may take any of the following actions:

4.5.1 Accept a decrease in price offered by the contractor;

4.5.2 Cancel the Contract

4.5.3 Cancel the contract and re-solicit the requirements.

### **5 Contract Changes**

Contract Changes

#### **5.1 Amendments**

This Contract is issued under the authority of the Procurement Officer who signed this Contract. The Contract may be modified only through a Contract Amendment within the scope of the Contract. Changes to the Contract, including the addition of work or materials, the revision of payment terms, or the substitution of work or materials, directed by a person who is not specifically authorized by the procurement officer in writing or made unilaterally by the Contractor are violations of the Contract and of applicable law. Such changes, including unauthorized written Contract Amendments shall be void and without effect, and the Contractor shall not be entitled to any claim under this Contract based on those changes.

#### **5.2 Subcontracts**

The Contractor shall not enter into any Subcontract under this Contract for the performance of this contract without the advance written approval of the Procurement Officer. The Contractor shall clearly list any proposed subcontractors and the subcontractor's proposed responsibilities. The Subcontract shall incorporate by reference the terms and conditions of this Contract.

#### **5.3 Assignment and Delegation**

The Contractor shall not assign any right nor delegate any duty under this Contract without the prior written approval of the Procurement Officer. The State shall not unreasonably withhold approval.

### **6 Risk and Liability**

Risk and Liability

#### **6.1 Risk of Loss**

The Contractor shall bear all loss of conforming material covered under this Contract until received by authorized personnel at the location designated in the purchase order or Contract. Mere receipt does not constitute final acceptance. The risk of loss for nonconforming materials shall remain with the Contractor regardless of receipt.

#### **6.2 Indemnification**

6.2.1 Contractor/Vendor Indemnification (Not Public Agency) The parties to this contract agree that the State of Arizona, its' departments, agencies, boards and commissions shall be indemnified and held harmless by the contractor for the vicarious liability of the State as a result of entering into this contract. However, the parties further agree that the State of Arizona, its' departments, agencies, boards and commissions shall be responsible for its' own negligence. Each party to this contract is responsible for its' own negligence.

6.2.2 Public Agency Language Only Each party (as 'indemnitor') agrees to indemnify, defend, and hold harmless the other party (as 'indemnitee') from and against any and all claims, losses, liability, costs, or expenses (including reasonable

attorney's fees) (hereinafter collectively referred to as 'claims') arising out of bodily injury of any person (including death) or property damage but only to the extent that such claims which result in vicarious/derivative liability to the indemnitee, are caused by the act, omission, negligence, misconduct, or other fault of the indemnitor, its' officers, officials, agents, employees, or volunteers.'

### **6.3 Indemnification – Patent and Copyright**

The Contractor shall indemnify and hold harmless the State against any liability, including costs and expenses, for infringement of any patent, trademark or copyright arising out of Contract performance or use by the State of materials furnished or work performed under this Contract. The State shall reasonably notify the Contractor of any claim for which it may be liable under this paragraph. If the contractor is insured pursuant to A.R.S. § 41–621 and § 35–154, this section shall not apply.

### **6.4 Force Majeure**

6.4.1 Except for payment of sums due, neither party shall be liable to the other nor deemed in default under this Contract if and to the extent that such party's performance of this Contract is prevented by reason of force majeure. The term 'force majeure' means an occurrence that is beyond the control of the party affected and occurs without its fault or negligence. Without limiting the foregoing, force majeure includes acts of God; acts of the public enemy; war; riots; strikes; mobilization; labor disputes; civil disorders; fire; flood; lockouts; injunctions–intervention–acts; or failures or refusals to act by government authority; and other similar occurrences beyond the control of the party declaring force majeure which such party is unable to prevent by exercising reasonable diligence.

6.4.2 Force Majeure shall not include the following occurrences:

6.4.2.1 Late delivery of equipment or materials caused by congestion at a manufacturer's plant or elsewhere, or an oversold condition of the market;

6.4.2.2 Late performance by a subcontractor unless the delay arises out of a force majeure occurrence in accordance with this force majeure term and condition; or

6.4.2.3 Inability of either the Contractor or any subcontractor to acquire or maintain any required insurance, bonds, licenses or permits.

6.4.3 If either party is delayed at any time in the progress of the work by force majeure, the delayed party shall notify the other party in writing of such delay, as soon as is practicable and no later than the following working day, of the commencement thereof and shall specify the causes of such delay in such notice. Such notice shall be delivered or mailed certified–return receipt and shall make a specific reference to this article, thereby invoking its provisions. The delayed party shall cause such delay to cease as soon as practicable and shall notify the other party in writing when it has done so. The time of completion shall be extended by Contract Amendment for a period of time equal to the time that results or effects of such delay prevent the delayed party from performing in accordance with this Contract.

6.4.4 Any delay or failure in performance by either party hereto shall not constitute default hereunder or give rise to any claim for damages or loss of anticipated profits if, and to the extent that such delay or failure is caused by force majeure.

### **6.5 Third Party Antitrust Violations**

The Contractor assigns to the State any claim for overcharges resulting from antitrust violations to the extent that those violations concern materials or services supplied by third parties to the Contractor, toward fulfillment of this Contract.

## **7 Warranties**

Warranties

### **7.1 Liens**

The Contractor warrants that the materials supplied under this Contract are free of liens and shall remain free of liens.

### **7.2 Quality**

Unless otherwise modified elsewhere in these terms and conditions, the Contractor warrants that, for one year after acceptance by the State of the materials, they shall be:

7.2.1 Of a quality to pass without objection in the trade under the Contract description;

7.2.2 Fit for the intended purposes for which the materials are used;

7.2.3 Within the variations permitted by the Contract and are of even kind, quantity, and quality within each unit and among all units;

7.2.4 Adequately contained, packaged and marked as the Contract may require; and

7.2.5 Conform to the written promises or affirmations of fact made by the Contractor.

### **7.3 Fitness**

The Contractor warrants that any material supplied to the State shall fully conform to all requirements of the Contract and all representations of the Contractor, and shall be fit for all purposes and uses required by the Contract.

### **7.4 Inspection/Testing**

The warranties set forth in subparagraphs 7.1 through 7.3 of this paragraph are not affected by inspection or testing of or payment for the materials by the State.

### **7.5 Year 2000**

7.5.1 Notwithstanding any other warranty or disclaimer of warranty in this Contract, the Contractor warrants that all products delivered and all services rendered under this Contract shall comply in all respects to performance and delivery requirements of the specifications and shall not be adversely affected by any date-related data Year 2000 issues. This warranty shall survive the expiration or termination of this Contract. In addition, the defense of force majeure shall not apply to the Contractor's failure to perform specification requirements as a result of any date-related data Year 2000 issues.

7.5.2 Additionally, notwithstanding any other warranty or disclaimer of warranty in this Contract, the Contractor warrants that each hardware, software, and firmware product delivered under this Contract shall be able to accurately process date/time data (including but not limited to calculation, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology utilized by the State in combination with the information technology being acquired under this Contract properly exchanges date-time data with it. If this Contract requires that the information technology products being acquired perform as a system, or that the information technology products being acquired perform as a system in combination with other State information technology, then this warranty shall apply to the acquired products as a system. The remedies available to the State for breach of this warranty shall include, but shall not be limited to, repair and replacement of the information technology products delivered under this Contract. In addition, the defense of force majeure shall not apply to the failure of the Contractor to perform any specification requirements as a result of any date-related data Year 2000 issues.

### **7.6 Compliance With Applicable Laws**

The materials and services supplied under this Contract shall comply with all applicable Federal, state and local laws, and the Contractor shall maintain all applicable license and permit requirements.

### **7.7 Survival of Rights and Obligations after Contract Expiration or Termination**

7.7.1 Contractor's Representations and Warranties. All representations and warranties made by the Contractor under this Contract shall survive the expiration or termination hereof. In addition, the parties hereto acknowledge that pursuant to A.R.S. § 12-510, except as provided in A.R.S. § 12-529, the State is not subject to or barred by any limitations of actions prescribed in A.R.S., Title 12, Chapter 5.

7.7.2 Purchase Orders. The Contractor shall, in accordance with all terms and conditions of the Contract, fully perform and shall be obligated to comply with all purchase orders received by the Contractor prior to the expiration or termination hereof, unless otherwise directed in writing by the Procurement Officer, including, without limitation, all purchase orders received prior to but not fully performed and satisfied at the expiration or termination of this Contract.

## **8 State's Contractual Remedies**

State's Contractual Remedies

### **8.1 Right to Assurance**

If the State in good faith has reason to believe that the Contractor does not intend to, or is unable to perform or continue performing under this Contract, the Procurement Officer may demand in writing that the Contractor give a written assurance of intent to perform. Failure by the Contractor to provide written assurance within the number of Days specified in the demand may, at the State's option, be the basis for terminating the Contract under the Uniform Terms and Conditions or other rights and remedies available by law or provided by the contract.

### **8.2 Stop Work Order**

8.2.1 The State may, at any time, by written order to the Contractor, require the Contractor to stop all or any part, of the work called for by this Contract for period(s) of days indicated by the State after the order is delivered to the Contractor. The order shall be specifically identified as a stop work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage.

8.2.2 If a stop work order issued under this clause is canceled or the period of the order or any extension expires, the Contractor shall resume work. The Procurement Officer shall make an equitable adjustment in the delivery schedule or Contract price, or both, and the Contract shall be amended in writing accordingly.

### **8.3 Non-exclusive Remedies**

The rights and the remedies of the State under this Contract are not exclusive.

### **8.4 Nonconforming Tender**

Materials or services supplied under this Contract shall fully comply with the Contract. The delivery of materials or services or a portion of the materials or services that do not fully comply constitutes a breach of contract. On delivery of nonconforming materials or services, the State may terminate the Contract for default under applicable termination clauses in the Contract, exercise any of its rights and remedies under the Uniform Commercial Code, or pursue any other right or

remedy available to it.

#### **8.5 Right of Offset**

The State shall be entitled to offset against any sums due the Contractor, any expenses or costs incurred by the State, or damages assessed by the State concerning the Contractor's non-conforming performance or failure to perform the Contract, including expenses, costs and damages described in the Uniform Terms and Conditions.

#### **9 Contract Termination**

Contract Termination

##### **9.1 Cancellation for Conflict of Interest**

Pursuant to A.R.S. § 38-511, the State may cancel this Contract within three (3) years after Contract execution without penalty or further obligation if any person significantly involved in initiating, negotiating, securing, drafting or creating the Contract on behalf of the State is or becomes at any time while the Contract or an extension of the Contract is in effect an employee of or a consultant to any other party to this Contract with respect to the subject matter of the Contract. The cancellation shall be effective when the Contractor receives written notice of the cancellation unless the notice specifies a later time. If the Contractor is a political subdivision of the State, it may also cancel this Contract as provided in A.R.S. § 38-511.

##### **9.2 Gratuities**

The State may, by written notice, terminate this Contract, in whole or in part, if the State determines that employment or a Gratuity was offered or made by the Contractor or a representative of the Contractor to any officer or employee of the State for the purpose of influencing the outcome of the procurement or securing the Contract, an amendment to the Contract, or favorable treatment concerning the Contract, including the making of any determination or decision about contract performance. The State, in addition to any other rights or remedies, shall be entitled to recover exemplary damages in the amount of three times the value of the Gratuity offered by the Contractor.

##### **9.3 Suspension or Debarment**

The State may, by written notice to the Contractor, immediately terminate this Contract if the State determines that the Contractor has been debarred, suspended or otherwise lawfully prohibited from participating in any public procurement activity, including but not limited to, being disapproved as a subcontractor of any public procurement unit or other governmental body. Submittal of an offer or execution of a contract shall attest that the contractor is not currently suspended or debarred. If the contractor becomes suspended or debarred, the contractor shall immediately notify the State.

##### **9.4 Termination for Convenience**

The State reserves the right to terminate the Contract, in whole or in part at any time, when in the best interests of the State without penalty or recourse. Upon receipt of the written notice, the Contractor shall stop all work, as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the State. In the event of termination under this paragraph, all documents, data and reports prepared by the Contractor under the Contract shall become the property of and be delivered to the State upon demand. The Contractor shall be entitled to receive just and equitable compensation for work in progress, work completed and materials accepted before the effective date of the termination. The cost principles and procedures provided in A.A.C. R2-7-701 shall apply.

##### **9.5 Termination for Default**

9.5.1 In addition to the rights reserved in the contract, the State may terminate the Contract in whole or in part due to the failure of the Contractor to comply with any term or condition of the Contract, to acquire and maintain all required insurance policies, bonds, licenses and permits, or to make satisfactory progress in performing the Contract. The Procurement Officer shall provide written notice of the termination and the reasons for it to the Contractor.

9.5.2 Upon termination under this paragraph, all goods, materials, documents, data and reports prepared by the Contractor under the Contract shall become the property of and be delivered to the State on demand.

9.5.3 The State may, upon termination of this Contract, procure, on terms and in the manner that it deems appropriate, materials or services to replace those under this Contract. The Contractor shall be liable to the State for any excess costs incurred by the State in procuring materials or services in substitution for those due from the Contractor.

##### **9.6 Continuation of Performance Through Termination**

The Contractor shall continue to perform, in accordance with the requirements of the Contract, up to the date of termination, as directed in the termination notice.

#### **10 Contract Claims**

All contract claims or controversies under this Contract shall be resolved according to A.R.S. Title 41, Chapter 23, Article 9, and rules adopted thereunder.

#### **11 Arbitration**

The parties to this Contract agree to resolve all disputes arising out of or relating to this contract through arbitration, after exhausting applicable administrative review, to the extent required by A.R.S. § 12-1518, except as may be required by other applicable statutes (Title 41).

# Contract

Solicitation # EPS060122-A5

## Offer

TO THE STATE OF ARIZONA:

The Undersigned hereby offers and agrees to furnish the material, service or construction in compliance with all terms, conditions, specifications and amendments in the Solicitation and any written exceptions in the offer. Signature also certifies Small Business status.

### Tax Information

Arizona Transaction (Sales) Privilege Tax License No. 07578157c  
Federal Employer Identification No. XXXXXXXXXX

### Location Information

Supplier Number: 1529  
Company Name: ikon office solutions  
Address: 1910 w university dr  
tempe, AZ 85281-3262

### Signature

Name: joe zavislak Date: 12/12/06 9:20:25  
Title: SAE  
Signature: \_\_\_\_\_

Status: Accepted

### Certification

By Accepting below, the bidder certifies:

1. The submission of the offer did not involve collusion or other anti-competitive practices.
2. The bidder shall not discriminate against any employee or applicant for employment in violation of Federal Executive Order 11246, State Executive Order 75.5 or A.R.S. §§ 41-1461 through 1465.
3. The bidder has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted offer. Failure to provide a valid signature affirming the stipulations required by this clause shall result in rejection of the offer. Signing the offer with a false statement shall void the offer, any resulting contract and may be subject to legal remedies provided by law.
4. The bidder certifies that the above referenced organization [is not] a small business with less than 100 employees or has gross revenues of \$4 million or less.

## Acceptance

The Offer is hereby accepted.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the solicitation, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by the State.

This contract shall henceforth be referred to as Contract No. Entry not found in index. The Contractor has been cautioned not to commence any billable work or to provide any material or service under this contract until Contractor receives purchase order, contact release document or written notice to proceed.

Award Date TBD

# Contract

Solicitation # EPS060122-A5

## Line Items

LI #	CM Code # CM Code Item #	Commodity Code Description Commodity Code Item Description	Manufacturer	Pricing	Qty	%	Unit Price	Ext Price
1	0600-0046 0600-0046-0099	Copy Machines, Digital Generic		FP	0		\$0.00	\$0.00

EXHIBIT B  
TO  
PURCHASE AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
IKON OFFICE SOLUTIONS, INC.

[Pricing Quote]

See following page.



**Document Efficiency**  
**At Work.®**

A RICOH COMPANY

Doug Roeckner  
Major Account Executive

IKON Office Solutions, Inc.  
1910 W. University Drive  
Tempe, AZ. 85281  
480 379-7463 Phone  
480 379-8678 Fax  
droeckner@ikon.com

12/13/2010

**City of Avondale**  
**Ricoh MFP Pricing**  
**State Contract #EPS060122-3**

<u>Model</u>	<u>QTY</u>	<u>Price Each</u>	<u>Total Price</u>
MP171spf	1	\$1,178.00	\$ 1,178.00
MPC4000	6	\$7,889.00	\$ 47,334.00
MP4001SP	5	\$6,548.00	\$ 32,740.00
<b>Subtotal</b>			<b>\$ 81,252.00</b>
Tax rate is 9.3%			7,556.44
<b>Total</b>			<b>\$ 88,808.44</b>



**Document Efficiency**  
*At Work.<sup>SM</sup>*

Doug Roeckner  
Strategic Account executive  
Desert Southwest Area  
1910 West University Drive  
Tempe, AZ 85281  
Telephone 480-379-7463  
Fax 480-379-8678

12/13/2010

## **Ricoh MP171spf - Purchase Pricing** **State Contract # EPS060122-3**

<u>Ricoh Model 171spf Copier</u>	<u>Purchase Price</u>	<u>Annual Service</u>
MP171SPF - Scan/print/fax	\$1,178.00	\$132.00
17 Pages Per Minute		
Automatic Document Feeder		
Duplexing		
Start-Up Supplies		
Data Overwrite Security Software		
Power Filter		
9.3% Sales tax	\$109.55	
<b>Total</b>	<b>\$1,287.55</b>	

### All Inclusive Maintenance Plan

Monthly Service Charge includes: All Parts, labor, photoconductor, toner & developer.

Unlimited Copies  
No Meters To Read  
No Overages To Pay



Doug Roeckner  
Strategic Account executive  
Desert Southwest Area  
1910 West University Drive  
Tempe, AZ 85281  
Telephone 480-379-7463  
Fax 480-379-8678

12/13/2010

## Ricoh MPC4000 Color - Purchase Pricing State Contract # EPS060122-3

### Ricoh Model MPC4000 Color

40 Pages Per Minute B/W  
40 Pages Per Minute Color  
Automatic Document Feeder  
Automatic 2 Sided Copying  
Paper Feed 550 x 2  
PB3040 2-Tray Paper 550 x 2  
SR3030 Finisher w/Punch unit  
Network Print/Scan  
Fax Option w/32MB memory  
Data Overwrite Security Software  
Equitrac compatible  
Start-Up Supplies  
Power Supply Filter  
**9.3% sales tax**

### Purchase Price

**\$7,889.00**

### Monthly service

\$90 per month  
color copies @ \$.064/copy

### **Total**

**\$733.68**

**\$8,622.68**

Monthly Service Pricing includes all parts and labor, all supply items except paper and unlimited B/W copies. All color copies are @ \$.064/copy



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Strategic Account executive  
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12/13/2010

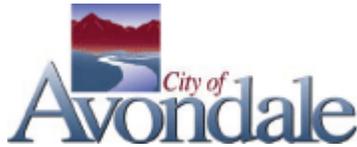
## Ricoh MP4001SP - Purchase Pricing State Contract # EPS060122-3

<b>Ricoh Model MP4001SP</b>	<u>Purchase Price</u>	<u>Monthly service</u>
40 Pages Per Minute	\$6,548.00	\$71 per month
Automatic Document Feeder		
Automatic 2 Sided Copying		
SR3030 Finisher/Stapler		
2/3 Hole Punch Unit		
Network Print/scan		
Fax Option w/32 MB memory		
2 - 500 sheet drawers		
PB3050 (2 x 550 sheets)		
Data Overwrite Security Software		
Equitrac compatible		
Cabinet		
Start-Up Supplies		
Power Filter		
<b>9.3% sales tax</b>	\$ 608.96	
<b>Total</b>	<b>\$7,156.96</b>	

### All Inclusive Maintenance Plan

Monthly Service Charge includes: All Parts, labor, photoconductor, toner, developer, and staples.

Unlimited Copies  
No Meters To Read  
No Overages To Pay  
Maintenance Billing Options: Monthly, Quarterly, or Annualy



# CITY COUNCIL REPORT

**SUBJECT:**

Professional Services Agreement - Kimley-Horn and Associates, Inc. - South Avondale CADD Services

**MEETING DATE:**

January 24, 2011

**TO:** Mayor and Council

**FROM:** Wayne Janis, Public Works Director (623) 333-4444

**THROUGH:** Charlie McClendon, City Manager

**PURPOSE:**

Staff is requesting that the City Council approve a Professional Services Agreement with Kimley-Horn and Associates for South Avondale CADD Services in the amount of \$58,797, and authorize the Mayor or City Manager and City Clerk to execute the necessary documents.

**DISCUSSION:**

The City is currently in the process of purchasing Rigby Water Company in South Avondale. The water company's facilities are limited, and additional supplies are needed to make the system more reliable. (See attached vicinity map) On 11/22/10, City Council approved an agreement with Phoenix International Raceway (PIR) to supply water and sewer services to this facility.

In order to connect water to the existing Rigby Water System and provide water to PIR, a water line must be extended from the existing Avondale system south through the Rigby area to PIR. Sewer service to PIR will consist of a lift station and force main connecting to our existing sewer trunk line at approximately the Roeser Road alignment in either Avondale Boulevard or El Mirage Road. Staff from Public Works, Water Resources Division, will design the water and sewer lines for both facilities. Kimley-Horn and Associates will be providing the Computer Aided Drafting services needed to prepare the plans for approval and bidding.

**BUDGETARY IMPACT:**

Funding is available in line item 514-1139-00-8520.

**RECOMMENDATION:**

Staff recommends that the City Council approve a Professional Services Agreement with Kimley-Horn and Associates for South Avondale CADD Services in the amount of \$58,797, and authorize the Mayor or City Manager and City Clerk to execute the necessary documents.

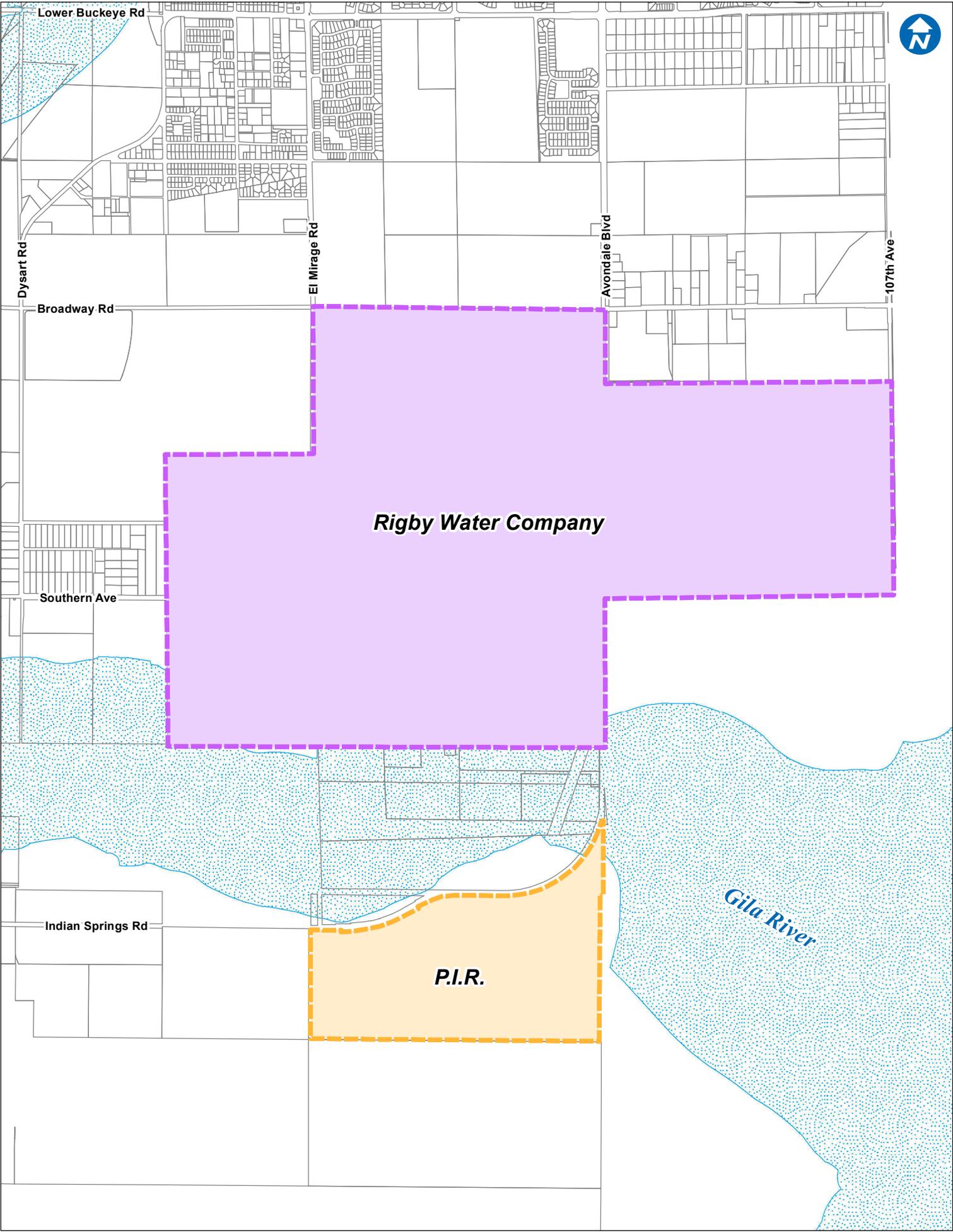
**ATTACHMENTS:**

Click to download

[☐ Vicinity Map](#)

[☐ PSA](#)

Vicinity Map



**PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
KIMLEY-HORN AND ASSOCIATES, INC.**

THIS PROFESSIONAL SERVICES AGREEMENT (this "Agreement") is made as of January 24, 2011, between the City of Avondale, an Arizona municipal corporation (the "City") and Kimley-Horn and Associates, Inc., a North Carolina corporation (the "Consultant").

RECITALS

A. The City issued a Request for Qualifications, EN 10-057 "FY 2010/2011 Professional Consultants Selection List" and amended on April 6, 2010, by that certain Addendum No. 1 (collectively the "RFQ"), a copy of which is attached hereto as Exhibit A, and incorporated herein by reference, seeking statements of qualifications from vendors for professional consulting services.

B. The Consultant submitted a Statement of Qualifications (the "SOQ") in response to the RFQ, attached hereto as Exhibit B, and incorporated herein by reference, and the City desires to enter into an Agreement with the Consultant to provide computer-aided drafting services for water and sewer infrastructure extension projects in southern Avondale (the "Services")

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and the Consultant hereby agree as follows:

1. Term of Agreement. This Agreement shall be effective as of the date first set forth above and shall remain in full force and effect until August 31, 2011.
2. Scope of Work. Consultant shall provide the Services as set forth in the Scope of Work and Fee Proposal, attached hereto as Exhibit C and incorporated herein by reference.
3. Compensation. The City shall pay Consultant a price not to exceed \$58,797.00 for the Services as set forth in the Scope of Work and Fee Proposal, attached hereto as Exhibit C.
4. Payments. The City shall pay the Consultant monthly, based upon work performed and completed to date, and upon submission and approval of invoices. All invoices shall document and itemize all work completed to date. The invoice statement shall include a record of time expended and work performed in sufficient detail to justify payment.
5. Documents. All documents prepared and submitted to the City pursuant to this Agreement shall be the property of the City.

6. Consultant Personnel. Consultant shall provide adequate, experienced personnel, capable of and devoted to the successful completion of the Services to be performed under this Agreement. Consultant agrees to assign specific individuals to key positions. If deemed qualified, the Consultant is encouraged to hire City residents to fill vacant positions at all levels. Consultant agrees that, upon commencement of the Services to be performed under this Agreement, key personnel shall not be removed or replaced without prior written notice to the City. If key personnel are not available to perform the Services for a continuous period exceeding 30 calendar days, or are expected to devote substantially less effort to the Services than initially anticipated, Consultant shall immediately notify the City of same and shall, subject to the concurrence of the City, replace such personnel with personnel of substantially equal ability and qualifications.

7. Inspection; Acceptance. All work shall be subject to inspection and acceptance by the City at reasonable times during Consultant's performance. The Consultant shall provide and maintain a self-inspection system that is acceptable to the City.

8. Licenses; Materials. Consultant shall maintain in current status all federal, state and local licenses and permits required for the operation of the business conducted by the Consultant. The City has no obligation to provide Consultant, its employees or subcontractors any business registrations or licenses required to perform the specific services set forth in this Agreement. The City has no obligation to provide tools, equipment or material to Consultant.

9. Performance Warranty. Consultant warrants that the Services rendered will conform to the requirements of this Agreement and to the customary professional standards in the field.

10. Indemnification. To the fullest extent permitted by law, the Consultant shall indemnify, defend and hold harmless the City and each council member, officer, employee or agent thereof (the City and any such person being herein called an "Indemnified Party"), for, from and against any and all losses, claims, damages, liabilities, costs and expenses (including, but not limited to, reasonable attorneys' fees, court costs and the costs of appellate proceedings) to which any such Indemnified Party may become subject, under any theory of liability whatsoever ("Claims"), insofar as such Claims (or actions in respect thereof) relate to, arise out of, or are caused by or based upon the negligent acts, intentional misconduct, errors, mistakes or omissions, in connection with the work or services of the Consultant, its officers, employees, agents, or any tier of subcontractor in the performance of this Agreement. The amount and type of insurance coverage requirements set forth below will in no way be construed as limiting the scope of the indemnity in this Section.

11. Insurance.

11.1 General.

a. Insurer Qualifications. Without limiting any obligations or liabilities of Consultant, Consultant shall purchase and maintain, at its own expense, hereinafter stipulated minimum insurance with insurance companies authorized to do business in the State of Arizona pursuant to ARIZ. REV. STAT. § 20-206, as amended, with an AM Best, Inc. rating of A-

or above with policies and forms satisfactory to the City. Failure to maintain insurance as specified herein may result in termination of this Agreement at the City's option.

b. No Representation of Coverage Adequacy. By requiring insurance herein, the City does not represent that coverage and limits will be adequate to protect Consultant. The City reserves the right to review any and all of the insurance policies and/or endorsements cited in this Agreement but has no obligation to do so. Failure to demand such evidence of full compliance with the insurance requirements set forth in this Agreement or failure to identify any insurance deficiency shall not relieve Consultant from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Agreement.

c. Additional Insured. All insurance coverage and self-insured retention or deductible portions, except Workers' Compensation insurance and Professional Liability insurance, if applicable, shall name, to the fullest extent permitted by law for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, directors, officials and employees as Additional Insured as specified under the respective coverage sections of this Agreement.

d. Coverage Term. All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of this Agreement are satisfactorily performed, completed and formally accepted by the City, unless specified otherwise in this Agreement.

e. Primary Insurance. Consultant's insurance shall be primary insurance with respect to performance of this Agreement and in the protection of the City as an Additional Insured.

f. Waiver. All policies, except for Professional Liability, including Workers' Compensation insurance, shall contain a waiver of rights of recovery (subrogation) against the City, its agents, representatives, officials, officers and employees for any claims arising out of the work or services of Consultant. Consultant shall arrange to have such subrogation waivers incorporated into each policy via formal written endorsement thereto.

g. Policy Deductibles and/or Self-Insured Retentions. The policies set forth in these requirements may provide coverage that contains deductibles or self-insured retention amounts. Such deductibles or self-insured retention shall not be applicable with respect to the policy limits provided to the City. Consultant shall be solely responsible for any such deductible or self-insured retention amount.

h. Use of Subcontractors. If any work under this Agreement is subcontracted in any way, Consultant shall execute written agreements with its subcontractors containing the indemnification provisions set forth in this Section and insurance requirements set forth herein protecting the City and Consultant. Consultant shall be responsible for executing any agreements with its subcontractors and obtaining certificates of insurance verifying the insurance requirements.

i. Evidence of Insurance. Prior to commencing any work or services under this Agreement, Consultant will provide the City with suitable evidence of insurance in the form of certificates of insurance and a copy of the declaration page(s) of the insurance policies as required by this Agreement, issued by Consultant's insurance insurer(s) as evidence that policies are placed with acceptable insurers as specified herein and provide the required coverages, conditions and limits of coverage specified in this Agreement and that such coverage and provisions are in full force and effect. Confidential information such as the policy premium may be redacted from the declaration page(s) of each insurance policy, provided that such redactions do not alter any of the information required by this Agreement. The City shall reasonably rely upon the certificates of insurance and declaration page(s) of the insurance policies as evidence of coverage but such acceptance and reliance shall not waive or alter in any way the insurance requirements or obligations of this Agreement. In the event any insurance policy required by this Agreement is written on a "claims made" basis, coverage shall extend for two years past completion of the Services and the City's acceptance of the Consultant's work or services and as evidenced by annual certificates of insurance. If any of the policies required by this Agreement expire during the life of this Agreement, it shall be Consultant's responsibility to forward renewal certificates and declaration page(s) to the City 30 days prior to the expiration date. All certificates of insurance and declarations required by this Agreement shall be identified by referencing the RFQ number and title or this Agreement. A \$25.00 administrative fee shall be assessed for all certificates or declarations received without the appropriate RFQ number and title or a reference to this Agreement, as applicable. Additionally, certificates of insurance and declaration page(s) of the insurance policies submitted without referencing the appropriate RFQ number and title or a reference to this Agreement, as applicable, will be subject to rejection and may be returned or discarded. Certificates of insurance and declaration page(s) shall specifically include the following provisions:

(1) The City, its agents, representatives, officers, directors, officials and employees are Additional Insureds as follows:

(a) Commercial General Liability – Under Insurance Services Office, Inc., ("ISO") Form CG 20 10 03 97 or equivalent.

(b) Auto Liability – Under ISO Form CA 20 48 or equivalent.

(c) Excess Liability – Follow Form to underlying insurance.

(2) Consultant's insurance shall be primary insurance as respects performance of the Agreement.

(3) All policies, except for Professional Liability, including Workers' Compensation, waive rights of recovery (subrogation) against City, its agents, representatives, officers, officials and employees for any claims arising out of work or services performed by Consultant under this Agreement.

(4) A 30-day advance notice cancellation provision. If ACORD certificate of insurance form is used, the phrases in the cancellation provision “endeavor to” and “but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives” shall be deleted. Certificate forms other than ACORD form shall have similar restrictive language deleted.

#### 11.2 Required Insurance Coverage.

a. Commercial General Liability. Consultant shall maintain “occurrence” form Commercial General Liability insurance with an unimpaired limit of not less than \$1,000,000 for each occurrence, \$2,000,000 Products and Completed Operations Annual Aggregate and a \$2,000,000 General Aggregate Limit. The policy shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury. Coverage under the policy will be at least as broad as ISO policy form CG 00 010 93 or equivalent thereof, including but not limited to, separation of insured’s clause. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, officials and employees shall be cited as an Additional Insured under ISO, Commercial General Liability Additional Insured Endorsement form CG 20 10 03 97, or equivalent, which shall read “Who is an Insured (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of “your work” for that insured by or for you.” If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be “follow form” equal or broader in coverage scope than underlying insurance.

b. Vehicle Liability. Consultant shall maintain Business Automobile Liability insurance with a limit of \$1,000,000 each occurrence on Consultant’s owned, hired and non-owned vehicles assigned to or used in the performance of the Consultant’s work or services under this Agreement. Coverage will be at least as broad as ISO coverage code “1” “any auto” policy form CA 00 01 12 93 or equivalent thereof. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, directors, officials and employees shall be cited as an Additional Insured under ISO Business Auto policy Designated Insured Endorsement form CA 20 48 or equivalent. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be “follow form” equal or broader in coverage scope than underlying insurance.

c. Professional Liability. If this Agreement is the subject of any professional services or work, or if the Consultant engages in any professional services or work adjunct or residual to performing the work under this Agreement, the Consultant shall maintain Professional Liability insurance covering negligent errors and omissions arising out of the Services performed by the Consultant, or anyone employed by the Consultant, or anyone for whose negligent acts, mistakes, errors and omissions the Consultant is legally liable, with an unimpaired liability insurance limit of \$2,000,000 each claim and \$2,000,000 annual aggregate. In the event the Professional Liability insurance policy is written on a “claims made” basis, coverage shall extend for two years past completion and acceptance of the Services, and the Consultant shall be required to submit certificates of insurance and a copy of the declaration page(s) of the insurance policies evidencing proper coverage is in effect as required above.

employment, entertainment, gifts or otherwise, were offered or given by the Consultant or any agent or representative of the Consultant to any officer, agent or employee of the City for the purpose of securing this Agreement. In the event this Agreement is cancelled by the City pursuant to this provision, the City shall be entitled, in addition to any other rights and remedies, to recover or withhold from the Consultant an amount equal to 150% of the gratuity.

13.6 Agreement Subject to Appropriation. The provisions of this Agreement for payment of funds by the City shall be effective when funds are appropriated for purposes of this Agreement and are actually available for payment. The City shall be the sole judge and authority in determining the availability of funds under this Agreement and the City shall keep the Consultant fully informed as to the availability of funds for the Agreement. The obligation of the City to make any payment pursuant to this Agreement is a current expense of the City, payable exclusively from such annual appropriations, and is not a general obligation or indebtedness of the City. If the City Council fails to appropriate money sufficient to pay the amounts as set forth in this Agreement during any immediately succeeding fiscal year, this Agreement shall terminate at the end of then-current fiscal year and the City and the Consultant shall be relieved of any subsequent obligation under this Agreement.

14. Miscellaneous.

14.1 Independent Contractor. The Consultant acknowledges and agrees that the Services provided under this Agreement are being provided as an independent contractor, not as an employee or agent of the City. Consultant, its employees and subcontractors are not entitled to workers' compensation benefits from the City. The City does not have the authority to supervise or control the actual work of Consultant, its employees or subcontractors. The Consultant, and not the City, shall determine the time of its performance of the services provided under this Agreement so long as Consultant meets the requirements of its agreed scope of work as set forth in Section 2 above. Consultant is neither prohibited from entering into other contracts nor prohibited from practicing its profession elsewhere. City and Consultant do not intend to nor will they combine business operations under this Agreement.

14.2 Laws and Regulations. The Consultant shall keep fully informed and shall at all times during the performance of its duties under this Agreement ensure that it and any person for whom the Consultant is responsible remains in compliance with all rules, regulations, ordinances, statutes or laws affecting the Services, including the following: (a) existing and future City and County ordinances and regulations, (b) existing and future state and federal laws and (c) existing and future Occupational Safety and Health Administration ("OSHA") standards.

14.3 Amendments. This Agreement may be modified only by a written amendment signed by persons duly authorized to enter into contracts on behalf of the City and the Consultant.

14.4 Provisions Required by Law. Each and every provision of law and any clause required by law to be in the Agreement will be read and enforced as though it were included herein and, if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Agreement will promptly be physically amended to make such insertion or correction.

d. Workers' Compensation Insurance. Consultant shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over Consultant's employees engaged in the performance of work or services under this Agreement and shall also maintain Employers Liability Insurance of not less than \$500,000 for each accident, \$500,000 disease for each employee and \$1,000,000 disease policy limit.

11.3 Cancellation and Expiration Notice. Insurance required herein shall not expire, be canceled, or materially change without 30 days' prior written notice to the City.

12. Applicable Law; Venue. In the performance of this Agreement, Consultant shall abide by and conform to any and all laws of the United States, State of Arizona and City of Avondale, including but not limited to, federal and state executive orders providing for equal employment and procurement opportunities, the Federal Occupational Safety and Health Act and any other federal or state laws applicable to this Agreement. This Agreement shall be governed by the laws of the State of Arizona and suit pertaining to this Agreement may be brought only in courts in the State of Arizona.

13. Termination; Cancellation.

13.1 For City's Convenience. This Agreement is for the convenience of the City and, as such, may be terminated without cause after receipt by Consultant of written notice by the City. Upon termination for convenience, Consultant shall be paid for all undisputed services performed to the termination date.

13.2 For Cause. This Agreement may be terminated by either party upon 30 days' written notice should the other party fail to substantially perform in accordance with this Agreement's terms, through no fault of the party initiating the termination. In the event of such termination for cause, payment shall be made by the City to the Consultant for the undisputed portion of its fee due as of the termination date.

13.3 Due to Work Stoppage. This Agreement may be terminated by the City upon 30 days' written notice to Consultant in the event that the Services are permanently abandoned. In the event of such termination due to work stoppage, payment shall be made by the City to the Consultant for the undisputed portion of its fee due as of the termination date.

13.4 Conflict of Interest. This Agreement is subject to the provisions of ARIZ. REV. STAT. § 38-511. The City may cancel this Agreement without penalty or further obligations by the City or any of its departments or agencies if any person significantly involved in initiating, negotiating, securing, drafting or creating this Agreement on behalf of the City or any of its departments or agencies is, at any time while the Agreement or any extension of the Agreement is in effect, an employee of any other party to the Agreement in any capacity or a consultant to any other party of the Agreement with respect to the subject matter of the Agreement.

13.5 Gratuities. The City may, by written notice to the Consultant, cancel this Agreement if it is found by the City that gratuities, in the form of economic opportunity, future

14.5 Severability. The provisions of this Agreement are severable to the extent that any provision or application held to be invalid by a Court of competent jurisdiction shall not affect any other provision or application of the Agreement which may remain in effect without the invalid provision or application.

14.6 Relationship of the Parties. It is clearly understood that each party will act in its individual capacity and not as an agent, employee, partner, joint venturer, or associate of the other. An employee or agent of one party shall not be deemed or construed to be the employee or agent of the other for any purpose whatsoever. The Consultant is advised that taxes or Social Security payments will not be withheld from any City payments issued hereunder and Consultant agrees to be fully and solely responsible for the payment of such taxes or any other tax applicable to this Agreement.

14.7 Entire Agreement; Interpretation; Parol Evidence. This Agreement represents the entire agreement of the parties with respect to its subject matter, and all previous agreements, whether oral or written, entered into prior to this Agreement are hereby revoked and superseded by this Agreement. No representations, warranties, inducements or oral agreements have been made by any of the parties except as expressly set forth herein, or in any other contemporaneous written agreement executed for the purposes of carrying out the provisions of this Agreement. This Agreement shall be construed and interpreted according to its plain meaning, and no presumption shall be deemed to apply in favor of, or against the party drafting the Agreement. The parties acknowledge and agree that each has had the opportunity to seek and utilize legal counsel in the drafting of, review of, and entry into this Agreement.

14.8 Assignment. No right or interest in this Agreement shall be assigned by Consultant without prior, written permission of the City signed by the City Manager and no delegation of any duty of Consultant shall be made without prior, written permission of the City signed by the City Manager. Any attempted assignment or delegation by Consultant in violation of this provision shall be a breach of this Agreement by Consultant.

14.9 Subcontracts. No subcontract shall be entered into by the Consultant with any other party to furnish any of the material or services specified herein without the prior written approval of the City. The Consultant is responsible for performance under this Agreement whether or not subcontractors are used.

14.10 Rights and Remedies. No provision in this Agreement shall be construed, expressly or by implication, as waiver by the City of any existing or future right and/or remedy available by law in the event of any claim of default or breach of this Agreement. The failure of the City to insist upon the strict performance of any term or condition of this Agreement or to exercise or delay the exercise of any right or remedy provided in this Agreement, or by law, or the City's acceptance of and payment for services, shall not release the Consultant from any responsibilities or obligations imposed by this Agreement or by law, and shall not be deemed a waiver of any right of the City to insist upon the strict performance of this Agreement.

14.11 Attorneys' Fees. In the event either party brings any action for any relief, declaratory or otherwise, arising out of this Agreement or on account of any breach or default

hereof, the prevailing party shall be entitled to receive from the other party reasonable attorneys' fees and reasonable costs and expenses, determined by the court sitting without a jury, which shall be deemed to have accrued on the commencement of such action and shall be enforced whether or not such action is prosecuted through judgment.

14.12 Liens. All materials or services shall be free of all liens and, if the City requests, a formal release of all liens shall be delivered to the City.

14.13 Offset.

a. Offset for Damages. In addition to all other remedies at law or equity, the City may offset from any money due to the Consultant any amounts Consultant owes to the City for damages resulting from breach or deficiencies in performance or breach of any obligation under this Agreement.

b. Offset for Delinquent Fees or Taxes. The City may offset from any money due to the Consultant any amounts Consultant owes to the City for delinquent fees, transaction privilege taxes and property taxes, including any interest or penalties.

14.14 Notices and Requests. Any notice or other communication required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if (a) delivered to the party at the address set forth below, (b) deposited in the U.S. Mail, registered or certified, return receipt requested, to the address set forth below, (c) given to a recognized and reputable overnight delivery service, to the address set forth below or (d) delivered by facsimile transmission to the number set forth below:

If to the City: City of Avondale  
11465 West Civic Center Drive  
Avondale, Arizona 85323  
Facsimile: (623) 333-0100  
Attn: Charles P. McClendon, City Manager

With copy to: GUST ROSENFELD, P.L.C.  
One East Washington Street, Suite 1600  
Phoenix, Arizona 85004-2553  
Facsimile: (602) 254-4878  
Attn: Andrew J. McGuire, Esq.

If to Consultant: Kimley-Horn and Associates, Inc.  
7878 N 16th Street, Suite 300  
Phoenix, Arizona 85020  
Facsimile: (602) 678-3464  
Attn: Brandon Squire

or at such other address, and to the attention of such other person or officer, as any party may designate in writing by notice duly given pursuant to this subsection. Notices shall be deemed received (a) when delivered to the party, (b) three business days after being placed in the U.S.

Mail, properly addressed, with sufficient postage, (c) the following business day after being given to a recognized overnight delivery service, with the person giving the notice paying all required charges and instructing the delivery service to deliver on the following business day, or (d) when received by facsimile transmission during the normal business hours of the recipient. If a copy of a notice is also given to a party's counsel or other recipient, the provisions above governing the date on which a notice is deemed to have been received by a party shall mean and refer to the date on which the party, and not its counsel or other recipient to which a copy of the notice may be sent, is deemed to have received the notice.

14.15 Confidentiality of Records. The Consultant shall establish and maintain procedures and controls that are acceptable to the City for the purpose of ensuring that information contained in its records or obtained from the City or from others in carrying out its obligations under this Agreement shall not be used or disclosed by it, its agents, officers, or employees, except as required to perform Consultant's duties under this Agreement. Persons requesting such information should be referred to the City. Consultant also agrees that any information pertaining to individual persons shall not be divulged other than to employees or officers of Consultant as needed for the performance of duties under this Agreement.

14.16 Records and Audit Rights. Consultant's and its subcontractor's books, records, correspondence, accounting procedures and practices, and any other supporting evidence relating to this Agreement, including the papers of any Consultant and its subcontractors' employees who perform any work or Services pursuant to this Agreement to ensure that the Consultant and its subcontractors are complying with the warranty under subsection 14.17 below (all the foregoing hereinafter referred to as "Records"), shall be open to inspection and subject to audit and/or reproduction during normal working hours by the City, to the extent necessary to adequately permit (a) evaluation and verification of any invoices, payments or claims based on Consultant's and its subcontractors' actual costs (including direct and indirect costs and overhead allocations) incurred, or units expended directly in the performance of work under this Agreement and (b) evaluation of the Consultant's and its subcontractors' compliance with the Arizona employer sanctions laws referenced in subsection 14.17 below. To the extent necessary for the City to audit Records as set forth in this subsection, Consultant and its subcontractors hereby waive any rights to keep such Records confidential. For the purpose of evaluating or verifying such actual or claimed costs or units expended, the City shall have access to said Records, even if located at its subcontractors' facilities, from the effective date of this Agreement for the duration of the work and until three years after the date of final payment by the City to Consultant pursuant to this Agreement. Consultant and its subcontractors shall provide the City with adequate and appropriate workspace so that the City can conduct audits in compliance with the provisions of this subsection. The City shall give Consultant or its subcontractors reasonable advance notice of intended audits. Consultant shall require its subcontractors to comply with the provisions of this subsection by insertion of the requirements hereof in any subcontract pursuant to this Agreement.

14.17 E-verify Requirements. To the extent applicable under ARIZ. REV. STAT. § 41-4401, the Consultant and its subcontractors warrant compliance with all federal immigration laws and regulations that relate to their employees and compliance with the E-verify requirements under ARIZ. REV. STAT. § 23-214(A). Consultant's or its subcontractor's failure to

comply with such warranty shall be deemed a material breach of this Agreement and may result in the termination of this Agreement by the City.

14.18 Scrutinized Business Operations. Pursuant to ARIZ. REV. STAT. §§ 35-391.06 and 35-393.06, the Consultant certifies that it does not have scrutinized business operations in Sudan or Iran. For the purpose of this subsection the term “scrutinized business operations” shall have the meanings set forth in ARIZ. REV. STAT. § 35-391 or 35-393, as applicable. If the City determines that the Consultant submitted a false certification, the City may impose remedies as provided by law including terminating this Agreement pursuant to subsection 13.2 above.

14.19 Conflicting Terms. In the event of any inconsistency, conflict or ambiguity among the Agreement, the Scope of Work and Fee Proposal, the RFQ and the Consultant’s SOQ, the documents shall govern in the order listed herein.

14.20 Non-Exclusive Contract. This Agreement is entered into with the understanding and agreement that it is for the sole convenience of the City. The City reserves the right to obtain like goods and services from another source when necessary.

14.21 Cooperative Purchasing. This Agreement shall be for the use of the City. In addition, specific eligible political subdivisions and nonprofit educational or public health institutions may also participate, at their discretion and with the agreement of the awarded Consultant. In order to participate in this Agreement, a political subdivision or nonprofit educational or public health institution must agree to the terms and conditions in the solicitation and the Consultant must be in agreement with the cooperative transaction. Any orders placed to the successful Consultant will be placed by the specific agencies participating in this purchase. Payment for purchases made under this Agreement will be the sole responsibility of each participating agency. The City shall not be responsible for any disputes arising out of transactions made by others.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date and year first set forth above.

**“City”**

CITY OF AVONDALE, an Arizona  
municipal corporation

\_\_\_\_\_  
Charles P. McClendon, City Manager

ATTEST:

\_\_\_\_\_  
Carmen Martinez, City Clerk

**“Consultant”**

KIMLEY-HORN AND ASSOCIATES,  
INC., a North Carolina corporation

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

Name:\_\_\_\_\_

Title:\_\_\_\_\_

(ACKNOWLEDGEMENTS)

STATE OF ARIZONA        )  
  ) ss.  
COUNTY OF MARICOPA    )

This instrument was acknowledged before me on \_\_\_\_\_, 2011,  
by Charles P. McClendon, the City Manager of the CITY OF AVONDALE, an Arizona  
municipal corporation, on behalf of the City of Avondale.

\_\_\_\_\_  
Notary Public in and for the State of Arizona

My Commission Expires:

\_\_\_\_\_

STATE OF \_\_\_\_\_)  
  ) ss.  
COUNTY OF \_\_\_\_\_)

This instrument was acknowledged before me on \_\_\_\_\_, 2011,  
by \_\_\_\_\_ as \_\_\_\_\_ of KIMLEY-HORN AND  
ASSOCIATES, INC., a North Carolina corporation, on behalf of the corporation.

\_\_\_\_\_  
Notary Public in and for the State of \_\_\_\_\_

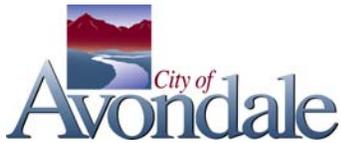
My Commission Expires:

\_\_\_\_\_

EXHIBIT A  
TO  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
KIMLEY-HORN AND ASSOCIATES, INC.

[RFQ]

See following pages.



**REQUEST FOR  
STATEMENTS OF QUALIFICATIONS  
FOR  
FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST**

City of Avondale  
11465 West Civic Center Drive  
Avondale, Arizona 85323

**SOLICITATION INFORMATION AND SELECTION SCHEDULE**

Solicitation Number: **EN 10-057**

Solicitation Title: **FY 2010/2011 Professional Consultants Selection List**

Release Date: **March 25, 2010**

Final Date for Inquires and Place to Send Inquiries: **April 5, 2010**  
Sue McDermott, P.E., City Engineer  
City of Avondale Engineering Dept.  
11465 West Civic Center Drive, Suite 120  
Avondale, Arizona 85323  
[smcdermott@avondale.org](mailto:smcdermott@avondale.org)

SOQs Due Date, Time and Location: **April 15, 2010**  
**3:00 p.m.** (local time, Phoenix, Arizona)  
City of Avondale  
11465 West Civic Center Drive, Suite 200  
Avondale, Arizona 85323-6804

Letters to Final Listed Firms: **June 28, 2010**

City Representatives: **Sue McDermott**  
[smcdermott@avondale.org](mailto:smcdermott@avondale.org)  
**623-333-4200**

**Loretta Browning**  
[lbrowning@avondale.org](mailto:lbrowning@avondale.org)  
**623-333-2200**

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**SECTION A**

**I. INTRODUCTION**

1. Purpose. The City of Avondale (the “City”) is seeking Statements of Qualification (“SOQ”) from professional consulting engineering firms (“Vendors”) to be considered for a Professional Consultants Selection List aimed at capital improvement projects during the 2010/2011 and 2011/2012 Fiscal Years. Only Vendors capable of providing the requested discipline category of professional services will receive consideration. Qualified Vendors are invited to submit SOQs.

2. Discipline Categories of Projects. During Fiscal Years 2010/2011 and 2011/2012, the City plans to contract approximately twenty (20) projects per Fiscal Year for professional services for specific projects that fall within 16 (sixteen) different discipline categories listed below. The scope of work for these specific projects may include studies, site investigations, planning, preliminary design concepts, and contract document development (preparing detailed plans, schedules, designs, assembly of specifications and reports). Project duties may also involve budget estimating, engineering designs, phasing, recommendations for future infrastructure needs (master plans), improvement district administration and presentations at public meetings. Please note, all projects involving the preparation of design plans and specifications require the design plans and specifications to be sealed by a Professional registered in the State of Arizona.

The Professional Consultants Selection List discipline categories are:

- Water Distribution System – Feasibility studies, wells, distribution systems, pump stations, storage facilities and treatment plants.
- Wastewater Systems – Studies, collection and disposal system designs, treatment plants and lift stations.
- Transportation Engineering – Roadway improvement projects, master plans, transportation planning, traffic calming projects, sidewalks and intersection designs, including roundabouts.
- Traffic Engineering – Speed, volume and classification studies, traffic signal warrant studies, other traffic engineering and traffic control studies (such as All-way STOP warrant studies), pedestrian & bicycle studies, Safe Routes to School plans and studies, school crosswalk studies, traffic signal design, traffic control design such as signing and pavement marking, traffic crash analysis, design of safety improvement projects, including roundabout study, design and analysis, design of bike lane/transit/crosswalk facilities, street lights, and Intelligent Transportation Systems (ITS such as Traffic Operations Center design, variable message signs, fiber optic and conduit design, and Wireless Advanced Traffic Management Systems).
- Surveying - Including topographic surveys, boundary surveys, construction staking, as-built surveys, right-of-way and easement investigation, ALTA and preparation of legal descriptions.

**SECTION A**

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- Hydrology/Hydraulic Projects – Master plans, hydrology studies and designing storm water drainage facilities.
- Plan Review Services - Includes plan review of subdivision plats, residential and commercial developments, construction plans for water, sewer, paving, drainage, street/traffic lights and grading.
- Landscape Architect - Master plans, conceptual planning, site designs, parks and public open spaces, streetscapes, bicycle and pedestrian pathway design, scenery planting and irrigation.
- Hydrogeological Engineering - Provide aquifer impact and well feasibility studies. Ability to provide well abandonment services. Design of wells; provide construction inspection/observation services during the drilling of new or replacement wells.
- GIS Programs - Services to support Geographic Information Systems Programs including: data collection and development, map compilation, transformation and systems integration.
- Geotechnical and Environmental - Geotechnical engineering, pavement design, materials sampling and testing, pavement evaluation, design recommendations and specifications. Environmental site assessments, compliance audits, risk evaluations and recommendations.
- Foundation and Structural Design - To include load calculations and recommendations for construction of retaining walls, steel reinforced concrete structures, small buildings, and vehicular and pedestrian bridges.
- Electrical Design and Supervisory Control and Data Acquisition (SCADA) Programming - Provide design and inspection services for electric power supply, control systems and equipment specifications. Design and programming of local SCADA systems, PLC programming, and telemetry.
- Construction Management - Provide Construction Management at Risk (CMAR) and Design Build process management or construction administration and inspection services, such as estimation, bid document preparation, QA/QC services, shop drawing review, and post design services.
- Architect - Planning and new building development, renovation, interior and exterior design and construction management of public building projects.
- Subsurface Utility Investigation - To include various types of investigation methods to verify the horizontal and vertical location of underground utilities using surface geophysical techniques such as Ground Penetrating Radar (“GPR”), electromagnetic, magnetic

**SECTION A**

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or other energy fields, probing and vacuum exploration. Electromagnetic methods include the following: pipe and cable locators, inductive, conductive, active and passive modes), terrain conductivity, ground resistivity techniques, optical methods, and computer-driven algorithms coupled with data collection techniques.

**SECTION B**

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II. STATEMENT OF QUALIFICATIONS REQUIREMENTS

1. Preparation/Submission of SOQ. Vendors are invited to participate in the competitive selection process for the Professional Consultants Selection Lists for Fiscal Year 2010/2011 and 2011/2012 outlined in this RFQ. Responding parties shall review their SOQ submissions to ensure the following requirements are met.

a. Interested parties must submit **one (1) original** and **eight (8) copies** (nine (9) total hardcopy submittals) and one (1) electronic copy of the SOQ.

b. The SOQ shall be submitted with a cover letter with an original ink signature by a person authorized to bind the Vendor. Any erasures, interlineations, or other modifications in the SOQ shall be initialed in original ink by the authorized person signing the SOQ.

c. The SOQ shall be a maximum of 15 pages to address the SOQ criteria (excluding the cover letter, résumés and the Vendor Information Form, but including the materials necessary to address project understanding, general information, organizational chart, photos, tables, graphs, and diagrams). Each page side (maximum 8 1/2" x 11") with criteria information shall be counted. However, one page may be substituted with an 11" x 17" sheet of paper, folded to 8 1/2" x 11", showing a proposed project schedule, a discipline category/staffing matrix, or organizational chart and only having criteria information on one side. The cover letter, cover, back, table of contents and tabs may be used and shall not be included in the page count, unless they include additional project-specific information or SOQ criteria responses. The minimum allowable font for the SOQ is **11 pt**.

d. All Vendors shall (i) examine the entire RFQ, (ii) seek clarification of any item or requirement that may not be clear, (iii) check all responses for accuracy before submitting a SOQ and (iv) submit the entire SOQ by the official Due Date and Time. Negligence in preparing a SOQ confers no right of withdrawal after the SOQ Due Date and Time.

e. All SOQs shall be sealed and clearly marked with the SOQ title and number, **FY 2010/2011 Professional Consultants Selection List (EN 10-057)**, on the lower left hand corner of the sealed mailing envelope. A return address must also appear on the outside of the sealed SOQ. The City is not responsible for the pre-opening of, post-opening of, or the failure to open, any SOQs not properly addressed or identified.

f. All SOQs shall be directed to the following address: City Clerk, 11465 West Civic Center Drive, Suite 200, Avondale, Arizona 85323, or hand-delivered to the City Clerk's office by the time and date indicated on the cover page of this RFQ.

g. Telegraphic (facsimile), electronic (email) or mailgram SOQs will not be considered.

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2. Irregular or Non-responsive SOQ. The City will consider as “irregular” or “non-responsive” and reject any SOQ not prepared and submitted in accordance with this RFQ, or any SOQ lacking sufficient information to enable the City to make a reasonable determination of compliance to the minimum qualifications. Unauthorized conditions, limitations, or provisions shall be cause for rejection.

3. Inquiries. Any question related to the RFQ shall be directed to the City Representative whose name appears on the cover page of this RFQ. Questions shall be submitted in writing by the date indicated on the cover page of this RFQ. Any correspondence related to the RFQ shall refer to the title and number, page and paragraph. However, the Vendor shall not place the RFQ number and title on the outside of any envelope containing questions, because such an envelope may be identified as a sealed SOQ and may not be opened until after the Due Date and Time.

4. Late SOQs. Late SOQs will not be considered, except as provided by the City Procurement Code. A Vendor submitting a late SOQ shall be so notified.

5. Withdrawal of SOQ. At any time prior to the specified Due Date and Time, a Vendor (or designated representative) may withdraw its SOQ. Facsimile, electronic (email) or mailgram SOQ withdrawals will not be considered.

6. Amendment of SOQ. At any time prior to the specified Due Date and Time, a Vendor (or designated representative) may amend its SOQ. Facsimile, electronic (email) or mailgram SOQ amendments will not be considered.

7. Cost of SOQ Preparation. The City does not reimburse the cost of developing, presenting or providing any response to this solicitation. SOQs submitted for consideration should be prepared simply and economically, providing adequate information in a straightforward and concise manner. The Vendor is responsible for all costs incurred in responding to this RFQ. All materials and documents submitted in response to this RFQ become the property of the City and will not be returned.

8. Offer. An SOQ submittal is an offer to contract with the City based upon the terms, conditions and specifications contained in this RFQ and the Vendor’s responsive SOQ, unless any of the terms, conditions, or specifications is modified by a written addendum or agreement amendment. Provided, however, that no contractual relationship shall be established until the Vendor has signed, and the City has approved, a professional services agreement between the City and the Vendor in the form included herein.

9. Public Record. All SOQs shall become the property of the City and shall become a matter of public record available for review, subsequent to the award notification, in accordance with the City’s Procurement Code.

**SECTION B**

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10. Confidential Information.

a. If a Vendor believes that a SOQ or protest contains information that should be withheld from the public record, a statement advising the City Representative of this fact shall accompany the submission and the information shall be identified.

b. The information identified by the Vendor as confidential shall not be disclosed until the City Representative makes a written determination.

c. The City Representative shall review the statement and information and shall determine in writing whether the information shall be withheld.

d. If the City Representative determines to disclose the information, the City Representative shall inform the Vendor in writing of such determination.

11. Vendor Licensing and Registration. Prior to the award of the Agreement, the successful Vendor shall (a) be licensed with the Arizona Corporation Commission to do business in Arizona and (b) have a completed Request for Vendor Number on file with the City Financial Services Department. The Vendor shall provide licensure information with the SOQ.

12. Certification. By submitting a SOQ, the Vendor certifies:

a. The submission of the SOQ did not involve collusion or other anti-competitive practices.

b. It shall not discriminate against any employee or applicant for employment in violation of Federal Executive Order 11456.

c. It has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip favor or service to a City employee, officer or agent in connection with the submitted SOQ. Failure to sign the SOQ, or signing it with a false statement, shall void the submitted SOQ and any resulting Agreement.

d. It (including the firm's employees, representatives, agents, lobbyists, attorneys, and subcontractors) will refrain, under penalty of disqualification, from direct or indirect contact for the purpose of influencing the selection or creating bias in the selection process with any person who may play a part in the selection process, including the Selection Committee, elected officials, the City Manager, Assistant City Managers, Department Heads, and other staff. All contact must be addressed to the City's Procurement Agent, except for questions submitted as set forth in Section 3, Inquiries, above.

e. In addition to reviewing and understanding the submittal requirements, it has reviewed the attached Professional Service Agreement including the Exhibits.

**SECTION B**

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13. Protests. Any Bidder may protest this RFQ issued by the City, the proposed award of an Agreement, or the actual award of an Agreement. All protests will be considered in accordance with the City Procurement Code.

**III. STATEMENT OF QUALIFICATIONS FORMAT; SCORING**

A Selection Committee composed of representatives from the City will conduct the selection process according to the schedule on the cover page of this RFQ. Upon receipt of an SOQ, each submittal will be reviewed for compliance with the submittal requirements by the Selection Committee. SOQs shall be organized and submitted in the format as outlined below. Failure to conform to the designated format, standards and minimum requirements may result in a determination that the SOQ is non-responsive. Additionally, the Selection Committee will evaluate and award points to each SOQ based upon the evaluation criteria as outlined in this document. Points listed below are the maximum number of points possible for each criteria and not the minimum number that the Selection Committee may award. Up to ten (10) of the highest rated professional consultants from each discipline category will be selected for inclusion on the Professional Consultants Selection shortlist.

These Professional Consultant Selection shortlists will be used to invite Vendors to submit proposals to provide professional services on specific project assignments. The City reserves the right to conduct formal interviews with selected Vendors depending upon the size and complexity of the specific project. The final Professional Consultant Selection List will be used by the City for at least one year and at the discretion of the City Manager for a second consecutive year.

For large or complex projects or for very specialized work, the City may use a separate Request for Proposals or Request for Qualifications process.

All processes will be conducted in accordance with ARIZ. REV. STAT. Title 34.

**Section 1: General Factors and Compliance 10 pts**

a. One page cover letter as described in Section II, 1(b) addressed to Sue McDermott, City Engineer.

b. Completed Discipline Specialty Check List – Please ONLY check the discipline category(ies) for which you are particularly qualified, fully addressed and desire to be considered.

c. Title sheet with the following information:

1. Title: Statement of Interest to provide Professional Services for Capital Improvement Projects for the 2010/2011 and 2011/2012 Fiscal Years.
2. Submitted to: City of Avondale City Clerk
3. Submittal date: April 15, 2010 (local time, Phoenix, Arizona)

**SECTION B**

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4. Submitted by: Engineering firm or Individual (submitting) include address, contract person and telephone number.
- d. Provide a statement regarding the following:
  1. Your firm's familiarity and capability of compliance with City's standard insurance requirements and contract documents. A sample copy of the City's Professional Services Agreement is attached hereto. A copy of the City's "Notice of Request for Proposal" which includes standard contract provisions, terms and conditions is available upon request.
  2. Your firm's design philosophy and approach to developing sound engineering recommendations and your approach to problem resolution.
- e. Vendor Information Form shall be attached as separate appendix and excluded from the page count limitation pursuant to Section II(1)(c).

**Section 2: Vendor's relevant experience, availability and capability 50 pts**

- a. Provide a brief description of the firm including the number and types of personnel who would serve on projects.
- b. Provide a list of relevant projects in which the firm had a significant contribution with an emphasis on local experience. Include references and telephone numbers of clients familiar with the projects.
- c. Provide a general description of the company that is proposing to provide the required services. Explain the legal organization of the company.
- d. Provide identification information of your firm. Include the legal name, address and legal form of the firm (e.g., partnership, corporation, joint venture, sole proprietorship). If a joint venture, identify the members of the joint venture and provide all of the information required under this section for each member. If the firm is a wholly owned subsidiary of another company, identify the parent company. Provide the name, address and telephone number of the person to contact concerning the SOQ.
- e. Identify the location of the firm's principal office and the local work office, if different.

**Section 3: Personnel qualification and pertinent experience 40 pts**

- a. Provide the firm's general or specific experience pertaining to the Professional Consultant Selection List discipline category(ies) the firm desires to be considered for.

**SECTION B**

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b. Provide a matrix listing all categories within the discipline for which the firm is qualified to provide services and identify the participating staff/key personnel. Include a matrix listing for all subcontractors.

c. Provide certifications, licenses and memberships in professional associations, societies or boards.

d. Provide a résumé for the personnel who will serve in key positions for projects, including specific experience for each person on relevant projects, the number of years the personnel has been with the present firm and the total years of experience. Résumés shall be limited to one (1) page, double-sided per résumé. Résumés shall be attached as an appendix and excluded from the page count limitation pursuant to Section II(1)(c).

**Total Possible Points for SOQ Submittal:**

**100**

IV. AWARD OF AGREEMENT

1. Award of Agreement. The selected Vendor from the Professional Consultants Selection List for each specific project will be required to execute the City's standard Professional Services Agreement in a form acceptable to the City Attorney. A sample of the standard agreement is included with this RFQ. If the City is unsuccessful in negotiating an Agreement with the highest-scoring firm, the City may then negotiate with the second, then third, highest-scoring firm until an Agreement is executed. City Council approval may be required. The City reserves the right to terminate the selection process at any time.

2. Waiver; Rejection; Reissuance. Notwithstanding any other provision of this RFQ, the City expressly reserves the right to: (i) waive any immaterial defect or informality, (ii) reject any or all SOQs or portions thereof and (iii) reissue an RFQ.

**SECTION B**

**V. DISCIPLINE SPECIALTY CHECK LIST**  
**FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST**

Name of Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

Please check only those discipline categories for which you are particularly qualified, fully addresses, and desired to be considered.

- \_\_\_\_\_ Water Distribution System
- \_\_\_\_\_ Wastewater Systems
- \_\_\_\_\_ Transportation Engineering
- \_\_\_\_\_ Traffic Engineering
- \_\_\_\_\_ Surveying
- \_\_\_\_\_ Hydrology/Hydraulic Projects
- \_\_\_\_\_ Plan Review Services
- \_\_\_\_\_ Landscape Architects
- \_\_\_\_\_ Hydrogeological Engineering
- \_\_\_\_\_ GIS Programs
- \_\_\_\_\_ Geotechnical and Environmental Engineering
- \_\_\_\_\_ Foundations & Structural Design
- \_\_\_\_\_ Electrical & SCADA Programming
- \_\_\_\_\_ Construction Management
- \_\_\_\_\_ Architects
- \_\_\_\_\_ Subsurface Utility Investigation

**SECTION B**

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**VI. VENDOR INFORMATION FORM**

By sending a Statement of Qualifications, the submitting firm certifies that it has reviewed the administrative information and draft of the Professional Services Agreement's terms and conditions and, if awarded the Agreement, agrees to be bound thereto.

---

\_\_\_\_\_  
FIRM SUBMITTING SOQ

\_\_\_\_\_  
FEDERAL TAX ID NUMBER

\_\_\_\_\_  
PRINTED NAME AND TITLE

\_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
TELEPHONE                      FAX #

\_\_\_\_\_  
CITY              STATE              ZIP

\_\_\_\_\_  
DATE

WEB SITE: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

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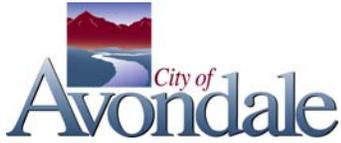
MINORITY/WOMEN-OWNED SMALL BUSINESSES (check appropriate item):

- \_\_\_\_\_ Disadvantaged Business Enterprise (DBE)
- \_\_\_\_\_ Women-Owned Business Enterprise (WBE)
- \_\_\_\_\_ Minority Business Enterprise (MBE)
- \_\_\_\_\_ Small Business Enterprise (SBE)

Has your firm been certified by any jurisdiction in Arizona as a minority or woman owned business enterprise?

If yes, please provide details and documentation of the certification.

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**REQUEST FOR STATEMENTS OF QUALIFICATIONS  
FOR  
FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST**

EN-10-057

**Addendum No. 1**

Date: April 6, 2010  
From: Sue McDermott  
Subject: Addendum No. 1 to Solicitation No. EN 10-057  
Bid Deadline: **April 15, 2010**, 3:00 p.m. local time, Phoenix, Arizona

**SCOPE**

This Addendum forms a part of the Contract and clarifies, corrects, or modifies the original Request for Qualifications documents prepared by the City of Avondale. Acknowledge receipt of this addendum in the space provided on the attached form. This acknowledgement and addendum must accompany the submitted Statement of Qualifications. Failure to do so may subject the Vendor to disqualification.

This Addendum No. 1 consists of the modification of the RFQ, Section I, Introduction, Paragraph 2, Discipline Categories of Projects and Section II, Statement of Qualifications Requirements, Paragraph (1)(a), Preparation/ Submission of SOQ.

**ADDENDUM**

1. Page A-1, Section I, Introduction, Paragraph 2, is hereby amended as follows:
  2. Discipline Categories of Projects. During Fiscal Years 2010/2011 and 2011/2012, the City plans to contract approximately twenty (20) projects per Fiscal Year for professional services for specific projects that fall within 16 (sixteen) different discipline categories listed below. The scope of work for these specific projects may include studies, site investigations, planning, preliminary design concepts, and contract document development (preparing detailed plans, schedules, designs, assembly of specifications and reports). Project duties may also involve budget estimating, engineering designs, AND

phasing, recommendations for future infrastructure needs (master plans). ~~improvement district administration and presentations at public meetings.~~ Please note, all projects involving the preparation of design plans and specifications require the design plans and specifications to be sealed by a Professional registered in the State of Arizona.

The Professional Consultants Selection List discipline categories are:

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- Plan Review Services - Includes plan review of subdivision plats, residential and commercial developments, construction plans for water, sewer, paving, drainage, street/traffic lights and grading.
- Landscape Architect - Master plans, conceptual planning, site designs, parks and public open spaces, streetscapes, bicycle and pedestrian pathway design, scenery planting and irrigation.
- Hydrogeological Engineering - Provide aquifer impact and well feasibility studies. Ability to provide well abandonment services. Design of wells; provide construction inspection/observation services during the drilling of new or replacement wells.

- GIS Programs - Services to support Geographic Information Systems Programs including: data collection and development, map compilation, transformation and systems integration.
- Geotechnical and Environmental - Geotechnical engineering, pavement design, materials sampling and testing, pavement evaluation, design recommendations and specifications. Environmental site assessments, compliance audits, risk evaluations and recommendations.
- Foundation and Structural Design - To include load calculations and recommendations for construction of retaining walls, steel reinforced concrete structures, small buildings, and vehicular and pedestrian bridges.
- Electrical Design and Supervisory Control and Data Acquisition (SCADA) Programming - Provide design and inspection services for electric power supply, control systems and equipment specifications. Design and programming of local SCADA systems, PLC programming, and telemetry.
- Construction Management - Provide Construction Management at Risk (CMAR) and Design Build process management or construction administration and inspection services, such as estimation, bid document preparation, QA/QC services, shop drawing review, and post design services.
- Architect - Planning and new building development, renovation, interior and exterior design and construction management of public building projects.
- Subsurface Utility Investigation - To include various types of investigation methods to verify the horizontal and vertical location of underground utilities using surface geophysical techniques such as Ground Penetrating Radar (“GPR”), electromagnetic, magnetic or other energy fields, probing and vacuum exploration. Electromagnetic methods include the following: pipe and cable locators, inductive, conductive, active and passive modes), terrain conductivity, ground resistivity techniques, optical methods, and computer-driven algorithms coupled with data collection techniques.

2. Page B-1, Section II, Statement of Qualifications Requirements, Paragraph (1)(a) is hereby amended as follows:

1. Preparation/Submission of SOQ. Vendors are invited to participate in the competitive selection process for the Professional Consultants Selection Lists for Fiscal Year 2010/2011 and 2011/2012 outlined in this RFQ. Responding parties shall review their SOQ submissions to ensure the following requirements are met.

a. Interested parties must submit **one (1) original** and **eight (8) copies** (nine (9) total hardcopy submittals) and ~~one (1) electronic copy of the SOQ~~ ONE

ORIGINAL COPY OF THE SOQ ON A CD-ROM (OR ELECTRONIC MEDIA APPROVED BY THE CITY) IN PRINTABLE ADOBE OR MICROSOFT WORD FORMAT (OR OTHER FORMAT APPROVED BY THE CITY). FAILURE TO ADHERE TO THE SUBMITTAL QUANTITY CRITERIA SHALL RESULT IN THE SOQ BEING CONSIDERED NON-RESPONSIVE.

**CITY OF AVONDALE  
ACKNOWLEDGMENT OF ADDENDA RECEIVED  
REQUEST FOR QUALIFICATIONS**

FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST

EN10-057

**Addendum No. 1**

\_\_\_\_\_, affirms that ADDENDUM No. 1 has  
(Name of Vendor/Designee)  
been received and that the information contained in ADDENDUM No. 1 has been incorporated  
in formulating the Vendor's Offer.

\_\_\_\_\_, \_\_\_\_\_ 2010  
Signed Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State, Zip Code

END OF ADDENDUM No. 1

EXHIBIT B  
TO  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
KIMLEY-HORN AND ASSOCIATES, INC.

[Consultant's SOQ]

See following pages.



Statement of Qualifications for  
**FY 2010/2011**  
 Professional Consultants Selection List



SOLICITATION NUMBER EN 10-057





# Statement of Qualifications for FY 2010/2011 Professional Consultants Selection List

SOLICITATION NUMBER EN 10-057





April 15, 2010

Sue McDermott, City Engineer  
City of Avondale  
11465 West Civic Center Drive, Suite 200  
Avondale, Arizona 85323

7878 N. 16th Street  
Suite 300  
Phoenix, Arizona 85020  
(602) 944-5500 Tel  
(602) 944-7423 Fax

**RE: STATEMENT OF QUALIFICATIONS FOR FY 2010/2011 PROFESSIONAL CONSULTANTS  
SELECTION LIST (EN 10-057)**

Dear Ms. McDermott and Members of the Selection Committee:

**Kimley-Horn and Associates, Inc. (KHA)** is eager to continue its partnership with the City of Avondale (City), providing professional engineering consulting services. We strongly believe that the City will continue to benefit from our diverse array of services and staff.

For project assignments with the City, the KHA team will draw upon the abundant staff expertise, resources, and production capabilities in KHA's Phoenix and West Valley offices. Our Regional Headquarters in Phoenix includes more than 150 staff and KHA has a local project office located in Avondale. The City can be confident that KHA has staff resources available to complete your upcoming projects. Below are some of the benefits of partnering with the KHA team:

- » **Location, Location, Location!** With offices in Phoenix and Avondale, our centralized locations afford easy access to City staff and project sites. Our team is immediately available and ready to assess your project needs.
- » **Avondale Experience.** Many of KHA's proposed team members have worked on a variety of City projects, including the Avondale Safe Routes to School program, Avondale City Center Specific Area Plan, 4th Street Improvements, and the Avondale Sidewalk and Street Improvements.
- » **Arizona On-Call Expertise.** Providing engineering services in Arizona for over 20 years, the KHA team has built solid professional relationships with a variety of agencies and stakeholders in the state. Members of our staff have provided on-call engineering services to the counties of Maricopa, Pima, Pinal, and Santa Cruz; the cities of Phoenix, Yuma, Surprise, and Glendale; the towns of Queen Creek, Marana, and Sahuarita; the Arizona Department of Transportation; and Maricopa Association of Governments.
- » **Multidisciplinary Firm.** A full-service consulting firm, KHA has staff available with expertise in almost any engineering discipline that could be required under this on-call contract. Our experienced consultants can successfully take on even the most complex, multidisciplined projects and find creative solutions that meet your needs.

KHA received Addendum No. 1 issued on April 6, 2010 and our signed acknowledgement is included in Appendix I. We are committed to becoming a trusted consultant for the City and look forward to this new opportunity to serve you. KHA has the energy and dedication to make your projects successful. Thank you for considering our qualifications and please do not hesitate to contact me at shannon.ahartz@kimley-horn.com or (602) 944-5500 if you have any questions about the information presented.

Sincerely,  
KIMLEY-HORN AND ASSOCIATES, INC.

Shannon Ahartz, P.E.  
Contract Manager

George Fares, P.E.  
Principal



**SECTION B**

**V. DISCIPLINE SPECIALTY CHECK LIST**  
**FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST**

Name of Firm Kimley-Horn and Associates, Inc.

Address 7878 N. 16th Street, Suite 300

City Phoenix State Arizona Zip 85020

Contact Name: Shannon Ahartz, P.E.

Title: Contract Manager

Telephone 602-944-5500 Fax 602-944-7423

Please check only those discipline categories for which you are particularly qualified, fully addresses, and desired to be considered.

- Water Distribution System
- Wastewater Systems
- Transportation Engineering
- Traffic Engineering
- Surveying
- Hydrology/Hydraulic Projects
- Plan Review Services
- Landscape Architects
- Hydrogeological Engineering
- GIS Programs
- Geotechnical and Environmental Engineering
- Foundations & Structural Design
- Electrical & SCADA Programming
- Construction Management
- Architects
- Subsurface Utility Investigation



**Statement of Interest to Provide Professional Services  
for Capital Improvement Projects for  
the 2010/2011 and 2011/2012 Fiscal Years**

**SUBMITTED TO: CITY OF AVONDALE CITY CLERK**

**SUBMITTAL DATE: APRIL 15, 2010 (3:00 P.M., PHOENIX , AZ)**

**SUBMITTED BY: KIMLEY-HORN AND ASSOCIATES, INC.**



**7878 N. 16TH STREET, SUITE 300  
PHOENIX, AZ 85020**

**CONTACT: SHANNON AHARTZ, P.E., (602) 944-5500**



**FAMILIARITY AND CAPABILITY OF COMPLIANCE**

On current and past projects, **Kimley-Horn and Associates, Inc. (KHA)** has negotiated a mutually amenable contract with the City of Avondale (City). KHA is confident that we can again negotiate a mutually agreeable contract with the City and comply with the City’s insurance requirements. After reviewing the sample copy of the City’s Professional Services Agreement included in the RFQ, we respectfully request the following modification (bold and italicized, or strikethrough) to the terms of the Agreement:

9. Performance Warranty. Consultant warrants that the Services rendered will conform to the requirements of this Agreement and to the ~~highest~~ **customary** professional standards in the field.

**DESIGN PHILOSOPHY AND APPROACH**

Our approach is based on extensive review of the project conditions, proactive problem solving, an open and creative attitude, willingness and receptivity to the client and community needs, and strong technical knowledge and expertise in the area of urban infrastructure design with special emphasis on streets, traffic, and drainage. KHA’s former Chairman, Ed Vick, once said “We have no reason to exist except to serve our clients.” Simply put, our design philosophy is to provide outstanding service to our clients. This means being available and responsive, developing workable solutions to problems, producing quality project deliverables ahead of schedule and under budget, and exceeding client expectations.

KHA’s approach to developing sound engineering recommendations is based on our experience completing numerous successful projects. Our approach to problem resolution is to identify problems as early as possible. By developing a clear understanding, creating open communications, and implementing continuous QC procedures, we are able to identify problems as soon as they occur. Once a problem is identified, we resolve it by openly communicating alternative solutions and arrive at a consensus with the involved stakeholders.

**VENDOR INFORMATION FORM**

Please refer to Appendix I.

**Vendor’s Relevant Experience, Availability, and Capability**

**DESCRIPTION OF FIRM**

As one of the largest planning, engineering, and environmental consulting firms in the Valley, KHA has provided innovative, high-quality consulting services in Arizona for over 20 years. With over 150 staff in our Phoenix office and over 1,500 staff members nationwide, we have ample staff resources to serve the City. We offer the City specialized engineering knowledge that comes from

our full range of services—from traffic engineering and signal system design to water systems and sewer improvements to roadway design projects. One of the many advantages that KHA offers is our ability to assign the right staff to each task. We can draw from a multitude of disciplines and resources to complete each assignment — whether the task is relatively minor, requiring only a few people in a single discipline; or a complicated task requiring numerous people and multiple disciplines.

*KHA has served as the City’s On-Call consultant for the past four years, bringing you the benefits of local knowledge and ongoing relationships.*

*Engineering News-Record* recently ranked KHA among the top 20 “Pure Design Firms” and among the top 15 in Transportation. KHA provides full engineering analysis and design services for multidisciplinary projects. Our team has built a solid reputation in Arizona for engineering excellence and responsiveness through numerous on-call contracts with the cities of Avondale, Phoenix, Glendale, Apache Junction, and Yuma; Pima County Department of Transportation (DOT), Arizona DOT, Maricopa County DOT, Arizona Department of Administration; and the towns of Marana, Chino Valley, and Oro Valley. Our work on these on-call assignments, coupled with our success on many other projects throughout the state, gives us the relevant experience necessary to provide you the full range of services required for this contract.

**RELEVANT LOCAL PROJECTS AND REFERENCES**

**4th Street Improvements: Lower Buckeye Road to Western Avenue, Avondale, AZ.** Improvements consisted of pavement rehabilitation for one mile of 4th Street from Lower Buckeye Road to Western Avenue in the Southern Oldtown area. The local streets in this area were constructed around 1960 and pavement conditions were deteriorating. There was significant cracking and failures in the pavement. The purpose of this project was



to reconstruct the pavement with an adequate structural section. It also addressed the need to correct cross-slopes and ponding issues. A drainage report was prepared to summarize existing conditions and different alternatives to alleviate drainage issues. The project included reconstruction of curb, gutter, and sidewalks where needed. Drainage improvements included valley gutters and a retention basin. KHA also provided traffic signal,



signing and pavement marking plans, as well as construction plans, specifications, and cost estimates. KHA also designed waterline and service improvements for approximately 4,700 lf. Improvements included reconnection of existing services, fire hydrants, and services provided for vacant lots. Sewer services were also extended for vacant lots. **Client:** Chris Hamilton, City of Avondale, (623) 333-4218

**Avondale Cycle 2 Safe Routes to School Installations, Avondale, AZ.** KHA was retained to provide design services on three Safe Routes to School (SRTS) traffic calming device installations in Avondale. Design services include preparing construction documents and environmental documents that meet the federal requirements associated with SRTS funding. The speed tables/raised crosswalks, curb bulb-outs, and median pedestrian refuge island to be installed are intended to slow traffic down and better promote the safety of school children walking across the streets adjacent to three elementary schools. **Client:** Margaret Boone-Pixley, City of Avondale, (623) 333-4217

**Sidewalk and Street Improvements, Avondale, AZ.** KHA completed final design documents for this streets and sidewalk improvement project within the South Oldtown area. The project included the area bounded by 4th Street (west) to 7th Street (east) and Main Street (north) to Harrison Drive (south). The project included reconstructing and/or rehabilitating existing pavement with an adequate structural section. New curb, gutter, sidewalks and ADA compliant handicap ramps have been also included. The project included a hydrologic and hydraulics analysis of the existing conditions and proposed roadway improvements as part of a comprehensive drainage report. KHA prepared final construction plans, specifications, and opinion of cost estimates and assisted City with bidding. **Client:** Chris Hamilton, City of Avondale, (623) 333-4218

**Avondale City Center Specific Area Plan, Avondale, AZ.** KHA worked with Dyett & Bhatia on the Avondale City Center project, located along Avondale Boulevard between I-10 and the City Hall campus. This project resulted in a detailed land use plan and design standards that promote the City's vision for this area. KHA's role in the project was to analyze the infrastructure and transportation systems that serve the study area. Each land use alternative presented was evaluated to determine the capacity and needs of the roadway, water, and sewer networks. KHA provided recommendations for modifying existing networks to better balance the needs and demands of this evolving core area. This project included stakeholder interviews, bus tours, and charrettes and workshops with City staff. **Client:** Dean Svoboda, City of Avondale, (623) 333-1035

**99th Avenue from I-10 to Van Buren Street Widening, Avondale, AZ.** KHA was selected for the design of this one-mile arterial street improvement project involving roadway

widening and new curb, gutter, sidewalks, and driveways. KHA will also provide drainage design, traffic design, signals and lighting, utilities, right-of-way, and environmental clearance services. Coordination will be needed to relocate an existing SRP well site and an irrigation structure. A Joint Project Agreement (JPA) will need to be prepared with ADOT and cities of Avondale and Tolleson regarding right-of-way, access control, and maintenance of proposed improvements. **Client:** Stephanie Huang, ADOT, (602) 712-7215

**91st Avenue and Olive Avenue Intersection Improvements, Peoria, AZ.** KHA prepared a DCR and final design documents to improve efficiency at the Olive Avenue and 91st Avenue intersection. To improve safety and alleviate congestion at this intersection, KHA designed additional turn lanes and acceleration lanes, as well as dual left-turn lanes and right-turn lanes in all four legs. Raised median islands in all legs were evaluated for better access control. KHA also accommodated ADOT provisions regarding design coordination and clearances in order to qualify the project for CMAQ funding including completing an environmental document to comply with NEPA and ADOT. **Client:** Ben Wilson, City of Peoria, (623) 773-7185

**87th Avenue Drainage and Roadway Improvements (Olive Avenue to Hatcher Road), Peoria, AZ.** KHA is designing storm drain and roadway improvements along 87th Avenue, between Olive Avenue and Hatcher Road. The storm drain improvements, which consist of approximately 1,500 linear feet of 48-inch diameter pipe, are part of the recommended improvements in the Downtown Peoria Area Drainage Master Plan, completed by KHA. Design challenges include, a tight design corridor, significant utility coordination and relocation, public participation and a very rigid construction schedule. **Client:** Richard Costa, City of Peoria, (623) 773-7951

**Downtown Glendale Pedestrian Enhancements, Glendale, AZ.** KHA led the design of a 65-square-block area of pedestrian safety and aesthetic enhancements in downtown Glendale. The project consisted of repairing and replacing broken or unsafe sidewalk areas, replacing and adding sidewalk with concrete headers and brick accents, installing new curb ramps and inlaid brick crosswalks, street widening and reconstruction including turn lanes, adding extensive landscaping including trees, shrubs and irrigation. Several utilities were relocated including overhead power, and street furnishings were installed or refurbished. KHA was the prime consultant for civil design and construction administration. **Client:** Robert Knighten, P.E., City of Glendale, (602) 930-2940





**Elliot Road Corridor Improvement Study, Maricopa County, AZ.** The purpose of this study was to develop a consensus-driven vision for improving Elliot Road between Power Road and the CAP canal, identify existing corridor deficiencies and future requirements, establish consistent roadway design and performance criteria, and generate preliminary design plans to meet the established future needs. The recommended corridor improvements included facility type, number of lanes, roadway cross-section and right-of-way requirements, traffic control, access, drainage, and roadway alignment to safely and efficiently accommodate future travel demands. This study provided the County and other responsible jurisdictions with a future "footprint" of Elliot Road and the implementation timeframe and phasing of the identified roadway improvements. **Client:** Tim Oliver, MCDOT, (602) 506-3994

**San Luis II Access Road-Roundabout Avenue E and County 25th Street, Yuma County, AZ.** KHA prepared final design documents and assisted during the construction of this four-legged roundabout intersection near the international border east of San Luis.

This roundabout will connect recently constructed federal and state port-of-entry facilities to the recently opened Yuma Area Service Highway (ASH) via the Avenue E roadway. KHA performed a traffic study to determine design volumes and geometry for the roundabout and prepared PS&E for construction. The project components included PCCP roundabout, median splitter island, concrete truck apron, curb, gutter and sidewalks, storm drainage and catch basin, roundabout signing and striping, lighting, and utilities. KHA also completed an environmental document to comply with NEPA and FHWA and coordinated utility relocations and right-of-way acquisitions. **Client:** Frank Sanchez, Yuma County Department of Development Services, (928) 329-2300



**Giss Parkway/I-8 Westbound Ramps Signal/Roundabout Needs Study, Yuma, AZ.** The City of Yuma selected KHA to conduct a study to determine if a traffic signal or roundabout is needed now or in the near future at the Giss Parkway/I-8 Westbound Ramps intersection. The study included a review of existing conditions, a delay study, signal warrant analyses, capacity analysis, roundabout analysis, and a benefit-cost comparison between a signal and a roundabout. **Client:** Paul Brooberg, City of Yuma, (928) 373-4500

**On-Call Review of Traffic Impact Analysis Reports, Yuma, AZ.** As part of our On-Call Traffic Engineering Services contract with the City of Yuma, KHA has assisted the City in reviewing numerous traffic impact analysis (TIA) reports. The purpose of the reviews were to verify that the analysis docu-

mented is adequate, given the type and intensity of development being proposed, and that all recommendations appear reasonable, conform to City standards, and are not anticipated to have a negative impact on other projects. **Client:** Paul Brooberg, City of Yuma, (928) 373-4500

**City of Surprise Various Signals, Surprise, AZ.** KHA provided construction administration, observation and oversight services for the installation of four signalized intersections including intersection widening and construction of additional turn lanes. Activities including administration and observation of installation of conduit and cable, Video Image Detection (VID) systems, emergency vehicle Pre-Emption, calibration, testing and acceptance of these components. Staff responsibilities included pay item documentation, training of observation staff, monthly estimates, change orders, issue resolution, and leading weekly meetings. **Client:** Nicholas Mascia, P.E., City of Surprise, (623) 583-6025

**Phoenix Regional ITS Fiber Optic Backbone, Phases A & B, Phoenix, AZ.** KHA provided the City of Phoenix with design plans, special provisions, and construction cost estimates for the construction of the first phase of a 50-mile fiber optic communications backbone for the City's ITS. This backbone facilitates communication between City of Phoenix facilities as well as the interconnection of numerous traffic signals, CCTV cameras, variable message signs (VMS), and other field devices. KHA developed specifications for all of the equipment necessary to integrate the traffic signal controllers with the central signal system software, including fiber optic transceivers, splice details, interior fiber optic cable routing, and conduit and cable installation methods. KHA's environmental staff provided environmental clearance. KHA also provided construction support services. KHA was selected to design the second phase of the Phoenix communication backbone which will complete the fiber backbone loop around and enable the City to ultimately connect to hundreds of field devices. **Client:** Joel Havris, City of Phoenix, (602) 262-4691

**Bell Road ITS, Phoenix, AZ.** KHA completed the design of an ITS project on the Bell Road corridor. The design included the installation of 6.5 miles of fiber, four arterial DMS, and seven CCTV cameras along Bell Road between Loop 101 and Grand Avenue. In addition to PS&E, other major tasks in this design effort included preparing a concept of operations, identifying communication alternatives, utility conflict coordination, and multi-agency coordination. Because this portion of Bell Road is under the jurisdiction of three agencies, a major focus was ensuring that each jurisdiction has the ability to monitor and/or control to each device along the corridor upon completion of the project. The communications system design included an Ethernet IP-based, Center-2-Center, and Center-2-Field infrastructure for video and data applications. **Client:** Faisal Saleem, MCDOT, (602) 506-1241



**Rittenhouse Road to Hawes Road Realignment, Queen Creek, AZ.** KHA designed the widening of approximately 2.2 miles of roadway along Rittenhouse Road. This project was the Town's first Construction Manager at Risk (CMAR) project and involved reconstructing an existing two-lane rural roadway to a four-lane urban section. KHA performed roadway design, drainage and storm drain design, utility relocations, traffic control, construction phasing, environmental studies, and public involvement. **Client:** Terry Fawley, Town of Queen Creek, 480-987-9887

**Tierra Montana, Phoenix, AZ.** KHA provided a full range of engineering services for a 935-acre master-planned community, including master drainage planning, hydrologic and hydraulic analyses, and design of over three miles of drainage channels and culverts to convey offsite runoff through the project. This project included approximately 24,700 feet of 10-inch to 36-inch gravity sewer line. KHA designed all off-site improvements. **Client:** Tom Blake, Taylor/Woodrow, (480) 344-7000

**56th Street Water Transmission Main, Phoenix, AZ.** KHA provided on-site and off-site water infrastructure design associated with a 270-acre mixed-use development located North of the 101 Freeway between 56th and 64th Streets in Phoenix. Through close coordination with the City of Phoenix Water Services Department and ADOT, our team designed an atypical but highly effective solution that split a 36-inch sewer line into three 18-inch lines at the point of conflict to allow for the transfer of flow below the existing 42-inch and 24-inch waterlines (with only 4-inches of separation). KHA also designed two custom junction structures, including internal diversion benches and an air jumper. **Client:** Tim Campbell, CityNorth Group, LLC, (480) 609-0660

**Calasera Wastewater Line, Phoenix, AZ.** KHA is currently designing 1.1 miles of 36-inch sanitary sewer interceptor paralleling the north right-of-way of the ADOT Pima Freeway and 0.37 mile of 18-inch sanitary sewer in 64th Street from the Pima Freeway north to Deer Valley Drive. The crossing of an existing 42-inch water main that was not able to be vertically relocated involves a unique solution of splitting flow from the 36-inch sanitary sewer into a triple 18-inch pipe crossing under the 42-inch water main. In solving this problem, KHA met with key City of Phoenix Water Services Department personnel to understand and incorporate their design concerns and parameters for accomplishing a successful design. **Client:** Kevin Rust, Meritage Homes, (480) 927-3011

**Storm Drain for 59th Avenue: Brown to Olive, Glendale, AZ.** The City of Glendale selected KHA to design 4,000 feet of new storm drain mainline in 59th Avenue between Brown Street and Olive Avenue with an additional 1,000 feet of laterals and connector pipe. KHA developed final plans, special provisions, and a construction cost estimate. The project includes the design

of 10-year storm drain catch basins to minimize flooding in the public right-of-way. Pipe sizes ranged from 42 to 78 inches in diameter. A drainage junction structure located at the intersection of 59th Avenue and Brown Street was reconstructed to divert low flows south to the new storm drain and limit flow going to an overflow basin. KHA design staff also provided construction administration services for the project. **Client:** Wade Ansell, City of Glendale, (623) 930-3630

**Peoria Downtown Area Drainage Master Plan, Peoria, AZ.** KHA prepared a drainage master plan update for the Oldtown area in the City of Peoria. As part of the redevelopment of this area, the City revised set-back requirements for the area to allow zero set-back from property lines. This revision allowed a more intense land use and essentially waived site retention/detention requirements. KHA completed the drainage master plan to evaluate the effects and impacts on local drainage of the zero set-back and waiver of site detention. The project included alternatives analysis and evaluation, and 15% construction plans for a downtown storm drain system to mitigate drainage impacts. **Client:** Burton Charron, City of Peoria, (623) 773-7212

**24th Street Water Treatment Plant Security Improvements, Phoenix, AZ.** The 24th Street Water Treatment Plant is a conventional water treatment plant with a capacity of 140 MGD. The design elements of the project include: site perimeter and interior fencing; site perimeter and building intrusion detection system; site CCTV system; site perimeter and interior lighting system; security entrance doors with electronic card access system; and electronic hardware and software to integrate the CCTV, perimeter detection system, and card access system into a fully, integrated functioning security system that can be monitored both locally and remotely. The project includes a new manned guardhouse, gates, and access roadway improvements. **Client:** Kyrly Tek, City of Phoenix, (602) 534-0307

**Union Hills Water Treatment Plant Security Improvements, Phoenix, AZ.** The Union Hills Water Treatment Plant has capacity of 160 MGD and treats Colorado River water that serves as the water supply for northern areas of Phoenix. KHA has been selected to design integrated security improvements at the 90-acre site. After evaluating the vulnerability assessment that has already been completed, design elements of the project will include: site perimeter and interior fencing; site perimeter and building intrusion detection system; site closed circuit television (CCTV) system; site perimeter and interior lighting system; security entrance doors with electronic card access system; and electronic hardware and software to integrate the CCTV, the perimeter detection system, and the card access system into a fully, integrated functioning security system that can be monitored both locally and remotely. **Client:** Charles Thomas, City of Phoenix, (602) 495-0677



**GENERAL DESCRIPTION AND LEGAL ORGANIZATION**

KHA is a privately held, employee-owned corporation that has been serving a wide variety of public and private clients for 43 years. Today, the firm provides multidisciplinary consulting services and currently has over 1,500 employees in 55 offices nationwide. KHA is wholly owned by Associates Group Services, Inc. Associates Group Services, Inc. is wholly owned by APHC, Inc. APHC, Inc. is owned by 294 individual KHA employees. No one individual has 10% or more ownership.

**Legal Name:** Kimley-Horn and Associates, Inc.  
**Legal Form:** Corporation  
**Corporate Office:** 3001 Weston Parkway  
 Cary, NC 27513  
**Principal Office:** 7878 N. 16th Street, Suite 300  
 Phoenix, AZ 85020  
**Local Contact:** Shannon Ahartz, P.E.  
 602-944-5500

KHA is licensed with the Arizona Corporation Commission (F-028593) and the State of Arizona Board of Technical Registration. Our State of Arizona Board of Technical Registration numbers include: 10272-5 (Avondale); 10272-3 (Phoenix); 10272-2 (Tucson); and 10272-4 (Mesa). From our previous work, KHA has a Vendor Number on file with the City Financial Services Department. While the firm's Corporate Headquarters are located in Cary, NC, **KHA will perform services for this contract from our principal office/Regional Headquarters at 7878 N. 16th Street, Suite 300, in Phoenix, AZ, supplemented by the resources of our West Valley project office located at 125 S. Avondale Boulevard, Suite 115, in Avondale.**

**Personnel Qualifications and Pertinent Experience**

**EXPERIENCE PERTAINING TO DISCIPLINE CATEGORIES**

**Water Distribution and Wastewater Systems**

KHA's Phoenix office offers the City a strong design team of professionals whose practice specializes in water and wastewater projects. Our Municipal Water/Wastewater Group's broad project experience ranges from water master planning to water and wastewater treatment plants to water system supply and water distribution. They have designed miles of water main and transmission lines that vary in size from 6" to 42". Our team provides comprehensive engineering and planning services to successfully complete your anticipated on-call projects, including:

- » Water and wastewater master planning
- » Water treatment plant design
- » Wellhead treatment design
- » Water line designs
- » Water pump station design
- » Well design
- » Water storage reservoirs
- » Water treatment pilot plants
- » Water system rehabilitation projects
- » Public and private water system design
- » Odor control design
- » Capital improvement planning
- » Wastewater treatment plant design
- » Construction plans, specifications, & cost estimates
- » Trenchless design and construction
- » Design and construction inspection of sewage lift stations
- » Construction administration services
- » Funding assistance
- » Permitting assistance

KHA team members have recently completed water system designs that include transmission lines, pump stations, reservoirs, and the associated planning details. Our key personnel have over 20 years of experience in water and wastewater system design. The City of Avondale can be confident our experienced engineers will be involved in all facets of the design and guide each project through completion.

**Transportation Engineering**

**Roadway Design.** KHA has proven capabilities for handling major street improvement and streetscape work as well as solving complex design issues—from the study phase through final design. Our design engineers have developed plans and specifications for thousands of miles of roadway including urban arterials, local streets, interstate highways, state highways, highway interchange structures, and rural roads. We are well equipped to address all related aspects of roadway design: intersection geometrics, paving, drainage, signalization, utility relocations, alternatives analysis, access management, right-of-way procurement/coordination, structural/bridge design, and construction services.

Paving and drainage services are often an integral part of our roadway design projects, and our substantial experience in dealing with regulatory and other agencies enables us to secure the necessary permits and approvals for building and upgrading roadway facilities. We have an excellent track record of achieving necessary agency approvals and gaining public support for major projects.

In addition to this broad spectrum of "one-stop" services, KHA also offers the focused expertise gained only through hands-on experience with this exact type of project. We bring a comprehensive ability to integrate our knowledge of the local area into



our work. We are familiar with regional and local street requirements and community goals.

**Transportation Planning.** KHA is a leading consultant in the planning of regional and statewide transportation systems, corridor studies, freeway operational studies, transportation demand management programs, and transportation impact assessments. **We have assisted many local and state agencies in developing transportation plans and programs for both short- and long-range improvements—including our work in Avondale on the City Center Specific Area Plan project.** This and other assignments in transportation planning and network analysis, economics, urban and regional planning, and engineering design have positioned KHA as a leader in the constantly evolving transportation field.

With expertise in conditions assessment, demand forecasting, environmental review, alternatives assessment, and cost-benefits analysis, KHA has the experience to progress a project from the inception of a concept through the development and implementation of a plan. We routinely examine alternatives, present those alternatives to the public, facilitate consensus-building, develop preliminary and right-of-way plans, and prepare final engineering and design.

**Roundabout Development and Review.** The development and increasing popularity of the modern roundabout in North America is one of the most exciting recent innovations in the field of traffic engineering. In addition to the dramatic reduction in traffic accidents that roundabouts provide, their installation can generate substantial reductions in delays and associated air emissions, improve intersection capacity and pedestrian travel, and can be a key element in improving the visual quality of roadway corridors and town centers. KHA has teamed with **Roundabouts & Traffic Engineering (RTE)** for their added expertise in roundabouts. RTE offers the experience and expertise needed for modern roundabout operation in the United States, as well as an excellent knowledge and familiarity of field conditions with roundabouts and transportation issues. The firm specializes in detailed modern roundabout design and planning, but also offers a wide range of services from roundabout feasibility studies to cumulative traffic impact studies. RTE's president, **Scott Ritchie, P.E.**, has been involved in the evaluation, design, modification, audit, redesign, and presentation of hundreds of roundabouts and traffic engineering projects throughout the world. He is viewed as a leading expert in the industry capable of handling and conveying professional modern roundabout design theory and practices.

### Traffic Engineering

Traffic engineering is a mainstay of KHA's professional practice. We have completed thousands of traffic engineering projects, ranging from single intersection designs and analysis to

major area-wide systems involving hundreds of intersections. Throughout Arizona, we provide clients with services in virtually every aspect of traffic engineering:

- » Traffic signal design, interconnect, and coordination
- » Traffic signal warrant analysis
- » PS&E packages
- » Traffic control and construction phasing
- » Intersection design
- » Conceptual designs
- » Operational analysis
- » Traffic studies/ traffic impact analyses
- » Traffic forecasting
- » Traffic operations modeling
- » Capacity analyses
- » Highway and street lighting design
- » Intelligent Transportation System (ITS) planning, design, and implementation

Much of KHA's outstanding reputation has been built on the planning, analysis, design, implementation, and operation of traffic signals. From isolated signals to area-wide traffic signal systems, our systems specialists offer unparalleled industry expertise. Our local staff members have designed traffic signal systems of many types and complexities, including timing plans.

In addition to comprehensive master planning and design for traffic signalization, our engineers have designed numerous plans to standardize traffic control systems and provide comprehensive systems communications. Our advanced traffic management projects include citywide signal system designs, transportation control centers, and innovative transit and public transportation systems. We design each of our systems not only to address current needs but also to accommodate future growth and advances in technology. Our systems are based on open architecture concepts, and every signal service is designed to meet the singular needs of each client.

**ITS.** Our local staff consists of experienced ITS system engineers, software developers, and hardware/software system integrators. We have a vast local knowledge of existing ITS hardware and software systems currently deployed within Maricopa County, and we are currently involved in many local ITS projects that are upgrading, expanding, and integrating these existing and emerging ITS hardware and software systems.

ITS technology is based on the understanding that transportation systems are more than infrastructure. At KHA we understand this and specialize in integrating the components of the total system — the road, the vehicle, and the traveler — to make getting around safer and more efficient. We have a long and successful track record providing ITS and engineering services to a variety of clients, including ADOT, MCDOT, MAG, the cities of Phoenix, Glendale, Surprise, Mesa, and the Town of Queen Creek, among others. Our team is uniquely qualified and ready to effectively coordinate and complete any ITS on-call project for the City of Avondale.



KHA is one of the top consultants in ITS planning, design, operations, and implementation. Some of our ITS specialty areas relevant to the City include:

- » ITS architecture development, compliance, and maintenance
- » Systems engineering and system operation
- » ITS procurement assistance
- » Cost/benefit analyses evaluation
- » Transit priority system planning and design
- » Corridor management system design and ITS strategic planning
- » Software development testing and integration
- » Telecommunications systems
- » Intermodal transportation access and interface
- » Signal system design and implementation
- » Innovative funding for ITS improvements
- » Construction administration

We have planned, designed, and implemented high technology systems and control centers with network computer systems, large-scale video and graphical user interfaces, traveler information systems, automated emergency dispatching, computer generated voice messaging, and links with other traffic signal control centers. Our ITS work reflects innovative thinking and technical expertise. Our team of experts understands how to make this intelligence work for our clients and their systems. Each of our systems is designed not only to address current needs, but also to accommodate future growth and advances in technology. With our clients, KHA is defining the future of ITS.

### Survey & Right-of-Way

KHA has teamed with **Horizon Survey** for this contract and previous projects. Horizon is a full-service, local professional land surveying firm offering a full range of services including Boundary Analysis, Topographic Surveys, GPS Surveys, High-Definition Surveys, Land Title Surveys (ALTA), Mapping, Construction As-Builts, Construction Staking, and Aerial Photogrammetry. Horizon has provided survey and right-of-way services to federal, state and municipal organizations in Arizona for surveying, staking, water rights, boundary establishment and a variety of other activities required to support projects.

### Hydrology/Hydraulic Projects

KHA's professionals have extensive experience directing drainage improvement projects across the country, regionally in the arid Southwest and locally throughout Arizona and Maricopa County. KHA's core group of water resource planners, hydrologists, hydraulic engineers, civil engineers, and environmental scientists are regarded as leading drainage experts in Arizona. Our technical expertise in flood control and stormwater manage-

ment ranges from watershed hydrology (urban, desert, rural, mountainous), floodplain hydraulics (fluvial/alluvial), sediment transport, dam safety, dam and levee assessments, and bridge scour analysis to two-dimensional flow analysis. With this knowledge and experience, we help our clients anticipate and respond to flooding impacts. Specific areas of flood control and stormwater management expertise include:

- » Planning: watershed master plans, watercourse master plans
- » Design: storm drain, channel, levees, earth dams, bank protection, grade control structures, basins
- » Floodplain delineation and management; floodplain studies
- » Hydrologic and hydraulic modeling
- » Stormwater/drainage master plans
- » CLOMR/LOMR applications
- » Dam safety/dam assessment/rehabilitation
- » Levee assessment/levee rehabilitation/levee Federal Emergency Management Act (FEMA) certification
- » Flood warning systems/emergency action plans
- » Obtaining environmental permits (Section 404, etc.)
- » Utility relocations
- » Nonstructural alternatives
- » Coordination with federal, state and local partners
- » Erosion and sediment control
- » Sediment yield and transport studies
- » Scour studies and investigations/mitigation

KHA has become a leader in the drainage and flood control consulting industry. Our project managers serve as the trusted primary liaisons to the Flood Control District of Maricopa County, and we will function as an extension of your own engineering staff.

Our team is proficient in HEC 1, HEC-HMS, WMS, HEC 2, HEC RAS, HEC-GEORAS, HEC 6, HEC-6T, TR 20, TR-55, FESWMS 2DH, FLO-2D, STORMPLUS, StormCADD, FlowMaster, WSPRO, BOSS RMS, Hydrain, BOSS SMS (2 dimensional modeling), Dambreak, SITES, and other hydrologic, hydraulic, and general design software. We have extensive capability and support in AutoCAD and MicroStation including advanced capabilities of SOFTDESK and INROADS, linked locally and firmwide through our network system. We also have experience in hydrologic based GIS (ArcView) applications such as BOSS WMS, which is linked with HEC-1, TR 20, and Rational Method.

### Plan Review Services

KHA has provided engineering design and analysis review services to public agency, corporate, and private developer/owner clients throughout Arizona for well over a decade. Specific engineering documents we have been retained to review



include design concept reports, traffic impact studies, parking studies, site plans, paving plans, grading and drainage plans, utility plans, traffic signal plans, signing and striping plans, and construction sequencing and work zone traffic control plans.

### Landscape Architects

As metropolitan areas continue to grow, urban design, streetscape design, and landscape architecture are integral components of roadway and transportation system designs and infrastructure improvements in general. Revitalizing commercial districts, controlling traffic flows, and providing recreational areas and pedestrian and bicycle facilities in increasingly congested areas are some of the solutions designed by our landscape architects and planners. Our professionals emphasize the development of a pleasing visual environment, meaningful theme, distinctive image, and strong sense of place, while being sensitive to the client's budget and long-term maintenance obligation.

KHA has earned a reputation for combining creative ideas, technical excellence, and client collaboration which results in dynamic projects that blend into their environments. Our landscape architects and urban planners have extensive experience ranging from public roadway improvement projects to institutional and residential developments to big-box retail sites, regional shopping malls, and mixed-use developments. Projects are often defined by their physical environment and aesthetic qualities. It is our goal to enhance and beautify your image as a progressive one with an outstanding physical environment.

KHA has designed many roadway landscapes and each represents the challenges associated with limited space, water conservation, plant survivability, utility conflicts, and traffic congestion. Our effective use and placement of vertical features on roadway projects results in a landscape treatment that provides optimum safety, attractive aesthetics, and low maintenance.

### GIS Programs

The main purpose of a GIS is to process spatial information. KHA's in-house GIS specialists use GIS concepts to facilitate the integration and management of spatial data. Global positioning systems (GPS) equipment can also be used to quickly and efficiently capture data for use in a GIS. We have used GIS concepts on previous projects to focus the organization of information and the design of information systems. GIS integrates many diverse areas of information into a single, cohesive decision support system. We use GIS to establish and maintain background databases, perform automated analysis for alternative corridor locations, quantify environmental impacts, assess historical change, and provide advanced support into the preliminary design process.

Our GIS expertise with source data includes aerial photography; engineering drawings; CAD files; plats; surveys; change order

records; DEMs; LiDAR; a wide range of tabular, vector, and raster data formats; 3-D; and many others. Our GIS specialists have extensive experience in geospatial data capture, feature extraction and attribution, migration, and conversion general thematic map data of cultural, transportation, hydrographic, vegetation, and other types of features—from diverse sources.

### Geotechnical and Environmental Engineering

**Geotechnical Services.** KHA has teamed with **Speedie & Associates, Inc.** (Speedie) to provide geotechnical services for this contract. Speedie has provided similar services on previous Avondale projects such as the 4th Street Improvements, Avondale Sidewalk and Street Improvements, Avondale Sports Center, Avondale Pavement Evaluation, Van Buren Street Improvements, and the Dysart Road Pavement Evaluation, among others. Services include geotechnical investigations and site development reports and full in-house geotechnical and materials laboratory testing. Speedie's field and laboratory staff of 45 +/- technicians participate in technician certification programs administered by the National Institute for Certification in Engineering Technologies (NICET), the Arizona Technical Testing Institute (ATTI), and the American Concrete Institute (ACI). Additionally, the International Conference of Building Officials (ICBO) certifies their senior technicians.

**Environmental Services.** KHA maintains an experienced team of environmental scientists, planners, biologists, cultural resource specialists, noise specialists, and field technicians with expertise in a wide range of environmental planning and problem solving services such as permitting, and the completion of technical studies and documentation for compliance with State and Federal environmental regulations.

The KHA team has worked on many small- and large-scale projects across the Southwest. We have gained a reputation with the Arizona Field Office and Los Angeles District of the U.S. Army Corps of Engineers (Corps) as the "go-to firm" for complex and difficult Clean Water Act (CWA) permitting issues. Our biologists have in-depth experience and excellent relationships with staff at the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service's Ecological Services office. We also have considerable experience in working with the Arizona Department of Environmental Quality, ADOT/FHWA, AZ State Land Department and numerous cities, counties, and municipalities across the state. KHA's hazardous materials staff are certified by the Occupational Safety and Health Administration (OSHA) to perform investigations on sites with hazardous chemicals and substances. Services we have provided include underground storage tank assessment, asbestos management, spill cleanup, and hazardous waste disposal. Furthermore, we have successfully planned and implemented surface and subsurface contamination assessments in soil, surface water, and groundwater.



KHA's Environmental Services Group provides the following services:

- » National Environmental Policy Act (NEPA) level documentation (categorical exclusion, EA, and EIS documentation)
- » CWA Section 404 regulatory compliance (delineation, permit application, and mitigation design)
- » AZPDES compliance (CWA Section 402 NOI, NOTs, BMPs, SWPPPs)
- » Water quality permits (CWA Section 402 Point Source Discharge)
- » State Level Water quality certification (CWA Section 401)
- » Vegetation, native plant and habitat evaluations
- » Protected species evaluations and surveys (cactus ferruginous pygmy-owl, desert tortoise, southwestern willow flycatcher, burrowing owl and other Arizona species)
- » Noise evaluations
- » Air quality permits/modeling
- » Visual assessments
- » Geographic Information Systems (GIS) analysis
- » Phase I Environmental Site Assessments
- » Contamination assessment/remediation for soils, groundwater, and surface water
- » Groundwater permits (injection wells, dry wells, aquifer protection permits)
- » Hazardous waste investigations/remediation
- » Spill Prevention Control and Countermeasures (SPCC) plans
- » Construction monitoring for environmental compliance
- » Stormwater Pollution Prevention Plans
- » National/Arizona State Historic Preservation Act consultation and compliance

### Foundations & Structural Design

Structural engineering is often integral to full-service civil engineering. KHA has established structural design teams throughout the country, including Arizona. Our Arizona structural design team has four senior level professional engineers and two young professionals, providing over 55 years of combined design and construction experience. This team specializes in bridge design, bridge replacement, bridge rehabilitation and inspection, bridge scour evaluation and mitigation, parking structures, stormwater and water management structures, viaducts, box culverts, transition structures, retaining walls, mechanically stabilized earth (MSE) walls, and construction administration. We have designed hundreds of transportation structures and bridges across the United States: bridges; highway interchanges; river, stream, and canal crossings; railroad overcrossing and undercrossings; storm drains;

pedestrian and bicycle bridges and undercrossings. Our talented design team integrates structures, roadway alignments, drainage facilities, and aesthetics while minimizing social impacts. Our bridge design experience includes cast-in-place concrete post-tensioned boxes, precast concrete I-girders, structural steel I-girder and box beams, and cast-in-place concrete T-beam and slab bridges. We also have completed final bridge design on multiple projects utilizing the new AASHTO LRFD code.

Our structural team is experienced in a wide array of project responsibilities ranging from preparation of project assessments and structure/bridge selection reports to preparation of all bid-ready contract documents—plans, specifications, special provisions, and construction cost estimates. Our projects include multi-level traffic interchanges, freeway crossroads, street crossings over rivers/creeks, railroad crossings, and several bridge widening projects. Many of our projects involved extensive traffic control and coordination with ADOT, city authorities, and agencies such as Central Arizona Project (CAP) or Salt River Project (SRP). During construction we have assisted agencies by performing contract administration and inspection and by our secondary role providing post-design services (reviewing contractor questions, shop drawings, RFIs, and RFCs).

Our diverse structural engineering expertise enables us to readily address all of your potential project needs, schedule, and budget. Whether assisting in a minor role or taking the overall lead, our team is well prepared and experienced in providing related services for the above project types. You can be assured that we will give each task order the utmost attention regardless of project size or type.

### Electrical & SCADA Programming

KHA understands that electrical engineering is often a critical component of designing a project. We are often faced with several design considerations including determining where power is coming from and if the power will need to be metered or unmetered, determining voltage drop calculations and lighting design, and investigating if the power will be shared with existing lighting circuits. We are also intimately familiar with the National Electric Code (NEC) and will bring that expertise to the project team. Many requirements govern the installation of electrical conduit, and our in-house electrical engineers will incorporate those requirements into our designs. Our staff is thoroughly experienced in all of the electrical engineering considerations that may be included in your projects, and we bring a local understanding of the coordination required with local utilities and power service providers.

### Construction Management

As an extension of our full-service capabilities, KHA provides comprehensive construction administration services with experienced inspection staff. We ensure our clients' projects are



successful from beginning to end. KHA's services include pre-bid services; cost estimating; and construction administration. We have a long, successful record of providing construction management services for a wide range of projects including: roadway and highways; traffic signals; signing and lighting; water and wastewater systems; stormwater systems; ITS deployment on urban and rural roadways; communication systems; security systems; parking revenue systems; airport taxiways, runways, traffic management centers; and pavement management.

In addition, our construction phase personnel can attend preconstruction conferences and regular project meetings, provide review and approval of pay estimates, and all other activities required to make sure that you achieve well coordinated construction of proposed improvements.

**Subsurface Utilities**

KHA has teamed with qualified subconsultant **KC Locate LLC (KC)** to provide subsurface utility engineering services. KC accurately designates underground utilities using the latest technology and equipment. KC's president, Kenneth Cole, brings to the team over 19 years of relevant subsurface utility engineering experience. KC has performed similar services in the cities of Avondale,

Phoenix, Scottsdale, Glendale, and Chandler, and the towns of Gilbert and Buckeye.

**KEY PERSONNEL**

We present our **team organization** below and a **matrix** showing disciplines and respective team members on page 15. We have provided a summary of key team member qualifications on pages 13-14 and resumes are included in **Appendix II**.



\*Subconsultant



**SUMMARY OF KEY STAFF QUALIFICATIONS**

<p><b>Shannon Ahartz, P.E.</b>          20 Yrs. Experience          7 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» 20 years of experience in roadway design, agency coordination, construction phasing, and project management</li> <li>» Has served in many capacities on projects including project designer, project manager and team leader of a roadway design group</li> <li>» Supported by over 150 Phoenix staff</li> </ul>
<p><b>George Fares, P.E.</b>          27 Yrs. Experience          15 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» 27 years of wide-ranging civil engineering experience</li> <li>» Has managed numerous large-scale transportation projects, including freeway management systems, countywide signal system programs, and citywide smart shuttle feasibility studies</li> <li>» Authorized to commit the resources and personnel required for this contract</li> </ul>
<p><b>Ahmad Omais, P.E.</b>          24 Yrs. Experience          14 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Former project manager/engineer for ADOT's Roadway Design Group</li> <li>» 24 years of experience in roadway design, contracts and specifications, and construction</li> <li>» Vice President of KHA and Roadway Division Leader</li> <li>» Served as Principal-in-Charge for 99th Avenue from I-10 to Van Buren Street</li> </ul>
<p><b>Raj Christian, P.E.</b>          20 Yrs. Experience          6 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Project Manager for Avondale projects: 4th Street Improvements, Sidewalk and Street Improvements</li> <li>» Specializes in roadway design, traffic design, bid documents, and project management</li> <li>» Other projects: 99th Avenue from I-10 to Van Buren Street, 91st Avenue and Olive Avenue Intersection Improvements, 59th Avenue Improvements, El Mirage Intersection Improvements, Yuma - Final Design of 24th Street</li> </ul>
<p><b>Chris Colson, P.E.</b>          15 Yrs. Experience          12 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Expertise in roadway, freeway, and utility design</li> <li>» Experience producing construction documents in support of numerous capital roadway improvement projects, including developing new urban arterial alignments, roadway widenings, intersection improvements, and local traffic calming improvements</li> </ul>
<p><b>Michael Grandy, P.E.</b>          8 Yrs. Experience          8 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Project Manager for Avondale Cycle 2 Safe Routes to School Installations</li> <li>» Team member for the Avondale City Center Specific Area Plan and 99th Avenue from I-10 to Van Buren Street</li> <li>» Experience with circulation master plans, corridor studies, signal warrant analyses, design concept reports, pedestrian/safety studies, accident analysis, traffic calming devices, parking, traffic signal design, public outreach, advanced traveler information systems, and ITS communications interconnect design</li> </ul>
<p><b>Bob Eichinger, P.E., CFM</b>          23 Yrs. Experience          14 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Over 20 years of water resources planning, stormwater management, drainage and flood control design</li> <li>» Extensive experience in the areas of hydrology/hydraulics analysis, evaluation of scour, sediment transport and sediment yield, levee design and bank protection, fluvial geomorphology, hydraulic analysis and sizing of culverts, storm drain systems, detention basins open channels, and hydraulic structures</li> <li>» Performed drainage design review on Avondale projects</li> </ul>
<p><b>Adam Perillo, RLA</b>          13 Yrs. Experience          11 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Experience in landscape architecture and construction. Specialties include landscape and site design, grading, stormwater drainage, and planting</li> <li>» Expertise interpreting zoning ordinances, tree ordinances, and client needs to provide a successful solution</li> <li>» Worked on numerous greenway and roadway streetscape projects.</li> </ul>
<p><b>Gary Karaboulad, P.E.</b>          22 Yrs. Experience          4 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Experience in the design and construction of various types of special highway structures, bridges, earth retaining structures, sound walls, and buildings</li> <li>» Designed more than 23 multi-span, AASHTO girder, cast-in-place and post-tensioned box girder structures</li> <li>» Certified bridge inspector by ADOT and FHWA. Inspected 600 bridges for ADOT and City of Phoenix</li> </ul>

*Continued on next page...*



**SUMMARY OF KEY STAFF QUALIFICATIONS**

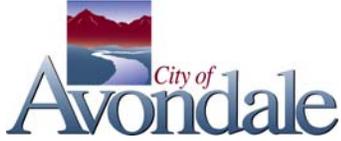
<p><b>David Haines, P.E.</b>          17 Yrs. Experience          15 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Specializes in wide area communications architecture design, communication equipment and ITS equipment technology assessments, wireless/copper/fiber optic cable inside and outside plant design, local area network design, lightning protection design, power distribution design, and roadway lighting</li> <li>» Experienced in specification writing, plans package production, constructability evaluations, software functionality writing, construction support for fiber optic network installations, and troubleshooting/repair of communication equipment</li> </ul>
<p><b>Brandon Squire, P.E.</b>          15 Yrs. Experience          5 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» 15 years of extensive technical and management experience in water resources engineering</li> <li>» Areas of expertise include water production, water distribution, and water storage systems, wastewater collection and treatment systems, water master planning, wastewater master planning, and improvement district projects</li> </ul>
<p><b>Sarah Eichinger</b>          24 Yrs. Experience          4 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Wide range of experience managing cultural resource and historic preservation requirements for major roadway and engineering projects</li> <li>» Former Deputy State Historic Preservation Officer for the State of Arizona</li> <li>» Experienced in preservation planning and state and federal regulatory compliance</li> </ul>
<p><b>Ghassan Auoad, P.E., CFM</b>          23 Yrs. Experience          1 Yr. with KHA</p>	<ul style="list-style-type: none"> <li>» More than 20 years of experience in the field of drainage engineering and hydrology and hydraulics</li> <li>» Thorough understanding of local drainage standards of many Arizona entities, such as ADOT, ADWR, and several local municipalities and counties</li> <li>» Extensive experience in the areas of hydrology and hydraulic analysis</li> </ul>
<p><b>Kevin Kimm, P.E.</b>          10 Yrs. Experience          10 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Experience in structural design projects which includes AASHTO girder bridges, steel girder bridges, cast-in-place post-tensioned, and cast-in-place T-beam bridges</li> <li>» Bridge design experience includes design of curved girder bridges</li> </ul>
<p><b>John Kissinger, P.E., PTOE</b>          23 Yrs. Experience          13 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» 23 years of traffic and transportation engineering experience, including traffic signal and signal system design, traffic operations, signing and marking plans preparation, and traffic control plans</li> <li>» Has been involved in the design and planning of regional ITS projects involving incident management strategies, operational procedures and final system design</li> </ul>
<p><b>Ray Yparraguirre, P.E., PTOE</b>          15 Yrs. Experience          11 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» 15 years of traffic and transportation engineering experience, including traffic signal design, signing and marking plans preparation and traffic control plans</li> <li>» Currently the project manager for Kimley-Horn's ADOT Statewide Traffic On-Call contract, having led many of the assignments and having worked on over 100 traffic on-call projects</li> </ul>
<p><b>Jason Getz</b>          7 Yrs. Experience          1 Yr. with KHA</p>	<ul style="list-style-type: none"> <li>» Seven years GIS experience providing database design, data collection, geographic analysis, information conversion, application/web development, and cartographic display</li> <li>» Proficient in the use of ESRI GIS applications and extensions along with CAD design software</li> <li>» Contributed his expertise to a wide variety of GIS projects in both government and private sectors</li> </ul>
<p><b>Tricia Boyer, P.E.</b>          9 Yrs. Experience          9 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» Experience ranges from signal system design to conducting studies and preparing models in order to develop optimum corridor traffic signal timing plans</li> <li>» Project experience includes providing traffic signal design and traffic signal coordination/timing services for all of the signalized intersections in the Town of Marana and Phases I and II of MCDOT's traffic signal modernization and upgrade project, which included a total of 50 intersections</li> </ul>
<p><b>Michael Delmarter, P.E.</b>          22 Yrs. Experience          13 Yrs. with KHA</p>	<ul style="list-style-type: none"> <li>» 22 years of project management and engineering design experience</li> <li>» Principal areas of practice includes all aspects of site planning and design, infrastructure design, surveying and mapping</li> <li>» Provides valuable due diligence services and feasibility studies for the initial evaluation of potential developments</li> </ul>

Statement of Qualifications for  
**FY 2010/2011**  
 Professional Consultants Selection List



TEAM MEMBERS	Water Distribution Systems	Wastewater Systems	Transportation Engineering	Traffic Engineering	Hydrology/Hydraulic Projects	Environmental	Foundation/Structural	Construction Management	Electrical Design	Security	Surveying	Geotechnical	Subsurface Utilities	Plan Review
Brandon Squire, P.E.														
Doug Patriquin, P.E., LEED AP														
Ahmad Omais, P.E.														
Raj Christian, P.E.														
Chris Colson, P.E.														
Shannon Ahartz, P.E.														
Allen Hathcock, P.E.														
Michael Mosley, EIT														
Bryan Patterson, P.E., AICP														
Michael Grandy, P.E.														
Brent Crowther, P.E.														
John Kissinger, P.E., PTOE														
Tricia Boyer, P.E.														
Ray Yparraguirre, P.E., PTOE														
RTE*														
Lisa Burgess														
Dave Haines, P.E.														
Tom McCullough, P.E.														
Sara Walker, P.E.														
Horizon*														
Bob Eichinger, P.E., CFM														
John Klamut, P.E., CFM														
Dave Jensen, P.E., CFM														
Ghassan Aouad, P.E., CFM														
Adam Perillo, RLA														
Jason Getz														
Sarah Eichinger														
Jennifer Simpkins, REP														
Justin Ladd														
Kevin Kimm, P.E.														
David Leistiko, P.E.														
Gary Karaboulad, P.E.														
Karthik Ramanathan, P.E.														
Randy Jenkins														
James Lessard, EIT														
Alex Herting, EIT, CFM														
Brenden Foley, EIT														
Tyler Wiles, EIT, LEED AP														
Speedie & Associates*														
KC Locate LLC*														
Michael Delmarter, P.E.														
Tove White, P.E.														
Sterling Margetts, P.E.														

\*Subconsultant



**REQUEST FOR STATEMENTS OF QUALIFICATIONS  
FOR  
FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST**

EN-10-057

**Addendum No. 1**

Date: April 6, 2010  
From: Sue McDermott  
Subject: Addendum No. 1 to Solicitation No. EN 10-057  
Bid Deadline: **April 15, 2010**, 3:00 p.m. local time, Phoenix, Arizona

**SCOPE**

This Addendum forms a part of the Contract and clarifies, corrects, or modifies the original Request for Qualifications documents prepared by the City of Avondale. Acknowledge receipt of this addendum in the space provided on the attached form. This acknowledgement and addendum must accompany the submitted Statement of Qualifications. Failure to do so may subject the Vendor to disqualification.

This Addendum No. 1 consists of the modification of the RFQ, Section I, Introduction, Paragraph 2, Discipline Categories of Projects and Section II, Statement of Qualifications Requirements, Paragraph (1)(a), Preparation/ Submission of SOQ.

**ADDENDUM**

1. Page A-1, Section I, Introduction, Paragraph 2, is hereby amended as follows:
  2. Discipline Categories of Projects. During Fiscal Years 2010/2011 and 2011/2012, the City plans to contract approximately twenty (20) projects per Fiscal Year for professional services for specific projects that fall within 16 (sixteen) different discipline categories listed below. The scope of work for these specific projects may include studies, site investigations, planning, preliminary design concepts, and contract document development (preparing detailed plans, schedules, designs, assembly of specifications and reports). Project duties may also involve budget estimating, engineering designs, AND

phasing, recommendations for future infrastructure needs (master plans). ~~improvement district administration and presentations at public meetings.~~ Please note, all projects involving the preparation of design plans and specifications require the design plans and specifications to be sealed by a Professional registered in the State of Arizona.

The Professional Consultants Selection List discipline categories are:

- Water Distribution System – Feasibility studies, wells, distribution systems, pump stations, storage facilities and treatment plants.
- Wastewater Systems – Studies, collection and disposal system designs, treatment plants and lift stations.
- Transportation Engineering – Roadway improvement projects, master plans, transportation planning, traffic calming projects, sidewalks and intersection designs, including roundabouts.
- Traffic Engineering – Speed, volume and classification studies, traffic signal warrant studies, other traffic engineering and traffic control studies (such as All-way STOP warrant studies), pedestrian & bicycle studies, Safe Routes to School plans and studies, school crosswalk studies, traffic signal design, traffic control design such as signing and pavement marking, traffic crash analysis, design of safety improvement projects, including roundabout study, design and analysis, design of bike lane/transit/crosswalk facilities, street lights, and Intelligent Transportation Systems (ITS such as Traffic Operations Center design, variable message signs, fiber optic and conduit design, and Wireless Advanced Traffic Management Systems).
- Surveying - Including topographic surveys, boundary surveys, construction staking, as-built surveys, right-of-way and easement investigation, ALTA and preparation of legal descriptions.
- Hydrology/Hydraulic Projects – Master plans, hydrology studies and designing storm water drainage facilities.
- Plan Review Services - Includes plan review of subdivision plats, residential and commercial developments, construction plans for water, sewer, paving, drainage, street/traffic lights and grading.
- Landscape Architect - Master plans, conceptual planning, site designs, parks and public open spaces, streetscapes, bicycle and pedestrian pathway design, scenery planting and irrigation.
- Hydrogeological Engineering - Provide aquifer impact and well feasibility studies. Ability to provide well abandonment services. Design of wells; provide construction inspection/observation services during the drilling of new or replacement wells.

- GIS Programs - Services to support Geographic Information Systems Programs including: data collection and development, map compilation, transformation and systems integration.
- Geotechnical and Environmental - Geotechnical engineering, pavement design, materials sampling and testing, pavement evaluation, design recommendations and specifications. Environmental site assessments, compliance audits, risk evaluations and recommendations.
- Foundation and Structural Design - To include load calculations and recommendations for construction of retaining walls, steel reinforced concrete structures, small buildings, and vehicular and pedestrian bridges.
- Electrical Design and Supervisory Control and Data Acquisition (SCADA) Programming - Provide design and inspection services for electric power supply, control systems and equipment specifications. Design and programming of local SCADA systems, PLC programming, and telemetry.
- Construction Management - Provide Construction Management at Risk (CMAR) and Design Build process management or construction administration and inspection services, such as estimation, bid document preparation, QA/QC services, shop drawing review, and post design services.
- Architect - Planning and new building development, renovation, interior and exterior design and construction management of public building projects.
- Subsurface Utility Investigation - To include various types of investigation methods to verify the horizontal and vertical location of underground utilities using surface geophysical techniques such as Ground Penetrating Radar (“GPR”), electromagnetic, magnetic or other energy fields, probing and vacuum exploration. Electromagnetic methods include the following: pipe and cable locators, inductive, conductive, active and passive modes), terrain conductivity, ground resistivity techniques, optical methods, and computer-driven algorithms coupled with data collection techniques.

2. Page B-1, Section II, Statement of Qualifications Requirements, Paragraph (1)(a) is hereby amended as follows:

1. Preparation/Submission of SOQ. Vendors are invited to participate in the competitive selection process for the Professional Consultants Selection Lists for Fiscal Year 2010/2011 and 2011/2012 outlined in this RFQ. Responding parties shall review their SOQ submissions to ensure the following requirements are met.

a. Interested parties must submit **one (1) original** and **eight (8) copies** (nine (9) total hardcopy submittals) and ~~one (1) electronic copy of the SOQ~~ ONE

ORIGINAL COPY OF THE SOQ ON A CD-ROM (OR ELECTRONIC MEDIA APPROVED BY THE CITY) IN PRINTABLE ADOBE OR MICROSOFT WORD FORMAT (OR OTHER FORMAT APPROVED BY THE CITY). FAILURE TO ADHERE TO THE SUBMITTAL QUANTITY CRITERIA SHALL RESULT IN THE SOQ BEING CONSIDERED NON-RESPONSIVE.

**CITY OF AVONDALE  
ACKNOWLEDGMENT OF ADDENDA RECEIVED  
REQUEST FOR QUALIFICATIONS**

FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST

EN10-057

**Addendum No. 1**

Kimley-Horn and Associates, Inc., affirms that ADDENDUM No. 1 has  
(Name of Vendor/Designee)  
been received and that the information contained in ADDENDUM No. 1 has been incorporated  
in formulating the Vendor's Offer.

Signed , Date April 14, 2010  
George Fares, P.E.

Print Name \_\_\_\_\_

Senior Vice President

Title \_\_\_\_\_

Kimley-Horn and Associates, Inc.  
Company Name \_\_\_\_\_

7878 N. 16th Street, Suite 300  
Address \_\_\_\_\_

Phoenix, AZ 85020  
City, State, Zip Code \_\_\_\_\_

END OF ADDENDUM No. 1

**SECTION B**

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**VI. VENDOR INFORMATION FORM**

By sending a Statement of Qualifications, the submitting firm certifies that it has reviewed the administrative information and draft of the Professional Services Agreement's terms and conditions and, if awarded the Agreement, agrees to be bound thereto. \*\*

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Kimley-Horn and Associates, Inc.  
FIRM SUBMITTING SOQ

56-0885615  
FEDERAL TAX ID NUMBER

George Fares, P.E., Senior Vice President  
PRINTED NAME AND TITLE

  
AUTHORIZED SIGNATURE

7878 N. 16th St., Suite 300  
ADDRESS

602-944-5500                      602-944-7423  
TELEPHONE                                      FAX #

Phoenix              AZ                      85020  
CITY                      STATE                      ZIP

4/13/2010  
DATE

WEB SITE: www.kimley-horn.com

EMAIL ADDRESS: george.fares@kimley-horn.com

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MINORITY/WOMEN-OWNED SMALL BUSINESSES (check appropriate item):

- Disadvantaged Business Enterprise (DBE)
- Women-Owned Business Enterprise (WBE)
- Minority Business Enterprise (MBE)
- Small Business Enterprise (SBE)

Has your firm been certified by any jurisdiction in Arizona as a minority or woman owned business enterprise? No.

If yes, please provide details and documentation of the certification.

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\*\* As specified on page 3 of our Statement of Qualifications, statement on Familiarity and Capability of Compliance.



## Shannon R. Ahartz, P.E.

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering, South Dakota State University
- » Registered Professional Engineer in Arizona (#40044) and South Dakota
- » President, Central Chapter, Arizona Society of Professional Engineers
- » Member, Arizona Public Works Association

### SPECIAL QUALIFICATIONS

- » 20 years of experience in roadway design, including the preparation of preliminary and final designs of urban reconstruction and widening projects, rural expressways, and freeway interchange designs.
- » Specializes in the horizontal and vertical designs of roadways, agency coordination, construction phasing, and construction administration.
- » Served in many capacities on projects including project designer, project manager and team leader of a roadway design group
- » Has led community meetings and public information workshops as related to projects

### RELEVANT EXPERIENCE

**Downtown Glendale Pedestrian Enhancements, Glendale, AZ — Project Manager.** KHA led the design of a 65-square-block area of pedestrian safety and aesthetic enhancements in downtown Glendale. This \$16M project consisted of repairing and replacing broken or unsafe sidewalk areas; replacing and adding sidewalk with concrete headers and brick accents; installing new curb ramps and inlaid brick crosswalks; street widening and reconstruction including turn lanes; and adding extensive landscaping including trees, shrubs, and irrigation. Several utilities were relocated including overhead power. In addition, several street furnishings were installed or refurbished such as trash receptacles, benches, newspaper stands, and bike racks. The project also involved integrating significant public art on the north gateway site within the project limits. KHA was the prime consultant, leading the civil design, electrical design, and construction administration.

**59th Avenue Widening, Olive Avenue to Mountain View Road, Glendale, AZ — Project Manager.** Responsible for the design of widening a major arterial roadway. Because of federal funding, we were responsible for developing all aspects of the project according to ADOT Local Government requirements including securing all required clearances for environmental, ROW, and utility clearances. KHA developed the preliminary and final design for the widening of a 1/2-mile segment of 59th Avenue in Glendale, which was funded with federal Congestion Mitigation and Air Quality (CMAQ) funds. The widening consisted of adding right-turn/merge lanes at the major entrances into the Glendale Community College and at Olive Avenue. Dual left-turn lanes, provisions for a raised median to accommodate a 54-inch storm drain, and landscaping and irrigation design were also key components of the widening.

**Rittenhouse Road – Power Marketplace to Hawes Road, Queen Creek, AZ — Project Manager.** KHA designed the widening of approximately 2.2 miles of roadway along Rittenhouse Road. This project was the Town's first Construction Manager at Risk (CMAR) project and involved reconstructing an existing two-lane rural roadway to a four-lane urban section. KHA performed roadway design, drainage and storm drain design, utility relocations, traffic control, construction phasing, environmental studies, and public involvement.

**87th Avenue Drainage and Roadway Improvements (Olive Avenue to Hatcher Road), Peoria, AZ — Project Manager.** KHA is designing storm drain and roadway improvements along 87th Avenue, between Olive Avenue and Hatcher Road in the City of Peoria. The storm drain improvements, which consist of approximately 1,500 linear feet of 48-inch diameter pipe, are part of the recommended improvements in the Downtown Peoria Area Drainage Master Plan, completed by KHA. Design challenges include, a tight design corridor, significant utility coordination and relocation, public participation and a very rigid construction schedule.

**Alma School Road/Chandler Boulevard Intersection Improvements, Chandler, AZ — Project Manager.** The City of Chandler selected KHA to design capacity and aesthetic improvements at this intersection, including additional through-lanes, dual left turn lanes, right turn lanes, bus pullouts, queue jumpers, storm drain improvements, and landscaping. The design incorporates drainage, pavement, sidewalk, curb and gutter, traffic signal, pavement marking, landscaping, and street light improvements, along with utility coordination/relocation and stakeholder coordination regarding potential right-of-way acquisitions and access management changes.





**Shannon R. Ahartz, P.E. continued**

**Beardsley Road: 99th Avenue to Lake Pleasant Road, Peoria, AZ — Project Manager.** KHA was selected by the City of Peoria to design improvements to the south half of Beardsley Road between Lake Pleasant Road and 99th Avenue. Improvements include asphalt paving, pavement milling, curbs, gutters, sidewalks, storm drain improvements, signing and striping, utility relocations, landscape improvements, and pedestrian lighting. The roadway will transition into the existing fully improved roadway improvements west of Lake Pleasant Road and East of 99th Avenue. Improvements at the intersection of Beardsley Road and Lake Pleasant Road for drainage, grading, and traffic signal upgrades will also be included.

**Loop 101 Frontage Road, Peoria, AZ — Project Manager.** KHA was selected to provide preliminary and final design services for the new construction of this 1.2-mile frontage road. The project is located adjacent to southbound Loop 101 between Northern Avenue and Olive Avenue within the City of Peoria. KHA prepared a Project Assessment (PA), as well as final design services for the new construction of a two-lane roadway and modifications of the existing southbound Northern Avenue off-ramp and realignment of the southbound Olive Avenue on-ramp. Project tasks include traffic and environmental studies, roadway and drainage design, traffic signal, street lighting, landscaping, sanitary sewer, soundwall, and FMS relocation. The project is part of a mixed retail/commercial/residential development and required intensive coordination between ADOT, City of Peoria, developers, and utility companies.

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — Project Engineer.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersection improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.

**Williamson Valley Road Widening - Pioneer Parkway to Outer Loop Road, Yavapai County, AZ — Project Manager.** KHA was selected to design both south and north segments of the Williamson Valley Road widening which is approximately nine miles in length. The projects included reconstructing the existing two-lane roadway into five lanes. Our team performed roadway design including the accommodation of driveways and side roads, environmental studies, storm drain design, water and sewer design, utility relocations, retaining walls, traffic control, construction phasing, pavement marking and signing, and traffic signal design.

**Williamson Valley Road Widening - Sidewinder Road to Pioneer Parkway, Yavapai County, AZ — Project Manager.** Responsible for coordination and design of all aspects of two-mile widening and reconstruction project: survey, geotechnical and rock blasting, environmental work (cultural surveys, biology and jurisdictional water studies), drainage, roadway design, traffic and construction phasing, franchise utility coordination and relocations, water and sewer design, ROW design, Arizona State Land coordination, and public involvement. This project widened approximately 2.5 miles of roadway and involved 60 adjacent landowners.





## George B. Fares, P.E.

### PROFESSIONAL CREDENTIALS

- » Master of Science, Civil Engineering (Transportation), City College of New York
- » Bachelor of Science, Civil Engineering, University of Massachusetts, Lowell
- » Professional Engineer in Arizona (# 38437), California, Nevada and New York
- » Member, Institute of Transportation Engineers (ITE)

### SPECIAL QUALIFICATIONS

- » Serves as Regional Marketing Manager and Principal
- » Authorized to commit the required resources and personnel for this contract
- » More than 25 years of wide-ranging civil engineering expertise
- » Extensive experience in design and implementation of ITS technologies, including CCTV, HAR, CMS, and associated communications systems as part of regional ATMS and ATIS programs

### RELEVANT EXPERIENCE

**24th Street Extension / Avenue 3 1/2 E - Avenue 3E to 56th Street Final Design, Yuma, AZ — Marketing Manager.** The City of Yuma has retained KHA to provide engineering services to design improvements and prepare PS&E for the 24th Street Extension – Avenue 3½E Improvement project between Avenue 3E and 40th Street, and a DCR level design of Avenue 3½E between 56th Street and 40th Street. Improvements will include bicycle lanes; curb, gutter, and sidewalk; landscaped medians; a new traffic signal at 40th Street; modified traffic signals at 32nd Street and Avenue 3E; street lights; underground storm drain and retention basins; and a new Union Pacific Rail Road crossing. KHA was responsible for project management, geotechnical investigations, Phase I environmental studies, drainage studies, irrigation design, landscape architecture, preliminary and final engineering for preparation of PS&E, right-of-way engineering, stakeholder/utility coordination, UPRR coordination, and public outreach.

**Grant Road Improvement Plan, Tucson, AZ — Marketing Manager.** KHA is assisting the City of Tucson Department of Transportation to develop the Grant Road Improvement Plan. Major components of the planning effort include a corridor alignment study, traffic study, land use and economic analyses, roadway/streetscape plan, and an urban design and redevelopment plan. The project extends from Oracle Road to Swan Road.

**I-17 Munds Park TI, Flagstaff, AZ — Marketing Manager.** KHA is currently preparing final design documents for this ADOT TI reconstruction. The design includes new TI geometry, a new bridge structure, retaining walls, drainage report, traffic and lighting, construction phasing, detours, utilities, right-of-way, and environmental clearance. The project involves raising the I-17 mainline to accommodate minimum vertical clearance and realigning the Munds Park crossroad to provide adequate sight distance. Landscaping, erosion control, and bridge aesthetics will also be included.

**Lake Havasu City Drainage Master Plan, Lake Havasu City, AZ — Marketing Manager.** KHA developed a 50-square-mile drainage master plan for Lake Havasu City, including conceptual design for over 43,000 feet of channel/bank stabilization and various improvements to the 26 earthen levees protecting the City's north and east perimeter. KHA also prepared hydrology for the 10- and 100-year storm events for the 149-square-mile contributing watershed.

**Rittenhouse Road – Power Marketplace to Hawes Road, Queen Creek, AZ — Marketing Manager.** KHA designed the widening of approximately 2.2 miles of roadway along Rittenhouse Road. This project was the Town's first Construction Manager at Risk (CMAR) project and involved reconstructing an existing two-lane rural roadway to a four-lane urban section. KHA performed roadway design, drainage and storm drain design, utility relocations, traffic control, construction phasing, environmental studies, and public involvement.

**SR 143 @ Sky Harbor Boulevard Interchange Modifications, Phoenix, AZ — Marketing Manager.** KHA is designing a six-span flyover over SR 143 that conveys WB Sky Harbor Boulevard over the SR 143 (SB) and a single-span structure over the North-West ramp. This project involves construction of the flyover over existing traffic and includes construction sequence and road closure considerations. The bridge will have a precast AASHTO girder superstructure with hammerhead piers and full-height abutments.





**George B. Fares, P.E. continued**

**Tonto Creek Bridge - DCR/ES/Design, Tonto Creek, AZ — Marketing Manager.** KHA was selected by Gila County for this project, which involves the planning and design of a new 1,800-foot-long bridge over Tonto Creek in Gila County, Arizona. The first phase of the project includes a DCR, a Bridge Selection Report, and an Environmental Assessment and Public Outreach Plan with a detailed Public Involvement Plan following NEPA guidelines. The project is located within the Tonto National Forest and includes numerous sensitive cultural resource sites and historic properties requiring coordination with the Arizona SHPO. The project also includes a detailed agency, stakeholder, and public involvement process. To arrive at a selected alternative and satisfy the requirements of NEPA, the process we have implemented includes Scoping, Alternative Selection, and Final Summary meetings with the agencies, stakeholders, and the public. In addition to these meetings, KHA prepared a project website that is updated regularly to keep the public informed of the project's status. The project includes detailed hydraulic design and geomorphology of Tonto Creek for studying the river hydraulics and bridge mechanics associated with the new bridge. With considerable Threatened and Endangered species, cultural resource, and visual/aesthetic issues involved, close coordination with the Corps, FHWA, ADOT, US Fish and Wildlife Service (USFWS), US Forest Service, SHPO, AZ Game and Fish, local businesses, and residents is paramount to the success of the project.

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — Marketing Manager.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersections improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.

**Williamson Valley Road Widening - Pioneer Parkway to Outer Loop Road, Yavapai County, AZ — Marketing Manager.** KHA was selected to design both south and north segments of the Williamson Valley Road widening which is approximately nine miles in length. The projects included reconstructing the existing two-lane roadway into five lanes. Our team performed roadway design including the accommodation of driveways and side roads, environmental studies, storm drain design, water and sewer design, utility relocations, retaining walls, traffic control, construction phasing, pavement marking and signing, and traffic signal design.

**Nevada DOT, Freeway and Arterial System of Transportation (FAST) Stages I and II, Las Vegas, NV — Project Manager.** Responsible for the design and implementation of an integrated freeway management system, arterial management system, archived data user services, and advanced traveler information system. The initial phase of this project includes the construction of a 75,000 s.f. building to house the TMC alongside the Nevada Highway Patrol, instrumentation of 17 miles of the freeway, and development of the central system software and hardware. KHA was responsible for the final design, bidding phase, and construction management support services including the preparation of contract documents, in addition to high-level system design, software and hardware design, and software development services. The project involved working closely with a multi-jurisdictional working group consisting of federal, state, and local jurisdictions during the implementation of a freeway management system in the Las Vegas, Nevada metropolitan area. System elements include central system integrated control software, advanced traffic flow detection sensors (radar, video image and inductive loop based detection), CCTVs, ramp meters, dynamic message signs, and trailblazers covering a 17-mile Las Vegas Valley freeway corridor along with the fiber-optic and wireless radio-based communications equipment and the associated field infrastructure required to interconnect them.

**FAST - Package B, Las Vegas, NV — Marketing Manager.** FAST Package B expands ITS on Las Vegas valley freeways and includes design for the implementation of ITS elements along a 13-mile section of I-515 from SR 159 (Charleston Boulevard) to I-515/I-215 Interchange with communication backbone infrastructure connecting this freeway section back to the FAST Traffic Management Center (TMC). The project also includes design of a fiber optic link on Lake Mead Drive from I-515/I-215 Interchange to Boulder Highway. The project includes program management, schedule review, construction support, and ITS element design. System elements include fiber optic and wireless radio-based communications designed to accommodate advanced traffic flow detection sensors (wireless radar and inductive loops), CCTVs, ramp meters, a communication hub building, and dynamic message signs (DMS). During the initial stages of the project a technology assessment was conducted on each major FAST ITS element and a recommendation was made for the type of technology to be incorporated into the design. The project extends IP based communication from the TMC to the field device cabinets.





## Ahmad A. Omais, P.E.

### PROFESSIONAL CREDENTIALS

- » Master of Science, Civil Engineering, Marquette University, Wisconsin
- » Bachelor of Science, Civil Engineering, University of Toledo
- » Professional Civil Engineer in Arizona (#24862) and Wisconsin
- » National Society of Professional Engineers
- » American Society of Civil Engineers

### SPECIAL QUALIFICATIONS

- » Has over 24 years of experience including designing roadways throughout Arizona for the past 20 years.
- » Has successfully completed hundreds of ADOT projects and fully understands the requirements of the ADOT planning and design processes.
- » Managed the development of cost estimates and contract documents for over 150 projects while an ADOT team leader in C&S for 3½ years.
- » His extensive experience ranging from pavement rehabilitation projects to highway design ensures he can effectively manage quality assurance and control on multidiscipline projects.

### RELEVANT EXPERIENCE

**99th Avenue from I-10 to Van Buren Street Widening, Avondale, AZ — Principal-in-Charge.** KHA was recently selected for the design of this one-mile arterial street improvement project involving roadway widening and new curb, gutter, sidewalks, and driveways. KHA will also provide drainage design, traffic design, signals and lighting, utilities, right-of-way, and environmental clearance services. Coordination will be needed to relocate an existing SRP well site and an irrigation structure. Extensive coordination will also be needed with the cities of Avondale, Phoenix, and Tolleson; Flood Control District of Maricopa County; and private businesses. A Joint Project Agreement (JPA) will need to be prepared with ADOT and cities of Avondale and Tolleson regarding right-of-way, access control, and maintenance of proposed improvements.

**91st Avenue and Olive Avenue Intersection Improvements, Peoria, AZ — Principal-in-Charge.** KHA prepared a DCR and final design documents to improve efficiency at the Olive Avenue and 91st Avenue intersection. To improve safety and alleviate congestion at this intersection, KHA designed additional turn lanes and acceleration lanes, as well as dual left-turn lanes and right-turn lanes in all four legs. Raised median islands in all legs were evaluated for better access control. KHA also accommodated ADOT provisions regarding design coordination and clearances in order to qualify the project for CMAQ funding including completing an environmental document to comply with NEPA and ADOT. Coordination and individual meetings with adjacent business owners and future developers were necessary to achieve consensus on the recommended alternatives and improvements. In addition, KHA coordinated the relocation of several utilities and acquisition of new right-of-way and temporary construction easements.

**59th Avenue Widening, Olive Avenue to Mountain View Road, Glendale, AZ — Principal-in-Charge.** KHA developed the preliminary and final design for the widening of a 1/2-mile segment of 59th Avenue in Glendale, which was funded with federal Congestion Mitigation and Air Quality (CMAQ) funds. The widening consisted of adding right-turn/merge lanes at the major entrances into the Glendale Community College and at Olive Avenue. Dual left-turn lanes, provisions for a raised median to accommodate a 54-inch storm drain, and landscaping and irrigation design were also key components of the widening.

**El Mirage Traffic Signal and Intersection Improvements at Dysart & Thunderbird; Dysart & Peoria; Dysart & Cactus; El Mirage & Northern, El Mirage, AZ — Principal-in-Charge.** KHA was selected to prepare a signal warrant study and final design documents for three intersections in the City of El Mirage. New signals will be constructed at the Dysart / Peoria and at Dysart / Cactus intersections and a full reconstruction of the existing intersection will occur at the Dysart / Thunderbird / Waddell intersection.

**Final Design of 24th Street between Avenue 6E and Avenue 9E, Yuma, AZ — Project Manager.** KHA provided roadway design services for the 24th Street Widening and Improvements project for the City of Yuma. This three-mile urban arterial roadway project consisted of widening 24th Street to a City standard primary arterial street section. The KHA team provided project management services, utility coordination and relocation design, right-of-way engineering, public outreach, engineering studies (traffic, drainage, and geotechnical), and preparation of final construction documents.





**Ahmad A. Omais, P.E. continued**

**Rittenhouse Road – Power Marketplace to Hawes Road, Queen Creek, AZ — Principal-in-Charge.** KHA designed the widening of approximately 2.2 miles of roadway along Rittenhouse Road. This project was the Town's first Construction Manager at Risk (CMAR) project and involved reconstructing an existing two-lane rural roadway to a four-lane urban section. KHA performed roadway design, drainage and storm drain design, utility relocations, traffic control, construction phasing, environmental studies, and public involvement.

**I-40/US 93 West Kingman TI Feasibility Study, Kingman, AZ — Project Engineer.** KHA prepared a feasibility study to evaluate alternative corridors to provide a direct connection between I-40 and US 93 in the vicinity of the West Kingman TI. This study included evaluation of eight alternative corridors, preparation of a traffic report, and preparation of an environmental overview with a particular emphasis on archaeological resources, hazardous materials, and an evaluation of Section 4(f) and Section 6(f) resources. The feasibility study recommended two corridors for further study and refinement in a future design concept report and environmental documentation.

**Ironwood Drive/Gantzel Road Improvements, US 60 to Hunt Highway, Pinal County, AZ — Project Manager.** KHA provided preliminary and final design services for 16 miles of Ironwood Drive from US 60 to Ocotillo Road and from Combs Road to Hunt Highway, widening its current two-lane section into a six-lane roadway with sections of raised median, curb and gutter, and sidewalk. The project included a new 3-span AASHTO precast girder bridge to span the Central Arizona Project (CAP). KHA prepared a Design Concept Report (DCR) and Access Management Plan, as well as final design services for the interim four-lane roadway and preliminary design for the ultimate six-lane roadway. Drainage improvements included pavement drainage and culvert design for offsite flows.

**McDowell Road Basin and Storm Drain Design, Mesa, AZ — Project Engineer.** KHA prepared full design construction plans for a storm drain located in McDowell Road in Mesa from Sossaman to Hawes Roads. The project included utility coordination and preparation of water and sewer relocation plans, detention basin landscaping and aesthetics design, public outreach, right-of-way requirements, field surveys, storm drain hydraulics, geotechnical investigations, and the development of special considerations for cross drainage and inlet designs.

**SR 143 @ Sky Harbor Blvd Interchange Modifications, Phoenix, AZ — Project Manager.** KHA is designing a six-span flyover over SR 143 that conveys WB Sky Harbor Blvd. over the SR 143 (SB) and a single-span structure over the North-West ramp. This project involves construction of the flyover over existing traffic and includes construction sequence and road closure considerations. The bridge will have a precast AASHTO girder superstructure with hammerhead piers and full-height abutments.

**SR 303L, Cactus, Waddell, and Bell Roads TI Design, Surprise, AZ — Project Manager.** KHA designed the improvements for the Cactus, Waddell, and Bell Road intersections at SR 303L including ultimate crossroad construction; a SPUI at Bell Road; relocating existing utilities and two irrigation wells; aesthetic treatments and enhancements for the bridges, fences, and lighting; and drainage facilities for the improved crossroads. Additionally, the KHA team coordinated with numerous developers and agencies involved in the corridor and the CMAR contractor, optimizing the design for ease of construction and cost savings. In partnering with the CMAR during design development, value engineering recommendations were implemented to reduce \$500,000 in costs during construction. Through our close working relationship with MWD, KHA was able to partner with MWD staff to expedite their planning and review processes for schedule-critical well/utility relocations and crossings.

**The Promenade at Casa Grande, Casa Grande, AZ — Team Member.** KHA provided design services to widen a 3/4-mile stretch of Florence Blvd. Design included widening all ramps and intersections over two existing structures over I-10 and a drainage canal. Services include a new curb, gutter, sidewalks, raised median, islands, constructing a new box culvert, traffic signals, lighting and landscaping.





## Rajesh S. Christian, P.E.

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering
- » Professional Engineer in Arizona (#31673)
- » NICET III - Construction Materials Testing (Concrete and Asphalt)
- » NICET II - Highway Construction

### SPECIAL QUALIFICATIONS

- » Led local Avondale projects, including the 4th Street Improvements
- » Experience in roadway design, traffic design, bid documents, and project management
- » Experience with construction materials testing, inspection and quality control
- » Expertise using computer software including Inroads and MicroStation
- » NICET certified in Highway Construction and Materials Testing
- » Proficient in CAD, MicroStation, and AutoCAD

### RELEVANT EXPERIENCE

**99th Avenue from I-10 to Van Buren Street Widening, Avondale, AZ — Project Manager.** KHA was recently selected for the design of this one-mile arterial street improvement project involving roadway widening and new curb, gutter, sidewalks, and driveways. KHA will also provide drainage design, traffic design, signals and lighting, utilities, right-of-way, and environmental clearance services. Coordination will be needed to relocate an existing SRP well site and an irrigation structure. Extensive coordination will also be needed with the cities of Avondale, Phoenix, and Tolleson; Flood Control District of Maricopa County; and private businesses. A Joint Project Agreement (JPA) will need to be prepared with ADOT and cities of Avondale and Tolleson regarding right-of-way, access control, and maintenance of proposed improvements.

**4th Street Improvements: Lower Buckeye Road to Western Avenue, Avondale, AZ — Project Manager.** The purpose of this project was to reconstruct the pavement and correct cross-slopes and ponding issues. A drainage report was prepared to summarize existing conditions and different alternatives to alleviate drainage issues. The project included reconstruction of curb, gutter, and sidewalks; valley gutters; installation of new water lines; and new water and sewer stub-outs to vacant parcels. Utility coordination with City utilities and private utilities were also included. KHA also provided traffic signal, signing, and pavement marking plans, as well as construction plans, specifications, and cost estimates.

**San Luis II Access Road-Roundabout Avenue E and County 25th Street, Yuma County, AZ — Project Manager.** KHA prepared final design documents and assisted during the construction of this four-legged roundabout intersection near the international border east of San Luis. This roundabout will connect recently constructed federal and state port-of-entry facilities to the recently opened Yuma Area Service Highway (ASH) via the Avenue E roadway. KHA performed a traffic study to determine design volumes and geometry for the roundabout and prepared PS&E for construction. The project components included PCCP roundabout, median splitter island, concrete truck apron, curb, gutter and sidewalks, storm drainage and catch basin, roundabout signing and striping, lighting, and utilities. Extensive project coordination with ADOT, Yuma County, GSA, City of San Luis, Customs and Border Protection (CBP), and Greater Yuma Port Authority (GYPA) were required. KHA also completed an environmental document to comply with NEPA and FHWA and coordinated utility relocations and right-of-way acquisitions. The project was constructed within schedule and under budget.

**El Mirage Traffic Signal and Intersection Improvements at Dysart & Thunderbird; Dysart & Peoria; Dysart & Cactus; El Mirage & Northern, El Mirage, AZ — Project Manager.** KHA was selected to prepare a signal warrant study and final design documents for three intersections in the City of El Mirage. New signals will be constructed at the Dysart / Peoria and at Dysart / Cactus intersections and a full reconstruction of the existing intersection will occur at the Dysart / Thunderbird / Waddell intersection.

**91st Avenue and Olive Avenue Intersection Improvements, Peoria, AZ — Project Manager.** KHA prepared a DCR and final design documents to improve efficiency at the Olive Avenue and 91st Avenue intersection. To improve safety and alleviate congestion at this intersection, KHA designed additional turn lanes and acceleration lanes, as well as dual left-turn lanes and right-turn lanes in all four legs. Raised median islands in all legs were evaluated for better access control. KHA also accommodated ADOT





**Rajesh S. Christian, P.E. continued**

provisions regarding design coordination and clearances in order to qualify the project for CMAQ funding including completing an environmental document to comply with NEPA and ADOT. Coordination and individual meetings with adjacent business owners and future developers were necessary to achieve consensus on the recommended alternatives and improvements. In addition, KHA coordinated the relocation of several utilities and acquisition of new right-of-way and temporary construction easements.

**59th Avenue Widening, Olive Avenue to Mountain View Road, Glendale, AZ — Project Engineer.** KHA developed the preliminary and final design for the widening of a 1/2-mile segment of 59th Avenue in Glendale, which was funded with federal Congestion Mitigation and Air Quality (CMAQ) funds. The widening consisted of adding right-turn/merge lanes at the major entrances into the Glendale Community College and at Olive Avenue. Dual left-turn lanes, provisions for a raised median to accommodate a 54-inch storm drain, and landscaping and irrigation design were also key components of the widening.

**Ironwood Drive/Gantzel Road Improvements, US 60 to Hunt Highway, Pinal County, AZ — Project Engineer.** KHA provided preliminary and final design services for 16 miles of Ironwood Drive from US 60 to Ocotillo Road and from Combs Road to Hunt Highway, widening its current two-lane section into a six-lane roadway with sections of raised median, curb and gutter, and sidewalk. The project included a new 3-span AASHTO precast girder bridge to span the Central Arizona Project (CAP). KHA prepared a Design Concept Report (DCR) and Access Management Plan, as well as final design services for the interim four-lane roadway and preliminary design for the ultimate six-lane roadway. Drainage improvements included pavement drainage and culvert design for offsite flows.

**I-17 Munds Park TI, Flagstaff, AZ — Project Manager.** KHA is currently preparing final design documents for this ADOT TI reconstruction. The design includes new TI geometry, a new bridge structure, retaining walls, drainage report, traffic and lighting, construction phasing, detours, utilities, right-of-way, and environmental clearance. The project involves raising the I-17 mainline to accommodate minimum vertical clearance and realigning the Munds Park crossroad to provide adequate sight distance. Landscaping, erosion control, and bridge aesthetics will also be included.

**Final Design of 24th Street between Avenue 6E and Avenue 9E, Yuma, AZ — Project Engineer.** Responsible for roadway design and utility relocation. KHA provided roadway design services for the 24th Street Widening and Improvements project for the City of Yuma. This three-mile urban arterial roadway project consisted of widening 24th Street to a City standard primary arterial street section. The KHA team provided project management services, utility coordination and relocation design, right-of-way engineering, public outreach, engineering studies (traffic, drainage, and geotechnical), and preparation of final construction documents.

**SR 143 @ Sky Harbor Blvd Interchange Modifications, Phoenix, AZ — Project Engineer.** KHA is designing a six-span flyover over SR 143 that conveys WB Sky Harbor Blvd. over the SR 143 (SB) and a single-span structure over the North-West ramp. This project involves construction of the flyover over existing traffic and includes construction sequence and road closure considerations. The bridge will have a precast AASHTO girder superstructure with hammerhead piers and full-height abutments.

**US 60 (County Line - Pinto Valley), Gila County, AZ — Project Engineer.** KHA provided design improvements and environmental clearance for US 60, beginning at Mile Post 236.13 and ending at Mile Post 240.03. The project is located within the TNF and required close coordination with their staff on cultural resources, endangered species, and visual resources. KHA's environmental team provided coordination with ADOT EPG and numerous federal and state agencies to provide the final environmental clearance within schedule. The project is within the US 60 scenic road designation limits and required a Visual Resource Assessment Report. We developed visual aids such as wire frames and rendered images of alternatives at sensitive locations to visually evaluate and communicate alternatives to the team. These visual aids were very beneficial in obtaining consensus and the decision-making process.

**87th Avenue Drainage and Roadway Improvements (Olive Avenue to Hatcher Road), Peoria, AZ — QC/QA Reviewer.** KHA is designing storm drain and roadway improvements along 87th Avenue, between Olive Avenue and Hatcher Road in the City of Peoria. The storm drain improvements, which consist of approximately 1,500 linear feet of 48-inch diameter pipe, are part of the recommended improvements in the Downtown Peoria Area Drainage Master Plan, completed by KHA. Design challenges include, a tight design corridor, significant utility coordination and relocation, public participation and a very rigid construction schedule. As the project is located within the vicinity of an elementary school, the project schedule is focused on the objective of starting and completing construction during the school's summer break session.





## Christopher G. Colson, P.E.

### PROFESSIONAL CREDENTIALS

- » Master of Science, Civil Engineering, Arizona State University
- » Bachelor of Science, Civil Engineering, Arizona State University
- » Registered Professional Civil Engineer in Arizona (# 46513) and California
- » Associate of the American Society of Civil Engineers

### SPECIAL QUALIFICATIONS

- » Main areas of expertise have focused on roadway design, including horizontal and vertical alignments, development of construction, grading, drainage, and signage/stripping plans
- » Proficient in AutoCAD, Microstation, and Inroads design software
- » Other responsibilities have included utility coordination, and various water, sanitary, and storm sewer designs

### RELEVANT EXPERIENCE

**4th Street Improvements: Lower Buckeye Road to Western Avenue, Avondale, AZ — Project Engineer.** The purpose of this project was to reconstruct the pavement and correct cross-slopes and ponding issues. A drainage report was prepared to summarize existing conditions and different alternatives to alleviate drainage issues. The project included reconstruction of curb, gutter, and sidewalks; valley gutters; installation of new water lines; and new water and sewer stub-outs to vacant parcels. Utility coordination with City utilities and private utilities were also included. KHA also provided traffic signal, signing, and pavement marking plans, as well as construction plans, specifications, and cost estimates.

**Alma School Road/Chandler Boulevard Intersection Improvements, Chandler, AZ — Project Engineer.** The City of Chandler selected KHA to design capacity and aesthetic improvements at this intersection, including additional through-lanes, dual left turn lanes, right turn lanes, bus pullouts, queue jumpers, storm drain improvements, and landscaping. The design incorporates drainage, pavement, sidewalk, curb and gutter, traffic signal, pavement marking, landscaping, and street light improvements, along with utility coordination/relocation and stakeholder coordination regarding potential right-of-way acquisitions and access management changes. KHA is performing the environmental studies and reviews needed to make the project eligible for federal aid in the event ARRA or CMAQ funds become available for the project.

**Beardsley Road: 99th Avenue to Lake Pleasant Road, Peoria, AZ — Project Engineer.** KHA was selected by the City of Peoria to design improvements to the south half of Beardsley Road between Lake Pleasant Road and 99th Avenue. Improvements include asphalt paving, pavement milling, curbs, gutters, sidewalks, storm drain improvements, signing and striping, utility relocations, landscape improvements, and pedestrian lighting. The roadway will transition into the existing fully improved roadway improvements west of Lake Pleasant Road and East of 99th Avenue. Improvements at the intersection of Beardsley Road and Lake Pleasant Road for drainage, grading, and traffic signal upgrades will also be included.

**Downtown Glendale Pedestrian Enhancements, Glendale, AZ — Project Engineer.** KHA led the design of a 65-square-block area of pedestrian safety and aesthetic enhancements in downtown Glendale. This \$16M project consisted of repairing and replacing broken or unsafe sidewalk areas; replacing and adding sidewalk with concrete headers and brick accents; installing new curb ramps and inlaid brick crosswalks; street widening and reconstruction including turn lanes; and adding extensive landscaping including trees, shrubs, and irrigation. Several utilities were relocated including overhead power. In addition, several street furnishings were installed or refurbished such as trash receptacles, benches, newspaper stands, and bike racks. The project also involved integrating significant public art on the north gateway site within the project limits. KHA was the prime consultant, leading the civil design, electrical design, and construction administration. Construction was completed in October 2007.

**El Mirage Traffic Signal and Intersection Improvements at Dysart & Thunderbird; Dysart & Peoria; Dysart & Cactus; El Mirage & Northern, El Mirage, AZ — Project Engineer.** KHA was selected to prepare a signal warrant study and final design documents for three intersections in the City of El Mirage. New signals will be constructed at the Dysart / Peoria and at Dysart / Cactus intersections and a full reconstruction of the existing intersection will occur at the Dysart / Thunderbird / Waddell intersection.





**Christopher G. Colson, P.E. continued**

**Final Design of 24th Street between Avenue 6E and Avenue 9E, Yuma, AZ — Project Engineer.** Responsible for roadway design and utilities KHA provided roadway design services for the 24th Street Widening and Improvements project for the City of Yuma. This three-mile urban arterial roadway project consisted of widening 24th Street to a City standard primary arterial street section. The KHA team provided project management services, utility coordination and relocation design, right-of-way engineering, public outreach, engineering studies (traffic, drainage, and geotechnical), and preparation of final construction documents.

**Phoenix Sky Harbor International Airport Sky Train, Phoenix, AZ — Project Engineer.** Project included the design of civil improvements throughout the airport that were part of the Sky Train project, including 11,000 feet of roadway, 8,000 feet of storm drain, and 12 retention basins as well as utility relocation, lighting, and striping. Design challenges included an aggressive design schedule, a narrow and highly urbanized design corridor, significant coordination with public and private utilities, complex traffic control during construction, and close coordination of construction phasing.

**Surprise Engineering Design Standards, Surprise, AZ — Project Engineer.** KHA has recently completed work with the City of Surprise to update the City's Engineering Design Standards. We worked with various departments including public works, transportation, community development, and others to incorporate revisions and updates, as well as to make sure the standards were consistent with other City policy documents, including the Surprise Municipal Code. In addition, we worked hand-in-hand with the City to modify and develop new City standard details including typical street sections, sight distance requirements, ITS field installation details, and water/reclaimed water details.

**Tonto Creek Bridge - DCR/ES/Design, Tonto Creek, AZ — Project Engineer.** KHA was selected by Gila County for this project, which involves the planning and design of a new 1,800-foot-long bridge over Tonto Creek in Gila County, Arizona. The first phase of the project includes a DCR, a Bridge Selection Report, and an Environmental Assessment and Public Outreach Plan with a detailed Public Involvement Plan following NEPA guidelines. The project is located within the Tonto National Forest and includes numerous sensitive cultural resource sites and historic properties requiring coordination with the Arizona SHPO. The project also includes a detailed agency, stakeholder, and public involvement process.

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — Project Engineer.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersection improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.

**US 95 DCR/EA (MP 42 to Cibola Lake Road), Yuma County, AZ — Project Engineer.** KHA completed a DCR to improve 40 miles of US 95 from the southern boundary of the Yuma Proving Ground (MP 42) to Cibola Lake Road (MP 82). The project involved the development of four roadway alternatives for improving the existing two-lane highway to a four-lane divided highway from MP 42 to MP 70 and pavement preservation from MP 70 to MP 82. The project also involved widening the existing roadway, reconstructing the existing roadway profile to eliminate at-grade drainage crossings and improve vertical curve stopping sight distances, passing lanes, intersection improvements, drainage improvements, and providing wildlife crossings and wildlife-friendly fencing.

**Yuma Expressway Access Study, Yuma, AZ — Project Engineer.** The purpose of this project is to develop access concept designs that control and manage access to land adjacent to the proposed expressway on 32nd Street from Pacific Avenue to Avenue 9E. This project will also determine the alignment of the curved southwest section of the Yuma Expressway.





## **Brandon L. Squire, P.E.**

### **PROFESSIONAL CREDENTIALS**

- » Bachelor of Science, Civil Engineering, University of Arkansas
- » Professional Engineer in Arizona (# 35177)
- » Advanced Management Institute, Project Manager Training
- » Advanced Management Institute, Advanced Project Manager Training
- » ASCE, Pump System Training
- » Toastmasters International, Certified Toastmaster
- » Member, American Society of Civil Engineers
- » Vice Chairman, City of Peoria Design Standards Review Board
- » Vice Chairman, City of Peoria Board of Adjustment

### **SPECIAL QUALIFICATIONS**

- » 15 years of extensive technical and management experience in water resources engineering, including water production, water distribution, and water storage systems, wastewater collection and treatment systems, water master planning, wastewater master planning, and improvement district projects.
- » Expertise and experience in geotechnical engineering/investigations, materials testing, foundation design, environmental assessments, construction inspection, and agency permit processing.

### **RELEVANT EXPERIENCE**

**Avondale City Center Specific Area Plan, Avondale, AZ — Project Engineer.** KHA worked with Dyett & Bhatia on the Avondale City Center project, located along Avondale Boulevard between I-10 and the City Hall campus. This project resulted in a detailed land use plan and design standards that promote the City's vision for this area. KHA's role in the project was to analyze the infrastructure and transportation systems that serve the study area. Each land use alternative presented was evaluated to determine the capacity and needs of the roadway, water, and sewer networks. KHA provided recommendations for modifying existing networks to better balance the needs and demands of this evolving core area. This project included stakeholder interviews, bus tours, and charrettes and workshops with City staff.

**99th Avenue from I-10 to Van Buren Street Widening, Avondale, AZ — Project Engineer.** KHA was recently selected for the design of this one-mile arterial street improvement project involving roadway widening and new curb, gutter, sidewalks, and driveways. KHA will also provide drainage design, traffic design, signals and lighting, utilities, right-of-way, and environmental clearance services. Coordination will be needed to relocate an existing SRP well site and an irrigation structure. Extensive coordination will also be needed with the cities of Avondale, Phoenix, and Tolleson; Flood Control District of Maricopa County; and private businesses. A Joint Project Agreement (JPA) will need to be prepared with ADOT and cities of Avondale and Tolleson regarding right-of-way, access control, and maintenance of proposed improvements.

**Tierra Montaña, Phoenix, AZ — Project Engineer.** KHA provide a full range of engineering services for a 935-acre master-planned community, including master drainage planning, hydrologic and hydraulic analyses, and design of over three miles of drainage channels and culverts to convey offsite runoff through the project.

**56th Street Water Transmission Main, Phoenix, AZ — Project Manager.** KHA provided on-site and off-site water infrastructure design associated with a 270-acre mixed-use development located North of the 101 Freeway between 56th and 64th Streets in Phoenix. Through close coordination with the City of Phoenix Water Services Department and ADOT, our team designed an atypical but highly effective solution that split a 36-inch sewer line into three 18-inch lines at the point of conflict to allow for the transfer of flow below the existing 42-inch and 24-inch waterlines (with only 4-inches of separation). KHA also designed two custom junction structures, including internal diversion benches and an air jumper.





**Brandon L. Squire, P.E. continued**

**Calasera at Desert Ridge, Phoenix, AZ — Project Engineer.** KHA is currently designing 1.1 miles of 36-inch sanitary sewer interceptor paralleling the north right-of-way of the ADOT Pima Freeway and 0.37 mile of 18-inch sanitary sewer in 64th Street from the Pima Freeway north to Deer Valley Drive. The crossing of an existing 42-inch water main that was not able to be vertically relocated involves a unique solution of splitting flow from the 36-inch sanitary sewer into a triple 18-inch pipe crossing under the 42-inch water main. In solving this problem, KHA met with key City of Phoenix Water Services Department personnel to understand and incorporate their design concerns and parameters for accomplishing a successful design.

**Buckeye MC 85 Water Group, Buckeye, AZ — Project Manager.** KHA completed a water master plan which outlined the water needs for the entire project area and the first phase of the project, which consisted of approximately 3,000 acres in southeastern Buckeye. KHA was also contracted for the detail design for the first phase of the project which consisted of approximately 900 acres. Services included construction plans for two million gallons of water storage, five miles of 24" to 16" water distribution lines, four wells, three miles of well supply lines, and evaluation of water treatment requirements.

**FICO 6,000 Acres - Sahuarita, AZ, Sahuarita, AZ — Project Engineer.** FICO operates a farm in Sahuarita, Arizona that is licensed as a Groundwater Saving Facility (GSF). KHA was recently selected to extend a CAP pipeline from the end of the existing line at a recharge facility to the FICO GSF. This CAP line extends from a large reservoir approximately 8.8 miles to a recharge facility. The line sizes for the CAP vary from 72-inch to 36-inch. The project will extend the 36-inch portion of the line approximately 3.5 miles to deliver water to the GSF. KHA produced a Design Concept Report (DCR) outlining water use, pipe sizing, material selection, and proposed alignment. KHA also produced a cost estimate for this project.

**City of Globe Well #5, Globe, AZ — Project Manager.** KHA was selected by the City of Globe to provide water resources design services for a water supply and transmission improvement project. KHA evaluated the City's antiquated water supply system and made recommendations for improvements. The City's alternatives were to do nothing, add an additional well and utilize the existing water transmission line, or add an additional well and install a well transmission line. KHA recommended that a new transmission line be installed and that the existing line remain in service during construction. The City of Globe approved this recommendation. KHA designed the new line in such a way that interconnection with the existing line provided true redundancy.

**Broadstone Ranch, Maricopa County, AZ — Project Engineer.** KHA provided site civil engineering services for 880 acres located within a 3,000-acre proposed master-planned community near the City of Surprise. KHA provided due diligence, site analysis and reports, conceptual infrastructure planning, drainage analysis and planning, environmental analysis and 404 permitting, Alternative Analysis, NEPA documentation, Riparian Mitigation Plan, transportation planning and traffic impact studies, and program management.

**Phoenix Sky Harbor International Airport Sky Train, Phoenix, AZ — Project Engineer.** As part of the Phoenix Sky Harbor Automated Train project, KHA is completing the design of several storm drain systems in and around the airport. KHA is completing the design for storm drain and retention improvements for several areas including 44th Street, the East Economy Lot, the aerial and elevated guideways for the train, train stations located at 44th Street and Terminal 4, a maintenance and storage facility, elevated pedestrian bridge, and roadway access ramps to Sky Harbor Boulevard. Design challenges include significant coordination with public and private utilities, a very narrow design corridor for the storm drain, complex traffic control during construction, and close coordination of construction phasing to allow the storm drain systems to function during construction.

**Hidden Waters Parkway Corridor Feasibility Study, Maricopa County, AZ — Project Engineer.** This study involves a 38-mile corridor between Gila Bend and I-10 in Maricopa County. KHA identified opportunities and constraints as part of a "fatal flaw" analysis of conceptual alignment alternatives for Hidden Waters Parkway. KHA then developed and evaluated candidate alignments. Drawings at a scale of 1 inch=200 feet will be prepared to identify a 200-foot-wide corridor to be protected for the future "Arizona Parkway" facility. Stakeholder and public input and coordination played a key role in shaping the development and evaluation of alternatives.





## **Robert A. Eichinger, P.E., CFM**

### **PROFESSIONAL CREDENTIALS**

- » Master of Science, Civil Engineering/Water Resources, Arizona State University
- » Bachelor of Science, Civil Engineering, Arizona State University
- » Registered Professional Engineer in Arizona (#24767), California, and Nevada
- » Certified Floodplain Manager, Association of State Floodplain Managers (#US-03-00962)
- » Sediment Engineering (HEC-6 and HEC-6T)
- » River Analysis Systems (HEC-RAS- steady and unsteady flow)
- » Fluvial Geomorphology for Engineers
- » NPDES Stormwater Permit Compliance
- » Arizona Floodplain Management Association, Past Central Region Representative
- » Association of State Floodplain Managers, Certified Floodplain Manager

### **SPECIAL QUALIFICATIONS**

- » Over 21 years of civil engineering, water resources planning, stormwater management, drainage and flood control design, and management experience in the arid Southwest.
- » Extensive experience in the areas of hydrology/hydraulics analysis, evaluation of scour, sediment transport and sediment yield, river mechanics, levee design and bank protection, fluvial geomorphology, hydraulic analysis and sizing of culverts, storm drain systems, detention basins open channels, dam safety, embankment dams, and hydraulic structures.
- » Has directed engineering and inspection activities, interpreted construction plans and specifications, directed contractor activities, and conducted meetings with city, county, state, and federal representatives.

### **RELEVANT EXPERIENCE**

**99th Avenue from I-10 to Van Buren Street Widening, Avondale, AZ — Project Engineer.** KHA was recently selected for the design of this one-mile arterial street improvement project involving roadway widening and new curb, gutter, sidewalks, and drive-ways. KHA will also provide drainage design, traffic design, signals and lighting, utilities, right-of-way, and environmental clearance services. Coordination will be needed to relocate an existing SRP well site and an irrigation structure. Extensive coordination will also be needed with the cities of Avondale, Phoenix, and Tolleson; Flood Control District of Maricopa County; and private businesses. A Joint Project Agreement (JPA) will need to be prepared with ADOT and cities of Avondale and Tolleson regarding right-of-way, access control, and maintenance of proposed improvements.

**91st Avenue and Olive Avenue Intersection Improvements, Peoria, AZ — Project Engineer.** KHA prepared a DCR and final design documents to improve efficiency at the Olive Avenue and 91st Avenue intersection. To improve safety and alleviate congestion at this intersection, KHA designed additional turn lanes and acceleration lanes, as well as dual left-turn lanes and right-turn lanes in all four legs. Raised median islands in all legs were evaluated for better access control. KHA also accommodated ADOT provisions regarding design coordination and clearances in order to qualify the project for CMAQ funding including completing an environmental document to comply with NEPA and ADOT. Coordination and individual meetings with adjacent business owners and future developers were necessary to achieve consensus on the recommended alternatives and improvements. In addition, KHA coordinated the relocation of several utilities and acquisition of new right-of-way and temporary construction easements.

**87th Avenue Drainage and Roadway Improvements (Olive Avenue to Hatcher Road), Peoria, AZ — Project Engineer.** KHA is designing storm drain and roadway improvements along 87th Avenue, between Olive Avenue and Hatcher Road in the City of Peoria. The storm drain improvements, which consist of approximately 1,500 linear feet of 48-inch diameter pipe, are part of the recommended improvements in the Downtown Peoria Area Drainage Master Plan, completed by KHA. Design challenges include, a tight design corridor, significant utility coordination and relocation, public participation and a very rigid construction schedule. As the project is located within the vicinity of an elementary school, the project schedule is focused on the objective of starting and completing construction during the school's summer break session.





**Robert A. Eichinger, P.E., CFM continued**

**67th Avenue Bridge over Salt River, Between Southern Avenue and Broadway Road, Phoenix, AZ — Project Engineer.** KHA, in coordination with Maricopa County DOT and the City of Phoenix, prepared a Scoping Report and Categorical Exclusion for the widening and realignment of 67th Avenue across the Salt River in southwest metropolitan Phoenix, AZ. The project included preparing conceptual roadway and bridge plans, as well as a Bridge Selection Report for a new 1,800-foot-long, 13-span bridge over the Salt River. Design considerations for this project included correcting the existing roadway geometry, construction over the river bed, evaluating scour requirements, and accommodating bridge movements due to length of the structure. KHA completed the Scoping Report and Categorical Exclusion, along with nine companion Technical Memoranda, in less than six months.

**59th Avenue Storm Drain (Brown to Olive), Glendale, AZ — QC/QA Reviewer.** The City of Glendale selected KHA to design 4,000 feet of new storm drain mainline in 59th Avenue between Brown Street and Olive Avenue with an additional 1,000 feet of laterals and connector pipe. KHA developed final plans, special provisions, and a construction cost estimate. The project includes the design of 10-year storm drain catch basins to minimize flooding in the public right of way. Pipe sizes ranged from 42 to 78 inches in diameter. A drainage junction structure located at the intersection of 59th Avenue and Brown Street was reconstructed to divert low flows south to the new storm drain and limit flow going to an overflow basin. The project required coordination with several stakeholders including the Glendale Fire Department, Parks and Recreation Department, the Public Library, Glendale Community College, and Traffic Management Center.

**Buckeye Town Lake, Buckeye, AZ — Project Manager.** KHA is providing civil engineering services in support of the development of a master plan for the Town of Buckeye Town Lake. The overall study area for this project incorporates nearly 3,800 acres adjacent to downtown Buckeye, Arizona. The general study area for the Town Lake is approximately the southern 900 acres of the overall study area. KHA, as part of a consultant team, is providing site civil engineering support for the master plan for the Town Lake, evaluation of alternatives for the lake site, and preparing site civil design plans and construction documents. KHA is responsible for evaluation of the proposed lake site upon the Gila River floodplain and formulation of mitigation options to protect the lake site from river flood flows. We are also responsible for site utilities including water, wastewater, and electrical services.

**Euro Fresh Farms Drainage Improvements, Snowflake, AZ — Project Manager.** KHA prepared analyses and construction documents for a regional 200 acre-foot detention basin, a 1,500-foot long earthen channel, a 3,000 foot long 54-inch diameter storm drain, and a 1,800-foot long, eight-foot high earth embankment levee. The earthen channel was designed to maintain the existing sediment transport patterns and minimize the potential for erosion problems.

**FICO 6,000 Acres - Sahuarita, AZ, Sahuarita, AZ — Project Engineer.** FICO (Farmers Investment Company) is a consortium of pecan farms with large land holdings in southern Arizona. Recently, KHA was hired to provide a range of master planning services for a 6,000-acre parcel located near Sahuarita, AZ. As part of the overall plan, we are preparing a river master plan and transportation planning for future railroad crossings, river crossings and other complex traffic engineering associated with the surrounding road networks.

**Final Design of 24th Street between Avenue 6E and Avenue 9E, Yuma, AZ — Project Engineer.** Responsible for drainage design. KHA provided roadway design services for the 24th Street Widening and Improvements project for the City of Yuma. This three-mile urban arterial roadway project consisted of widening 24th Street to a City standard primary arterial street section. The KHA team provided project management services, utility coordination and relocation design, right-of-way engineering, public outreach, engineering studies (traffic, drainage, and geotechnical), and preparation of final construction documents.

**Glendale Area Stormwater Master Plan Update, Glendale, AZ — Principal-in-Charge.** The Glendale Area Stormwater Master Plan Update includes a review, study, and update of the City's 1986 Stormwater Master Plan. Numerous changes and improvements to the stormwater drainage system have been completed since 1986. Study discharges were developed from updates to the Glendale/Peoria Area Drainage Master Plan and Update and the Maryvale Area Drainage Master Study completed for the cities of Glendale, Peoria, Phoenix, and Avondale and the Flood Control District of Maricopa County. This study will entail updating the hydrology and discharge rates from these studies by updating the existing HEC-1 rainfall runoff models. The models will be updated based upon land use changes, new or revised soils or topography data, new precipitation data, and drainage facilities that have been constructed since the previous studies were completed. The total contributing area for the watershed is 180 square miles. Not all of the contributing area affects the City of Glendale, but the entire study area is being updated for the Flood Control District of Maricopa County who is a funding partner.





## Ghassan M. Aouad, P.E., CFM

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering, Beirut Arab University
- » Professional Engineer in Arizona (# 34565)
- » Certified Floodplain Manager in Arizona
- » American Society of Civil Engineers/Member, Association of State Floodplain Managers/Member, Arizona Floodplain Management Association/Member

### SPECIAL QUALIFICATIONS

- » More than 20 years of experience in both the private and public sectors in the field of drainage engineering and hydrology and hydraulics.
- » Familiar with the technical publications and design guidelines for many leading agencies in water resources applications

### RELEVANT EXPERIENCE

**7th Street, Carefree Highway to Desert Hills Drive, Phoenix, AZ — Project Engineer.** KHA developed a Scoping Report to update a previously prepared DCR. Interim improvements may include construction of a three-lane roadway section by widening or reconstructing 7th Street from Carefree Highway to Desert Hills Drive. Ultimate improvements include construction of a modified Urban Minor Arterial roadway section and associated drainage improvements to control off-site and on-site flows. KHA was recently selected for final design of the interim improvements.

**Beardsley Road: 99th Avenue to Lake Pleasant Road, Peoria, AZ — Project Engineer.** KHA was selected by the City of Peoria to design improvements to the south half of Beardsley Road between Lake Pleasant Road and 99th Avenue. Improvements include asphalt paving, pavement milling, curbs, gutters, sidewalks, storm drain improvements, signing and striping, utility relocations, landscape improvements, and pedestrian lighting. The roadway will transition into the existing fully improved roadway improvements west of Lake Pleasant Road and East of 99th Avenue. Improvements at the intersection of Beardsley Road and Lake Pleasant Road for drainage, grading, and traffic signal upgrades will also be included.

**SR 143 @ Sky Harbor Blvd Interchange Modifications, Phoenix, AZ — Project Engineer.** KHA is designing a six-span flyover over SR 143 that conveys WB Sky Harbor Blvd. over the SR 143 (SB) and a single-span structure over the North-West ramp. This project involves construction of the flyover over existing traffic and includes construction sequence and road closure considerations. The bridge will have a precast AASHTO girder superstructure with hammerhead piers and full-height abutments.

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — Project Engineer.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersection improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.





## Kevin J. Kimm, P.E.

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering, Montana State University, 2000
- » Registered Professional Engineer in Arizona (#043306), California, and North Carolina
- » Member, American Society of Civil Engineers

### SPECIAL QUALIFICATIONS

- » Structural design experience in AASHTO girder bridges, steel girder bridges, steel box girder bridges, and cast-in-place T-beam bridges
- » Specialized structural design experience in precast and cast-in-place post-tensioned parking structures
- » Miscellaneous highway structure design experience includes box culverts, retaining walls, sound walls, and sign structures
- » Experience in structural design, inspection of ropeway transportation systems, and other construction engineering
- » Experience in trackwork design and specifications for trolleys

### RELEVANT EXPERIENCE

**8th Avenue Bridge Replacement, Graham County, AZ — Project Manager.** KHA provided a full range of engineering and environmental services for a new 1200-foot-long, four-lane AASHTO pre-cast concrete girder bridge over the Gila River in Graham County, including final plans, construction specifications, and construction cost estimates. KHA prepared a Design Concept Report (DCR) that included evaluations of different alignments, bridge types, span arrangements, and typical sections to determine the most economical alternative to meet the County's needs and construction budget. The final design included a new alignment that minimized utility impacts and maintained traffic on the existing road and bridge during construction to minimize impacts to the public.

**Downtown Glendale Pedestrian Enhancements, Glendale, AZ — Project Engineer.** KHA led the design of a 65-square-block area of pedestrian safety and aesthetic enhancements in downtown Glendale. This \$16M project consisted of repairing and replacing broken or unsafe sidewalk areas; replacing and adding sidewalk with concrete headers and brick accents; installing new curb ramps and inlaid brick crosswalks; street widening and reconstruction including turn lanes; and adding extensive landscaping including trees, shrubs, and irrigation. Several utilities were relocated including overhead power. In addition, several street furnishings were installed or refurbished such as trash receptacles, benches, newspaper stands, and bike racks. The project also involved integrating significant public art on the north gateway site within the project limits. KHA was the prime consultant, leading the civil design, electrical design, and construction administration. Construction was completed in October 2007.

**87th Avenue Drainage and Roadway Improvements (Olive Avenue to Hatcher Road), Peoria, AZ — Project Engineer.** KHA is designing storm drain and roadway improvements along 87th Avenue, between Olive Avenue and Hatcher Road in the City of Peoria. The storm drain improvements, which consist of approximately 1,500 linear feet of 48-inch diameter pipe, are part of the recommended improvements in the Downtown Peoria Area Drainage Master Plan, completed by KHA. Design challenges include, a tight design corridor, significant utility coordination and relocation, public participation and a very rigid construction schedule. As the project is located within the vicinity of an elementary school, the project schedule is focused on the objective of starting and completing construction during the school's summer break session.

**I-40, Walnut Canyon, Flagstaff, AZ — Project Engineer.** KHA prepared stage IV (95%) PS&E for this project located on I-40 approximately four miles east of Flagstaff (MP 205 - MP 209). Three separate segments on westbound I-40 will be reconstructed to flatten vertical curves and grades in order to reduce deceleration of trucks and improve safety. KHA's services for this project included roadway design, drainage design, traffic design, project management, and utility and right-of-way coordination. The project also involved re-profiling vertical curves on WB I-40 mainline, earthwork, false cuts, guard rail, culvert extensions, Cosnino Road TI ramps' reconstruction, median crossover detours, emergency pull outs, traffic control, signing, striping, and lighting design. In addition, KHA coordinated with ADOT technical disciplines, other consultants, Coconino National Forest, and National Park Services.





**Kevin J. Kimm, P.E. continued**

**Ironwood Drive/Gantzel Road Improvements, US 60 to Hunt Highway, Pinal County, AZ — Project Engineer.** Responsible for completing design and structural detailing review of a three-span (75'-140'-75') AASHTO girder bridge over the Central Arizona Project Canal. KHA provided preliminary and final design services for 16 miles of Ironwood Drive from US 60 to Ocotillo Road and from Combs Road to Hunt Highway, widening its current two-lane section into a six-lane roadway with sections of raised median, curb and gutter, and sidewalk. The project included a new 3-span AASHTO precast girder bridge to span the Central Arizona Project (CAP). KHA prepared a Design Concept Report (DCR) and Access Management Plan, as well as final design services for the interim four-lane roadway and preliminary design for the ultimate six-lane roadway. Drainage improvements included pavement drainage and culvert design for offsite flows.

**Ruger Ranch - Bridge Design, Prescott, AZ — Project Manager.** Project Manager/Project Engineer for a single span 125' long AASHTO Type VI girder bridge over the BNSF Railroad. The project is for a private developer, and KHA is completing the final coordination with BNSF to get approval on the final structural plans. KHA is coordinating the design of a single span 125' long AASHTO Type VI girder bridge over the BNSF Railroad on behalf of the owner. This project involves providing access to proposed home sites in a private development without requiring an at-grade crossing of the railroad. Escalating construction costs placed an emphasis on developing a structure and layout that would remain economically feasible for the developer, while meeting the requirements of the BNSF Railway. Design options were reviewed during the development of preliminary plans to help determine an efficient design for the project site.

**SR 143 @ Sky Harbor Blvd Interchange Modifications, Phoenix, AZ — Project Engineer.** KHA is designing a six-span flyover over SR 143 that conveys WB Sky Harbor Blvd. over the SR 143 (SB) and a single-span structure over the North-West ramp. This project involves construction of the flyover over existing traffic and includes construction sequence and road closure considerations. The bridge will have a precast AASHTO girder superstructure with hammerhead piers and full-height abutments.

**I-10/Florence Boulevard TI and Highway 287 Canal Bridge, Casa Grande — Project Engineer.** The project consists of widening two bridge structures, the Florence Boulevard TI and Highway 287 Canal Bridge, as well as  $\frac{3}{4}$ -mile of roadway widening. The Florence Boulevard TI is a four-span continuous steel superstructure and Highway 287 Canal Bridge is a two-span continuous steel superstructure. Final design for both structures was completed in three months to meet the aggressive schedule. The project design was coordinated with and reviewed by ADOT.

**Tonto Creek Bridge - DCR/ES/Design, Tonto Creek, AZ — Project Engineer.** KHA was selected by Gila County for this project, which involves the planning and design of a new 1,800-foot-long bridge over Tonto Creek in Gila County, Arizona. The first phase of the project includes a DCR, a Bridge Selection Report, and an Environmental Assessment and Public Outreach Plan with a detailed Public Involvement Plan following NEPA guidelines. The project is located within the Tonto National Forest and includes numerous sensitive cultural resource sites and historic properties requiring coordination with the Arizona SHPO. The project also includes a detailed agency, stakeholder, and public involvement process.

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — Project Engineer.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersection improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.





## David S. Haines, E.E.

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Electrical Engineering with Honors, Florida Atlantic University
- » Professional Electrical Engineer in Arizona (# 35268), California, Idaho, Kansas, Michigan, Missouri, Nebraska, New Mexico, North Virginia, Oregon, Texas, Utah, and Virginia
- » Institute of Electrical and Electronic Engineers

### SPECIAL QUALIFICATIONS

- » Specializes in wide area communications architecture design, communication equipment and ITS equipment technology assessments, wireless/copper/fiber optic cable inside and outside plant design, local area network design, lightning protection design, power distribution design, and roadway lighting design
- » Experienced in specification writing, plans package production, constructability evaluations, software functionality writing, construction support for fiber optic network installations, and troubleshooting/repair of communication equipment.

### RELEVANT EXPERIENCE

**Union Hills Water Treatment Plant Security Improvements, Phoenix, AZ — Project Manager.** The Union Hills Water Treatment Plant has capacity of 160 MGD and treats Colorado River water that serves as the water supply for northern areas of Phoenix, Arizona. KHA has been selected to design integrated security improvements at the 90-acre site. After evaluating the vulnerability assessment that has already been completed, design elements of the project will include: site perimeter and interior fencing; site perimeter and building intrusion detection system; site closed circuit television (CCTV) system; site perimeter and interior lighting system; security entrance doors with electronic card access system; and electronic hardware and software to integrate the CCTV, the perimeter detection system, and the card access system into a fully, integrated functioning security system that can be monitored both locally and remotely.

**24th Street Water Treatment Plant Security Improvements, Phoenix, AZ — Project Manager.** The 24th Street Water Treatment Plant is a conventional water treatment plant with a capacity of 140 MGD. KHA will plan and design a five-layer security system for the 70-acre water treatment plant site. The design elements of the project include: site perimeter and interior fencing; site perimeter and building intrusion detection system; site CCTV system; site perimeter and interior lighting system; security entrance doors with electronic card access system; and electronic hardware and software to integrate the CCTV, perimeter detection system, and card access system into a fully, integrated functioning security system that can be monitored both locally and remotely. The project includes a new manned guardhouse, gates, and access roadway improvements.

**Lift Station Security Improvements Design Services, Phoenix, AZ — Project Manager.** KHA was selected to plan and design security systems for 12 City of Phoenix lift station sites. The design elements of the project include: site perimeter fencing; site perimeter and building intrusion detection system; site CCTV system; site perimeter and interior lighting system; security entrance doors with electronic card access system; and electronic hardware and software to integrate the CCTV, perimeter detection system, and card access system into a fully integrated, functioning security system that can be monitored remotely.

**AZTech Center-to-Center (C2C) System Pro, Phoenix, AZ — Project Manager.** Kimley-Horn was selected by the AZTech™ Executive committee to function as the system manager to oversee the development of the C2C system protocol standards for the TMC and DMS subsystems. KHA worked with MCDOT and its AZTech partners, national standards representatives, and system vendors to develop C2C standards specifications for using the XML format.

**Elliot Road/Signal Butte Road Intersection Design, Mesa, AZ — Electrical Engineer.** As a follow-up to the Maricopa County Elliot Road Corridor Improvement Study, the City of Mesa retained KHA to design roadway improvements needed to upgrade rural, two-lane cross sections on Elliot Road and Signal Butte Road to urban six-lane cross sections. The KHA design work includes roadway, traffic signal, fiber-optic, pavement markings, street lighting, storm drainage, water line, and sewer line improvements for one-half mile of Elliot Road and one-half mile of Signal Butte Road. Existing traffic signal, signs, and pavement markings were field inventoried to ensure impacts to all existing elements were addressed as well as evaluating tie-in points for striping. All pavement markings and signing were upgraded to current City of Mesa Standards. Because of impacts to the existing traffic signal, KHA designed a new signal with video detection to accommodate both the interim and ultimate roadway improvements. Drainage and other improvements required for a new fire station on Signal Butte Road were incorporated into the project design.





**David S. Haines, E.E. continued**

**Queen Creek Municipal Broadband Fiber Network (MBFN), Queen Creek, AZ — Project Manager.** KHA is currently developing a Communications Master Plan and an Implementation Plan for the for the Town's telecommunications infrastructure. The project also includes providing project oversight of the Town's wireless communications project and developing a backbone and "last-mile" conduit and fiber optic communications architecture that will support the Town's ITS, traffic signal system, enterprise IT network, fire and police first responders, and security systems communications needs. This project will improve broadband access for both businesses and residents.

**Rental Car Center ATIS, Phoenix, AZ — Project Manager.** Responsible for key aspects of the design of ATIS displays located throughout the new Rental Car Center to provide travelers with current traffic information as they pick-up rental cars. This project included an extensive pre-design component involving multiple conceptual design iterations with the county, airport officials, construction managers, and eight separate rental car companies. For the House Cable Design, assisted in the design of telecommunications infrastructure throughout the PSHIA Rental Car Center site, which included extensive cabling within the 5,600 space parking garage as well as to service yards located throughout the 141 acre site.

**Rental Car Center at Sky Harbor Airport (RCC), Phoenix, AZ — Project Manager.** Design Team Task Manager responsible for the inside and outside plant video, voice, and data telecommunications and security system infrastructure. KHA was part of a Civil Design team responsible for the design of all civil functions on and adjacent to the 142-acre site for the facility. The civil team provided design and construction documents for all grading, drainage, access roads, infrastructure (new) and relocation of existing utilities. The site accommodates a parking garage designed for 8,500 cars, a Customer Service Building on top of the garage, and up to 10 auto service facilities in the area adjacent to the garage. Streets adjacent to the site were upgraded as necessary to accommodate the increased traffic volumes.

**Surprise TMC Design Services, Surprise, AZ — Project Engineer.** Responsible for designing: the control center space within the new Public Works building; the systems migration plan from the existing control center to the new control center facility; and a new video display system, audio system, operator workstation equipment, and multiple local area networks collocated within the control center but separated for security reasons. KHA was selected by the City of Surprise to provide advisory consultation and engineering design services for the development of the City's TMC, located within a newly constructed Public Safety Building. Planning tasks included development of a Concept of Operations that addresses the needs assessment and functional requirements as well as staffing, operations, security, and access.

**Tucson Regional Transportation Data Network (RTDN) Design, Tucson, AZ — Project Manager.** KHA prepared a winning \$7M Federal Earmark Application for the City of Tucson to develop a Regional Transportation Data Network (RTDN) that will integrate many of the multiple existing communications infrastructure systems currently deployed within the region. The RTDN will facilitate the exchange of data and information between agencies and jurisdictions, advancing the region's ability to achieve the multi-agency coordination needed to support transportation, public safety, emergency management, Amber Alert (variable message signs), traffic management, traveler information, and Homeland Security efforts in the region.

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — Project Engineer.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersection improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.





## John C. Kissinger, P.E., PTOE

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering, University of Wisconsin
- » Professional Civil Engineer in Arizona (# 27128), California, Iowa, Kansas, Missouri, Nevada, Utah, and Wisconsin
- » Registered Professional Traffic Operations Engineer
- » Institute of Transportation Engineers
- » ITS Arizona

### SPECIAL QUALIFICATIONS

- » Has 22 years of traffic and transportation engineering experience, including traffic signal and signal system design, fiber optic communication design, traffic operations, signing and marking plans preparation, and traffic control plans
- » Experience in planning and design of regional ITS projects involving incident management strategies and advanced public transportation systems

### RELEVANT EXPERIENCE

**59th Avenue Widening, Olive Avenue to Mountain View Road, Glendale, AZ — Project Engineer.** KHA developed the preliminary and final design for the widening of a 1/2-mile segment of 59th Avenue in Glendale, which was funded with federal Congestion Mitigation and Air Quality (CMAQ) funds. The widening consisted of adding right-turn/merge lanes at the major entrances into the Glendale Community College and at Olive Avenue. Dual left-turn lanes, provisions for a raised median to accommodate a 54-inch storm drain, and landscaping and irrigation design were also key components of the widening. Several existing utilities, including a major SRP irrigation line, were relocated. The major elements of design included: preparation of a Design Concept Report (DCR), roadway design, intersection geometric design, traffic signal modification, utility relocation and coordination, marking and signing design, and preparation of an environmental document. Because of federal funding, we were responsible for developing all aspects of the project according to ADOT Local Government requirements including securing all required clearances for environmental, ROW, and utility clearances.

**59th Avenue ITS Project, Glendale, AZ — Project Engineer.** Under KHA's Glendale On-Call ITS contract, KHA provided construction administration and oversight services for the installation of approximately 100,000 linear feet of fiber optic cable and the construction of the traffic management center in the City of Glendale. Activities including observation of installation of conduit and cable, Video Image Detection (VID) systems, CCTV cameras, calibration, testing and acceptance of these components. Staff responsibilities included pay item documentation, training of fellow inspectors, monthly estimates, change orders, issue resolution, and leading weekly meetings.

**4th Avenue and 16th Street Corridors Study, Yuma, AZ — Project Manager.** The City of Yuma selected KHA in 2004 to evaluate existing and future traffic conditions along multiple corridors representing some of the most congested roadways in Yuma. The purpose of the study was to recommend improvements that provide acceptable and safe traffic operations while also preserving local business access.

**Avenue 3E Corridor Study, Yuma, AZ — Project Manager.** In 2003, the City of Yuma retained KHA to perform a detailed analysis of current and future traffic conditions within the corridor study area, which consists of 27 existing intersections, one existing freeway interchange, and three future intersections. The Marine Corps Air Station – Yuma (MCAS) is also located within the corridor study area. The principal objectives of the study were to evaluate the short-term and long-term impacts of existing and proposed developments on the MCAS and roadways within the corridor study area and to recommend improvements that preserved acceptable traffic operations in the vicinity of the MCAS as well as throughout the corridor study area.

**Avenue E DCR and Final Design, Yuma County 23rd Street to International Port of Entry, Yuma County, AZ — Project Engineer.** KHA prepared a design concept report (DCR) to reconstruct Avenue E as an interim three-lane facility that can be expanded to the desired Yuma County four- to six-lane section in the future. The proposed roadway begins at County 23rd Street (SR 195) and extends south approximately 2.3 miles to the International Port of Entry. The concept included the design of intersecting roadways at 1/2-mile intervals. Frontage roads were considered for properties adjacent to Avenue E between the proposed intersecting roadways. Alignments were evaluated based on right-of-way, storm water management, cost, and access control. Extensive coordination with developers and utility companies, and new right-of-way acquisition was also included.





**John C. Kissinger P.E., PTOE continued**

**Bell Road ITS Design, Phoenix, AZ — Project Manager.** KHA completed the design of an ITS project on the Bell Road corridor. The project included installation of 6.5 miles of fiber with leased telecommunications services for communications back to the MCDOT TMC and Peoria and Surprise TMCs; four arterial DMSs; and seven CCTV cameras along Bell Road, between Loop 101 and Grand Avenue in Phoenix. In addition to PS&E, other major tasks in this design effort included preparing a concept of operations, identifying communication alternatives, coordinating utility conflicts, and coordinating with multiple agencies. Because this portion of Bell Road is under the jurisdiction of three agencies, a major focus was ensuring that each jurisdiction had the ability to monitor and/or control each device along the corridor upon completion of the project.

**Beardsley Road: 99th Avenue to Lake Pleasant Road, Peoria, AZ — Project Engineer.** KHA was selected by the City of Peoria to design improvements to the south half of Beardsley Road between Lake Pleasant Road and 99th Avenue. Improvements include asphalt paving, pavement milling, curbs, gutters, sidewalks, storm drain improvements, signing and striping, utility relocations, landscape improvements, and pedestrian lighting. The roadway will transition into the existing fully improved roadway improvements west of Lake Pleasant Road and East of 99th Avenue. Improvements at the intersection of Beardsley Road and Lake Pleasant Road for drainage, grading, and traffic signal upgrades will also be included.

**Final Design of 24th Street between Avenue 6E and Avenue 9E, Yuma, AZ — Project Engineer.** Responsible for traffic signal and traffic control. KHA provided roadway design services for the 24th Street Widening and Improvements project for the City of Yuma. This three-mile urban arterial roadway project consisted of widening 24th Street to a City standard primary arterial street section. The KHA team provided project management services, utility coordination and relocation design, right-of-way engineering, public outreach, engineering studies (traffic, drainage, and geotechnical), and preparation of final construction documents.

**Gilbert - Various Traffic Signals Design Services, Gilbert, AZ — Project Manager.** KHA has provided traffic signal design services to the Town of Gilbert for the past three years. During this time, we have completed the design of 26 traffic signals and are currently under design for signals at another seven intersections. Many of these project locations have required coordination with developers of adjacent parcels to identify construction phasing and incorporate future improvement considerations. In addition, KHA has provided final record drawings of the Contractor redlines. Some of the signal locations include: Higley/Ray; Higley/Germann; Higley/Queen Creek; Ranch House/Queen Creek; Power/Germann; Power/Haven Crest; and multiple Fire Station signals.

**Ironwood Drive/Gantzel Road Improvements, US 60 to Hunt Highway, Pinal County, AZ — Project Engineer.** KHA provided preliminary and final design services for 16 miles of Ironwood Drive from US 60 to Ocotillo Road and from Combs Road to Hunt Highway, widening its current two-lane section into a six-lane roadway with sections of raised median, curb and gutter, and sidewalk. The project included a new 3-span AASHTO precast girder bridge to span the Central Arizona Project (CAP). KHA prepared a Design Concept Report (DCR) and Access Management Plan, as well as final design services for the interim four-lane roadway and preliminary design for the ultimate six-lane roadway. Drainage improvements included pavement drainage and culvert design for offsite flows.

**SR 143 @ Sky Harbor Blvd Interchange Modifications, Phoenix, AZ — Project Engineer.** KHA is designing a six-span flyover over SR 143 that conveys WB Sky Harbor Blvd. over the SR 143 (SB) and a single-span structure over the North-West ramp. This project involves construction of the flyover over existing traffic and includes construction sequence and road closure considerations. The bridge will have a precast AASHTO girder superstructure with hammerhead piers and full-height abutments.





## Ray P. Yparraguirre, P.E., PTOE

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering, Arizona State University
- » Registered Professional Engineer in Arizona (#39165)
- » Professional Traffic Operations Engineer (Institute of Transportation Engineers)

### SPECIAL QUALIFICATIONS

- » Over 14 years of traffic engineering experience, including traffic signal design, signing and marking plans preparation, traffic control plans, construction phasing, lighting, and ITS experience
- » Project Manager for ADOT Statewide Traffic On-Call
- » Managed and worked on 100+ traffic projects involving construction phasing, constructability reviews, utility, right-of-way, and PS&E

### RELEVANT EXPERIENCE

**99th Avenue from I-10 to Van Buren Street Widening, Avondale, AZ — Project Engineer.** KHA was selected for the design of this one-mile arterial street improvement project involving roadway widening and new curb, gutter, sidewalks, and driveways. KHA will also provide drainage design, traffic design, signals and lighting, utilities, right-of-way, and environmental clearance services. Coordination will be needed to relocate an existing SRP well site and an irrigation structure. Extensive coordination will also be needed with the cities of Avondale, Phoenix, and Tolleson; Flood Control District of Maricopa County; and private businesses. A Joint Project Agreement (JPA) will need to be prepared with ADOT and cities of Avondale and Tolleson regarding right-of-way, access control, and maintenance of proposed improvements.

**4th Ave / 16th St, Yuma, AZ — Project Manager.** Through a previous corridor study conducted by KHA, the City of Yuma concluded that the intersection of 4th Avenue and 16th Street has deteriorated to unacceptable levels of service. Currently, 16th Street is a five-lane roadway with two lanes in each direction and a common left-turn lane; existing 4th Avenue in this area has the same roadway configuration. Both roadways move traffic through a well-developed commercial district. This design project extends the six-lane facility of the widening project from Arizona Avenue to Yuma Palms Parkway, including three travel lanes, bike lanes, raised median, sidewalks, and curb and gutter. Two existing traffic signals at 1st Avenue and 4th Avenue will also be reconstructed as part of this project. As a subconsultant to a local Yuma engineering firm, KHA is responsible for the design of construction phasing, signing, pavement marking, traffic signals, lighting, and ITS interconnect. In addition, KHA is responsible for the creation and update of the project website.

**7th Street, Carefree Highway to Desert Hills Drive, Phoenix, AZ — Project Engineer.** KHA developed a Scoping Report to update a previously prepared DCR. Interim improvements may include construction of a three-lane roadway section by widening or reconstructing 7th Street from Carefree Highway to Desert Hills Drive. Ultimate improvements include construction of a modified Urban Minor Arterial roadway section and associated drainage improvements to control off-site and on-site flows. KHA was recently selected for final design of the interim improvements.

**87th Avenue Drainage and Roadway Improvements (Olive Avenue to Hatcher Road), Peoria, AZ — Project Engineer.** KHA is designing storm drain and roadway improvements along 87th Avenue, between Olive Avenue and Hatcher Road in the City of Peoria. The storm drain improvements, which consist of approximately 1,500 linear feet of 48-inch diameter pipe, are part of the recommended improvements in the Downtown Peoria Area Drainage Master Plan, completed by KHA. Design challenges include, a tight design corridor, significant utility coordination and relocation, public participation and a very rigid construction schedule. As the project is located within the vicinity of an elementary school, the project schedule is focused on the objective of starting and completing construction during the school's summer break session.

**Final Design of 24th Street between Avenue 6E and Avenue 9E, Yuma, AZ — Project Engineer.** Responsible for traffic control. KHA provided roadway design services for the 24th Street Widening and Improvements project for the City of Yuma. This three-mile urban arterial roadway project consisted of widening 24th Street to a City standard primary arterial street section. The KHA team provided project management services, utility coordination and relocation design, right-of-way engineering, public outreach, engineering studies (traffic, drainage, and geotechnical), and preparation of final construction documents.





**Ray P. Yparraguirre, P.E., PTOE continued**

**I-10, 7th Avenue - 7th Street Striping, Maricopa County, AZ — Project Manager.** Developed lane control signal plans for I-10 Deck Park Tunnel. Improvements included revising existing software to accommodate additional lane control signal, rewiring existing conductors, and developing specifications for acceptance testing. The proposed work is located on I-10 between 15th Avenue (MP 144.40) and 10th Street (MP 146.21) within Phoenix city limits in Maricopa County. The work consists of restriping I-10 in both directions to provide five traffic lanes, furnishing and installing signing, relocating sign structures and sign lights, installing loop detectors and other related work. KHA was responsible for developing plans details, estimates, and specifications for the lane control signal equipment for both tunnel entrances.

**Surprise Design Standards for Signals, Signing, and Pavement Markings, Surprise, AZ — Project Engineer.** KHA provided standard development services to the City of Surprise. The first phase of these standards covered traffic signals, intersection signing and marking, and general construction notes. The second phase included fiber-optic details and special provisions.

**I-17, 16th Street - Buckeye Curve, Phoenix, AZ — Project Manager.** KHA was responsible for the development of the traffic control and pavement marking plans. The pavement preservation portion was along Interstate 17 between mileposts 194.50 to 198.80.

**McDowell Road Basin and Storm Drain Design, Mesa, AZ — Project Engineer.** KHA prepared full design construction plans for a major storm drain as part of the Flood Control District of Maricopa County's Spook Hill Area Drainage Master Plan. The storm drain is 7,000 feet long and ranges in diameter from 48 to 90 inches. The storm drain is located in McDowell Road in the City of Mesa from Sossaman to Hawes Road. The project was designed for the 100-year storm event and includes a flow bifurcation structure and a surcharge detention basin to attenuate the flood peak to match downstream constraints. This project included revision of the Spookhill Area Drainage Master Plan hydrology for the proposed project conditions.

**Mesa Traffic Signal Conversion, Mesa, AZ — Project Manager.** The City of Mesa is implementing Phases II and III of its ITS Master Plan. Phase II, Network Continuity Enhancements, will provide connection to existing fiber optic communications and establish a second connection back to the TMC and City Hall. The total project length is approx. 6.5 miles, with 22 signalized intersections in the corridor, 20 of which operate under the SONEX system. The City wants these intersections upgraded to operate within the ICONS system. In addition to traffic signal controller upgrades, the City also wants to connect its existing four CCTV cameras and add three new CCTV cameras, 10 Video Detection Stations, and 18 System Detectors to the ICONS system.

**Phoenix Sky Harbor International Airport Sky Train, Phoenix, AZ — Project Engineer.** KHA is currently providing planning support for the Sky Train project to reduce costs and increase ridership on the Sky Train system. Activities include: preparation of alternate alignments and Plan and Profile geometrics for the Sky Train guideway, ground transportation studies to improve roadway access to the airport from the regional highway system, airport toll-plaza impacts, curb congestion studies to reduce traffic at curbsides, Sky Train right-of-way protection and coordination with other airport projects, preparation of cost estimates, identification of potential Ground Transportation Centers (GTC) in close proximity to Sky Train stations, passenger and employee parking requirements and facilities planning, coordination with LRT to enhance ridership on the Light Rail and Sky Train systems, assessing the ground access system for alternate land use concepts, future facilities planning and development, assisting with passenger and employee surveys and data analysis, and general aviation consultation as needed for the Sky Train and other airport needs.

**SR 303L, Cactus, Waddell, and Bell Roads TI Design, Surprise, AZ — Project Engineer.** KHA designed the improvements for the Cactus, Waddell, and Bell Road intersections at SR 303L including ultimate crossroad construction; a SPUI at Bell Road; relocating existing utilities and two irrigation wells; aesthetic treatments and enhancements for the bridges, fences, and lighting; and drainage facilities for the improved crossroads. Additionally, the KHA team coordinated with numerous developers and agencies involved in the corridor and the CMAR contractor, optimizing the design for ease of construction and cost savings. In partnering with the CMAR during design development, value engineering recommendations were implemented to reduce \$500,000 in costs during construction. Through our close working relationship with MWD, KHA was able to partner with MWD staff to expedite their planning and review processes for schedule-critical well/utility relocations and crossings.





## Adam C. Perillo, RLA

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Landscape Architecture, Purdue University
- » Registered Landscape Architect in Arizona (# 47895), Nevada, North Carolina, and South Carolina

### SPECIAL QUALIFICATIONS

- » 13 years of experience in landscape architecture and construction
- » Specialties include landscape and site design, grading, stormwater drainage, and planting
- » Accomplished in public involvement and design consensus building, site design, and stormwater drainage design

### RELEVANT EXPERIENCE

#### **40th Street/Pecos Road Park-and-Ride Facility Upgrades and Expansion - Design Services, Phoenix, AZ — Project Manager.**

The City of Phoenix selected KHA to design the expansion of the existing park-and-ride facility at 40th Street and Pecos Road. The existing park-and-ride lot, completed in 2004, contains 562 parking spaces and utilizes a portion of the 16.85 acres. For the expansion project, KHA is providing a wide range of services, including layout, civil, erosion control, planting, stormwater management, public outreach, and permitting.

**Loop 101 Frontage Road, Peoria, AZ — Landscape Architect.** KHA was selected to provide preliminary and final design services for the new construction of this 1.2-mile frontage road. The project is located adjacent to southbound 101L between Northern Avenue and Olive Avenue within the City of Peoria. Landscape architecture services for this major roadway project included plant salvage, irrigation, planting, sound wall design, aesthetic treatment design, and public outreach. KHA conducted meetings with the City of Peoria and a local elementary school regarding project elements.

**SR 143 @ Sky Harbor Blvd Interchange Modifications, Phoenix, AZ — Landscape Architect.** The scope of this project involves an existing interchange and KHA is designing two new traffic interchange ramps to provide additional movements to the interchange. Overall, KHA is providing landscape, roadway, drainage, structural, and traffic engineering services. The landscape design consists of landform graphics and plantings. There is an emphasis on using sustainable and renewable materials for the landform graphics. Since this is an existing intersection, KHA will blend the design into the existing intersection by building upon the existing palette of plant material. Our design includes indigenous plant materials so it will not require irrigation past the establishment period. A big element to this design is an eastern gateway into the Phoenix Sky Harbor International Airport. This site is in the center the Hohokam prehistoric site. The landform graphics will be based on hohokam patterns from their pottery, baskets, and textiles.

**SR 177, Winkelman-Superior Hwy, AZ — Project Manager.** This project involved realigning an existing dangerous curve in a half-mile roadway through the Tonto National Forest. KHA provided erosion control, planting plans, and plant salvaging services for this project. All plans were designed to ADOT standards.

**SR 303L, Cactus, Waddell, and Bell Roads TI Design, Surprise, AZ — Landscape Architect.** KHA is designing the improvements for the Cactus, Waddell, and Bell Road intersections at 303L. The KHA landscape architecture team is providing aesthetic treatments and enhancements. For this project, we conducted a visual assessment of the project area for an understanding of the current conditions. A brainstorming and theming session produced materials and design guidelines. In collaboration with ADOT and the City of Surprise, the KHA team developed numerous themes for potential design. The final chosen design includes formliner pattern for the bridges, a motif for the fencing, and lighted sculptural elements. The design elements celebrate the signature entry point from the 303L into the City of Surprise. Additionally, the KHA team is coordinating with the CMAR contractor and the subconsultants on the design, mock-up, and final construction of the project elements. The KHA team coordinated with ADOT, organized weekly meetings, and produced meeting materials throughout this effort.

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — Landscape Architect.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersection improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.





## Adam C. Perillo, RLA continued

**Beardsley Road: 99th Avenue to Lake Pleasant Road, Peoria, AZ — Landscape Architect.** KHA was selected by the City of Peoria to design improvements to the south half of Beardsley Road between Lake Pleasant Road and 99th Avenue. Improvements include asphalt paving, pavement milling, curbs, gutters, sidewalks, storm drain improvements, signing and striping, utility relocations, landscape improvements, and pedestrian lighting. The roadway will transition into the existing fully improved roadway improvements west of Lake Pleasant Road and East of 99th Avenue. Improvements at the intersection of Beardsley Road and Lake Pleasant Road for drainage, grading, and traffic signal upgrades will also be included.

**City of Charlotte, Central Avenue Streetscape, Charlotte, NC — Project Manager.** The Central Avenue at Eastland Mall Streetscape project represents a crucial step in the City of Charlotte's Eastside Strategy Plan to encourage economic development and revitalization. KHA was selected to provide pedestrian enhancements to the Central Avenue corridor from Sharon Amity Road to Reddman Road. Amenities included bike lanes, landscaped medians, widened sidewalks, and planting strips. The project design was closely coordinated with the design of the future CATS Eastland Community Transit Center.

**CATS Midtown Bus Shelters, Charlotte, NC — Project Manager.** KHA assisted CATS with the design and implementation of five custom bus shelters, including associated artwork, furniture, and sidewalk improvements. KHA worked with outside consultants and CATS Planning staff to site the shelters in Charlotte's new Midtown area. A key feature of the custom shelters is the artwork designed to reflect the history of the surrounding area. As prime consultant, KHA managed the design phase and provided construction phase assistance. Our services included landscape architecture, civil engineering, conceptual design, construction documentation, permitting, construction administration, coordination with the public artist, and coordination with CATS Operations and Planning.

**Eastland Community Transit Center (CTC), Charlotte, NC — Project Manager.** The first in a series of transit centers planned by the Charlotte Area Transit System, the Eastland Community Transit Center (CTC) was designed to improve access to public transit, spur economic growth, and reflect the community's roots and character through public art. The firm's services included project management, landscape architecture, site civil engineering, roadway design, community outreach, and coordination with subconsultants, including a public artist. The 1.3-acre facility includes transit shelters, bus loading areas, and a building, as well as a plaza and pathways featuring a multicolored pinwheel design embedded in the concrete to reflect the multicultural community the CTC serves.

**Rosa Parks CTC, Charlotte, NC — Project Manager.** This project was completed simultaneously with the Eastland CTC. We provided the same services for both projects. This was a \$1.2M, 1.5-acre project involving six custom passenger shelters on two platforms and an 1100-square-foot driver comfort building. Subsurface infrastructure including LED signs, emergency blue phones, pedestrian lighting, and a 13-camera surveillance system were included in this facility.

**Rosa Parks Place Community Transit Center (CTC), Charlotte, NC — Project Manager.** Named in memory of the late civil rights activist, the Rosa Parks Place Community Transit Center (CTC) is the second in a series of transit centers planned by the Charlotte Area Transit System (CATS). This 0.3-acre, on-street facility includes a CATS employee comfort station and ticketing window. KHA provided project management, landscape architecture, streetscape design, and site civil engineering services. The site also incorporates public art based on ancient African symbols called Adinkra.





## Jason A. Getz

### PROFESSIONAL CREDENTIALS

- » Associate of Applied Science, CADD, ITT Technical Institute, 2002

### SPECIAL QUALIFICATIONS

- » More than seven years GIS experience providing database design, data collection, geographic analysis, information conversion, application/web development, and cartographic display.
- » Proficient in the use of ESRI GIS applications and extensions along with CAD design software.

### RELEVANT EXPERIENCE

**FICO 6,000 Acres - Sahuarita, AZ, Sahuarita, AZ — GIS Specialist.** FICO (Farmers Investment Company) is a consortium of pecan farms with large land holdings in southern Arizona. Recently, KHA was hired to provide a range of master planning services for a 6,000-acre parcel located near Sahuarita, AZ. As part of the overall plan, we are preparing a river master plan and transportation planning for future railroad crossings, river crossings and other complex traffic engineering associated with the surrounding road networks.

**Glendale Area Stormwater Master Plan Update, Glendale, AZ — GIS Specialist.** The Glendale Area Stormwater Master Plan Update includes a review, study, and update of the City's 1986 Stormwater Master Plan. Numerous changes and improvements to the stormwater drainage system have been completed since 1986. Study discharges were developed from updates to the Glendale/Peoria Area Drainage Master Plan and Update and the Maryvale Area Drainage Master Study completed for the cities of Glendale, Peoria, Phoenix, and Avondale and the Flood Control District of Maricopa County. This study will entail updating the hydrology and discharge rates from these studies by updating the existing HEC-1 rainfall runoff models. The models will be updated based upon land use changes, new or revised soils or topography data, new precipitation data, and drainage facilities that have been constructed since the previous studies were completed. The total contributing area for the watershed is 180 square miles. Not all of the contributing area affect the City of Glendale, but the entire study area is being updated for the Flood Control District of Maricopa County who is a funding partner.

**Hidden Waters Parkway Corridor Feasibility Study, Maricopa County, AZ — GIS Specialist.** This study involves a 38-mile corridor between Gila Bend and I-10 in Maricopa County. KHA identified opportunities and constraints as part of a "fatal flaw" analysis of conceptual alignment alternatives for Hidden Waters Parkway. KHA then developed and evaluated candidate alignments. Drawings at a scale of 1 inch=200 feet will be prepared to identify a 200-foot-wide corridor to be protected for the future "Arizona Parkway" facility. Stakeholder and public input and coordination played a key role in shaping the development and evaluation of alternatives.

**New River Road S-Curve West of Fig Springs Road, New River, AZ — GIS Specialist.** KHA prepared a Scoping Report and 40% plans for the widening and realignment of approximately one mile of New River Road in northern Maricopa County. KHA developed more than twelve unique alignment alternatives to address the critical safety concerns at this location. This project included extensive public and stakeholder outreach efforts. KHA completed the Scoping Report and 40% plans, eight companion Technical Memoranda, and accommodated additional public and stakeholder involvement efforts within nine months.

**Tonto Creek Bridge - DCR/ES/Design, Tonto Creek, AZ — GIS Specialist.** KHA was selected by Gila County for this project, which involves the planning and design of a new 1,800-foot-long bridge over Tonto Creek in Gila County, Arizona. The first phase of the project includes a DCR, a Bridge Selection Report, and an Environmental Assessment and Public Outreach Plan with a detailed Public Involvement Plan following NEPA guidelines. The project is located within the Tonto National Forest and includes numerous sensitive cultural resource sites and historic properties requiring coordination with the Arizona SHPO. The project also includes a detailed agency, stakeholder, and public involvement process. To arrive at a selected alternative and satisfy the requirements of NEPA, the process we have implemented includes Scoping, Alternative Selection, and Final Summary meetings with the agencies, stakeholders, and the public. In addition to these meetings, KHA prepared a project website that is updated regularly to keep the public informed of the project's status. The project includes detailed hydraulic design and geomorphology of Tonto Creek for studying the river hydraulics and bridge mechanics associated with the new bridge. With considerable Threatened and Endangered species, cultural resource, and visual/aesthetic issues involved, close coordination with the Corps, FHWA, ADOT, US Fish and Wildlife Service (USFWS), US Forest Service, SHPO, AZ Game and Fish, local businesses, and residents is paramount to the success of the project.





**Jason A. Getz continued**

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — GIS Specialist.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersection improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.





## Michael L. Grandy, P.E.

### PROFESSIONAL CREDENTIALS

- » Master of Science, Civil Engineering, Brigham Young University
- » Bachelor of Science, Civil Engineering, Brigham Young University
- » Registered Professional Engineer in Arizona (# 43294) and California
- » Institute of Transportation Engineers (ITE)
- » American Planning Association (APA)

### SPECIAL QUALIFICATIONS

- » Familiar with the City of Avondale, having served on a number of local projects
- » Transportation experience includes corridor studies, pedestrian/safety studies, roundabout studies, access management plans, accident analysis, and various other transportation-related projects
- » Offers design experience in traffic signals, traffic calming devices, and ITS communications and is proficient in the use of Synchro, SimTraffic, CORSIM, AutoCAD, ArcGIS, and aaSIDRA software packages.

### RELEVANT EXPERIENCE

**Avondale Cycle 2 Safe Routes to School Installations, Avondale, AZ — Project Manager.** KHA was retained to provide design services on three Safe Routes to School (SRTS) traffic calming device installations in Avondale. Design services include preparing construction documents and environmental documents that meet the federal requirements associated with SRTS funding. The speed tables/raised crosswalks, curb bulb-outs, and median pedestrian refuge island to be installed are intended to slow traffic down and better promote the safety of school children walking across the streets adjacent to three elementary schools. This project involves coordinating with staff from the City of Avondale, ADOT, and FHWA, as well as school officials.

**Avondale City Center Specific Area Plan, Avondale, AZ — Project Engineer.** KHA worked with Dyett & Bhatia on the Avondale City Center project, located along Avondale Boulevard between I-10 and the City Hall campus. This project resulted in a detailed land use plan and design standards that promote the City's vision for this area. KHA's role in the project was to analyze the infrastructure and transportation systems that serve the study area. Each land use alternative presented was evaluated to determine the capacity and needs of the roadway, water, and sewer networks. KHA provided recommendations for modifying existing networks to better balance the needs and demands of this evolving core area. This project included stakeholder interviews, bus tours, and charrettes and workshops with City staff.

**99th Avenue from I-10 to Van Buren Street Widening, Avondale, AZ — Project Engineer.** KHA was recently selected for the design of this one-mile arterial street improvement project involving roadway widening and new curb, gutter, sidewalks, and driveways. KHA will also provide drainage design, traffic design, signals and lighting, utilities, right-of-way, and environmental clearance services. Coordination will be needed to relocate an existing SRP well site and an irrigation structure. Extensive coordination will also be needed with the cities of Avondale, Phoenix, and Tolleson; Flood Control District of Maricopa County; and private businesses. A Joint Project Agreement (JPA) will need to be prepared with ADOT and cities of Avondale and Tolleson regarding right-of-way, access control, and maintenance of proposed improvements.

**1st Street Alignment Feasibility Study, Tempe, AZ — Project Manager.** The City of Tempe retained KHA to identify and evaluate potential 1st Street realignment alternatives to improve access to, from, and through the area adjacent to the offset segment of 1st Street. This area has numerous right-of-way, utility, land use, and environmental constraints. The project included an assessment of existing and future conditions, VISSIM traffic and railroad operations model development and analysis, alternatives development and evaluation, presentations to the Tempe Transportation Commission and City Council Transportation Committee, and final recommendations. The preferred alternative consists of two roundabouts, one on either side of the railroad tracks, with the eastern roundabout being a double-lane roundabout. KHA was able to demonstrate the benefits of the roundabouts, including the opportunity for them to act as gateway features into Tempe's downtown area, and obtain general consensus on the roundabout concepts.

**Casa Grande General Plan Update, Casa Grande, AZ — Project Engineer.** KHA prepared the transportation, drainage, natural resources, environmental, water, and wastewater elements for the Casa Grande General Plan Update. This planning effort extended the General Plan horizon year from 2010 to the year of 2020. EDAW, Inc. was the lead consultant with assistance from KHA, Elliot Pollack @ Company (economic analyses), and A KR OS (historic preservation).





**Michael L. Grandy, P.E. continued**

**Downtown Phoenix Urban Form Project, Phoenix, AZ — Project Manager.** KHA assisted Dyett & Bhatia on the high-profile Downtown Phoenix Urban Form project. This project resulted in revised zoning ordinances and design standards that promote the creation of a dynamic downtown where people want to live, work, and play. KHA's role in the project was to develop a circulation master plan that defines how to modify the existing transportation network to better balance the needs of pedestrians, bicyclists, transit, and cars as downtown grows and evolves into a more urban environment. KHA also prepared on-street and off-street parking strategies for the downtown area. This project included several rounds of stakeholder interviews, charrettes with City staff, and community workshops to obtain input from stakeholders, staff, and the public.

**Elliot Road Corridor Improvement Study, Maricopa County, AZ — Deputy Project Manager.** The purpose of this study was to develop a consensus-driven vision for improving Elliot Road between Power Road and the CAP canal, identify existing corridor deficiencies and future requirements, establish consistent roadway design and performance criteria, and generate preliminary design plans to meet the established future needs. The recommended corridor improvements included facility type, number of lanes, roadway cross-section and right-of-way requirements, traffic control, access, drainage, and roadway alignment to safely and efficiently accommodate future travel demands. This study provided the County and other responsible jurisdictions with a future "footprint" of Elliot Road and the implementation timeframe and phasing of the identified roadway improvements. This study also developed access management strategies that will include policies and guidelines to ensure the preservation of this regionally significant corridor.

**Final Design of 24th Street between Avenue 6E and Avenue 9E, Yuma, AZ — Project Engineer.** Responsible for traffic. KHA provided roadway design services for the 24th Street Widening and Improvements project for the City of Yuma. This three-mile urban arterial roadway project consisted of widening 24th Street to a City standard primary arterial street section. The KHA team provided project management services, utility coordination and relocation design, right-of-way engineering, public outreach, engineering studies (traffic, drainage, and geotechnical), and preparation of final construction documents.

**FMPO Regional Transportation Plan Update: Safety Component, Flagstaff, AZ — Deputy Project Manager.** KHA is providing planning assistance to the Flagstaff Metropolitan Planning Organization (FMPO) to develop the safety component of its Regional Transportation Plan (RTP) Update. The study will develop summary crash statistics for the FMPO area which will be compared to similar summary statistics for Arizona and the United States. It will be used as a baseline against which future FMPO crash statistics can be compared. The study will also identify high crash locations and provide guidance on the types of countermeasures that could potentially reduce the likelihood of crashes at the identified locations.

**Hidden Waters Parkway Corridor Feasibility Study, Maricopa County, AZ — Deputy Project Manager.** This study involves a 38-mile corridor between Gila Bend and I-10 in Maricopa County. KHA identified opportunities and constraints as part of a "fatal flaw" analysis of conceptual alignment alternatives for Hidden Waters Parkway. KHA then developed and evaluated candidate alignments. Drawings at a scale of 1 inch=200 feet will be prepared to identify a 200-foot-wide corridor to be protected for the future "Arizona Parkway" facility. Stakeholder and public input and coordination played a key role in shaping the development and evaluation of alternatives.

**Kingman Area Transportation Study Update (PARA), Kingman, AZ — Project Engineer.** The overall objective of the 2010 Kingman Area Transportation Study (KATS) Update is to reassess the data and recommendations in the 2005 KATS and expand the study area to account for recent and anticipated growth. The study will result in a plan of improvements for five- (short-range), 10- (mid-range), and 30-year (long-range) transportation planning horizons that meet the needs of the area, have public and elected official support, match project cost with reasonable funding sources, and provide a sound prioritization to implement the projects. The recommendations will be multimodal and will include improvements related to roadways, non-motorized transportation modes (bicycles and pedestrians), and transit.





## Sarah Eichinger

### PROFESSIONAL CREDENTIALS

- » Master of Business Administration, International Management, American Graduate School of International Management
- » Bachelor of Arts, Anthropology, Arizona State University, Tempe
- » FHWA 2007 NHPA Section 106 and DOT 4(f) Training Course

### SPECIAL QUALIFICATIONS

- » Possesses a wide range of experience working in both the private and public sectors.
- » Former Deputy State Historic Preservation Officer for the State of Arizona
- » Experienced in preservation planning, state and federal regulatory compliance, and is a team player when leading, coordinating and/or contributing to a research or development projects.
- » Experienced in ADOT/FHWA, FAA, FS, BLM, NPS, and other state and local sponsored projects.

### RELEVANT EXPERIENCE

#### **San Luis II Access Road-Roundabout Avenue E and County 25th Street, Yuma County, AZ — Cultural Resources Specialist.**

KHA prepared final design documents and assisted during the construction of this four-legged roundabout intersection near the international border east of San Luis. This roundabout will connect recently constructed federal and state port-of-entry facilities to the recently opened Yuma Area Service Highway (ASH) via the Avenue E roadway. KHA performed a traffic study to determine design volumes and geometry for the roundabout and prepared PS&E for construction.

**67th Avenue Bridge over Salt River, Between Southern Avenue and Broadway Road, Phoenix, AZ — Cultural Resources Specialist.** KHA, in coordination with Maricopa County DOT and the City of Phoenix, prepared a Scoping Report and Categorical Exclusion for the widening and realignment of 67th Avenue across the Salt River in southwest metropolitan Phoenix, AZ. The project included preparing conceptual roadway and bridge plans, as well as a Bridge Selection Report for a new 1,800-foot-long, 13-span bridge over the Salt River. Design considerations for this project included correcting the existing roadway geometry, construction over the river bed, evaluating scour requirements, and accommodating bridge movements due to length of the structure. KHA completed the Scoping Report and Categorical Exclusion, along with nine companion Technical Memoranda, in less than six months.

**Broadstone Ranch, Maricopa County, AZ — Cultural Resources Specialist.** KHA provided site civil engineering services for 880 acres located within a 3,000-acre proposed master-planned community near the City of Surprise. KHA provided due diligence, site analysis and reports, conceptual infrastructure planning, drainage analysis and planning, environmental analysis and 404 permitting, Alternative Analysis, NEPA documentation, Riparian Mitigation Plan, transportation planning and traffic impact studies, and program management.

**Casa Grande General Plan Update, Casa Grande, AZ — Cultural Resources Specialist.** KHA prepared the transportation, drainage, natural resources, environmental, water, and wastewater elements for the Casa Grande General Plan Update. This planning effort extended the General Plan horizon year from 2010 to the year of 2020. EDAW, Inc. was the lead consultant with assistance from KHA, Elliot Pollack @ Company (economic analyses), and A KR OS (historic preservation).

**Elliot Road Corridor Improvement Study, Maricopa County, AZ — Environmental Planner.** The purpose of this study was to develop a consensus-driven vision for improving Elliot Road between Power Road and the CAP canal, identify existing corridor deficiencies and future requirements, establish consistent roadway design and performance criteria, and generate preliminary design plans to meet the established future needs. The recommended corridor improvements included facility type, number of lanes, roadway cross-section and right-of-way requirements, traffic control, access, drainage, and roadway alignment to safely and efficiently accommodate future travel demands. This study provided the County and other responsible jurisdictions with a future "footprint" of Elliot Road and the implementation timeframe and phasing of the identified roadway improvements. This project included environmental studies and will develop access management strategies that outline policies and guidelines to ensure the preservation of this regionally significant corridor.





## Sarah Eichinger continued

**Hidden Waters Parkway Corridor Feasibility Study, Maricopa County, AZ — Environmental Planner.** This study involves a 38-mile corridor between Gila Bend and I-10 in Maricopa County. KHA identified opportunities and constraints as part of a “fatal flaw” analysis of conceptual alignment alternatives for Hidden Waters Parkway. KHA then developed and evaluated candidate alignments. Drawings at a scale of 1 inch=200 feet will be prepared to identify a 200-foot-wide corridor to be protected for the future “Arizona Parkway” facility. Stakeholder and public input and coordination played a key role in shaping the development and evaluation of alternatives.

**Loop 101 Frontage Road, Peoria, AZ — Cultural Resources Specialist.** KHA provided preliminary and final design services for the new construction of 1.2-miles of frontage road adjacent to southbound Loop 101 between Northern and Olive Avenues within the City of Peoria. Our team coordinated with state and federal agencies as part of the environmental clearance process for this project. KHA prepared a Biological Review, Preliminary Initial Site Assessment Report, and Environmental Determination to ADOT EPG standards.

**I-40/US 93 West Kingman TI Feasibility Study, Kingman, AZ — Environmental Planner.** KHA prepared a feasibility study to evaluate alternative corridors to provide a direct connection between I-40 and US 93 in the vicinity of the West Kingman TI. This study included evaluation of eight alternative corridors, preparation of a traffic report, and preparation of an environmental overview with a particular emphasis on archaeological resources, hazardous materials, and an evaluation of Section 4(f) and Section 6(f) resources. The feasibility study recommended two corridors for further study and refinement in a future design concept report and environmental documentation.

**Ironwood Drive/Gantzel Road Improvements, US 60 to Hunt Highway, Pinal County, AZ — Cultural Resources Specialist.** KHA provided preliminary and final design services for 16 miles of Ironwood Drive from US 60 to Ocotillo Road and from Combs Road to Hunt Highway, widening its current two-lane section into a six-lane roadway with sections of raised median, curb and gutter, and sidewalk. The project included a new 3-span AASHTO precast girder bridge to span the Central Arizona Project (CAP). KHA prepared a Design Concept Report (DCR) and Access Management Plan, as well as final design services for the interim four-lane roadway and preliminary design for the ultimate six-lane roadway. Drainage improvements included pavement drainage and culvert design for offsite flows.

**Grant Road Improvement Plan, Tucson, AZ — Cultural Resources Specialist.** KHA is assisting the City of Tucson Department of Transportation to develop the Grant Road Improvement Plan. Major components of the planning effort include a corridor alignment study, traffic study, land use and economic analyses, roadway/streetscape plan, and an urban design and redevelopment plan. The project extends from Oracle Road to Swan Road.

**New River Road S-Curve West of Fig Springs Road, New River, AZ — Environmental Planner.** KHA prepared a Scoping Report and 40% plans for the widening and realignment of approximately one mile of New River Road in northern Maricopa County. KHA developed more than twelve unique alignment alternatives to address the critical safety concerns at this location. This project included extensive public and stakeholder outreach efforts. KHA completed the Scoping Report and 40% plans, eight companion Technical Memoranda, and accommodated additional public and stakeholder involvement efforts within nine months.

**SR 143 @ Sky Harbor Blvd Interchange Modifications, Phoenix, AZ — Environmental Planner.** KHA is designing a six-span flyover over SR 143 that conveys WB Sky Harbor Blvd. over the SR 143 (SB) and a single-span structure over the North-West ramp. This project involves construction of the flyover over existing traffic and includes construction sequence and road closure considerations. The bridge will have a precast AASHTO girder superstructure with hammerhead piers and full-height abutments.

**SR 303L, Cactus, Waddell, and Bell Roads TI Design, Surprise, AZ — Environmental Planner.** KHA environmental scientists are responsible for the overall NEPA document (Environmental Determination) as well as several technical reports including a Phase I Site Assessment (hazardous materials), Biological Review, and a Cultural Resource Report.





## Gary Karaboulad, P.E.

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering, Damascus University, Syria
- » Master of Science, Civil Engineering, South Dakota State University
- » Registered Professional Engineer in Arizona (#39501)
- » Certified Inspector for Safety Inspection of In-service Bridges

### SPECIAL QUALIFICATIONS

- » More than 18 years of professional experience in the design and construction of various types of special highway structures, bridges, earth retaining structures, sound walls, and buildings.
- » Involved in the design of more than 23 multi-span, AASHTO girder, cast-in-place and post-tensioned box girder structures.
- » As a former ADOT employee, Gary's experience includes eight years in the Bridge Group and 1-1/2 years in the Phoenix Construction District. During this time Gary designed and developed ADOT's Sign Structures and VMS Standards, New Pedestrian Fence Standard, and Updated the Box Culvert Standard Published in 1992.

### RELEVANT EXPERIENCE

**67th Avenue Bridge over Salt River, Between Southern Avenue and Broadway Road, Phoenix, AZ — Project Engineer.** KHA, in coordination with Maricopa County DOT and the City of Phoenix, prepared a Scoping Report and Categorical Exclusion for the widening and realignment of 67th Avenue across the Salt River in southwest metropolitan Phoenix, AZ. The project included preparing conceptual roadway and bridge plans, as well as a Bridge Selection Report for a new 1,800-foot-long, 13-span bridge over the Salt River. Design considerations for this project included correcting the existing roadway geometry, construction over the river bed, evaluating scour requirements, and accommodating bridge movements due to length of the structure. KHA completed the Scoping Report and Categorical Exclusion, along with nine companion Technical Memoranda, in less than six months.

**I-40, Walnut Canyon, Flagstaff, AZ — Project Engineer.** KHA prepared stage IV (95%) PS&E for this project located on I-40 approximately four miles east of Flagstaff (MP 205 - MP 209). Three separate segments on westbound I-40 will be reconstructed to flatten vertical curves and grades in order to reduce deceleration of trucks and improve safety. KHA's services for this project included roadway design, drainage design, traffic design, project management, and utility and right-of-way coordination. The project also involved re-profiling vertical curves on WB I-40 mainline, earthwork, false cuts, guard rail, culvert extensions, Cosnino Road TI ramps' reconstruction, median crossover detours, emergency pull outs, traffic control, signing, striping, and lighting design. In addition, KHA coordinated with ADOT technical disciplines, other consultants, Coconino National Forest, and National Park Services.

**Ironwood Drive/Gantzel Road Improvements, US 60 to Hunt Highway, Pinal County, AZ — Project Engineer.** KHA provided preliminary and final design services for 16 miles of Ironwood Drive from US 60 to Ocotillo Road and from Combs Road to Hunt Highway, widening its current two-lane section into a six-lane roadway with sections of raised median, curb and gutter, and sidewalk. The project included a new 3-span AASHTO precast girder bridge to span the Central Arizona Project (CAP). KHA prepared a Design Concept Report (DCR) and Access Management Plan, as well as final design services for the interim four-lane roadway and preliminary design for the ultimate six-lane roadway. Drainage improvements included pavement drainage and culvert design for offsite flows.

**Phoenix Sky Harbor International Airport Sky Train, Phoenix, AZ — Project Engineer.** KHA is working on the structural elements of this multi-phase project, including a cast-in-place at-grade guideway, a tunnel-type undercrossing, and several cast-in-place retaining walls.

**SR 143 @ Sky Harbor Blvd Interchange Modifications, Phoenix, AZ — Project Engineer.** KHA is designing a six-span flyover over SR 143 that conveys WB Sky Harbor Blvd. over the SR 143 (SB) and a single-span structure over the North-West ramp. This project involves construction of the flyover over existing traffic and includes construction sequence and road closure considerations. The bridge will have a precast AASHTO girder superstructure with hammerhead piers and full-height abutments.





**Gary Karaboulad, P.E. continued**

**SR 303L, Cactus, Waddell, and Bell Roads TI Design, Surprise, AZ — Project Engineer.** KHA designed the improvements for the Cactus, Waddell, and Bell Road intersections at SR 303L including ultimate crossroad construction; a SPUI at Bell Road; relocating existing utilities and two irrigation wells; aesthetic treatments and enhancements for the bridges, fences, and lighting; and drainage facilities for the improved crossroads. Additionally, the KHA team coordinated with numerous developers and agencies involved in the corridor and the CMAR contractor, optimizing the design for ease of construction and cost savings. In partnering with the CMAR during design development, value engineering recommendations were implemented to reduce \$500,000 in costs during construction. Through our close working relationship with MWD, KHA was able to partner with MWD staff to expedite their planning and review processes for schedule-critical well/utility relocations and crossings.

**I-10/Florence Boulevard TI and Highway 287 Canal Bridge, Casa Grande, AZ — Project Engineer.** The project consists of widening two bridge structures, the Florence Boulevard TI and Highway 287 Canal Bridge, as well as  $\frac{3}{4}$ -mile of roadway widening. The Florence Boulevard TI is a four-span continuous steel superstructure and Highway 287 Canal Bridge is a two-span continuous steel superstructure. Final design for both structures was completed in three months to meet the aggressive schedule. The project design was coordinated with and reviewed by ADOT.

**US 60 (Grand Avenue), SR 101L to McDowell Road Widening, Phoenix, Glendale, and Peoria, AZ — Project Engineer.** This 13-mile-long project traverses through the cities of Phoenix, Glendale, and Peoria. The existing roadway requires upgrading to enhance aesthetics and functionality for pedestrians. Design features include simplifying access to improve traffic flow, upgraded ADA requirements, intersection improvements and signal modifications, landscaping to enhance the project corridor, substantial utility coordination and relocation, new street lighting, on-site drainage improvements, bus bay design, and right-of-way determination and coordination. KHA is coordinating with Arizona Department of Transportation (ADOT) and the City of Phoenix, organizing weekly meetings, and producing meeting materials for this effort.

**US 95 DCR/EA (MP 42 to Cibola Lake Road), Yuma County, AZ — Project Engineer.** KHA completed a DCR to improve 40 miles of US 95 from the southern boundary of the Yuma Proving Ground (MP 42) to Cibola Lake Road (MP 82). The project involved the development of four roadway alternatives for improving the existing two-lane highway to a four-lane divided highway from MP 42 to MP 70 and pavement preservation from MP 70 to MP 82. The project also involved widening the existing roadway, reconstructing the existing roadway profile to eliminate at-grade drainage crossings and improve vertical curve stopping sight distances, passing lanes, intersection improvements, drainage improvements, and providing wildlife crossings and wildlife-friendly fencing. Services included a traffic and operational analysis of the corridor, a bridge selection report, a geotechnical assessment report, a drainage report, an AASHTO report, an alternative analysis for determining roadway improvements, roadway design for 28 miles of improvements, three public information meetings, and environmental documents. The project involved close coordination with participatory agencies including the U.S. Army and BLM in addition to local, county, and state and Tribal resource agencies.





## Tricia Boyer, P.E.

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering, Michigan State University
- » Registered Professional Engineer in Arizona (#42514)
- » Member, ITE
- » Member, ITS Arizona

### SPECIAL QUALIFICATIONS

- » Has over eight years of traffic engineering and ITS planning and design experience.
- » Experience ranges from signal system design to conducting studies and preparing models in order to develop optimum corridor traffic signal timing plans.
- » Extensive experience coordinating with public agencies and utilities in support of project needs.
- » Instructor for SYNCHRO signal timing software and Sim Traffic simulation training courses for the Pima County Department of Transportation, City of Chino, City of Surprise, and Town of Marana.

### RELEVANT EXPERIENCE

**Buckeye Road (MC 85) /Avondale Boulevard Signal Timing Project (MAG ITS/TE On-Call), Maricopa County, AZ — Project Engineer.** Under our MAG On-Call ITS and Traffic Engineering contract, KHA was retained to provide traffic signal coordination timing plans for 10 signals along Buckeye Road and Avondale Boulevard. The project intersections included signals under the jurisdictions of ADOT, MCDOT, and the City of Avondale. Tasks associated with this project included field review of existing conditions; development of a Synchro 5.0 model; and coordination timing plan development for the AM, Midday, PM, and Saturday peaks.

**El Mirage Traffic Signal and Intersection Improvements at Dysart & Thunderbird; Dysart & Peoria; Dysart & Cactus; El Mirage & Northern, El Mirage, AZ — Project Engineer.** KHA was selected to prepare a signal warrant study and final design documents for three intersections in the City of El Mirage. New signals will be constructed at the Dysart / Peoria and at Dysart / Cactus intersections and a full reconstruction of the existing intersection will occur at the Dysart / Thunderbird / Waddell intersection.

**Gilbert - Various Traffic Signals Design Services, Gilbert, AZ — Project Engineer.** KHA has provided traffic signal design services to the Town of Gilbert for the past three years. During this time, we have completed the design of 26 traffic signals and are currently under design for signals at another seven intersections. Many of these project locations have required coordination with developers of adjacent parcels to identify construction phasing and incorporate future improvement considerations. In addition, KHA has provided final record drawings of the Contractor redlines. Some of the signal locations include: Higley/Ray; Higley/Germann; Higley/Queen Creek; Ranch House/Queen Creek; Power/Germann; Power/Haven Crest; and multiple Fire Station signals.

**Glendale Design for North Area ITS, Glendale, AZ — Project Engineer.** KHA provided design services for the installation of new fiber optic cable which extended the City's existing fiber backbone and connect to 23 of the City's signalized intersections. Tasks included DCR preparation; environmental clearance which included agency and public scoping, biological and cultural resources, hazardous materials, and socioeconomics; utility coordination; right-of-way coordination; and construction document preparation which include plans, estimate and special provisions.

**Olive Avenue RCN Connection, Glendale, AZ — Project Manager.** KHA is currently providing design services to the City to advance the 95% design plans originally included in Phase 1B of the ADOT RCN designed by KHA. In addition to the conduit, pull boxes, and fiber originally proposed by the RCN, this new portion of the backbone will provide fiber optic communication to City of Glendale signalized intersections; install new CCTV cameras at three City intersections.

**Phoenix International Raceway ITS, Phoenix, AZ — Project Engineer.** As part of the Maricopa County DOT ITS On-Call contract, KHA developed a design for using portable blank out signs (BOS) and variable message signs (VMS) to improve traffic flow and support better traveler information during PIR event ingress and egress. The BOS/VMS supplements the existing event Traffic Management Plan on event days by providing lane designations and directional messages to race patrons.





## Tricia Boyer, P.E. continued

**Surprise Design Standards for Signals, Signing, and Pavement Markings, Surprise, AZ — Project Engineer.** KHA provided standard development services to the City of Surprise. The first phase of these standards covered traffic signals, intersection signing and marking, and general construction notes. The second phase included fiber-optic details and special provisions.

**Surprise Engineering Design Standards, Surprise, AZ — Project Manager.** KHA has recently completed work with the City of Surprise to update the City's Engineering Design Standards. We worked with various departments including public works, transportation, community development, and others to incorporate revisions and updates, as well as to make sure the standards were consistent with other City policy documents, including the Surprise Municipal Code. In addition, we worked hand-in-hand with the City to modify and develop new City standard details including typical street sections, sight distance requirements, ITS field installation details, and water/reclaimed water details.

**Surprise Signal System Software (KITS), Surprise, AZ — Project Manager.** In July 2008, the City of Surprise selected KHA to provide KITS as their Traffic Signal System Software. The system includes integration of ASC/2 and ASC/3 controllers, and CCTV. KITS will be installed with their current communication architecture. The first phase of the system will be deployed in December 2008. KHA has a long history of support to the City of Surprise including intersection design, signal timing, and TMC design. The ITS project manager that has worked closely with the City over the last several years has also worked side by side with the software developers at KHA and will be leading this KITS deployment. This allows for consistency in management and one point of contact for the City.

**Surprise TMC Design Services, Surprise, AZ — Project Manager.** KHA was selected by the City of Surprise to provide advisory consultation and engineering design services for the development of the City's TMC, located within a newly constructed Public Safety Building. Planning tasks included development of a Concept of Operations that addresses the needs assessment and functional requirements as well as staffing, operations, security, and access. A technical memorandum addressed space planning issues such as distinct functional areas, adjacency analysis, and space allocation. Design tasks included reviewing the design plans for the Public Safety Building and providing input on the design of cabling ducts, electrical service points, and access to the TMC as well as providing anticipated electrical load needs for the TMC. A communications Equipment Layout Design task included design of the video wall, operator console components, cabling, equipment room layout, and rack layouts.

**Surprise Traffic Signal Design @ 5 Intersections, Surprise, AZ — Project Manager.** KHA designed improvements to the following intersections for the City of Surprise: Greenway Road and West Point Parkway; Reems Road and Paradise Lane; Waddell Road and Bullard Avenue; Cactus Road and Bullard Avenue; and Cactus Road at Litchfield Road. Each intersection design included traffic signal design, signing and striping design, extensive utility coordination, coordination with adjacent development projects, and right-of-way coordination. In addition, each intersection required a varying degree of roadway improvements and drainage design, from the construction of a single leg to an entire intersection widening.

**Yuma Signal System Integration (KITS), Yuma, AZ — Project Engineer.** The City of Yuma selected KITS as its new traffic management system. Included in establishing this citywide central traffic signal system is the conversion of Model 170/Wapiti intersection control to BI Tran systems firmware. Also included is the input of timing parameters into new controllers and developing coordination timing.





## Michael L. Delmarter, P.E.

### PROFESSIONAL CREDENTIALS

- » Bachelor of Science, Civil Engineering, UCLA
- » Professional Engineer in Arizona (# 30886), California, and Hawaii

### SPECIAL QUALIFICATIONS

- » More than 21 years of project management and engineering design experience
- » Principal areas of practice includes all aspects of site planning and design, infrastructure design, surveying and mapping
- » Provides engineering leadership and design for a wide range of development projects, including mixed-use development/redevelopment, residential subdivisions, commercial developments, community master plans, healthcare campuses, and resort developments

### RELEVANT EXPERIENCE

**Stetson Drive Mixed-Use Redevelopment, Scottsdale, AZ — Project Manager.** The Southbridge project located in the Heart of Downtown Scottsdale's shopping district consisted of a public/private partnership between the City of Scottsdale and Spring Creek Development. The development which included construction of the City of Scottsdale's underground parking garage and the Southbridge Mixed Use project located above it, necessitated the relocation and upgrade of City Water and Sewer services between Scottsdale Road and Goldwater Boulevard.

**Mayo Hospital, Phoenix and Scottsdale, AZ — Project Manager.** KHA is currently providing a full menu of engineering and environmental services for expansion of a 220-acre hospital campus for a prestigious healthcare facility located in the Desert Ridge area of northeast Phoenix including full civil plans for their latest 164,500 s.f. building expansion. KHA's engineers' recently discovered a flooding potential that impacts the campus and surrounding lands, and has developed options and cost estimates for solving the problem. KHA serves this client as their sole source for engineering at both their Phoenix and Scottsdale locations.

**Starpointe - Artesia, Scottsdale, AZ — Principal-in-Charge.** Starpointe Radisson hired KHA to provide site civil engineering services for this hotel redevelopment project in downtown Scottsdale. The 45-acre site will include 532 units in multi-family, multi-story buildings, two clubhouses, 34,000 s.f. of retail space and demolition of an existing Radisson Hotel. Our scope of services include preparing a drainage report, preliminary traffic studies, preliminary sewer and water design, and coordination with the client, the City of Scottsdale, and the architect, Todd & Associates, Inc.

**The Golf Club Scottsdale, Scottsdale, AZ — Project Manager.** KHA has provided a wide variety of services to this prestigious golf course located at 122nd Street and Dynamite Boulevard in the City of Scottsdale including grading, drainage, irrigation design, Section 404 permitting, and project management. Five miles of irrigation water delivery line was designed and installed in Dynamite Road to serve the golf course.

**MirageMountain, Phases I & II (Condos), Scottsdale, AZ — Project Manager.** KHA was hired by Mirage Homes to provide preliminary and final engineering services for Phases I and II of Mirage Mountain, a luxury, 2-story condominium complex in Scottsdale, AZ. The development comprises a 26-acre parcel with 25 duplexes and 10 4-plexes and a 13-acre parcel with 5 duplexes and 17 4-plexes. All of the units within Phase I and II are between 2,000 s.f. and 3,000 s.f. In addition to providing full site civil engineering services for the sites, KHA also designed half-street and full street improvements for 132nd Street to 136th Street, north of Via Linda. Our services include a master drainage report.

**Estancia, Scottsdale, AZ — Project Engineer.** KHA has provided a wide range of planning and design services for this exclusive hillside residential development in North Scottsdale. Our services have included preparation of construction documents for Phases 2 through 6 and Parcel G. The improvement plan sets consisted of grading and drainage plans; street improvement, water distribution and wastewater collection plans. In addition, KHA worked closely with the land planner on site planning for the golf course clubhouse. Since this project was located along the north base of Pinnacle Peak (a natural landmark) careful consideration was given to the existing rock and desert habitat, including creating natural rock erosion control. The Fazio-designed Estancia Golf Course was recently ranked by Golf magazine as one of the top private golf courses in Arizona and is certainly one of the most exclusive residential communities in North Scottsdale.





**Michael L. Delmarter, P.E. continued**

**Goldie Brown Ranch (Master Plans), Scottsdale, AZ — Project Manager.** 720 acres of rugged hillside located in north Scottsdale. The master plan has 168 custom lots, an 18-hole championship golf course and a large clubhouse. KHA prepared master plans for all of the on-site and off-site project components including a hydrology study and grading and drainage master plan. The master plans were completed to first submittal in 30 days to meet the client's timing objectives. KHA has begun work on the Section 404 compliance issues including coordination with SHPPO and the Corps of Engineers due to existing historic sites. Extensive work was required to determine jurisdictional boundaries of the site washes including two (2) major washes traversing the project that carry large flows from off-site areas. KHA developed potable water and drainage master plans for this 720-acre private golf course development. The water distribution system included water distribution pipelines, booster pumps, above ground water storage tanks, and reclaimed effluent water line for golf course irrigation. Analysis included using EPANET to model the performance of the onsite system and its impacts to the City master plan. Additional coordination with City drainage planners helped to develop a master drainage plan which minimized impacts to floodplains and downstream development.

**Sierra Hills (Subdivision), Scottsdale, AZ — Project Manager.** Sierra Homes hired KHA to provide full site civil engineering services for Sierra Hills, a 40-acre, 32-lot custom residential community. KHA provided final street improvements, water, sewer, final plat and drainage plans for this single-family subdivision, with lots averaging one acre. The project was an environmentally sensitive development in the City of Scottsdale and was part of a larger master-planned community.

**Festival Ranch Master Planned Community, Buckeye, AZ — Project Manager.** A 10,105-acre master planned community located in the Town of Buckeye. KHA has been providing full civil and environmental services to the project for over five years. The services include master planning of the drainage, water and wastewater systems, property ownership analysis, modeling of the transportation circulation system, and environmental/Section 404 service. These services were an integral part of the successful accomplishment of an Area Plan in 1997 and CMP in 2000 for the entire project. We prepared cost estimates and timeline schedules for the first phase of actual construction, and coordinated bridge/roadway improvements over the CAP with the various agencies. KHA's environmental scientists performed biological assessments, a Section 404 jurisdictional delineation of the entire parcel, and prepared Section 404 individual permit application.

**Granite Dells, Prescott, AZ — Project Engineer.** Granite Dells is a 21,000-acre site located in three jurisdictions – Prescott, Prescott Valley, and Chino Valley. KHA is working closely with Cavan Real Estate and LVA Design Studio on the initial land planning, including master-planning, drainage, water and wastewater, circulation and access, and environmental permitting strategies. This large and complex property is being planned to include single- and multi-family residential, commercial/retail, and other community amenities critical to a master-planned development of this scale.

**Douglas Ranch Master Planned Community, Maricopa County, AZ — Project Engineer.** Douglas Ranch, a 34,000-acre community, is the largest master planned community within Maricopa County. KHA prepared master water, wastewater and drainage plans which supported the Community Master Plan and annexation process. During this process, development policies were established which will be utilized throughout the buildout of this community.

**Cibola Vista Resort and Spa, Peoria, AZ — Project Manager.** KHA has provided a full range of civil engineering services for this 20-acre luxury time-share vacation resort located near Lake Pleasant in northwest Peoria, AZ. The resort includes 380 units within seven "cities" that are tied together under one theme. This new resort is the first of its kind in a fast-growing, yet still underdeveloped, area of metropolitan Phoenix. Working with a large consultant team, owners, and multiple jurisdictions, our team prepared preliminary and final design for wet utilities, grading and drainage, paving plans, coordination of private utilities, and other on- and off-site infrastructure.



EXHIBIT C  
TO  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
KIMLEY-HORN AND ASSOCIATES, INC.

[Scope of Work and Fee Proposal]

See following pages.

## **Scope of Services**

KHA will provide CAD services as specifically set forth below. KHA will provide unsigned plan sets based on City of Avondale design and direction.

### ***Task 1.0 – Computer Aided Drafting Services for Water Plans***

- 1.1 Prepare Reference Base Files in AutoCAD format. The base files will contain existing improvements, topography, right-of-way, and plat information as gathered by the City's survey sub-consultant, "as-built" mapping and location of geotechnical sampling provided by the City, and property ownership adjacent to the alignment from Maricopa County Assessors Website.
- 1.2 Prepare a Water Plan Set including Cover Sheet, General Notes Sheet, Key Map, summary of quantities, Horizontal Control Sheet, up to 2 Detail Sheets, and up to 14 Plan and Profile sheets as directed by the Client in AutoCAD format. It is anticipated that the proposed water line will include approximately 19,600 lineal feet of 16" DIP pipe with a connection to the existing 24" pipe. Anticipated details for this plan set include a jack and bore detail, trench detail, air release detail, and valve blocking details.
- 1.3 Address two sets of Redlines and Comments per the direction of the City of Avondale.
- 1.4 Deliver submittals via email in PDF format.

KHA shall release CADD files at the end of the completed task.

All other services shall be considered Additional Services.

### ***Task 2.0 – Computer Aided Drafting Services for Wastewater Plans***

- 2.1 Prepare Reference Base Files in AutoCAD format. The base files will contain existing improvements, topography, right-of-way, and plat information as gathered by the City's survey sub-consultant, "as-built" mapping and location of geotechnical sampling provided by the City, and property ownership adjacent to the alignment from Maricopa County Assessors Website.
- 2.2 Prepare a Wastewater Plan Set including Cover Sheet, General Notes Sheet, Key Map, summary of quantities, Horizontal Control Sheet, up to 2 Detail Sheets, and up to 6 Plan and Profile sheets as directed by the Client in AutoCAD format. It is anticipated that this line will include approximately 8,300 lineal feet of 12" PVC sewer force main. Anticipated details for this plan set will include sewer clean-out, trench detail, air release detail, and a detail for discharge into the receiving

manhole.

- 2.3 Address two sets of Redlines and Comments per the direction of the City of Avondale.
- 2.4 Deliver submittals via email in PDF format.

KHA shall release CADD files at the end of the completed task.

All other services shall be considered Additional Services.

### ***Task 3.0 – Meetings***

- 3.1 KHA will attend up to 4 meetings with the Client, reviewing agencies, or the Client's subconsultants.

### **Additional Services**

Any services not specifically provided for in the above scope will be billed as additional services and performed at a negotiated hourly rate. Additional services we can provide include, but are not limited to, the following:

- Engineering and Design including Civil, Roadway and Structural;
- Quality Assurance/Quality Control;
- Utility Coordination;
- GIS;
- Earthwork Summary;
- Cost Estimates; and
- Plan Reproduction and Printing.

### **Information Provided By Client**

We shall be entitled to rely on the completeness and accuracy of all information provided by the Client or the Client's consultants or representatives.

The Client shall provide all information requested by KHA during the project, including but not limited to the following:

- All pertinent base files for the plan set including but not limited to existing topography, existing utilities, control and geometry files, and new design;
- All general sheets for the plan set including but not limited to the City of Avondale cover sheet and general notes;
- All necessary redlines and comments delivered via email in PDF format;
- All necessary details that the plan set requires in CADD format;

- Any other information the Client deems necessary to show on the plan set to make the plan set complete;
- City of Avondale Engineer's Seal information for placement on the plans; and
- Project submittal deadlines at the time the task is given to KHA.

### **Responsibilities of Client**

In addition to other responsibilities set out in this Agreement, the Client shall:

- Provide CADD Standards, if applicable, and/or sample sets to ensure the look and feel that the Client wants to see in the plan sets.

### **Schedule**

We will provide our services as expeditiously as practicable with the goal of meeting the schedule set forth by the Client at the time the task is given to KHA.

### **Fee and Expenses**

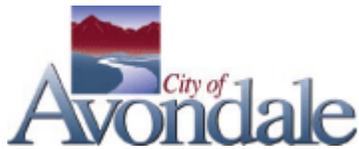
KHA will perform the services as stated above on a labor fee plus expense basis with the maximum labor fee shown below.

Task 1: Computer Aided Drafting Services for Water Plans	\$34,877.00
Task 2: Computer Aided Drafting Services for Wastewater Plans	\$22,590.00
Task 3: Meetings	<u>\$ 1,320.00</u>
Maximum Labor Fee	\$58,797.00

KHA will not exceed the total maximum labor fee shown without authorization from the Client. Individual task amounts are informational only.

Direct reimbursable expenses such as express delivery services, fees, plots, and other direct expenses will be billed at cost. Administrative time related to the project will be billed hourly. All permitting, application, and similar project fees will be paid directly by the Client.

Task	Project Manager	Designer/ Engineer	Tech/ Cadd	Clerical	Total Hours	Fee Estimate
	\$ 165	\$ 129	\$ 90	\$ 72		
<b>Water Line</b>						
Cover	1	2	6		9	\$ 963.00
Notes	1	2	4		7	\$ 783.00
Key Map	1	4	10		15	\$ 1,581.00
Quantities	2	4	10		16	\$ 1,746.00
Control Sheet	2	6	16		24	\$ 2,544.00
20 Plan & Profile (40 Scale)	8	32	90	6	136	\$ 13,980.00
Details	2	4	6		12	\$ 1,386.00
Address 1st Redline Comments	4	12	40	2	58	\$ 5,952.00
Address 2nd Redline Comments	4	12	40	2	58	\$ 5,952.00
					0	\$ -
Total	25	78	222	10	335	\$ 34,887.00
<b>Wastewater Line</b>						
Cover		2	6		8	\$ 798.00
Notes	1	2	4		7	\$ 783.00
Key Map	1	2	6		9	\$ 963.00
Quantities	2	4	10		16	\$ 1,746.00
Control Sheet	2	4	10		16	\$ 1,746.00
9 Plan & Profile (40 Scale)	8	16	60	2	86	\$ 8,928.00
Details	2	4	6		12	\$ 1,386.00
Address 1st Redline Comments	4	4	20	2	30	\$ 3,120.00
Address 2nd Redline Comments	4	4	20	2	30	\$ 3,120.00
					0	\$ -
					0	\$ -
Total	0	0	0	0	0	\$ 22,590.00
<b>Meetings</b>						
Meetings (up to four)	8				8	\$ 1,320.00
					0	\$ -
					0	\$ -
					0	\$ -
Total	8	0	0	0	8	\$ 1,320.00
Total Hours	33	78	222	10	343	\$ 58,797.00



# CITY COUNCIL REPORT

**SUBJECT:**

Professional Services Agreement - Brown & Caldwell, Inc. - Phoenix International Raceway Lift Station Study & Design

**MEETING DATE:**

January 24, 2011

**TO:** Mayor and Council

**FROM:** Wayne Janis, Public Works Director (623) 333-4444

**THROUGH:** Charlie McClendon, City Manager

**PURPOSE:**

Staff is recommending that the City Council approve a Professional Services Agreement with Brown and Caldwell for the Phoenix International Raceway Lift Station Study, Preliminary and Final Design in an amount not to exceed \$148,279, and authorize the Mayor or City Manager and City Clerk to execute the necessary documents.

**BACKGROUND:**

On 11/22/10, City Council approved a Development Agreement with Phoenix International Raceway (PIR). The City is responsible for the design and construction of sewer facilities to serve PIR. PIR is currently served by a septic system that has reached its capacity for the large race events. As the City's gravity sewer system is north of the river, a lift station will be required. A study will first be completed that will determine the location, nature, and sizing of facilities needed to provide this service. PIR will be doing on-site renovations and construction and will coordinate with the City's study to confirm that the system will work when constructed.

**DISCUSSION:**

The City is required to complete all the required services (water and sewer) prior to the November 2012 race. The design and construction of the sewer lift station is the critical path to complete this work. The study is necessary to determine what facilities will be required, based on PIR needs and County requirements resulting in a set of 30% design documents. The Consultant has submitted a Scope of Work and Fee proposal in the amount of \$68,279 to complete this phase of the work.

Once the study has been completed to a level necessary to determine final design needs, the consultant will submit a scope of work and fee proposal to complete the final design and construction documents. The cost for this phase of the work is estimated to be approximately \$80,000. In order to maintain the required schedule and go directly into design, staff is requesting that the City Council approve an amount not to exceed \$80,000 for the preparation of the final design and construction documents.

**BUDGETARY IMPACT:**

Staff is recommending transfer of \$68,279 for the Study phase of the work and \$80,000 for the final design phase for a total of \$148,279 from the Contingency Line Item 503-9210-00-9900 to Citywide Sewer Improvements Line Item 513-1047-00-8610.

**RECOMMENDATION:**

Staff recommends that the City Council approve a Professional Services Agreement with Brown and Caldwell for the Phoenix International Raceway Lift Station Study, Preliminary and Final Design in an

amount not to exceed \$148,279, and authorize the Mayor or City Manager and City Clerk to execute the necessary documents. The Council will take appropriate action.

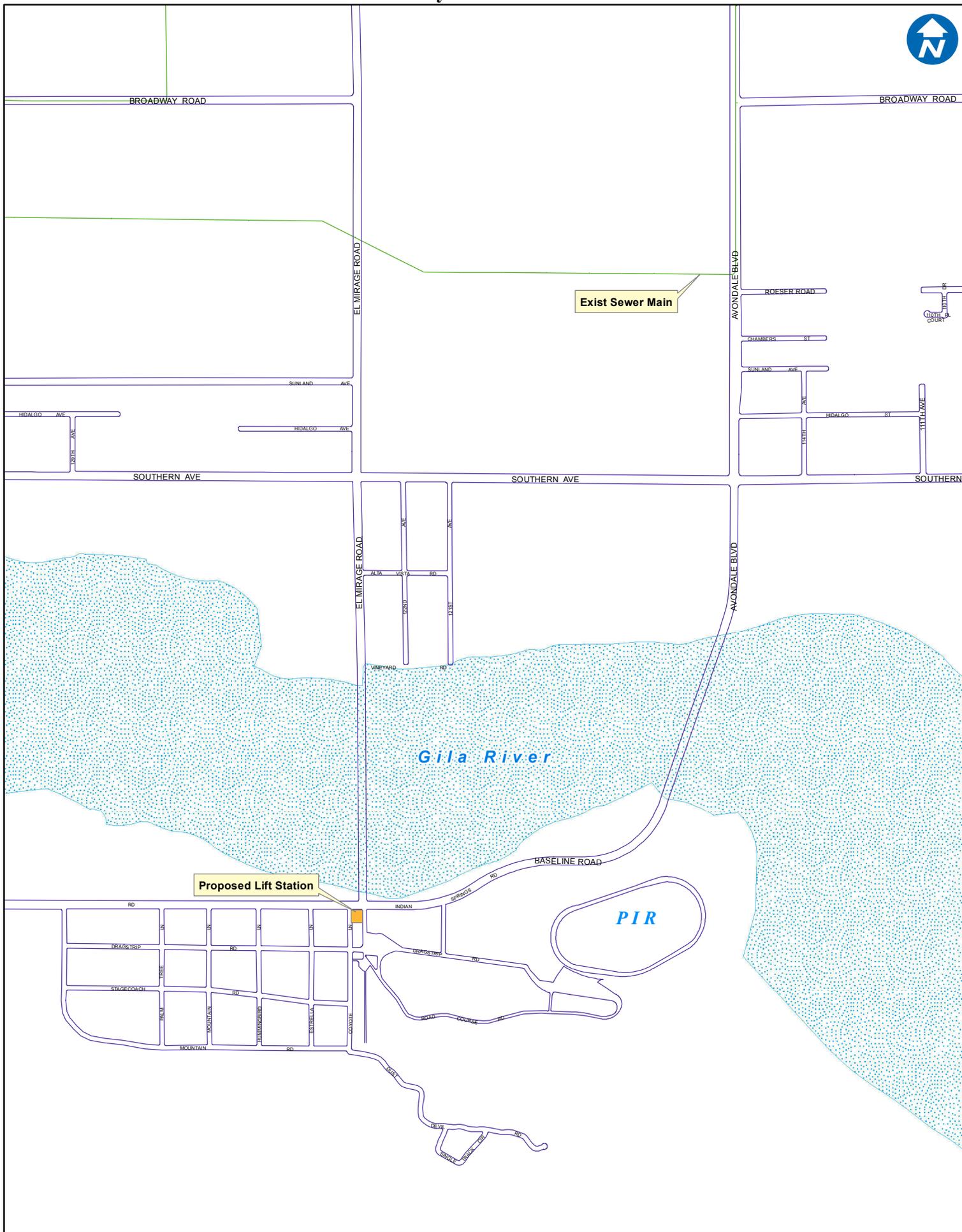
**ATTACHMENTS:**

Click to download

 [Vicinity Map](#)

 [PSA](#)

# City of Avondale



## Proposed Lift Station Location

**PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
BROWN & CALDWELL, INC.**

THIS PROFESSIONAL SERVICES AGREEMENT (this "Agreement") is made as of January 24, 2011, between the City of Avondale, an Arizona municipal corporation (the "City"), and Brown & Caldwell, Inc., a California corporation (the "Consultant").

RECITALS

A. The City issued a Request for Qualifications, EN 10-057 "FY 2010/2011 Professional Consultants Selection List" and amended on April 6, 2010, by that certain Addendum No. 1 (collectively the "RFQ"), a copy of which is attached hereto as Exhibit A, and incorporated herein by reference, seeking statements of qualifications from vendors for professional consulting services.

B. The Consultant submitted a Statement of Qualifications (the "SOQ") in response to the RFQ, attached hereto as Exhibit B, and incorporated herein by reference, and the City desires to enter into an Agreement with the Consultant for the Consultant to perform an engineering analysis regarding the design of the proposed Phoenix International Raceway lift station (collectively, the "Services").

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and the Consultant hereby agree as follows:

1. Term of Agreement. This Agreement shall be effective as of the date first set forth above and shall remain in full force and effect until October 31, 2012.
2. Scope of Work. Consultant shall provide the Services as set forth in the Scope of Work, attached hereto as Exhibit C and incorporated herein by reference.
3. Compensation. The City shall pay Consultant a price not to exceed \$68,279.00 for the Services as set forth in the Fee Proposal, attached hereto as Exhibit D and incorporated herein by reference.
4. Payments. The City shall pay the Consultant monthly, based upon work performed and completed to date, and upon submission and approval of invoices. All invoices shall document and itemize all work completed to date. The invoice statement shall include a record of time expended and work performed in sufficient detail to justify payment.

5. Documents. All documents prepared and submitted to the City pursuant to this Agreement shall be the property of the City.

6. Consultant Personnel. Consultant shall provide adequate, experienced personnel, capable of and devoted to the successful completion of the Services to be performed under this Agreement. Consultant agrees to assign specific individuals to key positions. If deemed qualified, the Consultant is encouraged to hire City residents to fill vacant positions at all levels. Consultant agrees that, upon commencement of the Services to be performed under this Agreement, key personnel shall not be removed or replaced without prior written notice to the City. If key personnel are not available to perform the Services for a continuous period exceeding 30 calendar days, or are expected to devote substantially less effort to the Services than initially anticipated, Consultant shall immediately notify the City of same and shall, subject to the concurrence of the City, replace such personnel with personnel of substantially equal ability and qualifications.

7. Inspection; Acceptance. All work shall be subject to inspection and acceptance by the City at reasonable times during Consultant's performance. The Consultant shall provide and maintain a self-inspection system that is acceptable to the City.

8. Licenses; Materials. Consultant shall maintain in current status all federal, state and local licenses and permits required for the operation of the business conducted by the Consultant. The City has no obligation to provide Consultant, its employees or subcontractors any business registrations or licenses required to perform the specific services set forth in this Agreement. The City has no obligation to provide tools, equipment or material to Consultant.

9. Performance Warranty. Consultant shall perform the Services in accordance with generally accepted standards and practices customarily utilized by competent engineering firms as such practices are in effect at the time the Consultant renders the Services. Consultant does not otherwise expressly or impliedly warrant or guarantee its performance of the Services.

10. Indemnification. To the fullest extent permitted by law, the Consultant shall indemnify, defend and hold harmless the City and each council member, officer, employee or agent thereof (the City and any such person being herein called an "Indemnified Party"), for, from and against any and all losses, claims, damages, liabilities, costs and expenses (including, but not limited to, reasonable attorneys' fees, court costs and the costs of appellate proceedings) to which any such Indemnified Party may become subject, under any theory of liability whatsoever ("Claims"), insofar as such Claims (or actions in respect thereof) relate to, arise out of, or are caused by or based upon the negligent acts, intentional misconduct, errors, mistakes or omissions, in connection with the work or services of the Consultant, its officers, employees, agents, or any tier of subcontractor in the performance of this Agreement. The amount and type of insurance coverage requirements set forth below will in no way be construed as limiting the scope of the indemnity in this Section.

11. Insurance.

11.1 General.

a. Insurer Qualifications. Without limiting any obligations or liabilities of Consultant, Consultant shall purchase and maintain, at its own expense, hereinafter stipulated minimum insurance with insurance companies authorized to do business in the State of Arizona pursuant to ARIZ. REV. STAT. § 20-206, as amended, with an AM Best, Inc. rating of A- or above with policies and forms satisfactory to the City. Failure to maintain insurance as specified herein may result in termination of this Agreement at the City's option.

b. No Representation of Coverage Adequacy. By requiring insurance herein, the City does not represent that coverage and limits will be adequate to protect Consultant. The City reserves the right to review any and all of the insurance policies and/or endorsements cited in this Agreement but has no obligation to do so. Failure to demand such evidence of full compliance with the insurance requirements set forth in this Agreement or failure to identify any insurance deficiency shall not relieve Consultant from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Agreement.

c. Additional Insured. All insurance coverage and self-insured retention or deductible portions, except Workers' Compensation insurance and Professional Liability insurance, if applicable, shall name, to the fullest extent permitted by law for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, directors, officials and employees as Additional Insured as specified under the respective coverage sections of this Agreement.

d. Coverage Term. All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of this Agreement are satisfactorily performed, completed and formally accepted by the City, unless specified otherwise in this Agreement.

e. Primary Insurance. Consultant's insurance shall be primary insurance with respect to performance of this Agreement and in the protection of the City as an Additional Insured.

f. Waiver. All policies, except for Professional Liability, including Workers' Compensation insurance, shall contain a waiver of rights of recovery (subrogation) against the City, its agents, representatives, officials, officers and employees for any claims arising out of the work or services of Consultant. Consultant shall arrange to have such subrogation waivers incorporated into each policy via formal written endorsement thereto.

g. Policy Deductibles and/or Self-Insured Retentions. The policies set forth in these requirements may provide coverage that contains deductibles or self-insured retention amounts. Such deductibles or self-insured retention shall not be applicable with respect to the policy limits provided to the City. Consultant shall be solely responsible for any such deductible or self-insured retention amount.

h. Use of Subcontractors. If any work under this Agreement is subcontracted in any way, Consultant shall execute written agreements with its subcontractors containing the indemnification provisions set forth in this Section and insurance requirements set forth herein protecting the City and Consultant. Consultant shall be responsible for executing any agreements with its subcontractors and obtaining certificates of insurance verifying the insurance requirements.

i. Evidence of Insurance. Prior to commencing any work or services under this Agreement, Consultant will provide the City with suitable evidence of insurance in the form of certificates of insurance and a copy of the declaration page(s) of the insurance policies as required by this Agreement, issued by Consultant's insurance insurer(s) as evidence that policies are placed with acceptable insurers as specified herein and provide the required coverages, conditions and limits of coverage specified in this Agreement and that such coverage and provisions are in full force and effect. Confidential information such as the policy premium may be redacted from the declaration page(s) of each insurance policy, provided that such redactions do not alter any of the information required by this Agreement. The City shall reasonably rely upon the certificates of insurance and declaration page(s) of the insurance policies as evidence of coverage but such acceptance and reliance shall not waive or alter in any way the insurance requirements or obligations of this Agreement. In the event any insurance policy required by this Agreement is written on a "claims made" basis, coverage shall extend for two years past completion of the Services and the City's acceptance of the Consultant's work or services and as evidenced by annual certificates of insurance. If any of the policies required by this Agreement expire during the life of this Agreement, it shall be Consultant's responsibility to forward renewal certificates and declaration page(s) to the City 30 days prior to the expiration date. All certificates of insurance and declarations required by this Agreement shall be identified by referencing the RFQ number and title or this Agreement. A \$25.00 administrative fee shall be assessed for all certificates or declarations received without the appropriate RFQ number and title or a reference to this Agreement, as applicable. Additionally, certificates of insurance and declaration page(s) of the insurance policies submitted without referencing the appropriate RFQ number and title or a reference to this Agreement, as applicable, will be subject to rejection and may be returned or discarded. Certificates of insurance and declaration page(s) shall specifically include the following provisions:

(1) The City, its agents, representatives, officers, directors, officials and employees are Additional Insureds as follows:

(a) Commercial General Liability – Under Insurance Services Office, Inc., ("ISO") Form CG 20 10 03 97 or equivalent.

(b) Auto Liability – Under ISO Form CA 20 48 or equivalent.

(c) Excess Liability – Follow Form to underlying insurance.

(2) Consultant's insurance shall be primary insurance as respects performance of the Agreement.

(3) All policies, except for Professional Liability, including Workers' Compensation, waive rights of recovery (subrogation) against City, its agents, representatives, officers, officials and employees for any claims arising out of work or services performed by Consultant under this Agreement.

(4) A 30-day advance notice cancellation provision. If ACORD certificate of insurance form is used, the phrases in the cancellation provision "endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" shall be deleted. Certificate forms other than ACORD form shall have similar restrictive language deleted.

#### 11.2 Required Insurance Coverage.

a. Commercial General Liability. Consultant shall maintain "occurrence" form Commercial General Liability insurance with an unimpaired limit of not less than \$1,000,000 for each occurrence, \$2,000,000 Products and Completed Operations Annual Aggregate and a \$2,000,000 General Aggregate Limit. The policy shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury. Coverage under the policy will be at least as broad as ISO policy form CG 00 010 93 or equivalent thereof, including but not limited to, separation of insured's clause. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, officials and employees shall be cited as an Additional Insured under ISO, Commercial General Liability Additional Insured Endorsement form CG 20 10 03 97, or equivalent, which shall read "Who is an Insured (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that insured by or for you." If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.

b. Vehicle Liability. Consultant shall maintain Business Automobile Liability insurance with a limit of \$1,000,000 each occurrence on Consultant's owned, hired and non-owned vehicles assigned to or used in the performance of the Consultant's work or services under this Agreement. Coverage will be at least as broad as ISO coverage code "1" "any auto" policy form CA 00 01 12 93 or equivalent thereof. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, directors, officials and employees shall be cited as an Additional Insured under ISO Business Auto policy Designated Insured Endorsement form CA 20 48 or equivalent. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.

c. Professional Liability. If this Agreement is the subject of any professional services or work, or if the Consultant engages in any professional services or work adjunct or residual to performing the work under this Agreement, the Consultant shall maintain Professional Liability insurance covering negligent errors and omissions arising out of the

Services performed by the Consultant, or anyone employed by the Consultant, or anyone for whose negligent acts, mistakes, errors and omissions the Consultant is legally liable, with an unimpaired liability insurance limit of \$2,000,000 each claim and \$2,000,000 annual aggregate. In the event the Professional Liability insurance policy is written on a "claims made" basis, coverage shall extend for two years past completion and acceptance of the Services, and the Consultant shall be required to submit certificates of insurance and a copy of the declaration page(s) of the insurance policies evidencing proper coverage is in effect as required above.

d. Workers' Compensation Insurance. Consultant shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over Consultant's employees engaged in the performance of work or services under this Agreement and shall also maintain Employers Liability Insurance of not less than \$500,000 for each accident, \$500,000 disease for each employee and \$1,000,000 disease policy limit.

11.3 Cancellation and Expiration Notice. Insurance required herein shall not expire, be canceled, or materially change without 30 days' prior written notice to the City.

12. Applicable Law; Venue. In the performance of this Agreement, Consultant shall abide by and conform to any and all laws of the United States, State of Arizona and City of Avondale, including but not limited to, federal and state executive orders providing for equal employment and procurement opportunities, the Federal Occupational Safety and Health Act and any other federal or state laws applicable to this Agreement. This Agreement shall be governed by the laws of the State of Arizona and suit pertaining to this Agreement may be brought only in courts in the State of Arizona.

13. Termination; Cancellation.

13.1 For City's Convenience. This Agreement is for the convenience of the City and, as such, may be terminated without cause after receipt by Consultant of written notice by the City. Upon termination for convenience, Consultant shall be paid for all undisputed services performed to the termination date.

13.2 For Cause. This Agreement may be terminated by either party upon 30 days' written notice should the other party fail to substantially perform in accordance with this Agreement's terms, through no fault of the party initiating the termination. In the event of such termination for cause, payment shall be made by the City to the Consultant for the undisputed portion of its fee due as of the termination date.

13.3 Due to Work Stoppage. This Agreement may be terminated by the City upon 30 days' written notice to Consultant in the event that the Services are permanently abandoned. In the event of such termination due to work stoppage, payment shall be made by the City to the Consultant for the undisputed portion of its fee due as of the termination date.

13.4 Conflict of Interest. This Agreement is subject to the provisions of ARIZ. REV. STAT. § 38-511. The City may cancel this Agreement without penalty or further obligations by the City or any of its departments or agencies if any person significantly involved

in initiating, negotiating, securing, drafting or creating this Agreement on behalf of the City or any of its departments or agencies is, at any time while the Agreement or any extension of the Agreement is in effect, an employee of any other party to the Agreement in any capacity or a consultant to any other party of the Agreement with respect to the subject matter of the Agreement.

13.5 Gratuities. The City may, by written notice to the Consultant, cancel this Agreement if it is found by the City that gratuities, in the form of economic opportunity, future employment, entertainment, gifts or otherwise, were offered or given by the Consultant or any agent or representative of the Consultant to any officer, agent or employee of the City for the purpose of securing this Agreement. In the event this Agreement is cancelled by the City pursuant to this provision, the City shall be entitled, in addition to any other rights and remedies, to recover or withhold from the Consultant an amount equal to 150% of the gratuity.

13.6 Agreement Subject to Appropriation. The provisions of this Agreement for payment of funds by the City shall be effective when funds are appropriated for purposes of this Agreement and are actually available for payment. The City shall be the sole judge and authority in determining the availability of funds under this Agreement and the City shall keep the Consultant fully informed as to the availability of funds for the Agreement. The obligation of the City to make any payment pursuant to this Agreement is a current expense of the City, payable exclusively from such annual appropriations, and is not a general obligation or indebtedness of the City. If the City Council fails to appropriate money sufficient to pay the amounts as set forth in this Agreement during any immediately succeeding fiscal year, this Agreement shall terminate at the end of then-current fiscal year and the City and the Consultant shall be relieved of any subsequent obligation under this Agreement.

#### 14. Miscellaneous.

14.1 Independent Contractor. The Consultant acknowledges and agrees that the Services provided under this Agreement are being provided as an independent contractor, not as an employee or agent of the City. Consultant, its employees and subcontractors are not entitled to workers' compensation benefits from the City. The City does not have the authority to supervise or control the actual work of Consultant, its employees or subcontractors. The Consultant, and not the City, shall determine the time of its performance of the services provided under this Agreement so long as Consultant meets the requirements of its agreed scope of work as set forth in Section 2 above. Consultant is neither prohibited from entering into other contracts nor prohibited from practicing its profession elsewhere. City and Consultant do not intend to nor will they combine business operations under this Agreement.

14.2 Laws and Regulations. The Consultant shall keep fully informed and shall at all times during the performance of its duties under this Agreement ensure that it and any person for whom the Consultant is responsible remains in compliance with all rules, regulations, ordinances, statutes or laws affecting the Services, including the following: (a) existing and future City and County ordinances and regulations, (b) existing and future state and federal laws and (c) existing and future Occupational Safety and Health Administration ("OSHA") standards.

14.3 Amendments. This Agreement may be modified only by a written amendment signed by persons duly authorized to enter into contracts on behalf of the City and the Consultant.

14.4 Provisions Required by Law. Each and every provision of law and any clause required by law to be in the Agreement will be read and enforced as though it were included herein and, if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Agreement will promptly be physically amended to make such insertion or correction.

14.5 Severability. The provisions of this Agreement are severable to the extent that any provision or application held to be invalid by a Court of competent jurisdiction shall not affect any other provision or application of the Agreement which may remain in effect without the invalid provision or application.

14.6 Relationship of the Parties. It is clearly understood that each party will act in its individual capacity and not as an agent, employee, partner, joint venturer, or associate of the other. An employee or agent of one party shall not be deemed or construed to be the employee or agent of the other for any purpose whatsoever. The Consultant is advised that taxes or Social Security payments will not be withheld from any City payments issued hereunder and Consultant agrees to be fully and solely responsible for the payment of such taxes or any other tax applicable to this Agreement.

14.7 Entire Agreement; Interpretation; Parol Evidence. This Agreement represents the entire agreement of the parties with respect to its subject matter, and all previous agreements, whether oral or written, entered into prior to this Agreement are hereby revoked and superseded by this Agreement. No representations, warranties, inducements or oral agreements have been made by any of the parties except as expressly set forth herein, or in any other contemporaneous written agreement executed for the purposes of carrying out the provisions of this Agreement. This Agreement shall be construed and interpreted according to its plain meaning, and no presumption shall be deemed to apply in favor of, or against the party drafting the Agreement. The parties acknowledge and agree that each has had the opportunity to seek and utilize legal counsel in the drafting of, review of, and entry into this Agreement.

14.8 Assignment. No right or interest in this Agreement shall be assigned by Consultant without prior, written permission of the City signed by the City Manager and no delegation of any duty of Consultant shall be made without prior, written permission of the City signed by the City Manager. Any attempted assignment or delegation by Consultant in violation of this provision shall be a breach of this Agreement by Consultant.

14.9 Subcontracts. No subcontract shall be entered into by the Consultant with any other party to furnish any of the material or services specified herein without the prior written approval of the City. The Consultant is responsible for performance under this Agreement whether or not subcontractors are used.

14.10 Rights and Remedies. No provision in this Agreement shall be construed, expressly or by implication, as waiver by the City of any existing or future right and/or remedy

available by law in the event of any claim of default or breach of this Agreement. The failure of the City to insist upon the strict performance of any term or condition of this Agreement or to exercise or delay the exercise of any right or remedy provided in this Agreement, or by law, or the City's acceptance of and payment for services, shall not release the Consultant from any responsibilities or obligations imposed by this Agreement or by law, and shall not be deemed a waiver of any right of the City to insist upon the strict performance of this Agreement.

14.11 Attorneys' Fees. In the event either party brings any action for any relief, declaratory or otherwise, arising out of this Agreement or on account of any breach or default hereof, the prevailing party shall be entitled to receive from the other party reasonable attorneys' fees and reasonable costs and expenses, determined by the court sitting without a jury, which shall be deemed to have accrued on the commencement of such action and shall be enforced whether or not such action is prosecuted through judgment.

14.12 Liens. All materials or services shall be free of all liens and, if the City requests, a formal release of all liens shall be delivered to the City.

14.13 Offset.

a. Offset for Damages. In addition to all other remedies at law or equity, the City may offset from any money due to the Consultant any amounts Consultant owes to the City for damages resulting from breach or deficiencies in performance or breach of any obligation under this Agreement.

b. Offset for Delinquent Fees or Taxes. The City may offset from any money due to the Consultant any amounts Consultant owes to the City for delinquent fees, transaction privilege taxes and property taxes, including any interest or penalties.

14.14 Notices and Requests. Any notice or other communication required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if (a) delivered to the party at the address set forth below, (b) deposited in the U.S. Mail, registered or certified, return receipt requested, to the address set forth below, (c) given to a recognized and reputable overnight delivery service, to the address set forth below or (d) delivered by facsimile transmission to the number set forth below:

If to the City:                   City of Avondale  
11465 West Civic Center Drive  
Avondale, Arizona 85323  
Facsimile: (623) 333-0100  
Attn: Charles P. McClendon, City Manager

With copy to:                   GUST ROSENFELD, P.L.C.  
One East Washington Street, Suite 1600  
Phoenix, Arizona 85004-2553  
Facsimile: (602) 254-4878  
Attn: Andrew J. McGuire, Esq.

If to Consultant:       Brown & Caldwell, Inc.  
201 East Washington Street, Suite 500  
Phoenix, Arizona 85004  
Facsimile: (602) 567-4001  
Attn: Tracy Moraca

or at such other address, and to the attention of such other person or officer, as any party may designate in writing by notice duly given pursuant to this subsection. Notices shall be deemed received (a) when delivered to the party, (b) three business days after being placed in the U.S. Mail, properly addressed, with sufficient postage, (c) the following business day after being given to a recognized overnight delivery service, with the person giving the notice paying all required charges and instructing the delivery service to deliver on the following business day, or (d) when received by facsimile transmission during the normal business hours of the recipient. If a copy of a notice is also given to a party's counsel or other recipient, the provisions above governing the date on which a notice is deemed to have been received by a party shall mean and refer to the date on which the party, and not its counsel or other recipient to which a copy of the notice may be sent, is deemed to have received the notice.

14.15 Confidentiality of Records. The Consultant shall establish and maintain procedures and controls that are acceptable to the City for the purpose of ensuring that information contained in its records or obtained from the City or from others in carrying out its obligations under this Agreement shall not be used or disclosed by it, its agents, officers, or employees, except as required to perform Consultant's duties under this Agreement. Persons requesting such information should be referred to the City. Consultant also agrees that any information pertaining to individual persons shall not be divulged other than to employees or officers of Consultant as needed for the performance of duties under this Agreement.

14.16 Records and Audit Rights. Consultant's and its subcontractor's books, records, correspondence, accounting procedures and practices, and any other supporting evidence relating to this Agreement, including the papers of any Consultant and its subcontractors' employees who perform any work or Services pursuant to this Agreement to ensure that the Consultant and its subcontractors are complying with the warranty under subsection 14.17 below (all the foregoing hereinafter referred to as "Records"), shall be open to inspection and subject to audit and/or reproduction during normal working hours by the City, to the extent necessary to adequately permit (a) evaluation and verification of any invoices, payments or claims based on Consultant's and its subcontractors' actual costs (including direct and indirect costs and overhead allocations) incurred, or units expended directly in the performance of work under this Agreement and (b) evaluation of the Consultant's and its subcontractors' compliance with the Arizona employer sanctions laws referenced in subsection 14.17 below. To the extent necessary for the City to audit Records as set forth in this subsection, Consultant and its subcontractors hereby waive any rights to keep such Records confidential. For the purpose of evaluating or verifying such actual or claimed costs or units expended, the City shall have access to said Records, even if located at its subcontractors' facilities, from the effective date of this Agreement for the duration of the work and until three years after the date of final payment by the City to Consultant pursuant to this Agreement. Consultant and its subcontractors shall provide the City with adequate and appropriate workspace so that the City can conduct audits in compliance with the provisions of this subsection. The City shall give

Consultant or its subcontractors reasonable advance notice of intended audits. Consultant shall require its subcontractors to comply with the provisions of this subsection by insertion of the requirements hereof in any subcontract pursuant to this Agreement.

14.17 E-verify Requirements. To the extent applicable under ARIZ. REV. STAT. § 41-4401, the Consultant and its subcontractors warrant compliance with all federal immigration laws and regulations that relate to their employees and compliance with the E-verify requirements under ARIZ. REV. STAT. § 23-214(A). Consultant's or its subcontractor's failure to comply with such warranty shall be deemed a material breach of this Agreement and may result in the termination of this Agreement by the City.

14.18 Scrutinized Business Operations. Pursuant to ARIZ. REV. STAT. §§ 35-391.06 and 35-393.06, the Consultant certifies that it does not have scrutinized business operations in Sudan or Iran. For the purpose of this subsection the term "scrutinized business operations" shall have the meanings set forth in ARIZ. REV. STAT. § 35-391 or 35-393, as applicable. If the City determines that the Consultant submitted a false certification, the City may impose remedies as provided by law including terminating this Agreement pursuant to subsection 13.2 above.

14.19 Conflicting Terms. In the event of any inconsistency, conflict or ambiguity among the Agreement, the Scope of Work, the Fee Proposal, the RFQ and the Consultant's SOQ, the documents shall govern in the order listed herein.

14.20 Non-Exclusive Contract. This Agreement is entered into with the understanding and agreement that it is for the sole convenience of the City. The City reserves the right to obtain like goods and services from another source when necessary.

14.21 Cooperative Purchasing. This Agreement shall be for the use of the City. In addition, specific eligible political subdivisions and nonprofit educational or public health institutions may also participate, at their discretion and with the agreement of the awarded Consultant. In order to participate in this Agreement, a political subdivision or nonprofit educational or public health institution must agree to the terms and conditions in the solicitation and the Consultant must be in agreement with the cooperative transaction. Any orders placed to the successful Consultant will be placed by the specific agencies participating in this purchase. Payment for purchases made under this Agreement will be the sole responsibility of each participating agency. The City shall not be responsible for any disputes arising out of transactions made by others.

[Signatures on following page.]

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date and year first set forth above.

**“City”**

CITY OF AVONDALE, an Arizona  
municipal corporation

\_\_\_\_\_  
Charles P. McClendon, City Manager

ATTEST:

\_\_\_\_\_  
Carmen Martinez, City Clerk

**“Consultant”**

BROWN & CALDWELL, INC., a  
California corporation

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

Name:\_\_\_\_\_

Title:\_\_\_\_\_

(ACKNOWLEDGEMENTS)

STATE OF ARIZONA        )  
  ) ss.  
COUNTY OF MARICOPA    )

This instrument was acknowledged before me on \_\_\_\_\_, 2011,  
by Charles P. McClendon, the City Manager of the CITY OF AVONDALE, an Arizona  
municipal corporation, on behalf of the City of Avondale.

\_\_\_\_\_  
Notary Public in and for the State of Arizona

My Commission Expires:

\_\_\_\_\_

STATE OF \_\_\_\_\_)  
  ) ss.  
COUNTY OF \_\_\_\_\_)

This instrument was acknowledged before me on \_\_\_\_\_, 2011,  
by \_\_\_\_\_ as \_\_\_\_\_ of BROWN &  
CALDWELL, INC., a California corporation, on behalf of the corporation.

\_\_\_\_\_  
Notary Public in and for the State of \_\_\_\_\_

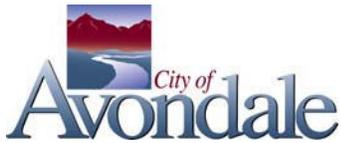
My Commission Expires:

\_\_\_\_\_

EXHIBIT A  
TO  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
BROWN & CALDWELL, INC.

[RFQ]

See following pages.



**REQUEST FOR  
STATEMENTS OF QUALIFICATIONS  
FOR  
FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST**

City of Avondale  
11465 West Civic Center Drive  
Avondale, Arizona 85323

**SOLICITATION INFORMATION AND SELECTION SCHEDULE**

Solicitation Number: **EN 10-057**

Solicitation Title: **FY 2010/2011 Professional Consultants Selection List**

Release Date: **March 25, 2010**

Final Date for Inquires and Place to Send Inquiries: **April 5, 2010**  
Sue McDermott, P.E., City Engineer  
City of Avondale Engineering Dept.  
11465 West Civic Center Drive, Suite 120  
Avondale, Arizona 85323  
[smcdermott@avondale.org](mailto:smcdermott@avondale.org)

SOQs Due Date, Time and Location: **April 15, 2010**  
**3:00 p.m.** (local time, Phoenix, Arizona)  
City of Avondale  
11465 West Civic Center Drive, Suite 200  
Avondale, Arizona 85323-6804

Letters to Final Listed Firms: **June 28, 2010**

City Representatives: **Sue McDermott**  
[smcdermott@avondale.org](mailto:smcdermott@avondale.org)  
**623-333-4200**

**Loretta Browning**  
[lbrowning@avondale.org](mailto:lbrowning@avondale.org)  
**623-333-2200**

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**SECTION A**

**I. INTRODUCTION**

1. Purpose. The City of Avondale (the “City”) is seeking Statements of Qualification (“SOQ”) from professional consulting engineering firms (“Vendors”) to be considered for a Professional Consultants Selection List aimed at capital improvement projects during the 2010/2011 and 2011/2012 Fiscal Years. Only Vendors capable of providing the requested discipline category of professional services will receive consideration. Qualified Vendors are invited to submit SOQs.

2. Discipline Categories of Projects. During Fiscal Years 2010/2011 and 2011/2012, the City plans to contract approximately twenty (20) projects per Fiscal Year for professional services for specific projects that fall within 16 (sixteen) different discipline categories listed below. The scope of work for these specific projects may include studies, site investigations, planning, preliminary design concepts, and contract document development (preparing detailed plans, schedules, designs, assembly of specifications and reports). Project duties may also involve budget estimating, engineering designs, phasing, recommendations for future infrastructure needs (master plans), improvement district administration and presentations at public meetings. Please note, all projects involving the preparation of design plans and specifications require the design plans and specifications to be sealed by a Professional registered in the State of Arizona.

The Professional Consultants Selection List discipline categories are:

- Water Distribution System – Feasibility studies, wells, distribution systems, pump stations, storage facilities and treatment plants.
- Wastewater Systems – Studies, collection and disposal system designs, treatment plants and lift stations.
- Transportation Engineering – Roadway improvement projects, master plans, transportation planning, traffic calming projects, sidewalks and intersection designs, including roundabouts.
- Traffic Engineering – Speed, volume and classification studies, traffic signal warrant studies, other traffic engineering and traffic control studies (such as All-way STOP warrant studies), pedestrian & bicycle studies, Safe Routes to School plans and studies, school crosswalk studies, traffic signal design, traffic control design such as signing and pavement marking, traffic crash analysis, design of safety improvement projects, including roundabout study, design and analysis, design of bike lane/transit/crosswalk facilities, street lights, and Intelligent Transportation Systems (ITS such as Traffic Operations Center design, variable message signs, fiber optic and conduit design, and Wireless Advanced Traffic Management Systems).
- Surveying - Including topographic surveys, boundary surveys, construction staking, as-built surveys, right-of-way and easement investigation, ALTA and preparation of legal descriptions.

**SECTION A**

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- Hydrology/Hydraulic Projects – Master plans, hydrology studies and designing storm water drainage facilities.
- Plan Review Services - Includes plan review of subdivision plats, residential and commercial developments, construction plans for water, sewer, paving, drainage, street/traffic lights and grading.
- Landscape Architect - Master plans, conceptual planning, site designs, parks and public open spaces, streetscapes, bicycle and pedestrian pathway design, scenery planting and irrigation.
- Hydrogeological Engineering - Provide aquifer impact and well feasibility studies. Ability to provide well abandonment services. Design of wells; provide construction inspection/observation services during the drilling of new or replacement wells.
- GIS Programs - Services to support Geographic Information Systems Programs including: data collection and development, map compilation, transformation and systems integration.
- Geotechnical and Environmental - Geotechnical engineering, pavement design, materials sampling and testing, pavement evaluation, design recommendations and specifications. Environmental site assessments, compliance audits, risk evaluations and recommendations.
- Foundation and Structural Design - To include load calculations and recommendations for construction of retaining walls, steel reinforced concrete structures, small buildings, and vehicular and pedestrian bridges.
- Electrical Design and Supervisory Control and Data Acquisition (SCADA) Programming - Provide design and inspection services for electric power supply, control systems and equipment specifications. Design and programming of local SCADA systems, PLC programming, and telemetry.
- Construction Management - Provide Construction Management at Risk (CMAR) and Design Build process management or construction administration and inspection services, such as estimation, bid document preparation, QA/QC services, shop drawing review, and post design services.
- Architect - Planning and new building development, renovation, interior and exterior design and construction management of public building projects.
- Subsurface Utility Investigation - To include various types of investigation methods to verify the horizontal and vertical location of underground utilities using surface geophysical techniques such as Ground Penetrating Radar (“GPR”), electromagnetic, magnetic

***SECTION A***

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or other energy fields, probing and vacuum exploration. Electromagnetic methods include the following: pipe and cable locators, inductive, conductive, active and passive modes), terrain conductivity, ground resistivity techniques, optical methods, and computer-driven algorithms coupled with data collection techniques.

**SECTION B**

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II. STATEMENT OF QUALIFICATIONS REQUIREMENTS

1. Preparation/Submission of SOQ. Vendors are invited to participate in the competitive selection process for the Professional Consultants Selection Lists for Fiscal Year 2010/2011 and 2011/2012 outlined in this RFQ. Responding parties shall review their SOQ submissions to ensure the following requirements are met.

a. Interested parties must submit **one (1) original** and **eight (8) copies** (nine (9) total hardcopy submittals) and one (1) electronic copy of the SOQ.

b. The SOQ shall be submitted with a cover letter with an original ink signature by a person authorized to bind the Vendor. Any erasures, interlineations, or other modifications in the SOQ shall be initialed in original ink by the authorized person signing the SOQ.

c. The SOQ shall be a maximum of 15 pages to address the SOQ criteria (excluding the cover letter, résumés and the Vendor Information Form, but including the materials necessary to address project understanding, general information, organizational chart, photos, tables, graphs, and diagrams). Each page side (maximum 8 1/2" x 11") with criteria information shall be counted. However, one page may be substituted with an 11" x 17" sheet of paper, folded to 8 1/2" x 11", showing a proposed project schedule, a discipline category/staffing matrix, or organizational chart and only having criteria information on one side. The cover letter, cover, back, table of contents and tabs may be used and shall not be included in the page count, unless they include additional project-specific information or SOQ criteria responses. The minimum allowable font for the SOQ is **11 pt**.

d. All Vendors shall (i) examine the entire RFQ, (ii) seek clarification of any item or requirement that may not be clear, (iii) check all responses for accuracy before submitting a SOQ and (iv) submit the entire SOQ by the official Due Date and Time. Negligence in preparing a SOQ confers no right of withdrawal after the SOQ Due Date and Time.

e. All SOQs shall be sealed and clearly marked with the SOQ title and number, **FY 2010/2011 Professional Consultants Selection List (EN 10-057)**, on the lower left hand corner of the sealed mailing envelope. A return address must also appear on the outside of the sealed SOQ. The City is not responsible for the pre-opening of, post-opening of, or the failure to open, any SOQs not properly addressed or identified.

f. All SOQs shall be directed to the following address: City Clerk, 11465 West Civic Center Drive, Suite 200, Avondale, Arizona 85323, or hand-delivered to the City Clerk's office by the time and date indicated on the cover page of this RFQ.

g. Telegraphic (facsimile), electronic (email) or mailgram SOQs will not be considered.

**SECTION B**

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2. Irregular or Non-responsive SOQ. The City will consider as “irregular” or “non-responsive” and reject any SOQ not prepared and submitted in accordance with this RFQ, or any SOQ lacking sufficient information to enable the City to make a reasonable determination of compliance to the minimum qualifications. Unauthorized conditions, limitations, or provisions shall be cause for rejection.

3. Inquiries. Any question related to the RFQ shall be directed to the City Representative whose name appears on the cover page of this RFQ. Questions shall be submitted in writing by the date indicated on the cover page of this RFQ. Any correspondence related to the RFQ shall refer to the title and number, page and paragraph. However, the Vendor shall not place the RFQ number and title on the outside of any envelope containing questions, because such an envelope may be identified as a sealed SOQ and may not be opened until after the Due Date and Time.

4. Late SOQs. Late SOQs will not be considered, except as provided by the City Procurement Code. A Vendor submitting a late SOQ shall be so notified.

5. Withdrawal of SOQ. At any time prior to the specified Due Date and Time, a Vendor (or designated representative) may withdraw its SOQ. Facsimile, electronic (email) or mailgram SOQ withdrawals will not be considered.

6. Amendment of SOQ. At any time prior to the specified Due Date and Time, a Vendor (or designated representative) may amend its SOQ. Facsimile, electronic (email) or mailgram SOQ amendments will not be considered.

7. Cost of SOQ Preparation. The City does not reimburse the cost of developing, presenting or providing any response to this solicitation. SOQs submitted for consideration should be prepared simply and economically, providing adequate information in a straightforward and concise manner. The Vendor is responsible for all costs incurred in responding to this RFQ. All materials and documents submitted in response to this RFQ become the property of the City and will not be returned.

8. Offer. An SOQ submittal is an offer to contract with the City based upon the terms, conditions and specifications contained in this RFQ and the Vendor’s responsive SOQ, unless any of the terms, conditions, or specifications is modified by a written addendum or agreement amendment. Provided, however, that no contractual relationship shall be established until the Vendor has signed, and the City has approved, a professional services agreement between the City and the Vendor in the form included herein.

9. Public Record. All SOQs shall become the property of the City and shall become a matter of public record available for review, subsequent to the award notification, in accordance with the City’s Procurement Code.

**SECTION B**

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10. Confidential Information.

a. If a Vendor believes that a SOQ or protest contains information that should be withheld from the public record, a statement advising the City Representative of this fact shall accompany the submission and the information shall be identified.

b. The information identified by the Vendor as confidential shall not be disclosed until the City Representative makes a written determination.

c. The City Representative shall review the statement and information and shall determine in writing whether the information shall be withheld.

d. If the City Representative determines to disclose the information, the City Representative shall inform the Vendor in writing of such determination.

11. Vendor Licensing and Registration. Prior to the award of the Agreement, the successful Vendor shall (a) be licensed with the Arizona Corporation Commission to do business in Arizona and (b) have a completed Request for Vendor Number on file with the City Financial Services Department. The Vendor shall provide licensure information with the SOQ.

12. Certification. By submitting a SOQ, the Vendor certifies:

a. The submission of the SOQ did not involve collusion or other anti-competitive practices.

b. It shall not discriminate against any employee or applicant for employment in violation of Federal Executive Order 11456.

c. It has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip favor or service to a City employee, officer or agent in connection with the submitted SOQ. Failure to sign the SOQ, or signing it with a false statement, shall void the submitted SOQ and any resulting Agreement.

d. It (including the firm's employees, representatives, agents, lobbyists, attorneys, and subcontractors) will refrain, under penalty of disqualification, from direct or indirect contact for the purpose of influencing the selection or creating bias in the selection process with any person who may play a part in the selection process, including the Selection Committee, elected officials, the City Manager, Assistant City Managers, Department Heads, and other staff. All contact must be addressed to the City's Procurement Agent, except for questions submitted as set forth in Section 3, Inquiries, above.

e. In addition to reviewing and understanding the submittal requirements, it has reviewed the attached Professional Service Agreement including the Exhibits.



**SECTION B**

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4. Submitted by: Engineering firm or Individual (submitting) include address, contract person and telephone number.
- d. Provide a statement regarding the following:
  1. Your firm's familiarity and capability of compliance with City's standard insurance requirements and contract documents. A sample copy of the City's Professional Services Agreement is attached hereto. A copy of the City's "Notice of Request for Proposal" which includes standard contract provisions, terms and conditions is available upon request.
  2. Your firm's design philosophy and approach to developing sound engineering recommendations and your approach to problem resolution.
- e. Vendor Information Form shall be attached as separate appendix and excluded from the page count limitation pursuant to Section II(1)(c).

**Section 2: Vendor's relevant experience, availability and capability 50 pts**

- a. Provide a brief description of the firm including the number and types of personnel who would serve on projects.
- b. Provide a list of relevant projects in which the firm had a significant contribution with an emphasis on local experience. Include references and telephone numbers of clients familiar with the projects.
- c. Provide a general description of the company that is proposing to provide the required services. Explain the legal organization of the company.
- d. Provide identification information of your firm. Include the legal name, address and legal form of the firm (e.g., partnership, corporation, joint venture, sole proprietorship). If a joint venture, identify the members of the joint venture and provide all of the information required under this section for each member. If the firm is a wholly owned subsidiary of another company, identify the parent company. Provide the name, address and telephone number of the person to contact concerning the SOQ.
- e. Identify the location of the firm's principal office and the local work office, if different.

**Section 3: Personnel qualification and pertinent experience 40 pts**

- a. Provide the firm's general or specific experience pertaining to the Professional Consultant Selection List discipline category(ies) the firm desires to be considered for.

**SECTION B**

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b. Provide a matrix listing all categories within the discipline for which the firm is qualified to provide services and identify the participating staff/key personnel. Include a matrix listing for all subcontractors.

c. Provide certifications, licenses and memberships in professional associations, societies or boards.

d. Provide a résumé for the personnel who will serve in key positions for projects, including specific experience for each person on relevant projects, the number of years the personnel has been with the present firm and the total years of experience. Résumés shall be limited to one (1) page, double-sided per résumé. Résumés shall be attached as an appendix and excluded from the page count limitation pursuant to Section II(1)(c).

**Total Possible Points for SOQ Submittal:**

**100**

IV. AWARD OF AGREEMENT

1. Award of Agreement. The selected Vendor from the Professional Consultants Selection List for each specific project will be required to execute the City's standard Professional Services Agreement in a form acceptable to the City Attorney. A sample of the standard agreement is included with this RFQ. If the City is unsuccessful in negotiating an Agreement with the highest-scoring firm, the City may then negotiate with the second, then third, highest-scoring firm until an Agreement is executed. City Council approval may be required. The City reserves the right to terminate the selection process at any time.

2. Waiver; Rejection; Reissuance. Notwithstanding any other provision of this RFQ, the City expressly reserves the right to: (i) waive any immaterial defect or informality, (ii) reject any or all SOQs or portions thereof and (iii) reissue an RFQ.

**SECTION B**

**V. DISCIPLINE SPECIALTY CHECK LIST**  
**FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST**

Name of Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

Please check only those discipline categories for which you are particularly qualified, fully addresses, and desired to be considered.

- \_\_\_\_\_ Water Distribution System
- \_\_\_\_\_ Wastewater Systems
- \_\_\_\_\_ Transportation Engineering
- \_\_\_\_\_ Traffic Engineering
- \_\_\_\_\_ Surveying
- \_\_\_\_\_ Hydrology/Hydraulic Projects
- \_\_\_\_\_ Plan Review Services
- \_\_\_\_\_ Landscape Architects
- \_\_\_\_\_ Hydrogeological Engineering
- \_\_\_\_\_ GIS Programs
- \_\_\_\_\_ Geotechnical and Environmental Engineering
- \_\_\_\_\_ Foundations & Structural Design
- \_\_\_\_\_ Electrical & SCADA Programming
- \_\_\_\_\_ Construction Management
- \_\_\_\_\_ Architects
- \_\_\_\_\_ Subsurface Utility Investigation

**SECTION B**

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**VI. VENDOR INFORMATION FORM**

By sending a Statement of Qualifications, the submitting firm certifies that it has reviewed the administrative information and draft of the Professional Services Agreement's terms and conditions and, if awarded the Agreement, agrees to be bound thereto.

---

\_\_\_\_\_  
FIRM SUBMITTING SOQ

\_\_\_\_\_  
FEDERAL TAX ID NUMBER

\_\_\_\_\_  
PRINTED NAME AND TITLE

\_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
TELEPHONE                      FAX #

\_\_\_\_\_  
CITY              STATE              ZIP

\_\_\_\_\_  
DATE

WEB SITE: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

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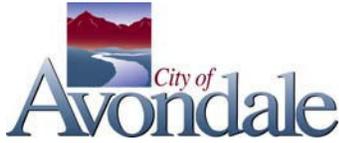
MINORITY/WOMEN-OWNED SMALL BUSINESSES (check appropriate item):

- \_\_\_\_\_ Disadvantaged Business Enterprise (DBE)
- \_\_\_\_\_ Women-Owned Business Enterprise (WBE)
- \_\_\_\_\_ Minority Business Enterprise (MBE)
- \_\_\_\_\_ Small Business Enterprise (SBE)

Has your firm been certified by any jurisdiction in Arizona as a minority or woman owned business enterprise?

If yes, please provide details and documentation of the certification.

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**REQUEST FOR STATEMENTS OF QUALIFICATIONS  
FOR  
FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST**

EN-10-057

**Addendum No. 1**

Date: April 6, 2010  
From: Sue McDermott  
Subject: Addendum No. 1 to Solicitation No. EN 10-057  
Bid Deadline: **April 15, 2010**, 3:00 p.m. local time, Phoenix, Arizona

**SCOPE**

This Addendum forms a part of the Contract and clarifies, corrects, or modifies the original Request for Qualifications documents prepared by the City of Avondale. Acknowledge receipt of this addendum in the space provided on the attached form. This acknowledgement and addendum must accompany the submitted Statement of Qualifications. Failure to do so may subject the Vendor to disqualification.

This Addendum No. 1 consists of the modification of the RFQ, Section I, Introduction, Paragraph 2, Discipline Categories of Projects and Section II, Statement of Qualifications Requirements, Paragraph (1)(a), Preparation/ Submission of SOQ.

**ADDENDUM**

1. Page A-1, Section I, Introduction, Paragraph 2, is hereby amended as follows:
  2. Discipline Categories of Projects. During Fiscal Years 2010/2011 and 2011/2012, the City plans to contract approximately twenty (20) projects per Fiscal Year for professional services for specific projects that fall within 16 (sixteen) different discipline categories listed below. The scope of work for these specific projects may include studies, site investigations, planning, preliminary design concepts, and contract document development (preparing detailed plans, schedules, designs, assembly of specifications and reports). Project duties may also involve budget estimating, engineering designs, AND

phasing, recommendations for future infrastructure needs (master plans). ~~improvement district administration and presentations at public meetings.~~ Please note, all projects involving the preparation of design plans and specifications require the design plans and specifications to be sealed by a Professional registered in the State of Arizona.

The Professional Consultants Selection List discipline categories are:

- Water Distribution System – Feasibility studies, wells, distribution systems, pump stations, storage facilities and treatment plants.
- Wastewater Systems – Studies, collection and disposal system designs, treatment plants and lift stations.
- Transportation Engineering – Roadway improvement projects, master plans, transportation planning, traffic calming projects, sidewalks and intersection designs, including roundabouts.
- Traffic Engineering – Speed, volume and classification studies, traffic signal warrant studies, other traffic engineering and traffic control studies (such as All-way STOP warrant studies), pedestrian & bicycle studies, Safe Routes to School plans and studies, school crosswalk studies, traffic signal design, traffic control design such as signing and pavement marking, traffic crash analysis, design of safety improvement projects, including roundabout study, design and analysis, design of bike lane/transit/crosswalk facilities, street lights, and Intelligent Transportation Systems (ITS such as Traffic Operations Center design, variable message signs, fiber optic and conduit design, and Wireless Advanced Traffic Management Systems).
- Surveying - Including topographic surveys, boundary surveys, construction staking, as-built surveys, right-of-way and easement investigation, ALTA and preparation of legal descriptions.
- Hydrology/Hydraulic Projects – Master plans, hydrology studies and designing storm water drainage facilities.
- Plan Review Services - Includes plan review of subdivision plats, residential and commercial developments, construction plans for water, sewer, paving, drainage, street/traffic lights and grading.
- Landscape Architect - Master plans, conceptual planning, site designs, parks and public open spaces, streetscapes, bicycle and pedestrian pathway design, scenery planting and irrigation.
- Hydrogeological Engineering - Provide aquifer impact and well feasibility studies. Ability to provide well abandonment services. Design of wells; provide construction inspection/observation services during the drilling of new or replacement wells.

- GIS Programs - Services to support Geographic Information Systems Programs including: data collection and development, map compilation, transformation and systems integration.
- Geotechnical and Environmental - Geotechnical engineering, pavement design, materials sampling and testing, pavement evaluation, design recommendations and specifications. Environmental site assessments, compliance audits, risk evaluations and recommendations.
- Foundation and Structural Design - To include load calculations and recommendations for construction of retaining walls, steel reinforced concrete structures, small buildings, and vehicular and pedestrian bridges.
- Electrical Design and Supervisory Control and Data Acquisition (SCADA) Programming - Provide design and inspection services for electric power supply, control systems and equipment specifications. Design and programming of local SCADA systems, PLC programming, and telemetry.
- Construction Management - Provide Construction Management at Risk (CMAR) and Design Build process management or construction administration and inspection services, such as estimation, bid document preparation, QA/QC services, shop drawing review, and post design services.
- Architect - Planning and new building development, renovation, interior and exterior design and construction management of public building projects.
- Subsurface Utility Investigation - To include various types of investigation methods to verify the horizontal and vertical location of underground utilities using surface geophysical techniques such as Ground Penetrating Radar (“GPR”), electromagnetic, magnetic or other energy fields, probing and vacuum exploration. Electromagnetic methods include the following: pipe and cable locators, inductive, conductive, active and passive modes), terrain conductivity, ground resistivity techniques, optical methods, and computer-driven algorithms coupled with data collection techniques.

2. Page B-1, Section II, Statement of Qualifications Requirements, Paragraph (1)(a) is hereby amended as follows:

1. Preparation/Submission of SOQ. Vendors are invited to participate in the competitive selection process for the Professional Consultants Selection Lists for Fiscal Year 2010/2011 and 2011/2012 outlined in this RFQ. Responding parties shall review their SOQ submissions to ensure the following requirements are met.

a. Interested parties must submit **one (1) original and eight (8) copies** (nine (9) total hardcopy submittals) and ~~one (1) electronic copy of the SOQ~~ ONE

ORIGINAL COPY OF THE SOQ ON A CD-ROM (OR ELECTRONIC MEDIA APPROVED BY THE CITY) IN PRINTABLE ADOBE OR MICROSOFT WORD FORMAT (OR OTHER FORMAT APPROVED BY THE CITY). FAILURE TO ADHERE TO THE SUBMITTAL QUANTITY CRITERIA SHALL RESULT IN THE SOQ BEING CONSIDERED NON-RESPONSIVE.

**CITY OF AVONDALE  
ACKNOWLEDGMENT OF ADDENDA RECEIVED  
REQUEST FOR QUALIFICATIONS**

FY 2010/2011 PROFESSIONAL CONSULTANTS SELECTION LIST

EN10-057

**Addendum No. 1**

\_\_\_\_\_, affirms that ADDENDUM No. 1 has  
(Name of Vendor/Designee)  
been received and that the information contained in ADDENDUM No. 1 has been incorporated  
in formulating the Vendor's Offer.

\_\_\_\_\_, \_\_\_\_\_ 2010  
Signed Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State, Zip Code

END OF ADDENDUM No. 1

EXHIBIT B  
TO  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
BROWN & CALDWELL, INC.

[Consultant's SOQ]

See following pages.

Suite 500, 201 East Washington Street  
Phoenix, Arizona 85004

Tel: (602) 567-4000  
Fax: (602) 567-4001

April 16, 2008

**BROWN AND  
CALDWELL**

Charles Andrews, P.E., Senior Project Manager  
City of Avondale Engineering Department  
11465 West Civic Center Drive, Suite 120  
Avondale, Arizona 85323

08-15-061121.019

Subject: Submission of Qualifications for FY 2008/2009  
Professional Consultants Selection List

Dear Mr. Andrews:

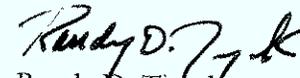
Brown and Caldwell is pleased to present its qualifications to the City of Avondale for the Professional Consultants Selection List. We are a multi-discipline environmental consulting firm that can fulfill all of your permitting, engineering, construction management, and operations needs. We have been providing water and wastewater treatment and conveyance services, hydrogeological engineering, electrical (including SCADA), and construction management services to our municipal clients in Arizona for over 30 years.

We propose a full service team of experienced professionals for the disciplines outlined on the Discipline Speciality Checklist. Selecting Brown and Caldwell for your projects provides you with the assurance we will apply the same high quality standards and technical knowledge we utilize to complete all of our projects on-time and within budget.

We look forward to helping you tackle your challenges and appreciate the opportunity you have presented Brown and Caldwell. Please call us at (602) 567-4000 if you have any questions or to discuss our qualifications in greater detail.

Very truly yours,  
BROWN AND CALDWELL

  
Michael L. Roeder  
Senior Vice President

  
Randy D. Tirpalk  
Construction Manager

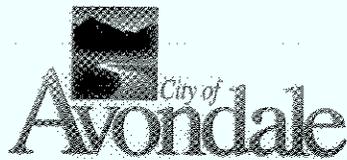
SECTION B

V. DISCIPLINE SPECIALTY CHECK LIST  
FY 2008/2009 PROFESSIONAL CONSULTANTS SELECTION LIST

Name of Firm Brown and Caldwell  
Address 201 East Washington St., Suite 500  
City Phoenix State AZ Zip 85004  
Contact Name: Michael L. Roeder  
Title: Sr. Vice President  
Telephone 602-567-4000 Fax 602-567-4001

Please check only those discipline categories for which you are particularly qualified, fully addresses, and desired to be considered.

- Water Distribution System
- Wastewater Systems
- Transportation Engineering
- Traffic Engineering
- Surveying
- Hydrology/Hydraulic Projects
- Plan Review Services
- Landscape Architects
- Hydrogeological Engineering
- GIS Programs
- Geotechnical and Environmental Engineering
- Foundations & Structural Design
- Electrical & SCADA Programming
- Construction Management
- Architects
- Improvement District Administration



TITLE PAGE

Statement of Interest  
to Provide Professional Services  
for Capital Improvement Projects  
for the 2008/2009 and 2009/2010  
Fiscal Years

Submitted To:

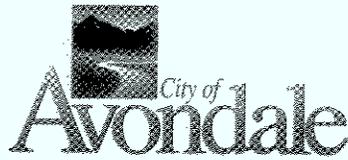
City of Avondale City Clerk  
Charles Andrews, P.E., Senior Project Manager  
City of Avondale Engineering Department  
11465 West Civic Center Drive, Suite 120  
Avondale, Arizona 85323

Submittal Date:

April 16, 2008, 3 PM (local time, Phoenix, Arizona)

Submitted By:

Brown and Caldwell  
201 East Washington Street, Suite 500  
Phoenix, Arizona 85004  
Michael L. Roeder, Sr. Vice President  
602.567.4000



FY 2008/2009

## PROFESSIONAL CONSULTANTS SELECTION LIST SECTION 1: GENERAL FACTORS & COMPLIANCE

### Insurance Requirements and Contract Documents

Brown and Caldwell (BC) has reviewed the City of Avondale's (City) insurance requirements and contract documents included in this notice of Request for Proposal. It is our intent to comply with these requirements upon award of any project.

### Design Philosophy and Approach

Our design philosophy and approach to developing sound engineering and problem resolution is based on our 60 years of specific experience in the full service delivery of water and wastewater projects. Our design standards and specifications are based on this experience and best practices. We will utilize the most appropriate and local project team customized for each project with the City. Staff assignments will be maintained for the duration of each project to ensure continuity. Dedicated and committed oversight by senior management and senior technical experts will help to ensure that our projects are delivered on time, on budget, and are reliable and operable over the facility's life.

BC will begin each project by meeting with City staff to define the project objectives, budget, and schedule. These key elements will drive our development of an internal Project Management Plan (PMP). This PMP provides a roadmap for completing the project on-time, within budget, and to the City's satisfaction. The PMP identifies budget and cost control, staffing and resource needs, schedule, and quality control requirements.

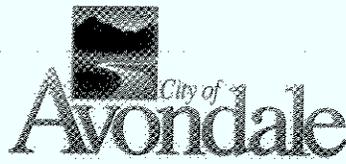
**Schedule.** Our schedule management techniques and experienced staff are key to our record of on-time project completion. Schedule control is initiated at the outset of the project and is used by the project manager to ensure the project, as well as all of its component tasks, are delivered on-time.

**Budgeting.** A key element of our cost control measures is tied closely to achieving the agreed and understood scope of work. Our project tracking system provides weekly updates on all project cost and resource information and allows us to measure project progress against project costs. This frequent information check allows flexibility to make timely adjustments in the project scope, or implement management changes.

**Quality Assurance/Quality Control (QA/QC).** BC requires every project to build well-defined QA/QC into every phase of the project as part of our Project Delivery System (PDS), which is an advanced QA/QC system covering all phases of a project including procurement, negotiation, execution, and closeout and follow-up. The focus of this system is meeting our clients' critical project success factors, which often involve issues beyond the technical scope of services and can change over the course of a project.

Our project team includes in-house specialists in design, construction, operations and maintenance (O&M), who will be involved in the project from start to finish. BC developed all of our project solutions with long-term operability, reliability, and maintainability as core requirements. Our philosophy is to always keep the present and future needs of the City's staff in mind. BC's experienced construction management staff will be involved in the design process to ensure constructability and eliminate any factors up front that may cause schedule or cost issues.

Our approach to problem resolution is to first look ahead at all times in order to avoid problems in the first place. If problems occur, we will approach them in a calm, structured, and open-minded way to first determine the root cause of the problem. Keeping our clients fully informed throughout the project, and listening and utilizing their ideas and knowledge, are keys to successful problem resolution. We champion the interests of our clients, but also respect the positions of all involved stakeholders to ensure a solution that is fair and equitable and ultimately leads to project success.



FY 2008/2009

# PROFESSIONAL CONSULTANTS SELECTION LIST SECTION 2: VENDOR'S RELEVANT EXPERIENCE, AVAILABILITY, & CAPABILITY

## Firm Description

BC is an environmental engineering, consulting, and construction management firm offering a wide range of services on water, wastewater, and infrastructure engineering projects. Our nationally recognized consulting firm has a 60-year history of delivering innovative, economical solutions to challenges encountered by public and private clients.

In Arizona, our staff mix is a perfect fit for the City's Consultant List, consisting of engineering professionals, hydrogeologists, geologists, operators, permitting specialists, and construction managers to support a wide array of your needs. The office is fully automated with the latest computer technology, software, and AutoCAD capabilities.

## List of Relevant Projects

Project Name, Client, & Location	Brief Description	Client Reference
Well N, City of Goodyear, AZ	Prime contractor for a design-build project, to convert an agricultural well into a potable water well.	Jerry Postema 632.932.3010
Bullard Water Campus, City of Goodyear, AZ	Led three design-build teams that delivered new potable water sources and treatment projects.	Shawn Bradford 623.882.512
Various Well Projects, City of Chandler, AZ	Provided hydrogeological and engineering design services for new potable water wells.	John Knudson 480.782.3590
Adaman Water Model, City of Goodyear, AZ	Provided full range of water resources technical and regulatory support.	Dave Iwanski 623.932.3010
Well Investigations, Design, and Installation, City of Phoenix, AZ	Provided engineering and geological services for water supply wells for numerous water providers.	Andy Brown 602.495.7683
91st Avenue Support System Upgrades, City of Phoenix, AZ	Provided engineering services required for upgrading specific areas to meet current Federal and City Code requirements.	Paul Kinshella 602.534.9839
Paradise Valley PRV Booster Station, City of Phoenix, AZ	Provided planning, design, construction phase services, start-up and commissioning of 40 mgd booster station.	Mike Kasem 602.256.4271
Buckeye Water and Wastewater Master Plans, Town of Buckeye, AZ	Integrated water resources master plan including water and wastewater infrastructures.	Ryan Nielsen, P.E. 623.349.6802

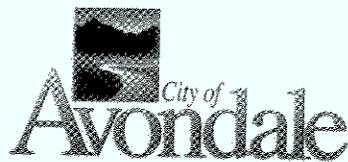
## Legal Information

Since 1947, BC has provided water and wastewater planning, design, and construction management services to municipal, private and government agencies across the United States. BC is a California corporation, incorporated in 1958. Our professionals began supporting Arizona clients in 1978. Currently, our Arizona staff is nearly 200 strong, and is supported by a national company of nearly 1,600.

**Contact Person:**  
*Michael L. Roeder*  
*Sr. Vice President*  
 201 E. Washington St., Suite 500  
 Phoenix, AZ 85004  
 602.567.4000

## Principal Office Location

A major benefit of choosing BC is that all of the work associated with this project effort will be managed and completed through BC's local office at 201 East Washington Street, Suite 500, in downtown Phoenix, Arizona. In addition, all proposed team members are located at BC's Phoenix office.



FY 2008/2009

## PROFESSIONAL CONSULTANTS SELECTION LIST SECTION 3: PERSONNEL QUALIFICATIONS & PERTINENT EXPERIENCE

### Firm's Qualifications Per Consultant Selection List Categories

Each sub-section below briefly describes our firm's capabilities per category, including a table of relevant project experience for each category. This discussion is followed by Table 3.6 which summarizes our key personnel's registrations and/or certifications and professional memberships, and matches their capabilities to each of the proposed categories, as requested.

#### Water Distribution Systems

BC has a strong reputation for delivering reliable water treatment, production, transmission and distribution systems that serve critical community needs. Many of our projects include conventional and advanced water treatment such as membrane technologies, as well as pilot and full-scale testing and design of treatment systems to address specific contaminants. Our in-house experts are experienced in all phases of development including the permitting, investigation, evaluation, design, installation, and operation of potable water wells, well-head treatment, storage tanks, and distribution systems. Table 3.1 demonstrates a sample of our water distribution system experience.

*Table 3.1 BC's Water Distribution System Experience*

Project Name, Client, Location	Brief Description
<b>Pump Stations, Wells, &amp; Pipelines</b>	
Clearwater Farms, City of Phoenix, AZ	Design of a 6.5 mgd booster station and operations building, 1.25 mg partially buried reinforced concrete reservoir, gas chlorination system, surge tanks and generator.
Cave Creek Road Water Facilities Project, City of Phoenix, AZ	Three-month fast-tracked design of four potable water pumping stations and one reclaimed water pumping station.
Paradise Valley PRV Booster Station, City of Phoenix, AZ	Final design of a 50 mgd booster station, and two PRV stations (40 mgd and 16 mgd) within the 24th Street WTP site.
Surprise Farms, City of Surprise, AZ	Design of 3 - 1,200 foot, 600 to 1,000 gpm production wells, including hydrogeological investigation, drilling coordination, design and construction management.
Various Well Projects, City of Goodyear, AZ	Evaluated existing wells and infrastructure for: equipment salvage and/or reuse; conversion from agricultural to potable use; future production and transmission infrastructure within the City's water supply plan. Completed work via design/build.
Various Well Projects, City of Chandler, AZ	On-call annual contract designing production wells including hydrogeological investigation, drilling coordination and design.
Peoria Sports Complex Water Production Facility, City of Peoria, AZ	Designed production well, booster station, and storage reservoir facility. Constructed two, 1-million gallons steel storage reservoirs. Installed 5,200 feet of 12-inch ductile iron transmission line.
<b>Water Treatment Plants</b>	
Reverse Osmosis (RO) Evaluation & Design, City of Goodyear, AZ	Performed multiple reverse osmosis projects, including wellhead RO evaluation, temporary and permanent 2.5 mgd RO installation, and plans and specifications for a system providing 4 mgd of RO blended with 6 mgd of groundwater.
24th Street WTP Solids Handling Facility, City of Phoenix, AZ	Designed and constructed a facility to process solids and residual streams, including construction management, distribution control system programming, and facility commissioning.
24th Street WTP Chlorination Modification Evaluation, City of Phoenix, AZ	Reviewed the existing filter chlorination system and made recommendations for improvement to reduce system headloss pressure and distribution problems.

### Wastewater Systems

One of BC's greatest strengths is in serving the needs of wastewater system owners and operators by delivering a level of technical skill and long-term perspective rarely found in our industry. As a leader in wastewater technology, we understand the challenges faced by owners in resolving complex treatment issues, stringent discharge requirements, and increasing demands on collection facilities. We have successfully studied, sited, permitted, designed, and provided construction management and inspection for numerous new treatment plants and improved design and operation of existing plants resulting in cost-effective solutions for our clients. We also have more than 25 years of experience in manhole and sewer investigation, pipeline and lift station rehabilitation design and condition assessments in Arizona, including projects for the cities of Scottsdale, Phoenix, Tempe, Mesa, and Winslow. In all cases, BC has applied the best-proven technologies to meet the needs of the owner. Table 3.2 illustrates a sample of our wastewater systems projects.

Table 3.2 BC's Wastewater System Experience

Project Name, Client, Location	Brief Description
<b>Pipelines</b>	
North Prescott Regional Force Main Design, City of Prescott, AZ	Performed condition assessment of the existing 14-inch pipeline under Phase I. BC is currently completing Phase II, the design of a replacement gravity pipeline in the existing force main trench.
CCTV Inspection Services, PCRWMD, AZ	Performed CCTV inspection services of the collection system to include 250,000 linear feet of less than 15-inch diameter sewers for the initial year, renewable for up to four additional one year periods.
Unlined Concrete Sewer Condition Assessment and Rehabilitation Program, City of Phoenix, AZ	Evaluated the condition of 200,000 feet of unlined concrete sewers from 24- to 90-inch diameter. Investigation and design services for the rehabilitation of seven critical sewer pipeline projects, including over 21,000 linear feet of unlined concrete pipelines with sizes ranging from 27- to 72-inches in diameter.
<b>Plants</b>	
Hilltop WWTP Upgrade & Expansion, City of Kingman, AZ	Design of a plant upgrade and expansion, including evaluation of existing wetlands for incorporation into upgraded plant, population and wastewater flow projections, and water reclamation recommendations.
Roger Road WWTP, PCRWMD, AZ	Developed a plan, including contingency plans, for improving solids thickening and digestion. Designed the conversion of a sludge storage tank to a high rate digester to add capacity to allow digester maintenance to commence.
Neely Road WRF, Town of Gilbert, AZ	Expansion and addition of process systems to increase the capacity of the existing oxidation ditch biological nutrient reduction (BNR) plant from 8.5 mgd to 11 mgd average daily flow, with peak hourly flow of 27.5 mgd.
91st Avenue WWTP Solids Thickening Facility, City of Phoenix, AZ	Designed and constructed a new centrifuge thickening facility for primary and waste activated sludge (WAS). Designed building and support systems to accommodate four additional centrifuges for ultimate plant build-out.
Southeast WRP Expansion, City of Mesa, AZ	Designed a 4 mgd addition and conversion to a biological nutrient reduction process to meet changing effluent quality requirements.
Tolleson WWTP, City of Tolleson, AZ	Over the past 27 years, improvements have included: 9.2 mgd plant expansion and process upgrades, additional plant expansion, trickling filter media replacement, effluent quality upgrade, chlorination facility upgrade.

### Hydrogeological Engineering

BC's hydrologists have earned the unprecedented endorsement of our clients by meeting their increasing demands for reliable, high quality water supplies, while simultaneously preserving the integrity and quality of surface and subsurface water resources. By completing over 1,000 successful water-related projects, our expertise literally encompasses the entire field of water resources. Our hydrologists have extensive experience with data collection, evaluation and interpretation methodologies as well as numerical and analytical modeling techniques. Our accurate and defensible hydrogeologic investigations are often stand-alone studies, or form the critical investigative foundation for our cost-effective and innovative permitting and remediation approaches. Designing a well requires a coordinated effort to completely understand the aquifer characteristics, engineering requirements, operational needs and construction limitations. BC offers a complete team to understand and anticipate all of these needs from our extensive staff of hydrogeologists, mechanical and civil engineers, operations specialists, and construction managers. Table 3.3 represents a sample of our hydrogeological engineering projects.

Table 3.3 BC's Hydrogeological Engineering Experience

Project Description	Well Name, Owner	Well Feasibility Study (Exploratory Boring)	Well Impact Analysis	Well Design and Installation	Well Abandonment (Existing Well)
Replacement Wells	Roosevelt Well City of Chandler	✓	N/A	✓	✓
	Pecos Plaza Well City of Chandler	✓	N/A	✓	✓
	Cooper Chandler Well City of Chandler	✓	N/A	✓	✓
	Gilbert Road Well City of Chandler	✓	N/A	✓	✓
	Well 27B City of Scottsdale		N/A	✓	✓
	Well 41 City of Scottsdale		N/A	✓	✓
	Mountain Vista Ranch Well City of Surprise		N/A	✓	✓
	Well 4C: Confidential Client		N/A	✓	✓
	New Well Installations	Golden Lane Well City of Chandler	✓	✓	✓
Lindsay Road Well City of Chandler		✓		✓	N/A
Well 287 City of Phoenix			✓	✓	N/A
Well 288 City of Phoenix			✓	✓	N/A
Well 289 City of Phoenix			✓	✓	N/A
Well 296 City of Phoenix		✓		✓	N/A
Well 115 City of Scottsdale			✓	✓	N/A
Well 141 City of Scottsdale		✓	✓	✓	N/A
Well 123 City of Scottsdale		✓	✓	✓	N/A
Sun Village Well No. 2 Confidential Client		✓	✓	✓	N/A
Sun Village Well No. 5 Confidential Client			✓	✓	N/A
Traditions Well No. 3 Confidential Client			✓	✓	N/A

### Electrical Design and Supervisory Control and Data Acquisition (SCADA) Programming

Power distribution, lighting, fire alarm systems, emergency and standby power systems, and power reliability studies are some of the areas of expertise BC possesses in the field of electrical engineering. Over the past seven years, our electrical engineers have provided reliable, safe, and cost-effective electrical designs at over 50 water treatment and distribution facilities, and wastewater treatment plants. Within the Phoenix office, we also have extensive SCADA design, implementation, and programming capabilities for both standard programmable logic controller (PLC) and distributed control systems. In each of these facilities our team of control systems engineers has successfully addressed the need for instrumentation and control integration of SCADA and distributed control systems. A sample of our electrical design and SCADA experience is shown in Table 3.4.

Table 3.4 BC's Electrical Design and SCADA Experience

Project Name, Client, & Location	Description
North East Booster Station, City of Avondale, AZ	Provided start-up assistance for the new RTU to monitor and control the new booster station. Provided programming to relay site information between the central control station or human machine interface (HMI), on-site Operator Interface Terminal (OIT) and on-site SRP RTU. Developed HMI and OIT screen descriptions, programmed the Modicon 386 PLC and Magelis OIT.
Arc Flash Hazard Analysis and Engineering Services, City of Tempe, AZ	Provided coordination, electrical engineering and field services at 43 remote sites and 3 plants. Updated existing electrical single-line diagrams (SLD) to match current installation of the power distribution system; updated electrical equipment with identification labeling to meet arc flash requirements and equipment tagging; updated Maintenance Program; trained staff for safe switching operating procedures.
Instrumentation and Control Inspection and Testing Service, City of Phoenix, AZ	Performed arc flash investigation and study for several collection and distribution remote facilities. Facilitated City workshop meetings to develop direction, scope and budget for the overall arc flash project. Enforced City standards on projects.
SCADA Security Upgrades, City of Peoria, AZ	Performed design-build to upgrade instrumentation for improved security at 35 remote water facilities. Developed security monitoring (door alarms, chlorine residual analyzers, flow metering) and electrical and SCADA equipment upgrades.
91st Avenue WWTP Support System Upgrades and Upgrade and Expansion, City of Phoenix, AZ	Designed I&C expansion hardware and integrated the field devices, analyzers, and instruments of these processes as an extension to the existing Plant Distributed Control System (DCS). Developed, programmed, and configured application control logic and configured graphic displays for the appropriate level of operator monitoring and control consistent with the City's control standards. Oversaw acceptance testing of this equipment, performed commissioning services, managed vendor training, provided system training and updated the City's Information Access System (IAS) for these upgrades. Replaced headworks local control panel with DCS compatible panel.
Cave Creek Road Water Facilities, City of Phoenix, AZ	Generated the application program for Reclaimed Water Booster Pump Station No. 7 RTU to communicate with the Cave Creek WTP via single mode fiber optic cable for data logging and display and for supervisory control download. Validated the application control functions of the potable and reclaimed water system control strategy.

### Construction Management

BC's construction capabilities involve bid assistance, construction oversight, facility inspection, training, start-up and commissioning, and contractor management for a wide variety of municipal and private facilities. In order to answer the needs of alternative project delivery methods, we have structured our Construction Services Team to oversee and manage all construction delivery methods including typical design-bid-build, design-build, construction manager at risk (CMAR), and job order contracting (JOC). We have built our organization with the goal of providing comprehensive services to our clients during the entire project. We have the organization, people, and systems to provide the construction management services required for our clients' individual needs. Our team approach is extremely effective in maximizing each team member's expertise and productivity. Table 3.5 illustrates a sample of BC's construction management experience.

Table 3.5 BC's Construction Management Experience

Project Name, Client, Location	Construction Cost	Services				
		Construction Management	Inspection	Operations	Start-Up	Training
Well No. 12, City of Tempe, AZ	\$450K	✓	✓	✓	✓	✓
Agua Fria Wells 4.3 and 4.4, Confidential Client, AZ	\$750K	✓	✓	✓	✓	
Expansion Reservoir and Booster Pumps, Carefree Partners, Arizona Traditions, AZ	\$1M	✓	✓	✓	✓	
Williams and Jomax Booster Stations, City of Peoria, AZ	\$2.2M	✓	✓	✓	✓	✓
Deem Hills Booster Station, City of Phoenix, AZ	\$3M	✓	✓	✓	✓	✓
Sonoran Mountain Ranch Booster Stations, Element Homes/City of Peoria, AZ	\$5M	✓	✓	✓	✓	✓
Tolleson WWTP Effluent Quality Upgrades, City of Tolleson, AZ	\$5M	✓	✓	✓	✓	✓
24th Street WTP Chemical Modifications, City of Phoenix, AZ	\$6.4M	✓	✓	✓	✓	✓
91st Avenue WWTP Solids Thickening, City of Phoenix, AZ	\$23M	✓	✓	✓	✓	✓
Southeast Water Reclamation Plant, City of Mesa, AZ	\$24M	✓	✓	✓	✓	✓
Cave Creek Water Production Facilities, City of Phoenix, AZ	\$34M	✓	✓	✓	✓	✓
Unlined Concrete Sewer Rehabilitation/Replacement, City of Phoenix/SROG, AZ	\$50M	✓	✓			
Developer Project Oversight, City of Phoenix, AZ	\$12.5M	✓	✓	✓	✓	✓

### Team Qualifications

BC provides a local, full service team of experienced professional and technical people that offer a complete range of in-house services from the initial water resource planning through construction and start-up services. This complete, full-service project team will provide "one stop" shopping for services which greatly reduces the coordination efforts and overall project time. Our team is comprised of seasoned experts specializing in the fields of water distribution and wastewater systems, hydrogeological engineering, electrical design and SCADA, and construction management.

Table 3.6 BC's Key Personnel Qualifications

Key Personnel Name Title Registrations and/or Certifications	Professional Memberships	Categories of Work				
		Water Distribution Systems	Wastewater Systems	Hydrogeological Engineering	Electrical Design & SCADA	Construction Management
<b>Ron Ablin, P.E.</b> <b>VP, Infrastructure</b> PE #27807, AZ	American Public Works Association Water Environment Federation Arizona Water Pollution and Control Association	✓	✓			
<b>Michael Bostic, R.G.</b> <b>Supervising Geologist/ Hydrogeologist</b> RG #35021, AZ	Arizona Hydrological Society			✓		
<b>Brent Cain</b> <b>Hydrologist</b> EVS Training				✓		
<b>Ken Chandler, P.E.</b> <b>Managing Engineer</b> PE #36697, AZ CSE #35940, AZ	Instrument Society of America International Association of Electrical Inspectors				✓	
<b>Steve Davidson, P.E.</b> <b>Supervising Engineer</b> PE #81508, AZ	American Society of Heating, Refrigerating and Air Conditioning Engineers Water Environment Federation	✓	✓			
<b>Brandon Erndt</b> <b>Controls Systems Manager</b>	Institute for Electrical and Electronics Engineers Instrumentation, Systems and Automation Society Chandler-Gilbert Community College Automated Manufacturing System Technical Advisory Council				✓	✓
<b>Jim Fordyce</b> <b>Supervising Engineer</b>	International Association of Electrical Inspectors Instrumentation, Systems and Automation Society				✓	
<b>Andy Fuchs</b> <b>Electrical Inspector</b> GE Relay School Cummins Power Generation School Estimatic Course Illuminating Engineering Society School					✓	✓

Table 6 Continued - BC's Key Personnel Qualifications

Key Personnel Name, Title, Registrations and/or Certifications	Professional Memberships	Categories of Work				
		Water Distribution Systems	Wastewater Systems	Hydrogeological Engineering	Electrical Design & SCADA	Construction Management
<b>Jeff Littell</b> <b>Principal Geologist</b> Mine Safety and Health Act OSHA 40-Hour Hazardous Waste Operations and Emergency Response	Arizona Hydrological Society Association for Environmental Health and Sciences Association of State and Territorial Solid Waste Management Officials Association of Environmental Professionals National Groundwater Association			✓		
<b>Randy Mills</b> <b>I&amp;C Inspector</b> Journeyman Wireman I.B.E.W. Local 640 Residential Wireman, I.B.E.W. Local 640	Instrumentation, Systems, and Automation Society International Brotherhood of Electrical Workers Local 640				✓	✓
<b>Gary Newman, P.E.</b> <b>VP Wastewater</b> PE #37552, AZ	Water Environment Federation	✓	✓			
<b>Mark Nicholls, R.G.</b> <b>Groundwater Resources            Manager</b> RG # 39869, AZ				✓		
<b>Hugh Pace, P.E.</b> <b>Chief Electrical Engineer</b> PE #20244, AZ IBEW Licensed Journeyman Electrician & Electrical Supervisor Control System Engineer, #10060, OR	Industrial Computing Society Institute of Electrical and Electronic Engineers Instrument Society of America International Association of Electrical Inspectors International Brotherhood of Electrical Workers Local 191				✓	
<b>Jim Page</b> <b>Construction Inspector</b> Mechanical Journeyman Gas Fitter Cross-Connection Control General Tester – ASSETT and AWWA Plumbing Journeyman					✓	✓
<b>Mark Robinson, P.E.</b> <b>Associate Principal            Engineer</b> PE #35172, AZ	American Water Works Association Water Environment Federation Arizona Water and Pollution Control Association Toastmasters International	✓	✓			

Table 6 Continued - BC's Key Personnel Qualifications

Key Personnel Name, Title, Registrations and/or Certifications	Professional Memberships	Categories of Work				
		Water Distribution Systems	Wastewater Systems	Hydrogeological Engineering	Electrical Design & SCADA	Construction Management
<b>Karen Schwab, R.G.</b> <b>Principal Hydrogeologist</b> RG #33268, AZ OSHA Mine Safety and Health Administration (MSHA) HazMat Supervisor	Member of the Society for Mining, Metallurgy, and Exploration Arizona Hydrological Society			✓		
<b>Jarrell Southall</b> <b>Supervising Scientist</b> OSHA Hazardous Waste Operations/Emergency Response Training MSHA Newly Employed Experienced Miner Confined Space Entry Supervisor Health and Safety	Arizona Chamber of Commerce Environmental Committee Arizona Association of Industries Science and Environmental Committee			✓		
<b>Harold Thomas, Jr.</b> <b>Water Resources Practice            Leader</b> Water Resources Planning	City of Phoenix Water and Wastewater Rate Advisory Committee, Past Chair American Membrane Technology Association American Society of Civil Engineers American Water Works Association Arizona Water Pollution Control Association Water Reuse Association Western Coalition of Arid States WESTMARC, WESTCAPS, CASS	✓	✓	✓		
<b>Randy Tirpak</b> <b>Construction Manager</b>						✓
<b>Craig Tweed</b> <b>Construction Manager</b>						✓

## Experience Summary

Ron Ablin has 18 years of experience as a project engineer and project manager in the study, design, and construction of municipal projects. His experience includes a variety of projects in water, wastewater, and hydraulics.

### Education

B.S., Civil Engineering, Pennsylvania State University, 1989

### Registration

Professional Engineer 27807, Arizona, 1994

Professional Engineer 14135, Nevada, 1999

### Experience

18 years

### Joined Firm

1997

### Relevant Experience

- *Biosolids Classification and Marketability Analysis, Phoenix, Arizona*
- *Multiple Interceptor Designs, Mesa, Scottsdale, Chandler, and Tempe, Arizona*
- *Wastewater Collection System Model, Phoenix, Arizona*

### Pyramid Peak Water Treatment Plant Transmission Lines/Jomax Booster Station Design, City of Peoria, Arizona

**Project Manager.** Designing an in-line booster pump station, 7.5 miles of 30-inch diameter transmission main, and an in-line pressure reducing/pump back station for the City of Peoria. This project will provide treated surface water from the Pyramid Peak Water Treatment Plant (WTP) to Pressure Zones 3 and 4 in a rapidly growing area in northern Peoria. The in-line pump station will be designed with an initial capacity of 6 million gallons per day (mgd) under average day conditions with the capability of providing 9 mgd under peak conditions. In addition, the site will be equipped to efficiently allow for future expansion up to an ultimate capacity of 18 mgd. The station will be designed to operate without the benefit of storage under the initial conditions by utilizing variable frequency drive pumps. The facility includes booster pumps, surge tank, SCADA, and other associated features. Construction period services, start-up, training, and related operational services are included in the Project.

### Public Supply Wells 287, 288, 289, 290, 291, 292, 293, and 294, City of Phoenix, Arizona

**Project Manager.** Responsible for the design of eight large public supply wells in North Phoenix, Arizona.

### Salt River Project Well Outfitting, City of Chandler, Arizona

**Project Manager.** Fast-tracked preparation of construction documents for outfitting three new Salt River Project (SRP) production wells to produce water for the City of Chandler. The project included the installation of new supply and distribution water lines, tablet chlorination, backup generators, system control and integration, and extensive coordination with the work being conducted concurrently by SRP.

### Cave Creek Road Facilities Booster Pump Stations, City of Phoenix, Arizona

**Project Manager.** Three-month fast-tracked design of four potable water pumping stations and one reclaimed water pumping station for the City of Phoenix. The project consisted of high capacity, variable speed, in-line booster pumps to deliver water through multiple pressure zones and pressure reduction stations to allow alternative gravity flow operation from the upper to lower zones within the City of Phoenix. The booster pump stations have an ultimate capacity ranging from 16 to 60 mgd; estimated construction cost was \$14.5 million.

**Cave Creek Road Facilities Construction and Program Management, City of Phoenix, Arizona**

**Project Manager.** Construction management for the Cave Creek Road Facilities Pump Stations and program management for an estimated \$47 million in construction that includes seven large diameter pipeline projects to connect the pump stations. This effort included acting as the City's representative to coordinate and oversee the project development for eight projects awarded to six separate contractors.

**Water Plant 6/Well 4C, Citizens Water Resources, Sun City, Arizona**

**Project Manager.** Preparation of construction documents to outfit an existing well, including submersible pump, gas chlorinations, electrical and instrumentation controls, discharge piping, and associated mechanical features. A field investigation was performed to evaluate the condition of the existing well casing, which ultimately required repair in three locations. Mechanical equipment, including the pumps, was salvaged from an out-of-service well site and reused at Well 4C.

**Wells 6 and 7 at the Village at Surprise, Citizens Water Resources, Surprise, Arizona**

**Project Manager.** Preparation of construction documents for two new potable well facilities for a new residential development in Surprise, Arizona. Each facility included a new deep well submersible pump, hydro-pneumatic tank, standby generator, SCADA control, perimeter wall, and associated mechanical features.

**Sports Complex Well, Reservoir, and Booster Station, City of Peoria, Arizona**

**Project Manager.** Fast-track design and construction of a 1,000-gallons per minute (gpm) production well, two 1-million gallon storage tanks, on-site chlorine disinfection, a 1,700-gpm booster pump station, SCADA, and one mile of transmission main. The project included a complete site analysis including well siting and impact, hydrogeology, and well impact and spacing. The facility was designed to meet the additional potable water and fire flow requirements.

**Rancho Santa Fe Reservoir and Booster Pump Station, City of Avondale, Arizona**

**Project Manager.** Responsible for the development of a new water production facility for the City of Avondale. Project included the renovation of three existing irrigation wells for potable water use and the construction of a 1-mg reservoir and 4,000-gpm pump station to meet the City's increasing water demands.

**Chlorine Residual Study, City of Mesa, Arizona**

**Project Engineer.** Prepared a water quality model for the City of Mesa to determine chlorine residual in the City's distribution system. The water quality model was used to determine the areas of low residual in the distribution system and the best methods for maintaining adequate chlorine residual.

### Experience Summary

Michael Bostic has practiced geology and hydrogeology for 26 years in the Midwest and southwest United States. He has participated in projects in Arizona, which included the hydrogeologic characterization of mining facilities; exploration for groundwater resources; recharge siting investigations; the design and installation of water supply wells and ASR wells; and the evaluation of fractured ore deposits for in-situ mining applications.

As a geologist in the petroleum industry from 1978 to 1990, Mr. Bostic supervised oil exploration, development, and production projects. He continually works with well service specialists in the industry to apply state-of-the-art techniques for drilling, completion, and well evaluation projects.

His experience includes well drilling and completion, well testing, packer testing, interpretation of cased and open hole geophysical logs, drillstem test data, reservoir stimulation including acidizing and fracturing techniques, and production well and ASR well design.

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#### Education

B.S., Geology, West Virginia University

#### Registration

Registered Geologist, No. 35021, Arizona, 2000

#### Experience

26 years

#### Joined Firm

1994

#### Tramonto Recharge Facility, City of Phoenix, Arizona

**Project Manager.** Provided hydrogeological services for a feasibility study, permitting, design, installation, and testing of a vadose zone recharge facility for the City of Phoenix. The facility consists of three vadose zone recharge wells and a monitoring well. The facility was constructed to recharge treated CAP water. A full-scale Constructed Underground Storage Facility (USF) and Water Storage (WS) permit was obtained from the ADWR.

#### Aquifer Storage and Recovery (ASR) Wells, City of Chandler, Arizona

**Project Manager.** Conducted a program involving the drilling, geophysical logging and packer testing of seven (7) exploratory borings for the purpose of siting ASR wells in Chandler, Arizona. Three sites were evaluated with a minimum of two borings drilled at each site, spaced to characterize the lateral continuity or discontinuity of coarse-grained intervals. Temporary test wells were installed in selected borings to conduct injection tests and spinner flow meter surveys to identify zones of recharge. Zonal groundwater samples were collected from each boring to assess ambient water quality conditions. The information was used to characterize hydrogeologic conditions at each site, differentiate hydrologic units and determine the feasibility of installing ASR wells and the ASR well design.

#### Recharge Feasibility Assessment, Central Arizona Water Conservation District (CAWCD), Queen Creek, Arizona

**Project Hydrogeologist.** Providing technical oversight for a project to evaluate the potential use of a former gravel pit for a spreading basin recharge facility. The field investigation included a drilling program with shallow (20 to 50 feet deep), intermediate (approximately 150 feet deep), and deep (560 feet) borings; groundwater sampling; split-spoon sampling for sieve analysis and laboratory permeability tests; and single-ring infiltrometer testing.

**Public Supply Wells, City of Scottsdale Wells 123 and 141, Scottsdale, Arizona**

**Project Manager.** Responsible for the design, installation, and testing of a 1,260-foot deep, 18-inch diameter and a 1,490-foot deep, 16-inch diameter public supply well for the City of Scottsdale. Prepared well spacing/well impact studies, developed technical specifications, and provided bidding services. Coordinated contractor activities, supervised field tasks (drilling, logging, well installation, testing, and development), analyzed aquifer test and spinner flowmeter data, and provided a recommended pump setting depth and discharge rate for each well.

**Public Supply Well, City of Phoenix Well 296, Phoenix, Arizona**  
**Project Manager.** Responsible for the design, installation, and testing of a 1,450-foot deep, 18-inch diameter public supply well for the City of Phoenix. Developed technical specifications and conducted pre-bid and pre-construction meetings. Coordinated contractor activities, supervised field tasks, and analyzed aquifer test and spinner flowmeter data and provided a recommended pump setting depth and discharge rate for the well.

**Public Supply Well, City of Phoenix Well 297, Phoenix, Arizona**  
**Project Manager.** Responsible for the design, installation, and testing of a public supply well for the City of Phoenix. The project involves preparation of a well spacing/well impact study, development of technical specifications and provided bidding services, coordinating contractor activities, supervise field tasks (drilling, logging, well installation, testing and development), and analyze aquifer test and spinner flowmeter data and provide a recommended pump setting depth and discharge rate for the well.

**Public Supply Wells, City of Phoenix Wells 287, 288, and 289, Phoenix, Arizona**

**Project Hydrogeologist.** Responsible for the design, installation, and testing of three (1,500 to 1,600-foot deep, 18-inch diameter) public supply wells in north Phoenix, Arizona. Coordinated contractor activities, prepared lithologic logs and analyzed geophysical logs and sieve analysis of cuttings from pilot borings. Collected and analyzed zonal groundwater samples. Based on these data, prepared a well design for each of the public supply wells.

**Tumbleweed Park Recharge Facility, City of Chandler, Arizona**

**Project Hydrogeologist.** Developed technical specifications and provided technical oversight for a program involving the drilling and geophysical logging of an exploratory boring for the purpose of designing an ASR well. Based on the exploratory boring analysis, developed the ASR well design and technical specifications for well drilling, installation and testing operations.

## Experience Summary

Mr. Brent Cain has over 9 years of experience in hydrology with an emphasis on groundwater flow modeling, groundwater resource investigations, aquifer testing, contaminant/solute fate and transport, well installation, GIS applications, and field and modeling project management.

### Education

Candidate for Ph.D., Hydrology and Water Resources, University of Arizona, 2002

B.S., Geology, Furman University, South Carolina, 1994

### Experience

9 years

### Joined Firm

2000

#### Town of Buckeye, Arizona, Hassayampa Sub-basin Hydrologic Study and Numerical Model

**Modeler.** Ongoing project. Developing conceptual and numerical groundwater flow model to address future development, water supply, and assured water supply certification in a newly developed basin. Results from the study will be adopted and used by the Arizona Department of Water Resources (ADWR) for future hydrologic assessments of the western Phoenix Active Management Area.

#### City of Chandler, Arizona, Alamosa Well Diagnostic Model

**Lead Modeler.** Developed three-dimensional, conceptual and numerical groundwater flow model to address migration of industrial recharge water to potential municipal production well locations.

#### City of Chandler, Arizona, Lindsay Road Diagnostic Model

**Lead Modeler.** Ongoing Project. Developing three-dimensional, conceptual and numerical groundwater flow model to address the impact of municipal well pumping in a confined, multi-aquifer system. Coupling groundwater model with the use of advanced, analytical well solutions to assess hydraulic properties of local and regional confining units. Aquifer testing and modeling methodology has been approved by the Arizona Department of Water Resources (ADWR).

#### Town of Oro Valley Water Utility, Arizona, Assured Water Supply Certification

**Lead Modeler.** Developed conceptual and numerical groundwater flow model to address assured water supply certification, expansion of well field, and regional groundwater pumping issues. This analysis has been subsequently approved by the Arizona Department of Water Resources (ADWR).

#### Town of Oro Valley Water Utility, Arizona, Groundwater Action Plan

**Lead Modeler.** Refined conceptual and numerical groundwater flow model to address well field expansion, siting of new wells, drought sensitivity, pumping interferences, and current status of aquifer reserves and hydraulic properties.

#### Town of Oro Valley Water Utility, Arizona, Oro Valley Sub-basin Drought Sensitivity Study and Well Field Assessment

**Lead Modeler.** Ongoing project. Refining conceptual and numerical groundwater flow model to address effects of extended drought conditions,

magnitude of basin recharge, siting of future well locations, and impact of well field pumping using analytical well solutions.

**City of Scottsdale, Arizona, Regional Groundwater Flow Model Modeler.** Refined an outdated, three dimensional numerical groundwater model for the Scottsdale basin. Developed conceptual groundwater model for the basin digitally using GIS. Incorporated multiple modeling efforts from various entities into the final model.

**City of Bisbee, Arizona, Hydrologic Modeling of Reclaimed Water Lead Modeler.** Developed numerical model to simulate flow, infiltration, and evaporation of reclaimed water discharged into an ephemeral, desert wash. Integrated field and literature derived data into the conceptual model of the study area using GIS.

**Town of Oro Valley Water Utility, Arizona, Water Supply Well E-8 Staff Geologist.** Provided well construction and management services for a water supply well for the Town of Oro Valley Water Utility, Arizona. Conducted well impact/spacing analyses and aquifer testing.

**Town of Oro Valley Water Utility, Arizona, Water Supply Wells E-5 and E-6**

**Staff Geologist.** Provided well construction and management services for two water supply wells for the Town of Oro Valley Water Utility, Arizona. Other work included conducting well impact/spacing analyses and test pumping.

**Carson City Utility Department, Nevada, Sunset Park and Fuji Park Water Supply Wells**

**Staff Geologist.** Provided well construction and management services for two water supply wells for the Carson City Utility Department, Arizona. Other work included interpretation of site lithologies, analysis of geophysical logs, refinement of well designs, supervision of well development and aquifer testing analyses.

**Arizona Department of Environmental Quality, City of Willcox Site Remediation**

**Lead Modeler.** Conducted regional hydrology study, developed conceptual and numerical groundwater model for basin and sites, and interpreted multi-phase flow conditions.

**Arizona Department of Environmental Quality, Rock Springs Site Remediation**

**Staff Hydrologist/Lead Modeler.** Designed and conducted aquifer tests and developed numerical groundwater and mass transport model to simulate remedial options.

## Experience Summary

Ken Chandler has nearly ten years of experience designing electrical and instrumentation and control (I&C) systems for water and wastewater projects. Designs include workshops, design reports, retrofit and modification investigations, control descriptions, maintenance-of-plant-operations planning to minimize or eliminate process outages, product selection, and specifications. Design drawings include process and instrumentation diagrams (P&IDs), 480 volt load summaries, panel schedules, single line and control single line diagrams, plans, and schematics. Associated construction services include submittal review, inspection, startup assistance, and troubleshooting. Previous experience included 15 years in I&C product and system selection, application, detailed design, submittals, procurement, configuration, PLC and SCADA programming, start-up, and training with a local water/wastewater control systems integrator.

### Education

B.S., *Electronics Engineering Technology*,  
Devry, 1980

### Registration

*Professional Electrical Engineer*  
No. 18032, Nevada, 2006

*Professional Electrical Engineer*  
No. 36697, Arizona, 2001

*Professional Control Systems Engineer*  
No. 35940, Arizona, 2001

### Experience

24 years

### Joined Firm

1998

### Relevant Expertise

- ✦ *Electrical Design*
- ✦ *I&C Design*
- ✦ *PLC and SCADA System Design*
- ✦ *Construction Inspection*
- ✦ *Process Startup and Troubleshooting*
- ✦ *Asset Management Assessments*
- ✦ *Design and startup of small to large wastewater treatment plant projects ranging from less than 10 MGD to over 150 MGD.*
- ✦ *Design and startup of solids handling facilities focusing on sludge thickening and dewatering, and anaerobic digestion.*
- ✦ *Design and startup of small to large - potable water pump stations.*

### **Instrumentation and Control Inspection and Testing Service, City of Phoenix, Arizona.**

**Instrumentation and Controls Technical Advisor.** Performed in this capacity since July 2006 at the Union Hills Water Treatment Plant and the Cave Creek Water Reclamation Facility. Responsibilities at the plants have included technical oversight for design review, inspection services, testing services and support for electrical, instrumentation and control design and construction projects as well as job order contracts (JOC) projects to verify compliance with the City's established instrumentation and controls standards.

### **Remote Facilities SCADA/Security Enhancements Phase 1 & 2, City of Peoria, Arizona**

**Technical Advisor.** Two year project includes physical site security improvements, upgrading of the programming language for 37 remote facility Remote Telemetry Unit (RTU), creation of operations, Programmable Logic Controller (PLC) and SCADA Human Machine Interface (HMI) standards, reprogramming of all remote facility RTU's and central SCADA server to meet new standards.

### **Greenfield/South Water Reclamation Plant Phase II Expansion, City of Mesa, Arizona**

**Lead I&C Designer.** Solids processes include: A two-stage hydrogen sulfide odor scrubber including fans, pumps, and continuous chemical metering pump control. Anaerobic digesters, sludge thickening and dewatering centrifuges, related polymer feed systems, and sludge pumps. Boilers and candlestick flares. Designed electrical and I&C, including Modicon Quantum PLC SCADA. This was a Construction Manager at Risk project.

### **P2-90 WWTP Secondary Treatment Upgrade, Orange County Sanitation District (OCS D), California**

**Instrumentation and Controls QA/QC Engineer.** Provided I&C QA/QC review for the 60 mgd expansion of an existing facility.

**91st Avenue WWTP Unified Plant (UP05) Expansion Program, City of Phoenix, Arizona**

**Lead Electrical and I&C Engineer.** Expansion of existing headworks, grit handling facilities, and DCS. Preliminary Treatment processes include: Addition of Bar Screen, motorized gates, grit removal system, and grit washer. Designed electrical and I&C, and planned maintenance-of-plant-operations to minimize or workaround process outages. This is a Construction Manager at Risk project.

**91st Avenue WWTP Solids Thickening Facilities, City of Phoenix, Arizona**

**Electrical and I&C Engineer.** Processes include: A two-stage hydrogen sulfide odor scrubber including fans, pumps, and continuous chemical metering pump control. Sludge thickening centrifuges and related polymer feed systems, waste-activated sludge, and thickened sludge pumps. Designed electrical and I&C, programmed existing GE/Opto22 DCS, inspected construction, and assisted with process startup.

**91st Avenue WWTP Support Systems Upgrade, City of Phoenix, Arizona**

**Electrical and I&C Engineer.** Replaced equipment for compliance with Class I Division 1 and 2 Group D hazardous environments per NFPA 820. Process includes: Pump motors and feeders, raceways, and instrumentation for 16 anaerobic digesters. Designed electrical and I&C, and inspected construction.

**91st Avenue WWTP Upgrade and Expansion, City of Phoenix, Arizona**

**Electrical and I&C Engineer.** Processes included the following: A two-stage hydrogen sulfide odor scrubber including a fan, pumps, and continuous chemical metering pump control. Methanol storage and pumping system includes six chemical metering pumps. Ferric chloride metering pumps were added to existing headworks process. Designed electrical and instrumentation, programmed existing GE DCS, inspected construction, and assisted with process startup.

**Tolleson WWTP Solids Handling Improvements, City of Tolleson, Arizona**

**Lead I&C Engineer.** Design in process. Process include primary sludge pump replacement, rotary drum thickeners, anaerobic digester heating and mixing replacement, waste gas flare incineration, sludge belt filter press and related polymer feed systems and sludge pumps, and carbon tower odor control. Designed I&C and expansion of existing Allen-Bradley PLC5 system.

## Experience Summary

Steve Davidson has over 34 years of experience designing, operating, and constructing environmental control systems for industrial and municipal facilities. He serves as a senior odor control expert, and has been involved in over 100 odor control and air emissions projects, in various capacities. He has detailed and extensive experience in air emission control, sulfide and odor control chemistry, wastewater treatment, HVAC and energy conservation, and air handling systems. Mr. Davidson served on the WEF Volatile Organic Compounds (VOCs) Task Force.

### Education

M.B.A., University of Colorado, 1974

B.S., Chemical Engineering, University of Colorado, 1972

### Registration

Professional Engineer No. 81508, Arizona, 1997

Professional Engineer 14997, Colorado, 1977

### Training/Certification

Qualified Environmental Professional (QEP), Institute of Professional Environmental Practice

### Experience

34 years

### Joined Firm

1982

#### City of Tolleson WWTP Odor Evaluation, Tolleson, Arizona

**Project Manager.** Responsible for a Plant-wide odor evaluation to address increasing odor complaints arising from encroachment of residential areas near the Plant. Work consisted of winter and summer air and gas phase sampling throughout the facility, and air dispersion modeling. The work included a comprehensive analysis of odor control options, including chemical, air phase, and process changes to reduce sulfide and odor production. Costs of various options were developed to enable budgeting and phasing of projects.

#### Roger Road Headworks Enclosure and Odor Control Evaluation, Pima County, Tucson, Arizona.

**Project Manager.** Responsible for the conceptual design study of a new structure to enclose an existing outdoor headworks at the Roger Rd. Wastewater Treatment Plant. The evaluation included an analysis of building enclosure options and development of four odor control technology options. Work included a detailed analysis of electrical upgrades and construction staging while maintaining operation. The analysis also included detailed costing of alternatives and life cycle cost analysis of each odor control option.

#### Southern Ave. Interceptor Odor Control Study and Conceptual Treatment Design, Phoenix, Arizona

**Project Manager.** Conducted a comprehensive evaluation of odor and sulfide conditions along a 15-mile length of the Southern Avenue Interceptor. The project included a comprehensive odor and wastewater characterization, sewer headspace pressure analysis, analysis and testing of chemical sulfide controls, testing foul extraction of the sewer headspace, evaluation of foul air treatment alternatives, and conceptual design of odor abatement stations.

#### 91st Avenue Wastewater Treatment Plant (WWTP) Odor Control Facilities, Phoenix, Arizona

**Project Manager.** Responsible for the design of \$10 million of foul air containment and treatment facilities at the 190-mgd 91st Avenue WWTP. Project includes upstream chemical treatment evaluation and chemical addition facilities, 60,000 square feet of new tank and channel cover systems in the WWTP headworks processes, and treatment through two dual stage scrubbers. Systems also include a new two-stage scrubber handling highly

concentrated (up to 500 ppm H<sub>2</sub>S) from the Plant's Solids Handling Facility.

**Southeast Water Reclamation Plant (SEWRP) Odor Control Systems, Mesa, Arizona**

**Project Engineer.** Responsible for the evaluation and design of odor control measures for the SEWRP, which is housed in the center of the Superstition Springs Golf Course. Primary sedimentation basins and both aeration basins are covered and the foul air is treated in multistage odor scrubbers. Covered secondary clarifiers are ventilated to an activated carbon odor adsorber. Ferrous chloride addition system was designed to pre-treat sludge returned to the Baseline Road Interceptor sewer line.

**Randolph Park Water Reclamation Facility Odor Control Systems, Pima County, Tucson, Arizona**

**Project Engineer.** Responsible for the evaluation and design of odor control systems at the Randolph Park Water Reclamation Facility (WRF), and associated influent pumping station. The facility is a 3-mgd membrane treatment facility that provides A+ reuse water for Randolph Park Golf Course and other Pima County facilities. Being located in the center of Tucson, this project required extremely effective odor control to be achieved with very limited space. Two, packaged multistage scrubbers are utilized to insure the Plant and lift station are odor free.

**Greenfield Water Reclamation Plant, Phase 2 Expansion, Solids Treatment Processes, City of Mesa, Arizona**

**Odor System and HVAC Design Manager.** Responsible for the design and implementation of the solids handling odor control systems. Project included a new, 40,000 cfm, two stage wet chemical scrubber system and chemical handling facility for centrifuge and sludge handling equipment odor control. NFPA classification analyses were developed in this work. HVAC design included multiple make-up air systems for the solids building, digester galleries, and boiler facility; and new air conditioning and air filtration systems for new control centers and electrical rooms.

**Littleton/Englewood Wastewater Treatment Plant Upgrade, Colorado**

**Odor and HVAC Systems Design Manager.** Over the past 15 years, completed all odor and HVAC system designs for 3 major plant upgrades. Significant project elements include foul air collection and treatment involving all major process areas using chemical wet scrubbers (2 systems), trickling filter ventilation with headworks foul air, foul air conveyance from off-site interceptor siphons to the plant odor systems, and two nitrifying trickling filters treating DAFT and solids handling facility foul air. All systems underwent extensive evaluation and testing after completion, and were the basis for technical papers authored by Mr. Davidson.

### Experience Summary

James Fordyce has 20 years of experience in designing, inspecting, estimating and supervising electrical construction projects, installing and wiring electrical equipment, and preparing submittals, change orders, and shop drawings for various private and municipal projects.

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#### Education

B.S. Electrical Engineering, Kennedy-Western University

#### Experience

20 years

#### Joined Firm

2000

#### **Instrumentation and Control Inspection and Testing Service, City of Phoenix, Arizona.**

**Project Manager/Project Designer.** Performed in this capacity since July 2004 at the Union Hills Water Treatment Plant and the Cave Creek Water Reclamation Facility. Responsibilities at the plants have included design review, inspection services, testing services and support for electrical, instrumentation and control design and construction projects as well as job order contracts (JOC) projects to verify compliance with the City's established instrumentation and controls standards.

Provides troubleshooting, design and engineering services to the plant's electrical, instrumentation and control staff on initiated tasks to provide engineered solutions to problems encountered in the daily operation of the facilities.

#### **Program Management Arc Flash Analysis and Engineering Services, City of Phoenix, Arizona.**

**Project Manager.** Project involves the management of seven consulting firms to perform arc flash analysis and engineering services at seven wastewater and water treatment plants, all remote collection facilities and all remote distribution facilities. Engineering services include condition assessment of electrical distribution equipment and the evaluation of existing grounding systems.

Responsibilities include the generation of the initial study to create the project and the creation of standardized procedures, document and engineering tools to be used by all participants in the project. These were created in workshops with COP staff to make the project more efficient and to establish baselines to manage and evaluate performance during the project. Mr. Fordyce will manage BC staff to provide management all aspects of the project tasks to include field research/data collection, load calculations of all power distribution equipment, condition assessment of all power distribution equipment, the development of the required short circuit analysis, protective device coordination studies, arc flash analysis, required labeling of the equipment and the evaluation and testing of the existing facility grounding systems.

Additional tasks include QA/QC of the deliverables, coordination of project tasks with COP facilities and staff, scheduling of tasks and facilities and review of tea, progress to evaluate earned value of the 12 months \$10,000,000 project.

**Remote Facilities SCADA/Security Enhancements Phase 1 & 2,  
City of Peoria, Arizona**

**Project Manager.** Two year project includes physical site security improvements, upgrading of the programming language for 37 remote facility Remote Telemetry Unit (RTU), creation of operations, Programmable Logic Controller (PLC) and SCADA Human Machine Interface (HMI) standards, reprogramming of all remote facility RTU's and central SCADA server to meet new standards.

**Various Plants, City of Phoenix, Arizona**

**Electrical I&C Designer.** Performed as the primary electrical/instrumentations & control designer on the following projects: Reach 11 Reclaimed Water Main Remote Chlorination, 24<sup>th</sup> Street Water Treatment Plant (WTP) Chemical Systems Modifications, Tramonto Recharge Facilities, Well 296.

**Inspector.** Performed as electrical, instrumentation & control inspector on the following projects: 24<sup>th</sup> Street WTP Solids Handling Facility, I-17 Corridor Infrastructure Improvements, SROG East Economy Parking Odor Control System, Reach 11 Reclaimed Water Main Remote Chlorination, 24<sup>th</sup> Street WTP Chemical Systems Modifications, Tramonto Recharge Facilities.

**Project Manager.** Instrumentation and Controls Inspection and Testing Services, Union Hills WTP, Cave Creek Water Reclamation Facility. Project includes the development and enforcement of electrical, instrumentation and design standards for the City of Phoenix.

**P2-90 WWTP Secondary Treatment Upgrade, Orange County  
Sanitation District (OCSD), California**

**Instrumentation and Controls Designer.** Provided I&C design support for the 60 mgd expansion of an existing facility.

**City of Mesa, Mesa, Arizona**

**Electical Designer/Inspector.** Performed as the primary electrical/instrumentations & control designer and EI&C construction inspector on the following projects: Alma School/Guadalupe Sewage Lift Station, Lindsay Road BPS Switchgear Improvements, Star Valley Sewage Lift Station, Hermosa Vista Sewage Lift Station, 101 and Baseline Interceptor.

**SCADA Maintenance and Support**

**Project Manager.** Annual contract to provide on call programming and design services as well as coordinate and manage the electrical subcontractor services.

**Electrical Designer.** Performed as the primary electrical/instrumentations & control designer on the following projects: Greenway WTP Secondary Security Upgrades. Project included evaluation of central plant access management system, adding closed circuit television (CCTV) cameras, adding motorized gates and controlled personnel gates, integrating existing cameras and security equipment.

## Experience Summary

Andrew Fuchs is an accomplished engineer and project manager with 32 years of experience in industrial and utility projects. Mr. Fuchs has proven leadership, communication and organizational skills in project management, electrical engineering and design, substation design, relay protection and coordination, start-up and commissioning, and calculation programming. As Project Manager, Mr. Fuchs has effectively taken over projects in trouble and commended by the client for project performance.

### Education

B.S., Industrial Technology, Southern Illinois University, 1971

Electrical Engineering, University of Houston

Electrical Technology, San Jacinto College

Petroleum Technology, Oklahoma State University

Relay Protection and Coordination, University of Idaho

Power Systems Analysis, Arizona State University

### Training and Certification

Project Management Institute, 2000e40-501 Applied Framework

GE Relay School, Malven, Pennsylvania

Cummins Power Generation School, Minneapolis, Minnesota

Estimatic Corporation, Estimating Course, Chicago, Illinois

Illuminating Engineering Society School, Houston, Texas

Private Pilot, Instrument Pilot, Multi-engine and Commercial Ratings

Scuba Certified, Open Water and Rescue Diver

### Experience

32 years

### Joined Firm

2001

### Water and Wastewater Treatment Projects

**Greenfield Road Water Reclamation Facility. Town of Gilbert, City of Mesa and Queen Creek. Field Services**

Support of field engineering efforts and inspection services for wastewater reclamation facility.

**24<sup>th</sup> Street Water Treatment Plant Solids Handling Facility City of Phoenix, Arizona**

**Field Services.** Support of field engineering efforts and inspection services for water treatment projects.

**Neely Wastewater Reclamation Facility, Town of Gilbert, Arizona**

**Field Services.** Support of field engineering efforts and inspection services for wastewater reclamation facility.

**Odor Control System, Sub-Regional Operating Group Sewer Relocation, City of Phoenix, Arizona**

**Field Services.** Support of field engineering effort and inspection services for odor control unit.

**Pacific Gas and Electric Harquahala Well No. 1**

**Field Services.** Support of field engineering effort, inspection services, and start-up of deep well water supply for the Harquahala Power Station.

Performed technical and constructability review, and estimating of electrical and instrumentation design on the following projects:

- ✦ 24<sup>TH</sup> Street Treatment Plant Chemical Systems, City of Phoenix
- ✦ Fabens 1.2 MGD Wastewater Treatment Plant, City of El Paso
- ✦ Fabens Water Supply System, City of El Paso
- ✦ Bustamante Wastewater Treatment Digester Expansion, City of El Paso
- ✦ Gold Canyon Ranch Wastewater Treatment Plant and Quintero Golf Course Water Supply
- ✦ Neely Wastewater Reclamation Facility, Town of Gilbert

**Diamond Engineering**

**Electrical Project Coordinator.** Project management and conceptual design of wastewater treatment, water treatment, lift stations and standby generation facilities. Research of green energy projects.

**Utility, Nuclear and Petrochemical Projects**

**Three Phase Engineering**

**Project Engineer.** Design of utility and emergency backup systems for two Motorola facilities and SRP.

**TOR Engineering**

**Senior Electrical Engineer.** Proposal, estimating, and design of industrial, commercial, residential, and institutional facilities. Engineering and project management support for the Citizen Energy Services distribution system upgrade. Replacement of bad order U/G cable for Salt River Project. Developed marketing program to diversify TOR Engineering's profile and client base.

**Stone and Webster Engineering Corporation**

**Senior Manager.** Managed electrical engineering group developing the engineering team from eight engineers to over fifty engineers and managers. Project Manager for DCS retrofit project, crude oil pump stations and the conversion of an airport bulk storage facility from 50 to 60 Hertz. Organized power station modifications of relaying schemes, terminations and instrumentation.

**William Brothers Engineering Company**

**Senior Electrical Engineer.** Interfaced with client, international lending agencies, contractor and national power company to ensure a quality electrical installation and scheduled project completion. Developed and administered a training course to the Client's personnel. Lead engineer for the design of a gas/oil recovery platform with total responsibility for electrical design and specifications.

**Brown and Root, Lummus, Fisk Electric**

**Design Engineer and Electrician.** Comprehensive design and installation for an olefin and PVC plant, copper smelter, and hospital.

### Experience Summary

Jeff Littell has 13 years of experience and in-depth knowledge in environmental regulatory compliance, strategic environmental management and hydrogeology. He also has experience negotiating with state environmental agencies in Arizona, Iowa, Kansas, Missouri, Nebraska and Oklahoma and the U.S. Environmental Protection Agency (USEPA), Region IX. Mr. Littell has personally conducted and overseen a regulatory program that prepared and evaluated numerous environmental investigative and remedial activities for technically and legally complex contaminated sites. He specializes in federal and state Superfund programs, Resource Conservation and Recovery Act (RCRA) and leaking underground storage tank (LUST) investigative and remedial activities, and has also conducted a number of Aquifer Protection Permitting and National/Arizona Pollution Discharge Elimination System permitting activities. Mr. Littell has performed regulatory program development for the State of Arizona and the USEPA, including preparing, overseeing and training staff in environmental regulations. He has served as the State of Arizona's hazardous waste pre-remedial program manager, at which time he developed the regulatory program's quality assurance program plan and oversaw the development of the Water Quality Assurance Revolving Fund (WQARF or state Superfund) Eligibility and Evaluation model (similar to the federal Superfund Hazardous Ranking System).

#### Education

B.S. Geology, Kansas State University,  
1994

#### Registration

8-Hour Mine Safety and Health Act  
certificate

OSHA 40-Hour Hazardous Waste  
Operations and Emergency Response  
Certificate

#### Experience

13 years

#### Joined Firm

2005

#### Confidential Client, Maricopa County, Arizona

**Senior Regulatory Expert.** Assisted client negotiate with the Arizona Department of Environmental Quality (ADEQ) and develop a workable agreement under RCRA, following allegations of releases of hazardous waste at client's facility. Mr. Littell also assisted the client with permitting and compliance concerns under several regulatory jurisdictions. Working closely with facility environmental and safety personnel, periodically evaluated facility operations and provided recommendations to help the facility comply with regulations pertaining to hazardous waste management, air quality, water quality, wastewater discharge, stormwater discharge, hazardous materials reporting and workplace safety.

#### City of Phoenix, Arizona

**Principal-in-Charge.** Responsible for ensuring that all necessary technical and administrative resources are in place while also serving as project team's liaison to the City. This project calls for continuing, on-call consulting services for environmental site assessments (ESAs) and biological surveys.

#### Three Way Maintenance Yard, Arizona Department of Transportation (ADOT), Clifton, Arizona

**Project Director.** Supervised the project team conducting environmental assessment of hydraulic lift assemblies and assessing environmental impact to surface and subsurface soils. Future involvement at the site includes decommissioning activities, with follow-up soil sampling to ascertain whether a release to surface or subsurface soils has occurred.

**Safford Signing & Striping Office & Storage, Arizona Department of Transportation (ADOT), Safford, Arizona**

**Project Director.** Supervised the project team conducting an environmental assessment of a dismantled hydraulic lift assembly's remaining aboveground storage tank and associated piping.

**Valencia Power Plant, Citizens Energy (now Tucson Electric Power), Nogales, Arizona**

**Project Manager.** Conducted site characterization activities (including soil and groundwater sampling) for releases of CVOCs, petroleum hydrocarbons and other compounds at the Valencia Power Plant in Nogales. The site is currently being managed under the ADEQ Voluntary Remediation Program.

**St. John Mission, Gila River Indian Community, Maricopa County, Arizona**

**Principal Scientist.** Provided technical oversight of a Brownfields facility. Completed the characterization of petroleum contaminated soil and groundwater resulting from an underground storage tank release at the St. John Mission. Mr. Littell developed the remedial action plan, which was approved by USEPA's offices of Underground Storage Tanks and Quality Assurance. Upon completion of the public comment period, the remediation system involving application of bioventing and biosparging will be implemented.

**Confidential Client, Goodyear, Arizona**

**Project Manager.** Managed a legally and technically complex multi-tenant commercial/industrial facility located within the Phoenix-Goodyear Airport South National Priorities List site in Goodyear. As part of the client's due diligence in acquiring the facility, responsible for conducting Phase I and II ESAs. Currently preparing comprehensive Operations and Maintenance (O&M) Management Plans for on-site water and wastewater treatment plants; performing monthly assessments of treatment system O&M activities; preparing a stormwater pollution prevention plan; providing compliance and operational issue assistance; performing assessments of tenant-related environmental procedures; completing a lead-based paint assessment and best management practices (BMP) plan; preparing a BMP plan for asbestos containing material; assessing transformers containing polychlorinated biphenyls; and abandoning a domestic water supply well.

**Wastewater Treatment Plant, Arizona Army National Guard, Marana, Arizona**

**Regulatory Liaison.** Providing regulatory review and program negotiating support for construction of a wastewater treatment plant at the Silver Bell Army Heliport in Marana. The project requires preparation of an Aquifer Protection Permit, individual Arizona Pollutant Discharge Elimination System permit and a request for amendment to the Central Arizona Association of Governments 2008 Areawide Water Quality management Plan.

### Experience Summary

Randy Mills is an EI&C Inspector responsible for providing Electrical and I&C inspection services. He has over 20 years of experience in electrical construction methods, installation and maintenance, and in PLC and HMI programming. He has over 10 years of experience in instrumentation and controls installation, repair and maintenance, fire alarm installation, programming, testing and maintenance, project start up, and construction management. Projects involved semiconductor manufacturer facilities, waste water facilities, water production facilities, water reclamation facilities, and various industrial and commercial construction projects. Experienced in Construction Management, I&C and electrical installation methods, and troubleshooting and maintenance of various electrical and controls systems.

#### Training/Certifications

Journeyman Wireman, I.B.E.W. Local 640  
Apprenticeship Training Program Phoenix,  
Arizona

Grade 1 Water Treatment Plant Operator  
Phoenix, Arizona

Residential Wireman, 1983-1985 I.B.E.W.  
Local 640 Apprenticeship Training  
Program Phoenix, Arizona

#### Experience

20 years

#### Joined Firm

2006

#### Relevant Expertise

- Phoenix I&C standards
- Instrumentation and controls troubleshooting and optimization

**City of Phoenix Union Hills Water Treatment Plant & Cave Creek Water Reclamation Plant Design and Construction Support, City of Phoenix, Arizona**

**EI&C Inspector.** Duties include support for all I&C inspections, system start up and commissioning, and documentation for maintenance and control of proper commissioning. Involvement with recommendations to the City for process control monitoring and implementation. This includes all instrumentation and controls new installation, modification, and maintenance. Also includes the requirement to read Process and Instrumentation Diagram (P&ID) drawings, electrical drawings, submittals, request for information documents, specifications, and the ability to work with contractors to make sure their installation is acceptable per code and to the customer's specifications.

**City of Phoenix all Water Plant Facilities, City of Phoenix, Arizona**

**I&C Specialist Lead.** Duties included creation, implementation, and assignment of periodic maintenance records to field technicians. Also required to assist in trouble shooting, recommendation, and assistance to I&C techs in all six of the water facilities plants. One of these plants was a water reclamation facility. Systems worked on included chemical delivery systems for the process, various models of turbidimeters, pH analyzers, CL2 analyzers, flow meters, pressure transmitters, motorized valves/gates, chlorine gas monitoring systems, Hydrogen Sulfide (H<sub>2</sub>S) toxic gas monitoring systems, scrubbers, scales, and sample stations.

**ON Semiconductor, Phoenix, Arizona**

**I & C Technician.** Responsible for calibrating and maintaining all of the instrumentation equipment in RODI and water treatment plant. There were flow meters, pH meters, Oxidation Reduction Potential (ORP) meters, Total Dissolved Solids (TDS) meters, Hach CL17 units for Chlorine, pressure transmitters, level controllers, TOC Analyzers, as well as air driven actuators and valves to name most of the instrumentation in the field. Responsible for programming programmable logic controller (PLC) 5/80's, PLC 5/60's, Slick 500's and Supervisory Control and Data Acquisition (SCADA) system which is an Intellution software package; Fix 32. This was

an Edwards IRC 3 system with a software package at the front end for interfacing with the hardware in the field.

**ON Semiconductor, Phoenix, Arizona**

**Project Manager.** Responsible for the scheduling, budgeting and risk management with all projects. Projects were various in size; as simple as re-arranging an office cubicle or very complex projects in which Mr. Mills did a complete remodel of a Data Center for ON Semiconductor while it remained in operation. This project was just under a million dollars for the overall cost. Projects range from hundreds of dollars to millions of dollars. During this time, Mr. Mills was utilized as an I&C tech.

**ON Semiconductor, Phoenix, Arizona**

**Facilities Electrician.** Maintained all electrical equipment for the site to include but not limited to, scrubbers, Air Handlers, Chillers, Pumps, Cooling towers, general lighting and power, and all the high voltage gear from 14,700 kilovolt (kV) down to 120 volt (V) power panels. Performed maintenance of equipment and responded to emergencies when needed regarding any electrical outage. Responsible for the coordination of all manpower, and contractors brought on site to assist in the effort.

**ON Semiconductor (Motorola), Phoenix, Arizona**

**Facilities Project Manager/I & C Tech/Electrician.** Responsible for the maintenance of all equipment including chillers, scrubbers, air handlers, and all of the high voltage and low voltage electrical distribution equipment. Responsible for all budgeting, scheduling and risk management issues. Responsible for taking care of all the instrumentation equipment and field wiring between the equipment and RIO racks, as well as wiring from the RIO racks to the PLC.

**City of Tempe South Water Plant, City of Tempe, Arizona**

**EI&C Inspector.** Duties included doing investigative field work to collect all the information required to draw a complete one-line drawing of the facility. This included all pertinent information such as wire size, fuse size, amp ratings of buckets or breakers, description of loads, fed from descriptions, buss ratings, kilovoltampere (KVa) ratings, and provide cross-sectional hand drawings of gear.

**City of Tempe all water plant sites, Tempe, Arizona**

**EI&C Inspector.** Duties were to coordinate with facilities staff, contractor, and engineers to collect all the required data from electrical equipment to complete a coordination study and Arc Flash study on the electrical system at several sites.

**City of Goodyear Water Distribution Sites, Goodyear, Arizona**

**EI&C Inspector.** Responsible for providing electrical inspection services for several distribution sites being modified or installed new. Duties included inspection of all electrical and instrumentation installations to ensure installation was to code and per customers specifications. Sites under construction included well sites, booster pump stations, reservoir sites, and a reverse osmosis site with chemical treatment.

## Experience Summary

Gary Newman is a managing engineer with 29 years of professional experience focusing primarily on the design and construction management of wastewater treatment facilities. He has evaluated, designed, and managed small to large wastewater treatment plant projects ranging from less than 5 to over 150 mgd.

### Education

M.S., *Civil-Environmental Engineering*,  
Utah State University, 1979

B.S., *Environmental Resources  
Engineering*,  
Humboldt State University, 1977

### Registration

Professional Engineer No. 41485  
Colorado, 2007

Professional Engineer No. 016856,  
Nevada, 2005

Professional Engineer No. 37552,  
Arizona, 2002

Professional Engineer No. 0027997,  
Washington, 1991

Professional Engineer No. 53660,  
Texas, 1983

Professional Engineer No. 033389,  
California, 1982

### Experience

30 years

### Joined Firm

1978

### Relevant Expertise

- *Design and management of wastewater treatment plants ranging from less than 10 MGD to over 150 MGD.*
- *Design of solids handling facilities focusing on mechanical, thickening and dewatering, and anaerobic digestion.*
- *Evaluated and designed thermophilic digestion for large wastewater treatment facilities.*

### 91<sup>st</sup> Avenue Wastewater Treatment Plant, City of Phoenix, Unified Plant Expansion 2005 (UP05)

**Project Manager.** Mr. Newman was BC's project manager for the design preliminary treatment facility expansion at this 230 mgd wastewater treatment plant. Design included addition of a new raw sewage bar screen, a new grit removal tank, new grit dewatering equipment, and associated channels, piping, and controls. Included in the project was working closely with the Construction Manager at Risk contractor during design to resolve awkward construction sequencing constraints imposed by the existing facility configuration and the need to maintain flow through the plant during the UP05 construction. Mr. Newman coordinated the work of mechanical, structural, electrical and instrumentation and control engineers in the development of design drawings and specifications.

### Tolleson WWTP Solids Treatment Upgrades, Tolleson, Arizona

**Principal-in-Charge.** Provided technical direction and oversight to the evaluation of all solids treatment systems at this 17 mgd secondary treatment plant. Project needs were to upgrade solids thickening, digestion and dewatering to ensure reliable compliance with Class B biosolids. Also, as part of the planning process, a "pathway" to achieve Class A biosolids in the future was defined. Finally, both solids treatment and liquid treatment process units were evaluated with respect to odor producing potential, and recommendations made to add or improve odor control at the WWTP. After thorough evaluation of all processes, including solids production from the liquid treatment processes, recommendations were made including implementing co-thickening dissolved air flotation thickeners, rehabilitating existing digesters for process reliability and added capacity, adding a second belt press for dewatering (including enclosing in a building), and up-grades to utility systems throughout the WWTP. Construction costs were estimated for the recommended plan.

### Roger Road Wastewater Treatment Plant, Biosolids Treatment Improvements, Tucson, Arizona

**Technical Lead.** Mr. Newman directed the design of a new gravity belt thickener (GBT) and conversion of an existing sludge holding tank to a primary anaerobic digester. The Roger Road WWTP has been constrained by inadequate sludge treatment capacity for many years; these constraints have jeopardized the plant's ability to reliably treat wastewater and meet discharge permit effluent quality. The GBT and digester conversion were developed to be relatively low cost improvements, that could be implemented quickly to improve the plant's reliability. Mr. Newman

directed the design and assisted in orchestrating input from the PCWMD operations and engineering staff throughout design and construction.

**Pima County Wastewater Management Department (PCWMD),  
Regional Optimization Master Plan**

**Peer Reviewer.** Mr. Newman was selected by PCWMD to be a peer reviewer of a regional wastewater master plan being developed by another consultant. The plan, which defined over \$500 million in wastewater treatment and conveyance improvements, was developed under a fast-track schedule to meet regulatory requirements. As a Peer Reviewer, Mr. Newman reviewed draft materials prepared by the prime consultant, and participated in workshops with PCWMD staff, stakeholders from other agencies and the prime consultant team. Following each workshop, Mr. Newman contributed to a follow-up letter with specific comments and suggestions aimed at improving the sustainability of the conclusions and recommendations of the study team.

**Solids Treatment and Energy Recovery Evaluation, Nogales  
International WWTP, Nogales, Arizona**

**Project Manager.** Performed feasibility study to evaluate adding anaerobic digestion and digester gas fueled co-generation at this 14 mgd WWTP which planned for upgrade. As a subconsultant to APSES, BC prepared a conceptual design of an anaerobic digestion process, to treat solids generated from the upgraded treatment plant, generate gas and treat the gas to a quality suitable as a fuel for internal combustion engines. The study estimated that about 375 KW could be generated at this facility if implemented; more could be generated if food waste from municipal solid waste collections were emulsified and fed to the digestion process. Capital costs and operating costs were estimated and provided to APSES for input into their cost model. Proposed facilities were designed to a conceptual level of detail as a basis upon which to base cost estimates.

**Fort Tuthill County Park Wastewater Management Feasibility  
Study and Preliminary Design, Coconino County, Arizona**

**As project manager,** Mr. Newman directed the evaluation of alternatives for managing wastewater generated by this regional park, as well as the adjacent recreation area. Alternatives considered included constructing a new sewer to convey wastewater to the City of Flagstaff, and construction of a new wastewater treatment plant to be located within the Park to treat wastewater and produce reclaimed water for use by the Park and other County owned facilities. Though the wastewater treatment plant option was more expensive, the County elected to proceed with the new treatment plant option in order to provide a reliable source of reclaimed water for Park use. A preliminary design of the new wastewater treatment plant was completed which recommended sequencing batch reactors to produce Class A wastewater and to accommodate the widely varying wastewater production rates between summer (peak) and winter seasons. As part of the predesign, the Park's 60+ year old wastewater collection system was inspected using closed circuit TV, and was found to be in need of significant and widespread repair.

### Experience Summary

Mr. Nicholls has practiced hydrogeology for ten years in the southwestern U.S. In this time he has supervised the drilling, testing, and installation of water supply wells, monitor wells, and test wells. His responsibilities have included drafting specifications, administering bidding, management of field staff, and well design. He has supervised, planned, conducted and contributed to groundwater hydrochemical and aquifer characterization studies in support of Recharge Site Evaluation, Well Siting, Spring Development, Mine Permitting, Mine Permit Compliance Monitoring, Pre-Construction Baseline Monitoring, Groundwater Contamination Litigation, Power Plant Siting and Basin Characterization in Utah, Nevada, California, and Arizona.

#### Education

B.S., Geology, Brigham Young University, 1995

M.S., Hydrogeology, Brigham Young University, 1998

#### Registration

Registered Geologist - Arizona  
#39869

Professional Geologist- California  
#7530

Certified Hydrogeologist- California  
#835

#### Experience

10 years

#### Joined Firm

2006

#### Public Water Supply Wells, Morongo Band of Mission Indians, Cabazon North Well and Cabazon South Well, Cabazon, California

**Project Manager.** Responsible for drafting technical specifications, administering the bidding process, evaluating contractor qualifications, contractor oversight scheduling, well design, filter pack selection, staff scheduling for drilling and construction oversight, development, aquifer testing and startup of two 18-inch diameter, COR-TEN cased, stainless steel screened, production wells completed to depths of 800 and 1,300 feet and capable of producing 3,000 and 1,800 gpm, respectively. Mr. Nicholls sited the Cabazon South Well; the Bands Engineer sited the Cabazon North Well.

#### Public Water Supply Well No. 23, City of Avondale, Arizona

**Staff Hydrogeologist.** Responsible for preparing drilling specifications, preparation and submittal of Notice of Intent to drill or deepen a well (NOI), service area well, and replacement well permit applications to the Arizona Department of Water Resources, contractor oversight and staffing during drilling, development and aquifer testing.

#### Public Water Supply Well No. 16, City of Avondale, Arizona

**Staff Hydrogeologist.** Responsible for preparing drilling specifications, preparation and submittal of Notice of Intent to drill or deepen a well (NOI), service area well, and replacement well permit applications to Arizona Department of Water Resources, contractor oversight during drilling, development, aquifer testing, and responsible for aquifer test set up and instrumentation.

#### Dietz Crane Water Supply Well, City of El Mirage, Arizona

**Senior Hydrogeologist.** Responsible for troubleshooting and revising a problematic well design prepared by another consultant, advising the contractor regarding methods to build the well to meet the objectives of the original design while meeting the requirements of the new design, and contractor oversight during well construction.

#### Well Assessment and Abandonment, Glenarm Farms, Avondale, Arizona

**Senior Hydrogeologist.** Responsible for locating and evaluating the condition of two disused water supply wells located in the Glenarm Farms subdivision, Avondale Arizona. Once the wells were located, Mr. Nicholls assessed their

condition based on the results of down-hole video and made recommendations for their abandonment. Responsible for submitting Notices of Intent to abandon to the Arizona Department of Water Resources for both wells, and contractor oversight during abandonment activities.

**Monitor Well Installation, SR-85 Landfill Site, Buckeye, Arizona**  
**Task Lead.** Responsible for contractor oversight during drilling, construction and development of four, 5-inch diameter, pvc cased water level monitoring wells constructed at depths between 300 and 400 feet. These wells were drilled as compliance monitoring points for the then under construction SR-85 landfill.

**Observation Well Abandonment and Installation, BNSF Railyard, Winslow, Arizona**

**Project Manager.** This project involved the periodic assessment of existing monitor wells, the abandonment of excess monitor wells, and the drilling and construction of new monitor wells as needed. Mr. Nicholls responsibilities included assessment of monitor well condition and monitor well utility relative to the overall site remediation objectives. When new monitor wells were required, Mr. Nicholls was responsible for observation well siting, monitor well design, soliciting bids and selecting contractors, and supervising on-site field staff.

**Application for Analysis of Assured Water Supply, Confidential Land Development Client, Buckeye, Arizona.**

**Project Manager.** Responsible for writing and submittal of a Proposal for Hydrologic Study, and the subsequent Hydrologic Study in support of an Application for Analysis of Assured Water Supply to the Arizona Department of Water Resources on behalf of a client developing a master planned community in the Buckeye area. The objective of the hydrologic study was to determine the physical, legal, and continuous availability of groundwater as defined under Arizona state law. This analysis was performed using existing published and unpublished data, and state well records.

**Transition Zone Recharge Study Phase I; Mojave Water Agency, Apple Valley, California.**

**Senior Hydrogeologist.** The objective of phase I of this project was to identify the potential demand and market for artificial recharge in the Mojave River Basin. This objective was met by projecting growth in water demand and changes in water supply over a period of 30 years. The difference between growth water in demand and declining water supply defined the market for artificial recharge. Recharge source waters were to include State Water Project water and reclaimed water. Mr. Nicholls was responsible for gathering the population growth data and water supply data required to make the 30 year projections. He was also responsible for making the 30 year population and water supply projections, creating a basin scale water budget, and analyzing historical hydrograph data to identify long term groundwater elevation trends.

### Experience Summary

Hugh Pace has over 30 years of experience in power distribution systems engineering, instrumentation and control systems design, and Supervisory Control and Data Acquisition (SCADA) system design for municipal water, wastewater, and industrial projects. Mr. Pace is registered as a power system engineer and a control system engineer. He has managed project design teams and supervised project construction, inspection, and startup. Designs included process systems for centrifuge, UV disinfection systems, membrane bioreactor systems, odor control system for many projects.

Mr. Pace's work included harmonic mitigation on projects with ultraviolet disinfection systems and variable frequency drives, the two main sources of harmonic frequencies in power distribution systems that manifest heat and disrupt electronic equipment with multiple frequencies in that manifest voltage harmonics and current harmonics. Mr. Pace provided Quality Control electrical and instrumentation (EI) design reviews for eight Brown and Caldwell water, wastewater, and reclaimed water projects. He has provided Value Engineering for treatment plant designs performed by other Consulting Engineering firms. He participated in a Constructability Review and a Value Engineering Workshop for the Peoria, AZ Butler WRF and Lift Station.

### Education

*M.S. Telecommunication Management,  
Keller Graduate School of Management,  
2000*

*M.S. Project Management Keller Graduate  
School of Management, 1997*

*B.S., Electrical Engineering, University of  
Washington, 1970*

**Greenfield Road Water Reclamation Plant, City of Mesa, Arizona  
Project Electrical Engineer.** Designed electrical systems for the solids handling portion of the new regional Greenfield Road (South) plant.

Features: 15kV power distribution system, fiber optic cable system for control, fire, telephone, electrical equipment data monitoring, and paging systems. Facility included six standby generators for the major plant facility. A Contractor at Risk project. Design included digester complex, solids building with 6 centrifuges, odor control system, and chemical systems.

**Town of Gilbert, Gilbert, Arizona**

**Project Engineer.** Designed the electrical systems for the Water Reclamation Reservoir and Booster Pump Station that accepts Gilbert's portion of the reclaimed water from the Tri-Cities regional lift station. A Contractor at Risk project.

**City of Phoenix, 24<sup>th</sup> Street Water Treatment Plant's Paradise Valley Booster Pump Station and Two Pressure Reducing Stations**

Features: Five-1000 horsepower 4000 Vac 1200 RPM pump motors and future induction generator included in the electrical equipment. Links to the Water SCADA System and to the WTP

**City of Phoenix, 91st Avenue Wastewater Treatment Plant (WWTP), Phoenix, Arizona**

**Project Electrical Engineer.** Recent Projects: Upgrade and Expansion, Minor Mods, Digester Area Code Compliance, Solids Handling Facility Electrical Investigation, Solids Thickening Facility including Odor, Polymer, DAFTs, Digester Control Buildings, EPRI-Reuse Pump Stations-2 & 3, and Multi-Phase Digestion. Upgraded portions of the plant's 5 KV power

**Registration**

IBEW Licensed Journeyman  
Electrician & Electrical Supervisor

Professional Electrical Engineer No.  
62069 Florida, 2004

Professional Electrical Engineer No.  
20244, Arizona, 1986

Professional Electrical Engineer No.  
E014059, California, 1996

Professional Electrical Engineer No.  
5105, Idaho, 1985

Professional Electrical Engineer No.  
108921 Tennessee, 2003

Professional Electrical Engineer No.  
08405 EE/P, Nevada, 1989

Professional Electrical Engineer and  
Professional Control System Engineer  
No. 10060, Oregon, 1979

Professional Electrical Engineer No.  
67483, Texas, 1990

Professional Electrical Engineer No.  
06612-0927-8, Utah, 1986

Professional Electrical Engineer No.  
001751, Washington, 1978

**Training**

Current MNSH safety training  
certificate for mine location work

Graduate Certification in Project  
Management

Graduate Certification in  
Telecommunications Management

**Experience**

30 years

**Joined Firm**

1996

**Relevant Expertise**

- ✦ 91<sup>st</sup> Ave. WWTP power distribution
- ✦ NFPA 820
- ✦ JOC experience
- ✦ Startup – Testing
- ✦ Electrical troubleshooting
- ✦ City I&C standards

distribution system in Aux3G Building. Changed field instruments. Added fiber optic systems, patch panels, RTUs, Remote I/O cabinets.

Plant expansion projects: performed electrical, control, and instrumentation design for the headworks additions, aeration basins, final sedimentation basins, and return activated sludge/waste activated sludge (RAS/WAS) pumping stations, refurbished Blower Building 2, Digesters, chlorine facility scrubber system and emergency generator.

**City of Phoenix, Cave Creek Road Facilities, Cave Creek, Arizona Project Electrical Engineer.**

Project included booster pump stations for water and reclaimed water, radio telemetry for water system, and 10 miles of single-mode fiber-optic cable system for reclaimed water system. Included 5KV VFDs and 480 VAC VFDs for pump motor drives. Union Hill Water Treatment Plant finished water reservoir provided the source of potable water for Zones 6, 7, and 8 and required four new zone 5E 600-horsepower, 5-kV pump motors.

At the booster pump stations in Zones 6, 7, and 8, both potable water and reclaimed water pumping was planned, and at Zone 7, two pump stations had been designed and were being built. A tablet type chlorinator was included at booster pump station 7 to increase the chlorine residual, as required.

**City of Phoenix, 91<sup>st</sup> Avenue Water Treatment Plant Phoenix, Arizona**

**Project Electrical Engineer.** Project included plant expansion to solids handling facility, chemical facilities, headworks area, and new odor control facilities.

**City of Phoenix, 24th Street Water Treatment Plant, Chemical System Modifications, Phoenix, Arizona**

**Project Electrical Engineer.** Chemical System Revisions to the water plant's chemical storage and delivery equipment including installing a Plant Control System Operator Station expansion to the Chemical Building. Added ultra-sonic level to the filter basins. Changed the 46" influent insertion flowmeter to a magnetic flow meter.

Dewatering and solids handling facilities project for the water treatment plant that treats Central Arizona Project (CAP) canal water. Design includes a new double-ended main switchgear with tie-breaker and motor control centers with tie-breakers to provide operation flexibility and backup. The treatment basins, polymer system, and sludge dewatering building include centrifuges create solids that are transported away from the facility.

The solids handling system includes stand-alone control system hardware that integrates into the Plant Control Center PC based control system that converted Intellution Software to Wonderware Software and converted OPTO 22 remote I/O devices to Modicon's Quantum PLCs. Cutler Hammer Westinghouse-type IMPACC system is provided to monitor the electrical distribution system equipment and provide graphic displays for the electrical parameters, such as power used and peak power.

### Experience Summary

James Page has 33 years of construction inspection experience, including experience on schools, office buildings, chemical plants, refineries, breweries, nuclear power houses, fossil fuel power houses, water treatment facilities, housing tracts, paper mills, and steel mills. His outstanding qualities include reliability, innovation, teamwork, and "can do" attitude and has been a formidable asset to providing construction efforts at the 91<sup>st</sup> Avenue WWTP.

#### Training/Certification

Mechanical Journeyman, City of Phoenix

Gas Fitter, City of Phoenix

Cross-Connection Control General Tester  
- ASSETT and AWWA

Plumbing Journeyman, City of Phoenix

#### Experience

33 years

#### Joined Firm

2000

#### Relevant Expertise

- ✦ 91<sup>st</sup> Ave. WWTP experience
- ✦ Piping inspections
- ✦ HVAC inspections
- ✦ Construction management and oversight
- ✦ System start-up and testing
- ✦ Building and safety code
- ✦ ARC FLASH Training in compliance with 29 CFR 1910 Subpart S and NFC 70E

#### 91st Avenue WWTP Solids Thickening Facility Project, Tolleson, Arizona

##### Mechanical Inspector and Assistant Construction Manager.

Responsible for oversight of the mechanical installations and assisting with construction administration. The work included a new centrifuge building, a new odor control facility, an addition to the electrical building, along with DAFT building and polymer building upgrades.

#### 91st Avenue WWTP Upgrade and Expansion Project, Tolleson, Arizona

**Inspector.** Responsible for oversight of the mechanical installations. The work included the design of new grit removal equipment, a new methanol storage facility, and the expansion of the plant's solids facilities.

Specifically, one, 3-million gallon digester, two dewatering centrifuges, and two thickening centrifuges were added.

#### 91st Avenue WWTP Support Systems Upgrades Project, Tolleson, Arizona

**Inspector.** Responsible for oversight of the mechanical installations for improvements to the plant to comply with NFPA 820 requirements.

Specific areas of the plant evaluated include the digester tunnels, digester control buildings, digesters and associated support facilities.

#### South Water Reclamation Plant (SWRP), Mesa, Arizona

**Inspector.** Responsible for oversight of the mechanical installations. The work included modifications to the existing primary clarifiers, headworks, and odor control facilities. The new construction included grit facilities, secondary clarifiers, aeration basins, blower building, tertiary filters, UV disinfection channels, effluent pumping, solids handling, boiler facilities, and digester complex.

#### South East Water Reclamation Plant (SEWRP), Mesa, Arizona

**Inspector.** Responsible for oversight of the mechanical and structural installations. The new construction was primarily a new grit removal and sludge transfer pumping facility. SEWRP being an existing facility required keeping the plant in operation throughout the construction period.

#### Paradise Valley Booster Pump Station (PVSPS), Phoenix, Arizona

**Inspector.** Responsible for oversight of the mechanical installations. The new construction was primarily four 1000 horse power booster pumps and a PRV (Pressure Reducing Valve) station.

**Stetson Valley Booster Pump Station, Phoenix, Arizona**  
**Inspector.** Responsible for oversight of the mechanical installations. This developer project, currently under construction, includes five new booster pumps, a chlorination system, and two hydropneumatic tanks.

**Alamosa Well #1, Chandler, Arizona**  
**Inspector.** Responsible for oversight of the mechanical and structural installations. This new well and 1,200 feet of associated piping is currently under construction.

**Dechlorination Bulk Storage and Feed Facility, Tolleson, Arizona**  
**Inspector.** Responsible for oversight of the mechanical and structural installations. This project on an existing site replaced an existing dechlorination storage and feed facility, the construction of a new biosolids holding area, and the installation of a new water main to the site.

**Tolleson WWTP Effluent Quality Upgrade Project, City of Tolleson, Arizona**  
**Construction Manager.** Responsible for overseeing construction services for effluent quality upgrades to the Tolleson WWTP. The work includes modifications to the trickling filters, the aeration basins, and the secondary clarifiers.

## Experience Summary

Mark Robinson has over 15 years of experience in the design and construction of wastewater, water, municipal swimming pool, and fountain systems. His roles have varied progressively from task leader to senior project manager. As a senior project manager, Mr. Robinson has been responsible for managing and directing the evaluations, design, and construction services of various projects. He has extensive experience in water system engineering design, mechanical system evaluations, operations and maintenance, and training activities.

### Education

B.S., *Civil Engineering, University of Missouri, 1997*

B.S., *Mechanical Engineering Technology, Lake Superior State University, 1991*

*Certificate in Computer Drafting, Lake Superior State University, 1991*

### Registration

*Professional Engineer, #35172, Arizona, 2000*

*Professional Engineer, #68213, California, 2005*

*Professional Engineer, #32781, Louisiana, 2006*

### Experience

15 years

### Joined Firm

1998

### Relevant Expertise

- *Design and management of wastewater treatment plants from less than 1 mgd to 200 mgd.*
- *Design lead for 91st Avenue WWTP SSU, Upgrade and Expansion, and STF projects.*
- *Extensive expansion in delivering complete responsiveness to clients.*

### Fred Hervey Water Reclamation Plant - 3<sup>rd</sup> Train Addition, El Paso Water Utilities, El Paso, Texas

**Project Manager.** Coordinated the design team and delivered a successful project to the client. Project included an addition of a complete third treatment process train with bar screens, grit removal, pumping stations, aeration basins, denitrification basins, second stage clarifiers, sand filtration, and carbon and methanol chemical feed systems for the 20 mgd facility.

### 91st Avenue WWTP, Support Systems Upgrade, City of Phoenix, Arizona

**Project Engineer.** Responsible for designing the modifications to the Plant's digester heating and gas management systems. The modifications included relocation of the gas handling equipment and piping from the main boiler rooms to comply with National Fire Prevention Association (NFPA) 820, relocation of two 500 horsepower (hp) and appurtenances to Boiler Building No. 2, conversion of the digester hot water system to a primary/secondary heat loop system. Boiler Building No. 2, is a 7,200 square feet (sf) structure that will house three (2 existing and 1 future) 500 hp boilers, primary hot water loop pumps, boiler secondary loop pumps, gas boosters and the associated electrical equipment. At Boiler Building No. 1, gas boosters and associated piping were relocated to a new 473 sf gas booster room constructed adjacent to the existing building, and the boiler hot water piping was reconfigured to for the a boiler secondary loop system.

### 91st Avenue WWTP Upgrade and Expansion, City of Phoenix, Arizona

**Project Engineer.** Responsible for designing the methanol addition facilities, the dissolved air flotation unit evaluation/rehabilitation, and the plant support system upgrades. The methanol addition facility included two 19,200-gallon internal floating roof storage tanks, and a secondary containment system, with flammable vapor and fire detection systems. Dosing methanol was completed with six metering pumps and a dilution system feeding to 12 feed points via 14,000 linear feet (lf) of piping. The dissolved air flotation unit evaluation/rehabilitation included field testing of the units, and designing upgrades to improve performance of solids flotation, polymer addition, and float removal. The plant support systems upgrade included the reuse water system, the potable water system, and the high-pressure air system. The reuse water system improvements included

the addition of automatic backwashing strainers to the reuse water pump stations. Extensive piping network upgrades were completed for both the reuse water and potable water systems. An instrument air drying system and a compressor relocation comprised the high-pressure air system upgrade.

**91st Avenue WWTP Solids Handling Facility Minor Modifications, City of Phoenix, Arizona**

**Project Engineer.** Responsible for the design of a bulk ferric chloride storage and feed system. System included a 17,200-gallon bulk storage tank and secondary containment system. An automatic metering pump system was designed to operate in conjunction with existing plant facilities.

**24<sup>th</sup> Street Water Treatment Plant, Paradise Valley Booster/Pressure Relief Valve Station Improvements, City of Phoenix, Arizona**

**Project Manager.** Responsible for management, direction and coordination of the project team, including several subconsultants. Project included 45 million gallons per day (mgd) replacement booster pump station and a 25- and 15-mgd pressure reducing valve stations. The booster pump station is utilized to move water up three-hydraulic zones at a boost pressure of 180 psi. All stations were designed to be integrated into the existing 140-mgd treatment plant site. Additional work involved the preliminary design and provision for two hydrogenerating turbines.

**24<sup>th</sup> Street Water Treatment Plant, Chemical System Modification, City of Phoenix, Arizona**

**Project Manager/Engineer.** Responsible for shared project management, sole, and portions of the design team. Responsible for the concept and theory of the implementation of the City of Phoenix's Regulatory Compliance Excellence Program as developed for the plant. Design responsibilities included the sulfuric acid, caustic soda, alum, hydrofluosilic acid, and filter aid polymer bulk storage and feed systems and their associated processes. Feed systems utilized hydraulic eductors to pump the chemicals. Other involvement included permitting and construction phase engineering management.

**Tolleson WWTP Solids Handling Facility Improvements, City of Tolleson, Arizona**

**Project Manager.** Responsible for managing the solids handling facility improvements which includes the development of a solids stream master plan, the rehabilitation of four digesters, the addition of sludge DAF thickeners, and odor control study and master plan and the local limits plan update.

**Greenfield Water Reclamation Plant, Phase II Expansion, City of Mesa, Arizona**

**Project Advisor.** Responsible for advising and directing the project engineers for the solids stream digester gas handling and digester heating systems. These systems included a boiler/building complex, totally enclosed gas flares and sludge heat exchange. An initial evaluation of a digester gas cogeneration system was also performed.

## Experience Summary

Ms. Karen Schwab has 16 years of field and project management experience in hydrogeologic investigations and environmental permitting. Her hydrogeologic investigations experience includes groundwater quality evaluations (background versus impacted); conducting water resources investigations; oversight of production and monitor well installation, construction, and testing; conducting well impact analyses; and preparing and implementing site-specific soil and groundwater sampling and monitoring plans. Her Environmental permitting experience includes preparation of applications for and amendments to Arizona Aquifer Protection Permits (APPs), Federal and Arizona National Pollutant Discharge Elimination System (NPDES) permits, and Industrial Reuse Permits. In addition, Ms. Schwab also has a broad range of knowledge of state and federal water and environmental regulations.

### Education

M.S. Geology, Arizona State University, 1990

B.S. Geology, Mesa State College, 1986

### Registrations

Registered Geologist, Arizona No. 33268

40-hour OSHA certified

24-hour Mine Safety and Health Administration (MSHA) Certification

8-hour HazMat Supervisor Training

### Experience

16 years

### Joined Firm

2005

#### Historic Gibson Mine Closure, Globe, Arizona

**Principal Hydrogeologist.** Responsibilities included compiling historic information and preparing site-specific closure plan for soil excavation/remediation activities at the historic Gibson copper mine, near Globe. Closure Plan was required to meet regulatory requirements of the Arizona Department of Environmental Quality (ADEQ) Aquifer Protection Program, Water Quality Improvement (WQIG) Program, and federal National Pollution Discharge Elimination System (NPDES) program. Closure plan was approved in record short time with minimal agency comments. Also prepared NPDES Notice of Intent for General Permit for Construction Activities and associated Storm Water Pollution Prevention Plan (SWPPP) for remediation activities.

#### Florence Copper In-Situ Mine, Site Investigation Plan

**Principal Hydrogeologist.** Responsible for compiling and evaluating 7 years of groundwater analytical data from 40 monitor wells associated with the former BHP Florence Copper In-Situ Mine. Wrote and prepared the Site Investigation Plan to demonstrate to ADEQ Aquifer Protection Program no impact to the groundwater from mining activities. The current owners of the Florence Copper In-Situ Mine are seeking Clean Closure of the site.

#### Phelps Dodge Clarkdale Tailing Impoundment, Clarkdale, Arizona

**Project Manager/Senior Hydrogeologist.** Responsible for writing and preparing application for a Significant Amendment to Phelps Dodge's existing APP for approval by the ADEQ Aquifer Protection Program. Application for Significant Amendment required an evaluation and discussion of 7 years of surface water and groundwater data to demonstrate no impacts to groundwater or surface water. Also responsible for coordinating and conducting quarterly surface water and groundwater sampling; compiling groundwater and surface water monitoring information for quarterly reports to ADEQ Aquifer Protection Program.

#### BHP Copper San Manuel Mine, San Manuel, Arizona

**Senior Hydrogeologist.** Responsibilities include preparing an Application for Abandonment and Environmental Report to abandon a segment of the San Manuel railroad. Preparation of the Environmental Report consisted of

compiling existing information on land use, land ownership, historic freight service, and assessing potential impacts on air, noise, water, and biological resources. Project required coordination and meetings with several regulatory agencies, including Bureau of Land Management (BLM; Tucson Field Office), Arizona Game and Fish, and U.S. Fish and Wildlife Service.

**ADEQ Vulture Mill WQARF Site, Wickenburg, Arizona**

**Senior Hydrogeologist.** Site consisted of approximately 170,000 tons of tailing material processed from the historic Vulture Mine and placed on private land. ADEQ required excavation/soil remediation of site. As Senior Hydrogeologist, responsibilities included oversight of drilling, construction, development, and testing of on-site production well; also wrote final Well Completion Report.

**Gila River Indian Community, Maricopa County, Arizona**

**Project Manager/Senior Hydrogeologist.** Project consisted of researching, formulating, and writing groundwater protection ordinances for Gila River Indian Community. Groundwater regulations and standards from Arizona, New Mexico, and Nevada were compiled and used for comparison.

**Vidler Recharge Facility, Marquahala Valley, Arizona**

**Senior Hydrogeologist.** Responsibilities included compiling and evaluating water quantity and quality data, estimating evaporation loss and infiltration rates, preparing quarterly and annual water reports required by the Arizona Department of Water Resources (ADWR) and ADEQ; also responsible for coordinating and oversight of monitor well installation. This project required knowledge of the ADWR underground storage facility statutes and rules.

**Arizona Department of Environmental Quality, Aquifer Protection Program, Mining Unit, Phoenix, Arizona**

**Hydrologist III.** Responsible for assisting mining clients in obtaining Arizona Aquifer Protection permits. Pertinent experience included evaluating, reviewing, and approving complex hydrologic and geologic data in permit applications; project management; coordinating and conducting site-specific groundwater, surface water, and waste rock sampling efforts. Initiated and conducted a stable isotope groundwater investigation at an active open pit copper mine and presented the results at Society of Mining and Engineering convention.

**Arizona Department of Environmental Quality, Site Assessment Hydrology Unit, Phoenix, Arizona**

**Hydrologist III.** Responsibilities included planning, conducting, and managing several Preliminary Assessments and Site Inspections of industrial sites under the Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program. Coordinated and conducted site investigations for potential hazardous substance(s) releases to the environment, developed and implemented site-specific groundwater, soil, soil-gas, and indoor air sample plans, compiled and interpreted hydrologic data and water quality data. Operated van-mounted hydraulic probe (Geoprobe) for collecting shallow, subsurface soil samples.

### Experience Summary

Jarrell Southall has more than 38 years experience in solving a wide range of environmental management problems. A pioneer in resource-conservative approaches to environmental regulation, Mr. Southall is using his skills and experience in regulatory programs and in the application of innovative technologies to develop cost-effective solutions for a wide range of problems facing government and industry.

#### Education

*B.S., Mathematics/Chemistry, Henderson State University, Arkansas, 1963*

*Graduate studies in chemistry at the University of Arkansas, Graduate Institute of Technology, Little Rock, Arkansas*

#### Training / Certification

*40-Hour OSHA Hazardous Waste Operations/Emergency Response Training*

*8-Hour MSHA Newly Employed Experienced Miner*

*Confined Space Entry Training*

*Supervisor Health and Safety Training*

#### Experience

38 years

#### Joined Firm

1995

#### **BHP Copper, Inc., Superior, Arizona**

**Project Manager.** Managed a program for collecting soil samples in a residential area of Superior, Arizona and for evaluating the human health risks associated with metals detected in the soil.

#### **Confidential Client, Confidential Location**

**Project Manager.** Managed the development of a remediation action plan and cost estimates for a large smelter site.

#### **Confidential Client, Confidential Location**

**Technical Advisor.** Provided technical advice related to the decommissioning of a metals processing facility, assisted in the evaluation of environmental conditions and practices at the site, and assisted in the preparation of a report documenting the decommissioning process.

#### **Merrill Mining, Florence, Arizona**

**Technical Advisor.** Providing technical advice related to the proposed closure of an in-situ mining facility.

#### **Confidential Client, Confidential Locations**

**Technical Advisor.** Assisted a law firm with the evaluation of potential environmental liabilities associated with active and inactive facilities in the eastern United States.

#### **M&B Capital Group, L.L.C., Tempe, Arizona**

**Technical Advisor.** Assisted in the development of the City of Tempe's McClintock/Rio Salado Brownfield Redevelopment project and initiated the development of a petition for deleting the 200-acre project area from the Indian Bend Wash Superfund site.

#### **BHP Copper, San Manuel, Arizona**

**Project Manager.** Managed the design of a database to facilitate the review of several hundred operations and wastestreams.

#### **Confidential Client, Confidential Location**

**Technical Advisor.** Assisted in the evaluation of remedial options and the development of related cost estimates for a mine and mineral processing facility located in the northeastern United States

#### **BHP Copper, San Manuel, Arizona**

**Project Manager.** Managed the development of a work plan for the closure of a large mining complex involving open pit, underground, mining, heap leach, and in-situ operations.

**BHP Copper, San Manuel, Arizona**

**Technical Reviewer.** Assisted in geochemical investigations to enhance in-situ leaching operations and edited final report of those investigations.

**BHP Copper Mine/Town of Superior, Superior, Arizona**

**Project Manager.** Managed voluntary characterization, remediation and risk assessment activities for property that BHP Copper was transferring to the Town of Superior for use as an industrial park.

**Permitting Projects****IMCO Recycling Inc., Irving, Texas**

**Project Manager.** Managed hydrogeologic investigation required to permit an IMCO secondary aluminum processing facility located in Goodyear, Arizona.

**Crystal Pass Cement Company, LLC, Multiple Locations in Nevada**

**Project Manager.** Assisted client with the evaluation of environmental costs associated with the proposed acquisition and expansion of an existing cement plant in Nevada. Also advised client on costs of complying with permitting and Environmental Impact Statement requirements at four sites in southern and central Nevada that were being considered for the construction of a large cement plant.

**Merrill Mining, Florence, Arizona**

**Project Manager.** Managed the transfer of all environmental permits for an in-situ copper mine from BHP Copper to Merrill Mining.

**Generating Company, LLC, Harquahala, Arizona**

**Project Manager.** Managed project to develop an Aquifer Protection Permit for a 1,000 MW gas-fired power plant.

**BHP Copper, Florence, Arizona**

**Project Manager.** Managed project to develop Aquifer Protection Permit and Underground Injection Control (Class III) Permit applications for client's proposed in-situ copper mining and solvent extraction/electrowinning facility Supervised the operation of the project's groundwater sampling program for purposes of hydrogeological characterization and the establishment of Alert Levels and Aquifer Quality Limits. Managed the development and demonstration of BADCT for the proposed facility including the process area, tanks, pipelines, process impoundments, a stormwater impoundment and an enhanced evaporation system involving 13 impoundments.

## Experience Summary

Harold Thomas has extensive experience in planning, negotiation, and issue management; environmental management and lobbying; power and water system operation, maintenance, and engineering. Mr. Thomas has directed regional planning activities for public and private utilities. Manages staff and cross-functional teams in the operation and maintenance of a public water system and in water-related strategic and tactical planning of a water and power utility. Mr. Thomas has been responsible for working with city, state, and federal officials to resolve issues of mutual concern. He has many specific strengths including management, engineering, planning and budgeting, negotiations, issues management, and strategic thinking.

### Education

*B.S., Chemical Engineering, Arizona State University, 1988*

### Training/Certification

*Arizona Water Law, Environmental Regulations, and Pollution Control Measures*

### Experience

28

### Joined Firm

2002

### City of Goodyear, Goodyear, Arizona

**Principal in Charge.** Provided oversight and managed client relationships to address client concerns over the sustainability of current and planned ground water pumping in the Adaman water service area. The analysis evaluated potential ground water level declines, movement of areas with poor water quality, and land subsidence.

### Town of Buckeye, Buckeye, Arizona

**Project Director.** Provided oversight and managed client relationships for a coalition of land owners, the Town and the Arizona Department of Water Resources to conduct the Lower Hassayampa Sub-Basin hydrologic study and develop a ground water model to assess development potential.

### City of Mesa, Mesa, Arizona

**Executive Director.** Directed a multi-year regional water resource and infrastructure planning process for the East Valley Water Forum (EVWF).

### Sub-Regional Operating Group (SROG), Phoenix, Arizona

**Project Manager.** Currently under contract with the City of Phoenix to manage a multi-year regional water and wastewater salinity management study for Central Arizona Salinity Study (CASS).

### WESTCAPS, Phoenix, Arizona

**Director.** Currently under contract to direct a multi-year regional water resource and infrastructure planning process for the West Valley CAP subcontractors (WESTCAPS).

### Paradise Valley Water Company, Scottsdale, Arizona

**Operations Manager.** Directed the development, management, and operation of plant and personnel engaged in the production, treatment, and distribution of potable water.

### Salt River Project, Phoenix, Arizona

**Manager/Supervisor.** Directed development of business strategy and policy; and resolved issues between SRP, its major water customers, and governmental agencies.

### Salt River Project, Phoenix, Arizona

**Engineer.** Developed and implemented water quality and hazardous waste management programs. Performed financial analysis and monitored capital

expenditures for electrical system upgrades. Worked with electrical engineering groups to budget and schedule major construction jobs.

### **Management**

- Programmed the efficient and reliable operation and maintenance of potable water, power plant, and fuel storage facilities
- Managed the start-up, operation and maintenance of a state-of-art stripping facility to remove volatile organics from groundwater
- Prepared and managed operations and maintenance budgets, capital improvement budgets, and tactical forecasts
- Directed and developed engineering staff and operational personnel
- Analyzed state and federal legislation for potential impacts and developed coalitions and strategies for addressing concerns
- Led various forums and task forces with cities and other agencies to resolve issues of mutual concern in the areas of water supply, water quality, and reclaimed water reuse
- Developed a process for assessing new business opportunities

### **Environmental Management**

- Worked with western interests to develop positions on the re-authorization of the Clean Water Act
- Member of the State of Arizona Maryvale Cancer Cluster Study Technical Review Committee
- Member of the State of Arizona Groundwater Cleanup Task Force
- Analyzed and developed strategy on the re-authorization of the Clean Water Act, critical habitat designation of the Lower Colorado River Basin, Southern Arizona Water Quality Study, Coastal Zone Management Act, USEPA action against the Imperial Irrigation District, and implementation of USBR's new strategic direction
- Developed and implemented a corporate-wide hazardous waste management program
- Developed an open channel water system emergency response plan
- Conducted property environmental site assessments
- Evaluated funding mechanisms for financing groundwater remediation programs
- Evaluated opportunities and impediments for reclaimed water reuse in Maricopa County
- Performed studies of ground and surface water quality

### Experience Summary

Mr. Tirpak has 35 years of experience in construction services and administration on street improvement projects, sanitary sewer systems, sewage treatment plants and Improvement Districts. Randy focused 20 years of his career as Improvement District Specialist where he provided Project Management on Improvement Districts from resolution-of-intention through final-assessment, including modifications.

His experience also involved providing the method of assessments, preliminary assessments, meeting and receiving input from property owners and assessment modifications to Improvement Districts in Chandler, Glendale, Peoria, Kingman, Apache County and Coconino County.

Construction services and administration experience includes street improvement projects in Glendale, Peoria, and Phoenix; sanitary sewer systems and sewage treatment plants in Bisbee, Kingman, Superior, and Surprise; and Improvement Districts for the Cities of Chandler, Peoria, and Glendale. His experience also includes preliminary improvement district assessments in Chandler and Apache County; final assessments for improvement districts in Glendale and Peoria; numerous assessment modifications in Gilbert, Chandler, and Peoria; and a water storage system for the Southwest Conference of the United Methodist Church.

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#### Education

*Civil Engineering Studies, Lakeland College, Ohio*

#### Experience

35 years

#### Joined Firm

2007

#### **Airpark Improvement District No.86, Gormann Road, Chandler, Arizona**

**Project Manager** responsible for Construction Services. Assisted in preliminary and final plans, cost estimates, preliminary and final assessments, legal descriptions, and property ownership lists. Project features include 1.25 miles of full four-lane paving improvements including curb, gutter and sidewalks, 2.2 miles of sanitary sewers, retention basins, street lights, irrigation system relocations, landscaped median, waterlines, storm drains. Services included design survey, drainage study, design, and improvement district administration.

#### **Improvement District 46, Chandler, Arizona**

**Project Manager** responsible for Construction Services. The project consisted of 5 1/2 miles of major arterial roadway and one mile of industrial collector roadway. The major items of work were full paving which included curbs, gutters, medians, and sidewalks; sanitary sewers; waterlines and stormwater retention; landscaping of parkways and medians; dry utilities conduit for electric, telephone, and cable TV; signing, striping, traffic study, signalization, and street lights; and right-of-way acquisition and dedication. This project resulted in a Benefit Study for assessment purposes as ordered by an Arizona Superior Court. Performed the Benefit Study, which covered the entire western part of Chandler and resulted in our project being completed and the method of assessment established for the west half of Chandler.

#### **Beardsley Road Water Production Facility, Peoria, Arizona**

**Project Manager** responsible for Construction Services. innovative design included use of a low profile reservoir with a cathodic protection system to mitigate corrosion on the interior surfaces of the reservoir, a precast concrete building with air conditioning to house variable frequency drives

and other electrical equipment, and a decorative security wall utilizing offset alignments and earth mounding blend with the adjacent City park and surrounding residential neighborhoods. This project included design and full construction services for 1,500-gpm well, million gallon welded steel water storage reservoir, 3,500-gpm booster station, utilizing four vertical turbine "can-type" variable speed pumps, 5,000-gallon hydropneumatic tank, supervisory control and data acquisition system, flow monitoring system and chlorination station.

**Kingman Hualapai Foothill Estates Improvement District,  
Kingman, Arizona**

**Project Manager** responsible for Construction services. The project included 5 miles of residential street paving and drainage improvements.

**Kachina Village Improvement District, Coconino County, Arizona**

**Project Manager** responsible for Construction Services. The project included 3.5 miles of residential street and drainage improvements.

**Mule Gulch Wastewater Treatment Plan Improvement District,  
Bisbee, Arizona**

**Project Manager** responsible for Construction Services. The project included primary and secondary sedimentation tanks, trickling filter and digester, and new chlorine contact tanks.

**Arizona City Sanitary District, Arizona City, Arizona**

**Project Manager** responsible For District representation in regards to plan review as submitted by developers, operations assistance for the wastewater treatment system and overall sanitary district engineering responsibilities.

**Kyrie Water Booster Station, Tempe, Arizona**

**Project Manager** for the development of a design concept report and prepared design documents for upgrades to an existing water booster station located on the Kyrene Water Reclamation Facility site at 511 West Guadalupe Road and for pipeline improvements in the distribution system to create the boundaries for a new pressure zone. The modified booster station serves a southwest section of the City. The concept study resulted in the preparation of detailed drawings and specifications for upgrading the existing booster station including instrumentation and control equipment, electrical power distribution equipment, and six check valve stations located at strategic sites in the distribution system to create boundaries for the new pressure zone. The modified booster station equipment consists of six horizontally mounted split case type pumps driven by totally enclosed fan cooled electric motors. Three of the pumps are capable of delivering 2100 gpm against a total pumping head of 98 feet. The other three pumps are capable of delivering 3500 gpm against a total pumping head of 98 feet. The smaller pumps are driven by 75 horsepower motors. The larger pumps are driven by 125 horsepower motors. The maximum speed of the motors is approximately 1800 RPM. The three 75 horsepower motors are equipped with variable frequency drives -(VFD1s). The normal operation of the booster pumps is controlled by a remote terminal unit (RTU) receiving system pressure signals from a remote location in the distribution system.

### Experience Summary

Craig Tweed has 21 years of design, construction, construction management, and inspection experience. He has significant experience in directing, supervising, and coordinating the activities of design engineers, field engineers, superintendents, owner personnel, and outside agencies.

#### Education

B.S., Construction Engineering Technology,  
Texas Tech University, 1986

#### Experience

21 years

#### Joined Firm

2000

#### Light Rail Wet Utility Relocation Lines Sections 1 through 4 and maintenance and storage facility

**Construction Manager / Project Manager:** Project consists of approximately 19 lane miles of construction of new light rail alignment along existing City of Phoenix right of way and new Maintenance and Storage Facility locate on South 48<sup>th</sup> Street. Project is broken into five separate construction contracts and managed by five separate METRO construction teams. Brown and Caldwell utilized a single team to coordinate between the five contracts to maintain integrity and uniformity of design and construction throughout the project and to verify construction complies with current COP construction requirements. Responsibilities include oversight of relocation of water and sanitary sewer along the new Light Rail alignment as describe below:

- Review of preliminary and final design documents to insure compliance with existing City standards, operability of system design and constructability of design
- Development and implementation of new City standards applicable specifically to Light Rail Construction
- Quality assurance inspection of water and sewer installations
- Review and evaluation of numerous design changes to include both redesign, implementation and negotiation of changes
- Review and management of contract cost to verify contractor's billing matches actual work completed
- Coordination with COP WSD crews to provide standard services in a streamlined manner in order to expedite the construction. The services included valve operation to de-energize portions of system to allow connection of new construction to existing facilities, emergency repairs, meter installations, hot taps of both water and sanitary sewer, video inspection of sanitary sewer,
- Development of process to allow real time acceptance of new portions of water distribution system and providing COP WSD real-time as-built information by implementing the partial interim approval process.
- Provided coordination with COP Fire Department to establish protocols for notification of Fire Department by contractor of construction activities related to water and fire protection.
- Implemented GIS valve exercise and shutdown program where all valves along the Light Rail alignment are verified to operating correctly,

asset information is documented and any inoperable valves are replaced prior to construction to minimize impact to the contractor's schedule.

- Provided valve operation services for distribution mains 12" and smaller to increase support of COP WSD valve crews facilitate contractor requested shutdowns.

#### **48<sup>th</sup> Street Water and Sewer Relocations for Light Rail**

**Project Manager:** Project consisted of increasing capacity of water distribution system and sanitary sewer system on 48<sup>th</sup> street Between Washington and Jackson to accommodate additional future requirements for Light Rail Maintenance and Storage Facility. Project was design and managed by METRO. Brown and Caldwell provided quality assurance oversight and coordination with COP WSD to enforce COP construction standards. Duties included review of design documents for compliance with applicable city standards, quality assurance inspection to ensure compliance with plans and specifications, review and management of all design changes associated with water and sewer. Coordination with COP personnel to schedule required services.

#### **Paradise Valley PRV 1-R5**

**Project Manager:** Project consists of installation of new 16" pressure reducing valves between existing zones. The project is being constructed under City of Phoenix Job Order Contracting Process. Duties include supervision, oversight and training of new Construction Manager, review and maintenance of budget, negotiation of original budget and all contract changes.

#### **Paradise Valley Booster Station -PRV 2A-R12**

**Project Manager:** Project consisted of installation of four new 1000-hp high-pressure vertical turbine water booster pumps, 16" PRV system, surge system, SCADA control system and decommissioning of the existing booster station without disruption in pumping capability. Duties include supervision, oversight and training of new Construction Manager, review and maintenance of budget, negotiation of original budget and all contract changes.

#### **24<sup>th</sup> Street Chemical System Modifications**

**Construction Manager:** Project consisted of installation of new 66" and 48" plant water line and reservoir wier / junction box converting existing reservoir into a clear well to improve detention time prior to introduction to distribution, new chemical delivery systems at an existing water treatment plant. New chemical feed systems were installed, including aluminum sulfate, sulfuric acid, sodium hydroxide, polymer hydrofluosilicic acid and gaseous chlorine feed systems were installed, tested and commissioned without impacting normal plant operations. Responsibilities include review and control of all project documentation, supervision and coordination of construction, testing, startup and commissioning activities. Management and implementation of required contract modifications, including negotiations of additional time and cost.

EXHIBIT C  
TO  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
BROWN & CALDWELL, INC.

[Scope of Work]

See following pages.

## **EXHIBIT A**

### **CITY OF AVONDALE PHOENIX INTERNATIONAL RACEWAY (PIR) LIFT STATION DESIGN ALTERNATIVES STUDY**

#### **SCOPE OF SERVICES**

**January 10, 2010**

#### **PROJECT OVERVIEW**

The City of Avondale (City) will be providing water and sewer services to the Phoenix International Raceway (PIR), which is currently not served by the City. PIR will be responsible for the on-site sewer collection system infrastructure, and the City will take responsibility for the lift station and associated force main. This project is for the study of design alternatives for a sewage lift station to serve the PIR property, as well as the force main sizing. The City will be determining the force alignment. Once the design solution and a location has been determined for the lift station, a new phase of this project will be scoped to complete the construction documents, with the new lift station facilities in operation prior to the November 2012 race.

This project will include the evaluation of possible alternatives for handling the sewage flows from PIR. During the planning phase, additional data will be gathered, alternatives developed and evaluated, and discussions with the City staff will be held so that City input can be incorporated into the final design recommendations. Brown and Caldwell (BC) will document the analysis and decision in a Technical Memorandum, and the preliminary design of the selected alternative into a Preliminary Design Report.

#### **PROJECT BACKGROUND AND ASSUMPTIONS**

The following project background and assumptions have been used to develop this scope of services.

- BC will use the spectator attendance and projected wastewater flow rates for the two main race weekends from the PIR Water Supply and Wastewater Services Conceptual Plan Report dated October 4, 2010.
- PIR currently has and/or plans to have multiple smaller events in the range of 500 to 10,000 spectators. For the remaining days of the year, relatively few operational personnel remain at the site.
- PIR does not have an existing Recreational Vehicle dump station, nor are there plans for one in the improvements.
- The lift station will not include a restroom.

CITY OF AVONDALE  
PHOENIX INTERNATIONAL RACEWAY (PIR) LIFT STATION  
DESIGN ALTERNATIVES STUDY  
SCOPE OF SERVICES

- Standby power shall be provided by one fixed standby generator, diesel fueled.
- The force main alignment to be determined by the City will be routed from the lift station along Indian Springs Road, north on Avondale Boulevard and discharge into a gravity sewer at Roeser Road, a length of approximately 1.5 miles. The City has confirmed that there is available capacity in the gravity sewer for the flows from the lift station. There is currently a 12-inch pipeline constructed on the Gila River Bridge that may be available for use as a force main or carrier pipe. Evaluation of the integrity of the pipe for use is not included.
- Potable water and/or water from the PIR non-potable wells is available for potential use as supplemental water. TDS readings for the non-potable wells sampled February 20, 2009 are 2770 mg/l.
- The existing PIR wastewater system consists of multiple collection systems that convey sewage to septic tanks and infiltration or leach fields. To prevent surcharging of the leach fields during an event, sewage is periodically removed from several manholes by vacuum trucks. PIR will provide BC with the capacity/quantify of flows that can be handled by the septic system.
- The lift station site will be located out of the current 100-year floodplain and/or floodway but could be subject to high ground water.
- Any architectural requirements for the site, such as architectural elements for the site wall, will be determined by PIR and included in the construction documents, not in this study. Odor control solutions will be determined during the detailed design phase of the construction document preparation.
- The City will be procuring a geotechnical Engineer to conduct subsurface soil boring exploration. BC will coordinate with the City on the number, locations, depth, and required analysis of these soil borings.

## PHASE 100 – PROJECT MANAGEMENT

**Objective:** Monitor activities and expenditures to maintain project within schedule and budget. Submit monthly invoices and progress reports, which will identify the earned value for the work completed on the project through the invoice date. Identify issues and develop solutions that could impact the project budget and/or schedule.

**Activities:** Project management activities include the following:

- Monitor project activities, schedule and budget expenditures.
- Prepare monthly invoices submitted in Engineer's standard format.

**Work Products:** Project management work products are summarized below:

- Up to 5 monthly invoices.

CITY OF AVONDALE  
PHOENIX INTERNATIONAL RACEWAY (PIR) LIFT STATION  
DESIGN ALTERNATIVES STUDY  
SCOPE OF SERVICES

## PHASE 200 – DATA COLLECTION

**Objective:** Collect background information upon which to base the alternatives evaluation.

**Activities:** Activities under this task consist of collecting the information listed below. Where specific data is unavailable, appropriate assumptions will be made based on industry standards, City input and/or the Engineer's best judgment.

The following items have been or will be provided by the City to the Engineer:

- PIR Water Supply and Wastewater Services Conceptual Plan Report
- PIR Septic Tank Capacity
- City of Avondale Lift Station Design Guidelines
- City of Avondale General Engineering Requirements Manual
- City of Avondale Supplement to MAG Standards Specifications and Details
- Response by Operations and Maintenance personnel to the BC Electrical Questionnaire
- Asset Management equipment and instrumentation numbering method, or notification that none exists or applies
- SCADA design or programming standards, or notification that none exists or applies
- CAD or drawing standards, or notification that none exists or applies
- Radio Site Survey to determine antenna height.

The following items will be collected by the Engineer:

- United States Geological Survey quadrangle map.

A site visit for further field review will be conducted to review potential lift station siting constraints.

A kick-off meeting with representatives from the Engineer and the City will be conducted at project initiation. The following will be accomplished:

- Introduce team members
- Review the project scope and schedule
- Identify specific goals and expectations
- Identify key issues affecting project development
- Request and discuss background information.

**Work Products:** The results of this phase will be documented in a section of the Preliminary Design Report (see Phase 400). Meeting minutes from the kick-off meeting will be prepared and distributed to the attendees by the BC.

## PHASE 300 – DEVELOP AND EVALUATE LIFT STATION ALTERNATIVES

**Objective:** Evaluate up to four alternatives for managing the wastewater generated by PIR. The four alternatives listed below will be evaluated one at a time, in the order listed, until a viable alternative is found. The results of the evaluation of the chosen alternative will be documented in a Technical memorandum prepared for Maricopa County Environmental Services (MCESD) approval.

**Activities:** With input from City staff, up to four alternatives for managing the wastewater will be identified, including:

1. Utilizing the existing on-site septic system for minimum flows and directing flows from larger events to a new lift station.
2. Construct an equalization basin upstream of a new lift station to handle the delivery of the flow ranges to the lift station.
3. Directing flow of all ranges to a new lift station and construct varying sizes of force mains to handle those flow ranges.
4. Or a combination of these.

Specific non-cost evaluation criteria will be developed and may include access, maintenance, visual impact on surrounding areas, environmental impacts, permitting requirements, etc.

If it is found that the first alternative is viable, BC will complete a Technical Memorandum describing this alternative. If it is found not to be viable, BC will conduct a phone conference with the City's Project Manager to discuss, and then begin to evaluate the next option, and so on until either a viable option is found or the fourth option is evaluated. Once a viable option is found and the Technical Memorandum describing that option is completed, work will begin on Phase 400.

Included in this evaluation the Engineer will determine the following:

- The appropriate design flows to base the alternatives.
- Based on the flows, the number and size of new pumps in the lift station will be determined and a preliminary selection will be made for a submersible-type solids handling or chopper pump(s).
- For force mains, determine the number required and size for conveyance.
- For equalization basin, develop size, type and flushing waste requirements.

While presenting the proposed solution in the Technical Memorandum to MCSED, the City will confirm that MCESD will allow no redundancy in force mains, and if so, a contingency plan will be developed by the Engineer to handle the flows from the lift station in case of an emergency break in the force main.

CITY OF AVONDALE  
PHOENIX INTERNATIONAL RACEWAY (PIR) LIFT STATION  
DESIGN ALTERNATIVES STUDY  
SCOPE OF SERVICES

**City Input:** Attend review meeting to discuss the results presented in the Technical Memorandum. Present the Technical Memorandum to MCESD for their input on the proposed alternative.

**Work Products:** The selected alternative results will be documented in a Technical Memorandum.

## **PHASE 400 – PRELIMINARY DESIGN REPORT**

**Objective:** To produce a preliminary design report (30 percent design) which summarizes the conceptual design of the new lift station. The primary focus of this report will be design documentation and preliminary drawings preparation.

**Activities:** The selected lift station alternative identified in Phase 300 will be developed and evaluated. Specific activities will include the following:

- 1) At the beginning of the work in this phase, BC will lead a support systems meeting with representative from the Engineer and the City to review detail requirements including the following:
  - Review the City responses to the BC Electrical Questionnaire.
  - Equipment and instrumentation numbering method.
  - Identification of any SCADA standards to be used and proposed SCADA details.
  - Identification of CAD standards to be used.
  - Proposed security measures.
  - Motorized gate features.
  - Review applicable codes upon which pumping station design will be based.
- 2) Development of a preliminary design report (30 percent design). The report will discuss:
  - Site features including a preliminary site plan and discussion of site drainage, access, and security. The site plan will contain sufficient detail to accurately depict the site layout, major equipment, structures, site walls, and site access.
  - Preliminary wetwell sizing and pump/motor selection.
  - Preliminary equalization basin sizing (if required).
  - Mechanical design criteria, including discharge header piping configuration and discussion on piping and valves.
  - Electrical and controls design criteria including Arizona Public Service power supply, equipment, lighting, telemetry, controls and a preliminary Process and Instrumentation Diagram, preliminary control strategy.
  - Equipment list itemizing the major pieces of equipment and proposed manufacturer's and/or types.
  - City responses to the BC Electrical Questionnaire.
  - Proposed equipment and instrumentation numbering method.

CITY OF AVONDALE  
PHOENIX INTERNATIONAL RACEWAY (PIR) LIFT STATION  
DESIGN ALTERNATIVES STUDY  
SCOPE OF SERVICES

- Identification of proposed Supervisory Control and Data Acquisition (SCADA) standards to be used and proposed SCADA details.
- Identification of proposed CAD standards to be used.
- Proposed security measures.
- Proposed motorized gate features.
- Summarize structural design criteria.
- Summarize the required permits for the construction of the new lift station.
- Provide a conceptual level construction cost estimate.

**City Input:** Attend the support systems meeting and the draft preliminary design report review meeting.

**Work Product:** Five (5) copies of the draft Preliminary Design Report will be provided to the City for review. A review meeting will be conducted with City staff to discuss comments on the draft Report. City comments shall be incorporated into the Final Preliminary Design Report and five (5) hard copies and one (1) electronic copy (in pdf format) shall be submitted to the City. The Preliminary Design Report will be used as the basis for the construction plans and specifications. At the conclusion of this scope of services, a separate scope and fee will be developed for the detailed design and preparation of the construction documents.

Workshops will be conducted in order to allow for open exchange of ideas between the City and BC and are described in Phases 100 through 400 above. It is planned that a total of four (4) workshops/meetings be conducted, with each planned to cover multiple topics. A summary of the workshops, with a preliminary listing of topics and their associated Phases, is provided below:

**Kick-off Meeting:** Project organization and schedule - Phase 200.

**Workshop 1** – Review results of preliminary evaluation presented in the Technical Memorandum - Phase 300.

**Workshop 2** – Support Systems meeting to review design detail requirements - Phase 400.

**Workshop 3** – Review City comments on draft Preliminary Design Report, including project cost estimate and required permits - Phase 400.

The specific topics in each workshop may be modified to accommodate specific issues that are relevant to the project at the time of the workshop. The timing of each workshop will be established with at least two (2) weeks advance notice to all parties.

**CITY OF AVONDALE  
PHOENIX INTERNATIONAL RACEWAY (PIR) LIFT STATION  
DESIGN ALTERNATIVES STUDY  
SCOPE OF SERVICES**

## **SCHEDULE**

The Technical Memorandum will be submitted within six (6) weeks of the notice to proceed if the first alternative is selected. Two (2) weeks will be added for each additional alternative evaluated. Schedule assumptions include:

- Receiving data collected by the City within one (1) week of notice to proceed.
- Receiving confirmation from PIR on the capacity of the septic system within two (2) weeks of notice to proceed.

The Draft Preliminary Design Report will be submitted within eight (8) weeks of the completion of the Technical Memorandum review or after receipt of written comments provided by the City. The Final Preliminary Design Report will be completed within four (4) weeks of the review meeting.

## **COMPENSATION**

BC will perform the Scope of Work described herein on a time-and-materials basis for a not to exceed fee of \$68,279. BC will not exceed this fee without prior authorization from the City. A breakdown of the estimated fee is shown in the attached Exhibit B and will be in accordance with the rate table in Exhibit C. Although fees are estimated by task, BC may transfer funds between tasks as project developments require.

EXHIBIT D  
TO  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN  
THE CITY OF AVONDALE  
AND  
BROWN & CALDWELL, INC.

[Fee Proposal]

See following pages.

**EXHIBIT B  
BROWN AND CALDWELL  
FEE**

Phase	Phase Description	Total Labor Hours	Total Labor	Total Expenses	Total
100	Project Management	38	\$6,362	\$0	\$6,362
200	Data Collection	34	\$5,722	\$200	\$5,922
300	Evaluate Alternatives	96	\$16,072	\$100	\$16,172
400	Preliminary Design	257	\$39,473	\$350	\$39,823
<b>GRAND TOTAL</b>		<b>425</b>	<b>\$67,629</b>	<b>\$650</b>	<b>\$68,279</b>



**EXHIBIT C  
BROWN AND CALDWELL  
SCHEDULE OF FEES**

<b>Level</b>	<b>Engineering</b>	<b>Technical/Scientific</b>	<b>Administrative</b>	<b>Rate</b>
A			Office/Support Services I	\$49
B	Student Trainee I	Field Service Technician I	Office/Support Services II Project Assistant Word Processor I	\$61
C	Assistant Drafter Student Trainee II	Field Service Technician II	Office/Support Services III Sr. Project Assistant Word Processor II	\$69
D	Drafter Engineering Aide Engineering Technician I Inspection Aide	Field Service Technician III	Office/Support Services IV Project Coordinator I Word Processor III Project Accountant I	\$79
E	Sr. Drafter Assistant Designer Engineer I Engineering Technician II Inspector I	Sr. Field Service Technician Geologist/Hydrogeologist I Scientist I Computer Programmer	Word Processor IV Project/Contract Coordinator Project Coordinator II Project Accountant II	\$94
F	Lead Drafter Designer Engineer II Engineering Technician III Inspector II	Geologist/Hydrogeologist II Scientist II Comp Analyst/Programmer I	Executive Support Services II Supervising Word Processor Sr. Project Coordinator Technical Writer Project Accountant III	\$113
G	Supervising Drafter Sr. Designer Engineer III Sr. Engineering Technician Inspector III	Geologist/Hydrogeologist III Scientist III Comp Analyst/Program II	Contracts Administrator Sr. Tech Coordinator/Analyst Project Accountant IV	\$135
H	Chief Drafter Principal Designer Sr. Engineer	Sr. Geologist/Hydrogeologist Sr. Scientist	Project Control Manager Sr. Technical Writer Accounting Manager	\$153
I	Supervising Designer Principal Engineer	Principal Geologist/Hydrogeologist Principal Scientist IT Project Manager	Corp. Contract Administrator Sr. Elect Media Specialist	\$174
J	Chief Designer Supervising Engineer	Supervising Geol/Hydrogeologist Supervising Scientist Sr. IT Project Manager	Risk Manager	\$180
K	Managing Engineer	Managing Geol/Hydrogeologist Managing Scientist IT Program Manager Principal IT Analyst/Developer	Corp Health & Safety Director	\$202
L	Chief Engineer Executive Engineer	Chief Geologist/Hydrogeologist Chief Scientist Manager, Information Resources	Corporate Counsel Sr. Client & Bus. Developer	\$219
M	Vice President			\$235
N	Sr. Vice President			\$245

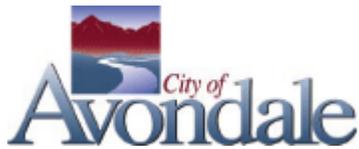
**EXHIBIT C  
BROWN AND CALDWELL  
SCHEDULE OF FEES**

<b>FIELD EQUIPMENT</b>		
<b>Identification</b>	<b>Rate Per Day</b>	<b>Rate Per Week</b>
<b>Probes and Instruments</b>		
Oil Interface Probe	\$50	\$200
Water Level Indicator	\$35	\$140
pH/Electrical Conductivity/Temperature Meter	\$50	\$200
Thermal Anemometer	\$40	\$160
Photo Ionization Detector	\$100	\$400
Flame Ionization Detector	\$100	\$400
Four-Gas Meter	\$85	\$250
Flow Meter	\$25	\$100
Hand-Held GPS	\$20	\$80
Hermit Data Logger and Transducer	\$150	\$600
Additional Transducer	\$25	\$100
<b>Pumps, Bailers, and Blowers</b>		
PVC Bailer	\$10	\$20
Teflon or Stainless Steel Bailer	\$15	\$60
Disposable Bailer	\$15 each	\$15 each
Cup Bailer	\$10	\$40
Air Monitoring Pump (low or high volume)	\$25	\$100
Gilibrator Calibration Primary Source Standard	\$80	\$320
Peristaltic Pump with Filter Holder	\$30	\$120
Submersible Pump	\$50	\$200
Trash Pump	\$50	\$200
<b>Samplers and Other Equipment</b>		
Decontamination Kit	\$15	\$60
Hand Auger and Kit	\$25	\$100
Sediment Sampler	\$20	\$80
Slide Hammer Sampler	\$20	\$80
Generator	\$50	\$200
Micropurge Groundwater Sampling System	\$150	\$600
Inflatable Packer	\$300	\$1,200
<b>Personal Protective Equipment</b>		
Level D (Modified)	\$15/person	\$60/person
Level C	\$50/person	\$200/person
Level B and Level A	Project-Specific Quote	
<b>OTHER DIRECT COSTS</b>		
<b>Identification</b>	<b>Unit</b>	<b>Rate</b>
Company Automobiles	Mile	\$0.55
Subcontractors		Cost
Other Outside Services, Rental Equipment, and Direct Project Expenses		Cost

Effective January 1 through December 31, 2011

Hourly billing rates for professional labor are revised annually to reflect changes in actual pay rates.





# DEVELOPMENT SERVICES

**SUBJECT:**  
Public Hearing, PAD Zoning Extension, Avondale Crossing (PL-10-0104)

**MEETING DATE:**  
January 24, 2011

**TO:** Mayor and Council  
**FROM:** Sue McDermott, Director of Development Services and Engineering (623) 333-4211  
**THROUGH:** Charlie McClendon, City Manager

---

**REQUEST:** A one year extension of the PAD zoning on the subject property to October 15, 2011.

**PARCEL SIZE:** Approximately 29.64 acres

**LOCATION:** Northeast corner of El Mirage Road and Corporate Drive

**APPLICANT:** Ms. Lisa Chasteen, LaPour Partners, Inc. (702) 222-3022

**OWNER:** LaPour Avondale One, L.L.C., et al., Jeffrey LaPour (702) 222-3022

**BACKGROUND:**

The property was annexed into the City on June 28, 1978. Upon adoption of the City's new zoning map in 1990, the property was zoned Agricultural (AG). On October 15, 2007, City Council approved case Z-07-2 and rezoned the property to PAD by Ordinance 1273-1007 with twelve conditions of approval.

The property is identified as Employment on the General Plan Land Use Map (Exhibit A). The property is vacant and is currently being farmed.

**SUMMARY OF REQUEST:**

The applicant is requesting a one year extension of the expiration date of PAD zoning to October 15, 2011.

**PARTICIPATION:**

Not applicable.

**PLANNING COMMISSION ACTION:**

Not applicable.

**ANALYSIS:**

According to Section 603.D of the Zoning Ordinance, the PAD zoning of Avondale Crossing expired October 15, 2010 because construction of onsite or offsite improvements did not commence within three years of rezoning to PAD. The applicant's request for a one year extension of PAD zoning was received October 18, 2010. The delay in bringing this request before Council was due to working with the applicant on the additional condition of approval, that the property be subject to the Public Art Ordinance, which is acceptable.

Figure 3 of the PAD Development Plan and Narrative (Exhibit F) shows the division of the property into three subsections and phases, two Industrial Parks and one Business Park. The representative

architecture shown in Figure 6 is required by condition of approval. The applicant's Narrative Request shows a "Site Concept Plan" with building layouts (Exhibit G). The Site Concept Plan is not approved. No application for site plan, the next step in the development process after rezoning, has been submitted for this property to date.

The approved PAD deviates from the current Zoning Ordinance in relatively minor ways, in a limited number of areas, even though the PAD was approved prior to amendments to the Zoning Ordinance for Section 4, Industrial District, and Section 6, PAD Districts. The approved PAD complies with the Zoning Ordinance requirements for Parking and Landscaping, as amended, by reference.

The approved PAD complies with, or is more restrictive than, the Zoning Ordinance with regard to building setbacks, building height, provision of landscaping, open space, and parking. The approved PAD is more restrictive than the Zoning Ordinance by requiring a minimum setback for parking away from public and interior streets in both the Industrial Park and Business Park areas of the development, and by limiting maximum building height to 35 feet instead of 45 in the Industrial Park area. The approved PAD will comply with the Commercial/Industrial/Multi-Family Residential Design Manuals. Offsite infrastructure on El Mirage Road and Corporate Drive will be completed in the first phase.

The approved PAD is less restrictive than the Zoning Ordinance with regards to:

- \* Minimum rear yard building setback in the Business Park area - the PAD provides for 12 feet, the Zoning Ordinance requires 15 feet in Commerce Park (CP) zoning;
- \* Minimum rear and side yard building setbacks adjacent to residential in the Industrial Park and Business Park areas - the PAD provides for 50 feet, the Zoning Ordinance requires 75 feet for CP and General Industrial (A-1) zoning;
- \* Wholesale sales and services use - the PAD allows the use as a permitted use in the Business Park area, the Zoning Ordinance does not allow wholesaling in CP zoning, but does provide for sales of products manufactured or assembled onsite as an accessory use to a permitted use;
- \* Retail sales directly related to the primary use - the PAD restricts the maximum floor area to 30% in the Business Park area and 10% in the Industrial Park area, or 30% if a Conditional Use Permit is obtained, while the Zoning Ordinance allows sale of products manufactured or assembled onsite as an accessory use to a permitted use in both the CP and A-1 zoning districts without a specific limit to floor area occupied;
- \* Freestanding multi-tenant sign maximum height and sign area - the PAD provides for a 12 feet height and 80 square feet sign area, the Zoning Ordinance limits the height to eight feet and the sign area to 60 square feet; and
- \* Public Art - the PAD makes no provision because the Public Art Ordinance was adopted subsequent to rezoning to PAD.

The applicant's reason for not developing the property within three years of rezoning to PAD is based upon the economy, in general, and the real estate market, specifically. The general poor state of the economy has been cited as a reason for not developing other PADs and in requests for extensions of PAD zoning.

If the PAD zoning extension is granted, this would be the first of a maximum of four one-year extensions allowed by the Zoning Ordinance. The one year extension would expire October 15, 2011. Assuming the maximum number of extensions, the development would have to complete construction of all first phase infrastructure improvements, which includes construction of the adjacent half-streets of El Mirage Road and Corporate Drive, not later than October 15, 2014 per the

Zoning Ordinance. If the PAD zoning extension is not granted, the PAD is already expired, and the property would be subject to reversion to AG zoning. AG zoning would not conflict with the existing onsite use of farming.

All conditions of approval provided for in Ordinance 1273-1007, rezoning the property to PAD, continue in effect if this extension is granted.

**Conclusion:**

Based on the information provided by the applicant and the analysis by staff, staff recommends approval of the requested one year extension of PAD zoning with one additional condition of approval requiring compliance with the Public Art Ordinance 1324-808.

**FINDINGS:**

The proposed request, with the recommended condition of approval, complies with the requirements of the General Plan and Zoning Ordinance.

**RECOMMENDATION:**

Staff recommends that the City Council **APPROVE** application PL-10-0104 with one recommended condition of approval as follows:

1. The property shall be subject to Ordinance 1324-808, the Public Art Ordinance.

**PROPOSED MOTION:**

I move that the City Council **APPROVE** application PL-10-0104, a request for a one year extension of PAD zoning for Avondale Crossing to expire October 15, 2011, subject to one recommended condition of approval.

**ATTACHMENTS:**

Click to download

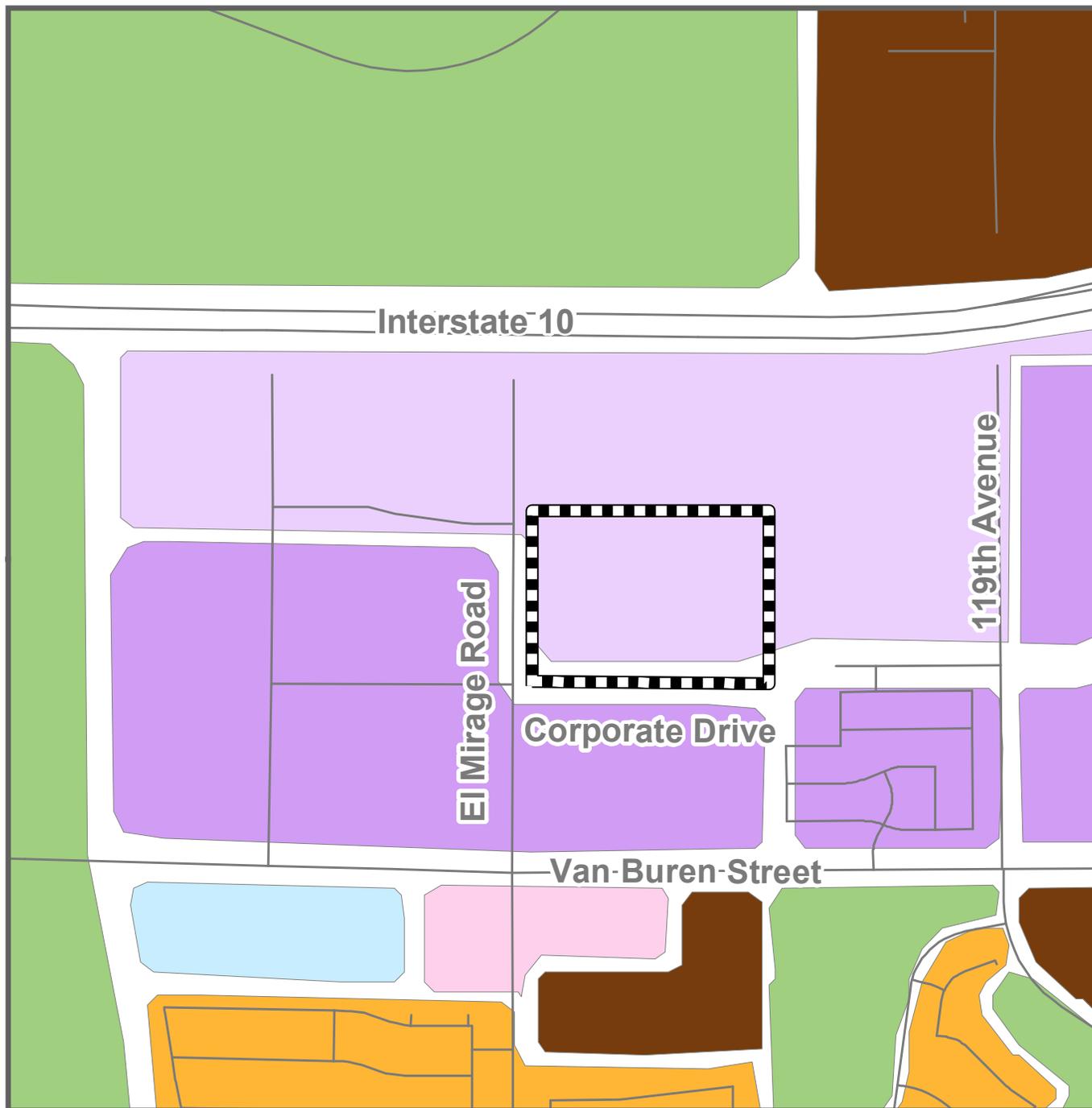
- [Exhibit A - Area General Plan Map](#)
- [Exhibit B - Area Zoning Map](#)
- [Exhibit C - Area Aerial Photo 2010](#)
- [Exhibit D - Summary of Related Facts](#)
- [Exhibit E - Ordinance Rezoning Avondale Crossing to PAD](#)
- [Exhibit F - Avondale Crossing PAD Development Plan & Narrative](#)
- [Exhibit G - Narrative Request for PAD Extension](#)

**FULL SIZE COPIES (Council Only):**

None

**PROJECT MANAGER:**

Eric Morgan, Planner II (623) 333-4017



**Avondale Crossing PAD Extension  
PL-10-0104**

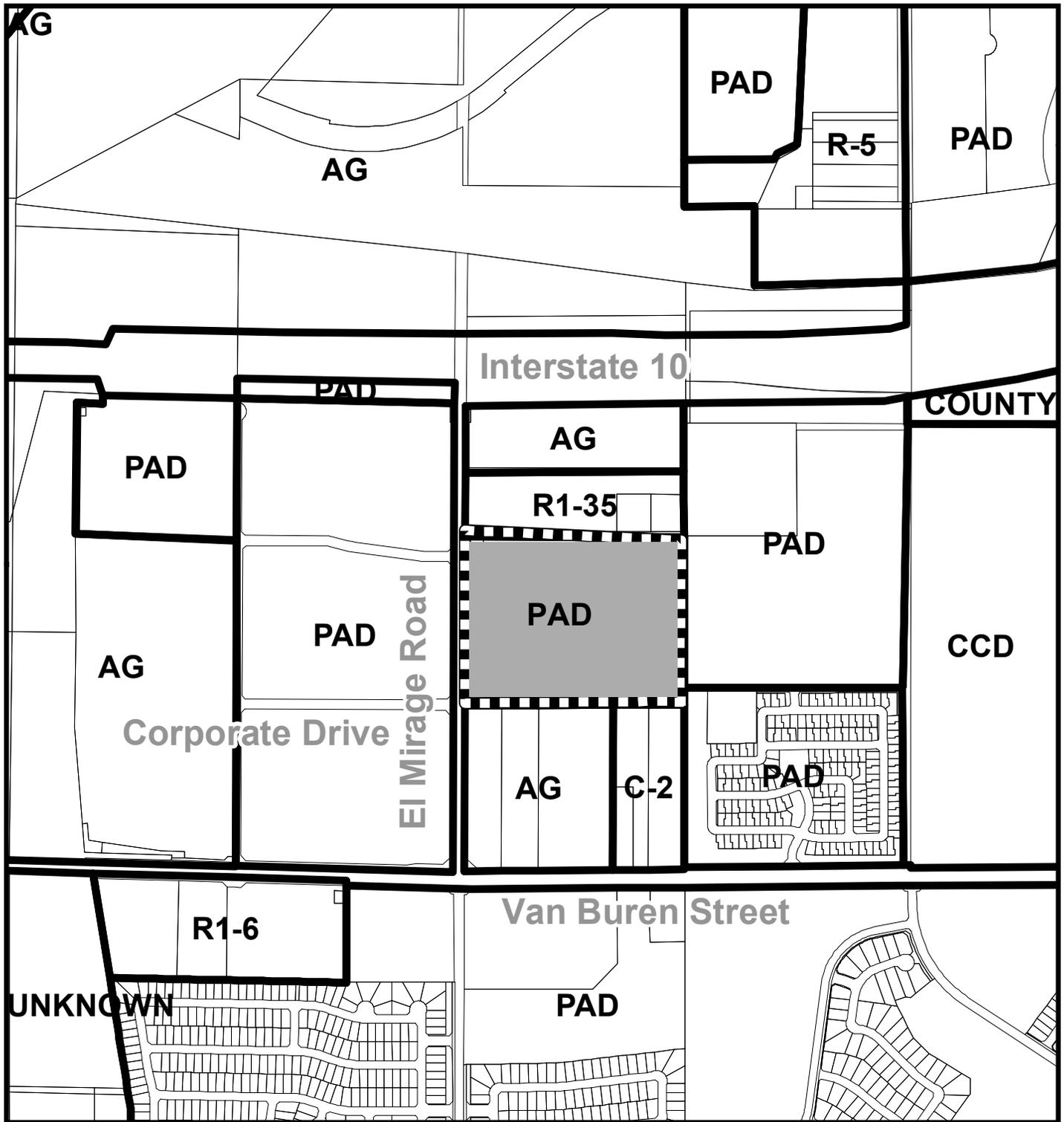
**General Plan Land Use Map**

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #FFC0CB; border: 1px solid black; margin-right: 5px;"></span> Commercial</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #E6E6FA; border: 1px solid black; margin-right: 5px;"></span> Employment</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #FF0000; border: 1px solid black; margin-right: 5px;"></span> Freeway Commercial</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #8B4513; border: 1px solid black; margin-right: 5px;"></span> High Density Residential</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> Low Density Residential</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #FFA500; border: 1px solid black; margin-right: 5px;"></span> Medium Density Residential</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #A0522D; border: 1px solid black; margin-right: 5px;"></span> Medium High Density Residential</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #9370DB; border: 1px solid black; margin-right: 5px;"></span> Mixed Use</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #654321; border: 1px solid black; margin-right: 5px;"></span> Multi Family Residential</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> Open Space</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> Public Facilities</li> </ul>
---	--



Subject Property





**Zoning Vicinity Map  
Avondale Crossing PAD Extension  
PL-10-0104**



**Subject Property**





**Aerial Photograph 2010  
Avondale Crossing PAD Extension  
PL-10-0104**



**Subject Property**



*SUMMARY OF RELATED FACTS  
APPLICATION PL-10-0104 AVONDALE CROSSING PAD EXTENSION*

<i>THE PROPERTY</i>	
PARCEL SIZE	Approximately 29.64 acres
LOCATION	NEC El Mirage Road & Corporate Drive
PHYSICAL CHARACTERISTICS	Approximately square and relatively flat
EXISTING LAND USE	Farming
EXISTING ZONING	Planned Area Development (PAD)
ZONING HISTORY	Annexed 6/28/1978, Rezoned to PAD 10/15/2007
DEVELOPMENT AGREEMENT	None

<i>SURROUNDING ZONING AND LAND USE</i>	
NORTH	Single Family Residential (R1-35) – single family detached home
EAST	Planned Area Development (PAD) – Avondale Spectrum (farming)
SOUTHWEST	Agricultural (AG) – single family detached home & farming
SOUTHEAST	Community Commercial (C-2) – River Crossing Storage & RV (self-storage)
WEST	Planned Area Development (PAD) – Avondale Commerce Center Phases I, II, III (commerce park)
<i>GENERAL PLAN</i>	
The subject property is designated as <b>Employment</b> on the General Plan Land Use Map.	

<i>PUBLIC SCHOOLS</i>	
SCHOOL DISTRICT(S)	Littleton Elementary School District Tolleson Union High School District
ELEMENTARY SCHOOLS	Littleton Elementary School
HIGH SCHOOL	La Joya Community High School

*STREETS*

**El Mirage Road**

Classification	Arterial
Existing half street ROW	0 feet (ROW has been dedicated only on the west half of the street)
Standard half street ROW	65 feet
Existing half street improvements	Existing improvement are on the west side of the road. No improvements on the east side.
Standard half street improvements	2 vehicular lanes, ½ landscaped median, bike lane, curb and gutter, landscaping and sidewalk, street lights

*STREETS*

**Corporate Drive**

Classification	Major Collector
Existing half street ROW	Nothing
Standard half street ROW	50 feet
Existing half street improvements	Nothing
Standard half street improvements	2 vehicular lanes, ½ turning lane or median, bike lane, curb and gutter, landscaping and sidewalk, street lights

*UTILITIES*

There is an existing 13” water line in El Mirage Road transitioning the length of the property frontage.

There is an existing 15” sewer line in El Mirage Road transitioning across the entire frontage of the property.

**ORDINANCE NO. 1273-1007**

AN ORDINANCE OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, AMENDING THE OFFICIAL ZONING ATLAS OF THE CITY OF AVONDALE FOR APPROXIMATELY 28.3 ACRES LOCATED AT THE NORTHEAST CORNER OF EL MIRAGE ROAD AND WEST CORPORATE DRIVE AS SHOWN IN FILENAME Z-07-2, REZONING SUCH PROPERTY FROM AGRICULTURAL (AG) TO PLANNED AREA DEVELOPMENT (PAD) AND IMPOSING CONDITIONS UPON SUCH CHANGE.

**WHEREAS**, the Council of the City of Avondale (the "City Council") desires to amend the City of Avondale Zoning Atlas (the "Zoning Atlas") pursuant to ARIZ. REV. STAT. § 9-462.04; and

**WHEREAS**, all due and proper notices of public hearings on the intended amendment held before the City of Avondale Planning and Zoning Commission (the "Commission") and the City Council were given in the time, form, substance and manner provided by ARIZ. REV. STAT. § 9-462.04; and

**WHEREAS**, the Commission held a public hearing on Thursday, September 20, 2007, on the amendment to the Zoning Atlas pursuant to such notices and as required by ARIZ. REV. STAT. § 9-462.04; and

**WHEREAS**, the Commission recommended approval; and

**WHEREAS**, the City Council held a public hearing regarding the amendment to the Zoning Atlas on October 15, 2007.

**NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF AVONDALE** as follows:

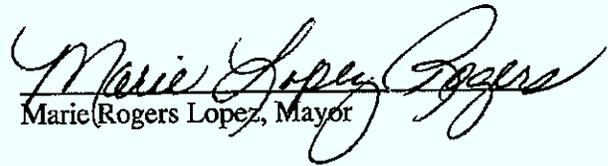
**SECTION 1.** That ± 28.3 acres of real property, generally located at the northeast corner of El Mirage Road and West Corporate Drive as shown in filename Z-07-2 (the "Property"), as more particularly described and depicted in Exhibit A, attached hereto and incorporated herein by reference, are hereby rezoned from Agricultural (AG) to Planned Area Development (PAD), subject to the following conditions:

1. Development shall be in substantial conformance with the development plan and narrative for Avondale Crossing dated September 4, 2007.

2. All public improvements, including all half-street improvements on El Mirage Road and West Corporate Drive shall be completed during the first phase of the development. Roadway cross-sections shall be required per Chapter 4 of the Avondale Transportation Plan. Required improvement standards are determined by the City of Avondale Engineering Design Guidelines for Site Development and Infrastructure Development.
  3. The proposed development to conform to the Avondale Commercial Design Guidelines. (upon adoption)
  4. Full traffic impact analysis reports shall be required at master site plan. Additional comments will be forthcoming based on review and results of traffic study. A full revised Traffic Study will be required at Final Site Plan submittal.
  5. Pedestrian-friendly design elements shall be required with the proposed major collector roadways.
  6. Additional right-of-way may be required at site plan approval for improvements based upon the results of the revised traffic study and the site plan application, as determined by the City Engineer.
  7. All water rights on the property shall be conveyed to the City of Avondale prior to recordation of the final plat.
  8. An area not less than 5,000 square feet and roughly square in shape shall be provided on the subject property for a municipal well. Said site shall be within 660 feet of the present location of the irrigation well on the subject property. The exact site and dimension shall be determined at final site plan.
- 
9. A master site plan and comprehensive sign program for the development shall be approved by the City Council prior to development. Subsequently, plans and permits may be administratively approved by staff for this development in accordance with the Council approved master site plan and comprehensive sign program.
  10. Retail commercial operations directly related to the primary industrial use shall not exceed ten (10) percent of the gross floor area of any single tenant except with a Conditional Use Permit, where up to thirty (30) percent may be allowed.
  11. The architectural design and building materials to conform to figure 6 within the approved Avondale Crossing Development Plan dated September 4, 2007.

SECTION 2. That if any provision of this Ordinance is for any reason held by any court of competent jurisdiction to be unenforceable, such provision or portion hereof shall be deemed separate, distinct and independent of all other provisions and such holding shall not affect the validity of the remaining portions of this Ordinance.

**PASSED AND ADOPTED** by the Council of the City of Avondale, October 15, 2007.

  
Marie Rogers Lopez, Mayor

**ATTEST:**

  
Linda M. Farris, City Clerk

**APPROVED:**

  
Andrew J. McGuire, City Attorney

# AVONDALE CROSSING

NEC OF EL MIRAGE RD. & CORPORATE DRIVE  
AVONDALE, ARIZONA

## P.A.D. REZONING APPLICATION Z - 07 - 2

LAPOUR PARTNERS  
5525 S. Decatur Blvd.  
Las Vegas, Nevada  
702-222-3022

January 18, 2007  
Revised March 27, 2007  
Revised June 29, 2007  
Revised August 2, 2007  
Revised September 4, 2007

### CITY COUNCIL

Approved  
 Denied

Approved with  
Conditions

10/15/07  
Date

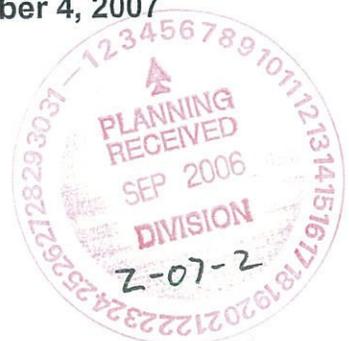


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## **I. Introduction**

The Conceptual Development Plan and this Program narrative provide a project overview of a Planned Area Development (PAD), proposed by LaPour Partners to develop an approx. 28-acre site at the northeast corner of El Mirage Road and Corporate Drive (the "Property"). This development plan, which is separated into three (3) phases, will include a variety of commercial and employment uses that support the Avondale General Plan.

## **II. Rezoning Request**

This request is to rezone the site from the AG zoning to a Planned Area Development (PAD) to specifically allow the uses proposed in the Conceptual Development Plan.

## **III. General Plan Conformance**

The subject property is located in an area designated by the City of Avondale General Plan as "Employment" land use designation. See Figure 4. This designation allows for development of Business and Industrial Park uses. This application is consistent with this land use designation.

The property is also within the boundaries of the City of Avondale Freeway Corridor Specific Plan (dated June 1991). The proposed development is in keeping with, and will further, the goals and policies of the Specific Plan. The primary mission of that Plan is to inspire a public-private joint venture for quality economic development in this area of the City (which is identified as having the highest urbanizing potential). The Specific Plan further states this area of the City provides the most prime real estate among the City's remaining inventory of land that is ripe for urban development and economically-viable growth.

The Specific Plan identifies the section of El Mirage Road, nearest Interstate 10, as an area that creates significant opportunity for intense uses benefiting from high visibility from the freeway. The Specific Plan further mentions office, retail and employment land uses for this area. The proposed uses are consistent with the Plan and the development standards will comply with the applicable design and landscaping standards set forth in the Specific Plan.

## **IV. Background**

This Property was annexed into the City of Avondale from Maricopa County in 1986. Comparable rezoning was established which designated this property as Agricultural (AG). Refer to Exhibit "A" Contextual Plan for additional information regarding adjacent land uses and existing zoning.

### **1. Ownership**

The property is owned by LaPour Avondale One LLC, LaPour Avondale Two LLC and LaPour Avondale Three LLC.

### **2. Property**

The property is located at the northeast corner of El Mirage Road and Corporate Drive and is comprised of approximately 25 net acres. See Figure 1 Vicinity Map and Figure 2 Legal Description of the Property.

## **V. Site Context**

The site is currently in agricultural production with irrigation provided from a well-head located on the northwest corner of the property and an irrigation channel running along the west property edge. The site topography is almost level with grades sloping to the southwest.

The Property has visibility from Interstate 10 Freeway on the north, with access from El Mirage Rd. along the west and the proposed east-west Corporate Drive extension along the south.

### **1. Surrounding Land Uses**

**North:** The parcel adjacent to the north property line of the Project is designated R1-35 Residential with two homes constructed at the eastern end of this parcel.

**East:** The parcel adjacent to the east property line of the Project is designated AG Agricultural with a 100 ft wide SRP overhead transmission line corridor running the full length of the east boundary.

**South:** The proposed Corporate Drive forms the south boundary of the Project with a residential farming property located directly south of Corporate Drive.

**West:** El Mirage Road forms the west boundary of the Project. The property to the west of El Mirage Rd. is the recently rezoned Avondale Commerce Center Park a mixed-use PAD of commercial (C-2) and Commerce Park (CP) districts.

## **VI. Development Plan Approvals**

### **1. General Development Plan & Program**

In accordance with the Avondale General Plan, this General Development Plan proposes to combine a mix of commercial and industrial uses consistent with uses allowed within the Commerce Park (CP) and General Industrial (A-1) zoning districts. The guidelines and design standards described herein will be used to unify the architectural materials, landscaping and signage into a cohesive development and corporate business park identity that will attract a mix of quality commercial employment opportunities.

The Conceptual General Development Plan is included as Figure 3. This Plan shows the master roadway circulation plan and the proposed land uses. There are three (3) Phases of the Development Plan comprised of business/service-related and indoor storage uses in Phase I (along the north) and Phase II (along the east) with business-related office uses in Phase III, at the southwest corner of the site.

### **2. Final Development Plans / Phasing Plans**

Final Development Plans shall be submitted for each of the three phased areas of the overall development. Phased Final Development Plans shall include compatible architectural themes, internal circulation, parking lot configurations, signage, landscape theme, and maximum building footprints, consistent with the submittal requirements of the Avondale Zoning Ordinance, and shall be in conformity with the approved PAD application.

### **3. Amendments**

As each area develops, the General Development Plan or Final Development Plan may need to be amended or updated.

- Modifications to General Development Plans shall be governed by the Avondale Zoning Ordinance regarding amendments to the PAD.
- Modifications to Final Development Plans that change or otherwise alter the character of conformance with the approved General Development Plan will be considered a Major Amendment, and shall be reviewed by Staff and the Planning Commission and approved by the City Council. All other changes considered minor by the City Planner shall be reviewed and approved administratively by Staff when in the opinion of City Planner are in substantial conformance to the approved General Development Plan.

## **VII. Land Use Plan**

### **1. Industrial Park District (20.2 acres)**

The Industrial Park District includes Phase I and II as shown on the Conceptual General Development Plan and shall be in conformance with the uses of the General Industrial (A-1) Zoning District. The purpose of the District is to provide a mix of light manufacturing, warehousing and service-related employment uses.

#### **A. Permitted Uses**

The following are proposed as a principal uses within the Industrial Park District of the PAD:

- Warehouse/Storage, with loading dock facilities;
- Light manufacturing, totally enclosed within building structure;
- Retail operations directly related to the primary use, which does not exceed 30 percent of the floor area of the primary use;
- Wholesale sales and services;
- Food repackaging, dry food stuffs only;
- Fabrication of finished products, related to commercial or residential building trades.

#### **B. Conditional Uses**

None.

#### **C. Prohibited Uses**

Any use not expressly permitted herein.

### **2. Business Park District (8.0 acres)**

The Business Park District includes Phase III as shown on the Conceptual General Development Plan and shall be in conformance with the uses of the Commerce Park (CP) Zoning District. The purpose of the Business Park is to provide employment opportunities within a planned business park environment that provides for a higher percentage of office uses than the Industrial Park District. This may include retail showroom and service uses that support the employment uses.

**A. Permitted Uses**

The following are proposed as a principal uses within the Business Park Districts of the PAD:

- Offices for professional, administrative, clerical and sales services;
- Pharmacy, dental, research and medical laboratories;
- Retail operations directly related to the primary use, which does not exceed 30 percent of the floor area of the primary use;
- Wholesale sales and services;

**B. Conditional Uses**

None.

**C. Prohibited Uses**

Any use not expressly permitted herein.

**VIII. Development Standards**

All development shall comply with the City of Avondale Zoning Ordinance unless otherwise modified in this PAD application. The following development standards shall apply:

**1. Lot Development Standards**

Minimum Lot Width and Area:	Business Park - CP	Industrial Park – A1
<b>Minimum Setbacks:</b>		
Front yard from El Mirage or Corporate Dr.	25' to building; 20' to parking	20' to building; 20' to parking
Front from Interior Street	20' to building; 10' to parking	20' to building; 10' to parking
Interior side yard	12'	None
Side yard adjacent to Residential	50' to building	50' to building
Rear yard	12'	None
Rear yard adjacent to Residential	50' to building	50' to building
<b>Max. Building Height:</b>		
	35' to roof ridge-line; 40' to top of parapet	35' to roof ridge-line; 40' to top of parapet
<b>Max. Building Coverage:</b>		
	50%	No maximum subject to building code

**2. Lighting**

In addition to the following requirements, all lighting of the sites shall comply with the outdoor lighting requirements of the Avondale Zoning Ordinance.

- Accent lighting of selected architectural, landscape and/or hardscape features will be encouraged and shall use incandescent type lamps.

- Exterior fixtures will be located and oriented to focus light inward from the edge of each parcel.
- Parking canopy lighting shall be screened by the canopy fascia to limit visual distraction to the surrounding environment.
- All parking lot light fixtures shall be metal halide and shall be fully shielded.
- The design of lighting fixtures and their structural support shall be of a scale and architectural design compatible with on-site buildings.
- Fixtures that illuminate large areas from a single source are prohibited.
- The use of decorative wall-mounted sconces or light fixtures is encouraged.

Refer to paragraph XIV – Signage for information regarding illumination of signage elements, if any.

### **3. Screening**

#### **Parking Areas**

Where screening is required by development regulations, a combination of elements shall be used including solid walls, berms, and landscaping. The method of screening shall be architecturally compatible with the adjacent building in terms of materials and colors. Trash enclosures, service facilities, and loading areas will be sited away from project entrances and interior circulation drive aisles.

- **Perimeter Public Streets:** All parking areas adjacent to El Mirage Road and Corporate Drive shall be screened from the public right-of-way by a minimum three (3) foot high wall, landscaped berm, or combination. Walls shall not be used for more than 75% of the total parking lot frontage.
- **Interior Public Streets:** All parking areas within the CP District shall be screened from the public right-of-way by a minimum three (3) foot high wall, landscaped berm, or combination. Screen walls shall be integral-color masonry and designed to complement the design of the adjacent buildings.
- **Interior Private Drive Aisles or Streets:** Parking areas within the A-1 District shall not be screened by walls but will be located to the greatest degree possible along the sides or back of buildings to minimize their street-side exposure.
- **Service Areas:** All dock or service areas shall be screened from residential property with masonry walls six (6) feet high. All dock or service areas shall be screened from the public right-of-way with building massing to the greatest degree possible. Where this is not feasible due to truck maneuvering requirements, masonry wall screening shall be provided with landscape elements. The minimum height of screen walls of service areas shall be six (6) feet and up to eight (8) feet as required for buildings in the Business Park area. Screening of loading-docks or other service areas will use quality materials architecturally consistent and compatible with the building materials that complement the design of the adjacent buildings.

#### **Utility and Mechanical Equipment**

All roof mounted equipment, satellite dishes and ventilators projecting above the roofline shall be either fully recessed or screened by a building parapet. No secondary screen elements are allowed unless specifically complementary to the design of the overall building.

No wall-mounted equipment shall be permitted on the front or street sides of any building. Wall mounted equipment shall be made visually subordinate with architectural features that blend with the design of the main building. Overhead service doors and service equipment shall be screened from public streets with a combination of solid walls or landscape trellis.

Ground mounted electrical or mechanical equipment shall be screened from view by walls and/or landscaping. No ground-mounted equipment, other than those installed based on specific utility company criteria, shall be permitted between any street and building setback line.

Exterior electrical service entrance systems (S.E.S.) and panels shall be screened from the street frontage with doors, landscaping, or a solid wall (with landscaping) built of similar building materials and colors of the main development and equal to or exceeding the height of the S.E.S. panel. These criteria shall be reviewed in context with utility company requirements and approved by Staff.

To the extent possible, ground-mounted utility cabinets will be placed where they do not conflict with prominent site views and where they can be screened from major streets and public areas. Cabinets and screen walls will be painted to match the principal structure.

#### ***Trash Enclosures***

All trash or refuse collection areas shall be enclosed by a minimum six (6) foot wall. All gates shall be opaque and designed to complement the building architecture. No refuse collection area shall be permitted between any street and the building setback line. All trash enclosures will meet City of Avondale requirements. Trash enclosures shall not be located closer than 60-feet to residential property lines.

#### ***Walls and Fences***

Walls shall be designed to complement the site's architecture. Landscaping used in combination with all walls is required. Walls and fences shall be utilized for screening or security purposes to enclose individual parcels.

Along the north property line and any parking areas, adjacent to the current residential district, a 10-ft wide landscape strip, planted with one tree every 20 feet will be provided, along with a 6-foot high masonry wall architecturally compatible with the building materials.

All walls shall be 8x8x16 center-scored, smooth-face masonry block, stained and sealed in earth tone colors, compatible with the building colors. A geometric pattern consisting of architectural block in a special geometric pattern shall be repeated every 150 feet or less. Walls facing the public right-of-way shall meet the minimum theme standards for the "City Standard Wall" in effect at the time of this P.A.D. approval.

#### ***4. Parking***

Parking shall be provided per the requirements of the Avondale Zoning Ordinance, as amended. The size of all parking spaces, driveways, parking lot islands, and other improvements in the parking areas shall conform to the City of Avondale Zoning Ordinance. For all parking lots directly adjacent and visible to El Mirage Road and Corporate Drive, a minimum of 15% of the total parking lot area shall be landscaped.

Parking canopy shade structures where allowed, shall be setback to comply with building code requirements. The design of the canopies shall be upgraded through the use of fascia skirts or upgraded details compatible with building architecture and columns painted to match the buildings. Canopies shall be cantilever-type.

Special paving treatments shall be provided at site drive-entrances into parking areas from public streets.

## **IX. Infrastructure**

### **1. Circulation**

Primary access to the Property is provided from the I-10 Freeway, south on Avondale Blvd., west on Van Buren Street and then back north on El Mirage Rd. Corporate Drive as proposed will be extended east and culminate in a tee intersection at Avondale Blvd.

Avondale Blvd. and Van Buren Street are designated as major arterial streets; El Mirage Rd. is designated as a collector street and extends north along the west of property as noted above. Corporate Drive is designated as a major collector. The remaining proposed interior streets will be local private streets. The Van Buren and El Mirage intersection is signalized.

A public street will be dedicated through the project to provide access from Corporate Drive to the residential parcels along the north property line. A Master Circulation plan shall be submitted as part of the Master Site Plan.

### **2. Utilities**

All utilities will be developed with the roadway and site improvements phase and placed underground. As part of the Phase I development, water and sewer lines will be extended along Corporate Drive to serve the properties to the east. All internal water and sewer lines shall be private. A master utility phasing plan shall be submitted as part of the Master Site Plan.

SRP to provide electric service; Qwest to provide telephone service;

### **3. Grading and Drainage**

The Property will be responsible to provide onsite storage for runoff from a 100-year 2-hour storm event through the use of shared retention. The Property will also be responsible for collecting adjacent half-street runoffs.

Retention basins shall be designed and contoured to assume a natural appearance and to be integral part of the landscape. Retention basins shall be designed to meet the requirements of the Avondale Zoning Ordinance, as amended.

### **4. Maintenance**

The property owner(s) will provide maintenance of the proposed individual parcels in a manner that provides a neatly trimmed, cultivated and litter free site, including any contiguous landscape areas up to the back of the public sidewalk and any landscape areas within the right of way between the public walk and street edge. Codes, Covenants & Restrictions that address the maintenance responsibility will be recorded with regard to final plat approval.

## **X. Landscaping**

The goal of the landscape design will be to create a comfortably scaled development with tree lined streets and public spaces, provide a reflection of the architectural character, height and density of the buildings, and enhance the environment with color and plant variety. In addition to the following requirements, all landscaping shall meet the minimum requirements set forth in the City of Avondale Zoning Ordinance, as amended.

Individual parcel landscaping will enhance and acknowledge each site while complementing and unifying the overall development. All streets will be lined with a street theme tree with accent trees at various locations.

All plant materials shall be automatically irrigated with a 100% automatic, low volume drip emitter system. Irrigation run times shall be seasonally adjusted to maximize water use efficiency. The system shall be zoned for specific water use requirements, with all tree and shrub valve zones being controlled separately.

Plant materials were selected with consideration given to low water use, visual screening, air quality, shading and long term maintenance. Plants were selected from the Arizona Department of Water Resource Low Water plant list. A proposed plant palette list is provided as Figure 5.

A combination of trees and groupings of large shrubs shall be planted adjacent to structures at the front, side and rear elevations to accomplish the following:

- Accentuate the building design and highlight building entrances;
- Provide solar protection of glazed surfaces.
- Minimize the impact of large wall surfaces and;
- Provide a buffer between building and parking areas.

All plant materials shall be properly pruned to allow the plant to attain their natural shape and form. The irrigation system will be maintained to optimize water efficiency. Use of fertilizers shall be prudent to avoid excessive plant growth, thus reducing water need and unnecessary pruning.

All planting areas shall receive top-dressing of 3/4 -inch select decomposed granite as approved for the project development. Color and size of the materials shall be compatible with overall development design criteria.

Retention areas adjacent to the right-of-way shall be landscaped. If retaining walls in retention basins are necessary, they shall utilize the same materials as the building wall elements.

A preliminary landscape plan will be submitted with the Master Site Plan.

## **XI. Open Space**

Useable open space shall be provided in the form of outdoor sitting areas, pedestrian refuge areas, bench seating areas, featured landscaped areas, walkways and paths. These open space areas shall be included on individual site plans as appropriate to project use. The separation of uses is required through placement of planters, street furniture, landscaping, different paving textures, and subtle changes in the ground plane.

## **XII. Site Design**

Building placement will cluster groups of buildings in a manner that orients building entrances toward the street-side frontage and utilizes building mass to screen dock doors and service yard areas. Buildings are encouraged to be located at or near the front setback line or create a significant visual presence to the street and minimize the appearance of "parking lots" from the street.

While this development has similar uses but is lower in height than the adjacent RDB Commerce Center to the west, additional emphasis will be made on building elevations within the Industrial District facing the freeway, with consideration of the adjacent residential district

between this Project and the freeway. The four-sided approach to design, described below, will focus on minimizing the appearance of service doors and equipment at grade level with screenwalls, adding glass window elements to provide the appearance of a more "office-like" look within the industrial development, and continue the varied material and color articulation on all four sides of each building.

### **XIII. Architectural Design**

The provisions of this section seek to propose attractive, "four-sided" applications of quality architectural materials, which establish a consistent theme with an emphasis on a corporate office and industrial park vernacular. Because this project is of a "speculative" nature, comprised of multiple tenants, the design of each building within the development will require Staff approval before tenants are identified. Overall building massing and articulation will be consistent through the use of common materials and colors while allowing some variation at tenant entries to provide individual identity consistent with their individual use and purpose.

All buildings within each phase will share a common unifying architectural style. A "contemporary southwest" style is proposed attractive to industrial and corporate business tenants. A materials board and with colors proposed shall be submitted at the time of Final Development Plan review.

The desirable architectural design elements proposed for these buildings include:

- Building modulation, wall plane indentations and architectural fenestration details;
- Color and texture modulation of materials on all four sides, but not strongly contrasting;
- Building and landscape accent lighting;
- Building entry accentuation.

Final building design, materials and colors shall be defined with the Master Site Plan submittal and will require City Council approval. Included in Figure 6 are representative images of the proposed building architectural styles for both the Industrial Park District and Business Park District.

#### **1. Building Massing**

The visual impact of a building depends not only on its size, but also on the relationship between its length, width and height. Also, such features as prominent entries, windows, color and materials are factors in the visual impression of a building.

Building wall articulation is required on the buildings with appropriate details and elements to help create pedestrian scale and a sense of quality. Reduction of building mass may be achieved by using a combination of the following techniques:

- Variation in the parapet wall lines;
- Use of protected and recessed entries with canopy fenestration elements;
- Use of vertical elements on or in front of expansive blank walls;
- Use of pronounced wall plane offsets and projections;
- Inclusion of windows on elevations facing streets and pedestrian areas.

#### **2. Roofs**

Variations in parapet rooflines, and other significant roof or canopy forms shall be used to reduce the scale of commercial and industrial buildings. Parapets for concealing flat roofs and mechanical equipment shall vary in height.

### **3. Elevations / Walls**

Particular attention to detail shall be given to all sides of buildings so that the main architectural theme/style is articulated on all four sides. Materials shall be carried from the main elevation throughout the entire design of the building.

*Proposed Exterior Wall Material:* Concrete materials such as: synthetic stone, painted concrete tilt-panels, concrete masonry units (scored and split-faced) with surfaces painted, stained or integral-color exposed aggregate and shall have architectural relief; stucco, synthetic stucco or plaster systems provided with smooth or sand finishes. Glazing shall be low-reflectance glass with dark bronze or black anodized framing.

Prescriptive minimum combinations of materials are not indicative of quality architectural design, but at least three concrete materials will be used on each building comprising, on average, 80% of the wall area with glass and door openings and steel fenestration comprising the remaining exterior wall area.

*Exterior Fenestration Materials:* Exposed steel shapes with perforated steel shade elements painted in darker subdued colors that provide contrast and accentuate entries, while providing solar protection at glazed openings. No "rusted" steel elements are proposed.

*Proposed Exterior Wall Colors:* All exterior walls shall be painted, stained, or be integrally colored in non-reflective, neutral desert earth tones. Accent colors found in the native desert palette are encouraged to provide design interest and diversity.

*Materials and Colors Not Permitted:* Wood, unfinished plain concrete or concrete block, corrugated metal and pre-engineered metal sided buildings, bright primary colors such as green, yellow, orange, red, blue, purple and the like (unless specifically approved for corporate logo use, as limited accents).

### **4. Entrances**

All buildings shall have clearly defined customer entrance(s) incorporating elements such as:

- Extensive use of recessed glass openings;
- Projected canopies or overhangs;
- Accent lighting for identification and security.

### **5. Environmental Quality**

To the greatest degree possible and consistent with the uses to be developed, the Project will strive to meet the environmental guidelines of the USGBC "Basic" LEED rating wherever practical. This commitment will include the following minimum sustainable practices:

- Use of low water consumption plumbing fixtures and or dual flush;
- Utilize recycled building materials such as; steel, miscellaneous metals, ceiling tile and insulation, composite wood products, gypsum wallboard, fly-ash in the concrete mix and aggregates for asphalt paving.
- Minimize and orient building openings and windows to reduce solar-gain and heat loss.
- Utilize energy efficient lighting and mechanical equipment.
- Stimulate the economy by procuring building materials regionally within 500 miles of project site.
- Paints, coatings, adhesives, sealants, and floor coverings that are low Volatile Organic Compound (VOC) emitting will be used to help create a more "livable" work environment through enhanced indoor air quality.

- Reject solar heat gain of the building and surrounding footprint with the use materials with a high Solar Reflective index (SRI)

#### **XIV. Signage**

##### **1. Theme and Image**

A comprehensive sign program shall be submitted for review to the City of Avondale at the time of Master Site Plan application. All signage shall comply with the signage requirements of the Zoning Ordinance, as amended.

Avondale Crossing will be developed with an awareness of the surrounding community. Design for all signage elements in the hierarchy of the project will be developed for compatibility with, and accentuating architectural elements. This will include forms, massing, colors, materials and finishes that complement—not copy the architecture.

##### **2. Freestanding Business Park Identification Sign**

Primary identification of the project will be established with a freestanding monument sign at the intersection of the two arterial streets; El Mirage Road and Corporate Drive; This Park identification sign will display the name of the development; "Avondale Crossing" only, in non-illuminated letters, and shall reflect a corporate business park theme consistent with the architectural style of the buildings within the P.A.D. development. Components of this sign include:

- Maximum height; not to exceed six (6) feet in height, including base element;
- Maximum sign area; not to exceed sixty (60) square feet (80 s.f. allowed where frontage exists on two arterial streets);
- Accent up-lighting for identification and security; neon or back-lighting is not proposed;
- Location; ten (10) feet inside of property lines, integrated with landscape.
- There will not be any tenant identification on this identification sign.

##### **3. Multi-Tenant Identification Signs**

Primary identification of Tenants for the project will be established with two (2) freestanding monument signs; one at the intersection of the to-be-dedicated north-bound public street and Corporate Drive; a second sign on El Mirage at the northernmost private drive entrance to Phase 1. These Tenant identification signs will be spaced approximately 600 feet either direction from the Park identification sign noted above. Tenant signs shall comply with the signage requirements of the Zoning Ordinance. Signs shall reflect a corporate business park theme consistent with the architectural style of the buildings within the P.A.D. development. Components of this sign include:

- Maximum height; not to exceed twelve (12) feet in height, including base element;
- Maximum sign area; not to exceed eighty (80) square feet. The width of the sign base shall be equal to the width of the sign fascia;
- Park Identification; shall be included on each Tenant identification sign;
- Tenant Identification; a maximum of ten (10) Tenants shall be listed, in 6" high non-illuminated letters;
- Accent up-lighting for identification and security; neon or back-lighting is not proposed;

#### **4. Building Signage**

##### **A. General Wall Signage**

Tenant identification will be based on the type of use and their location within the Project. Clear identification of the individual businesses will be a key component to an appropriate wayfinding system. A complete tenant building signage guideline will be developed that ensures quality design, quality construction through any combination of the following types of signage and that which is appropriate for the use:

- Internally illuminated, aluminum pan channel returns and retainers and colored acrylic faces;
- Halo-illuminated, aluminum reverse pan channel graphics/letters;
- Non-illuminated, aluminum reverse pan channel, or dimensional flat cutout graphics/letters;
- Custom, dimensional and integrated cabinets with a minimum of three single graphic planes each, a minimum of one (1) inch in depth.

### ***B. General Size and Area***

The overall area and sizes of building signage shall be designed to be proportional with the architecture.

Individual signs shall be permitted individually in accordance with the approved Comprehensive Sign Program. Signage shall be calculated per tenant as follows:

- Using the longest building elevation facing a street for calculation, each tenant shall receive one (1) square foot of signage for each linear foot of tenant building frontage facing that street.
- Each building shall have a maximum of two-hundred and fifty (250) square feet of sign area.
- No illuminated signage shall be placed facing a residential use or district adjacent to the development.

### **List of Figures**

Figure 1.	Vicinity Map
Figure 2.	Legal Description
Figure 3.	General Development Plan
Figure 4.	Avondale General Land Use Plan
Figure 5.	Landscape Palette List
Figure 6.	Representative Images – Business Park

AVONDALE CROSSING

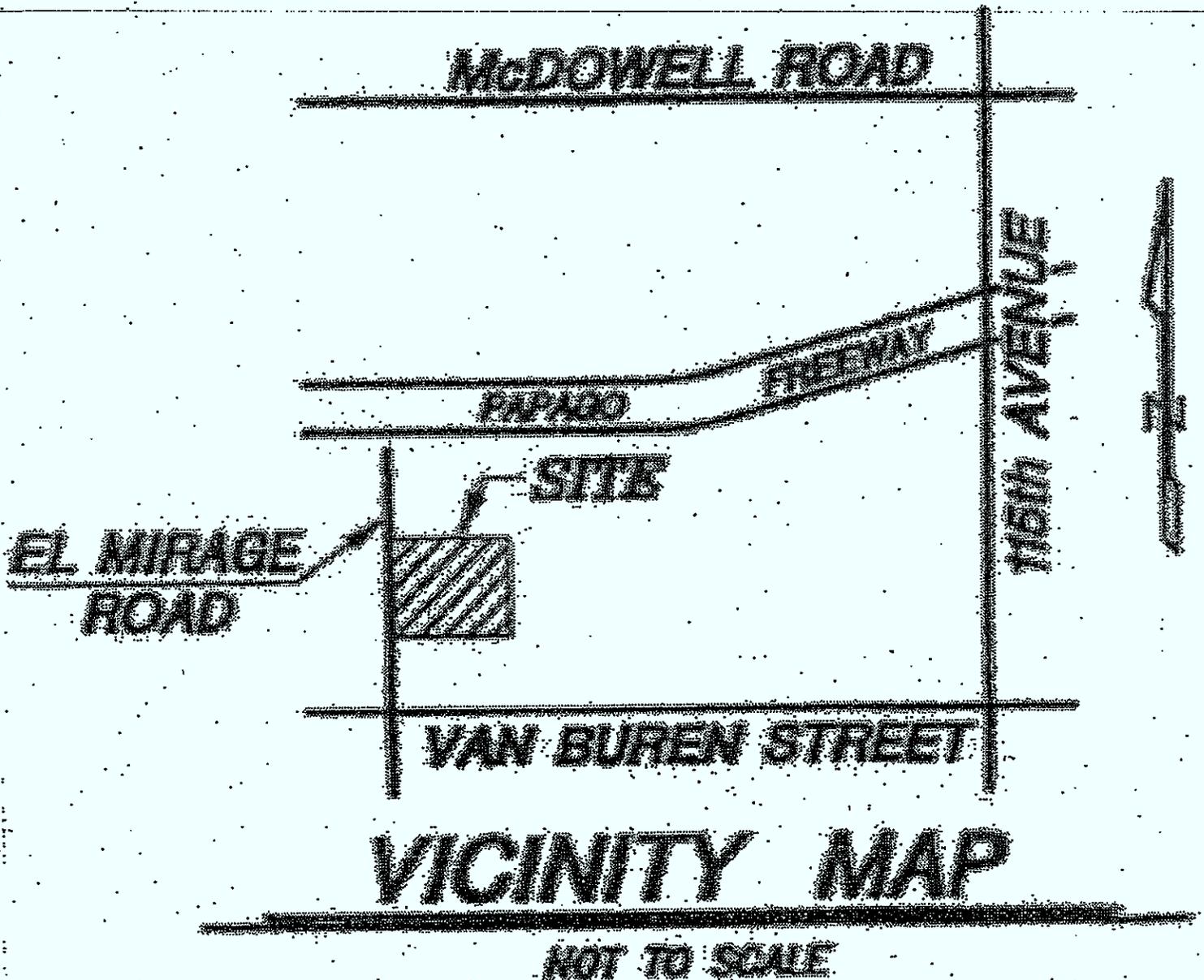


FIGURE 1

LEGAL DESCRIPTION

Parcel No. 1:

The Southwest quarter of the Southwest quarter of Section 1, Township 1 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPT the South 1013 feet thereof.

Parcel No. 2:

Lot 4, the Southwest quarter of the Northwest quarter, and the Northwest quarter of the Southwest quarter of Section 1, Township 1 North, Range 1 West, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPT the North 100 acres; and

EXCEPT beginning at the Southwest corner of Section 1, Township 1 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

Thence North 1876 feet to the Point of Beginning;

Thence East 139 feet;

Thence North 71 feet;

Thence West 139 feet;

Thence South to the Point of Beginning.

Parcel No. 3:

An undivided  $\frac{1}{2}$  interest in and to the following:

That part of the Northwest quarter of the Southwest quarter of Section 1, Township 1 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, described as follows:

BEGINNING at the Southwest corner of Section 1, Township 1 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

Thence North 1876 feet to the Point of Beginning;

Thence East 139 feet;

Thence North 71 feet;

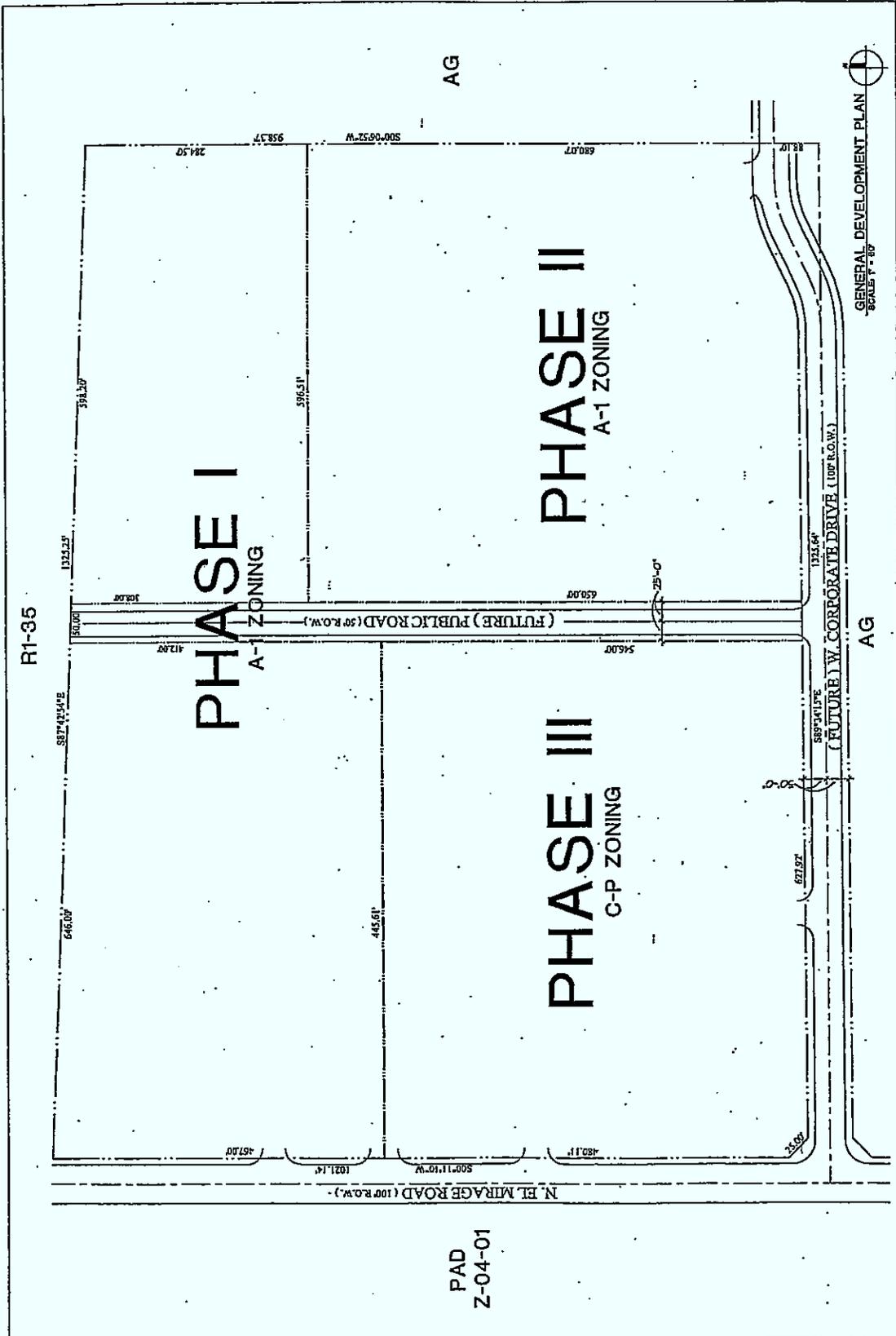
Thence West 139 feet;

Thence South to the Point of Beginning.

SITE DATA	
OVERALL SITE AREA	30.10 AC
OVERALL NET SITE AREA	28.93 AC
NET SITE AREA ( With new R.O.W. dedications)	27.10 AC
PHASE I NET SITE AREA	10.80 AC
PHASE II NET SITE AREA	8.02 AC
PHASE III NET SITE AREA	7.88 AC
PHASING SCHEDULE:	
PHASE I - Open by	January 2008
PHASE II - Open by	January 2008
PHASE III - Open by	January 2008

DATE: 01/17/08  
 DRAWN BY: J. J. JONES  
 CHECKED BY: J. J. JONES

**Butler Design Group**  
 Architects & Planners  
 6515 East Van Buren Blvd.  
 Suite 210  
 Phoenix, Arizona 85008  
 phone 602-957-1800  
 fax 602-957-7722

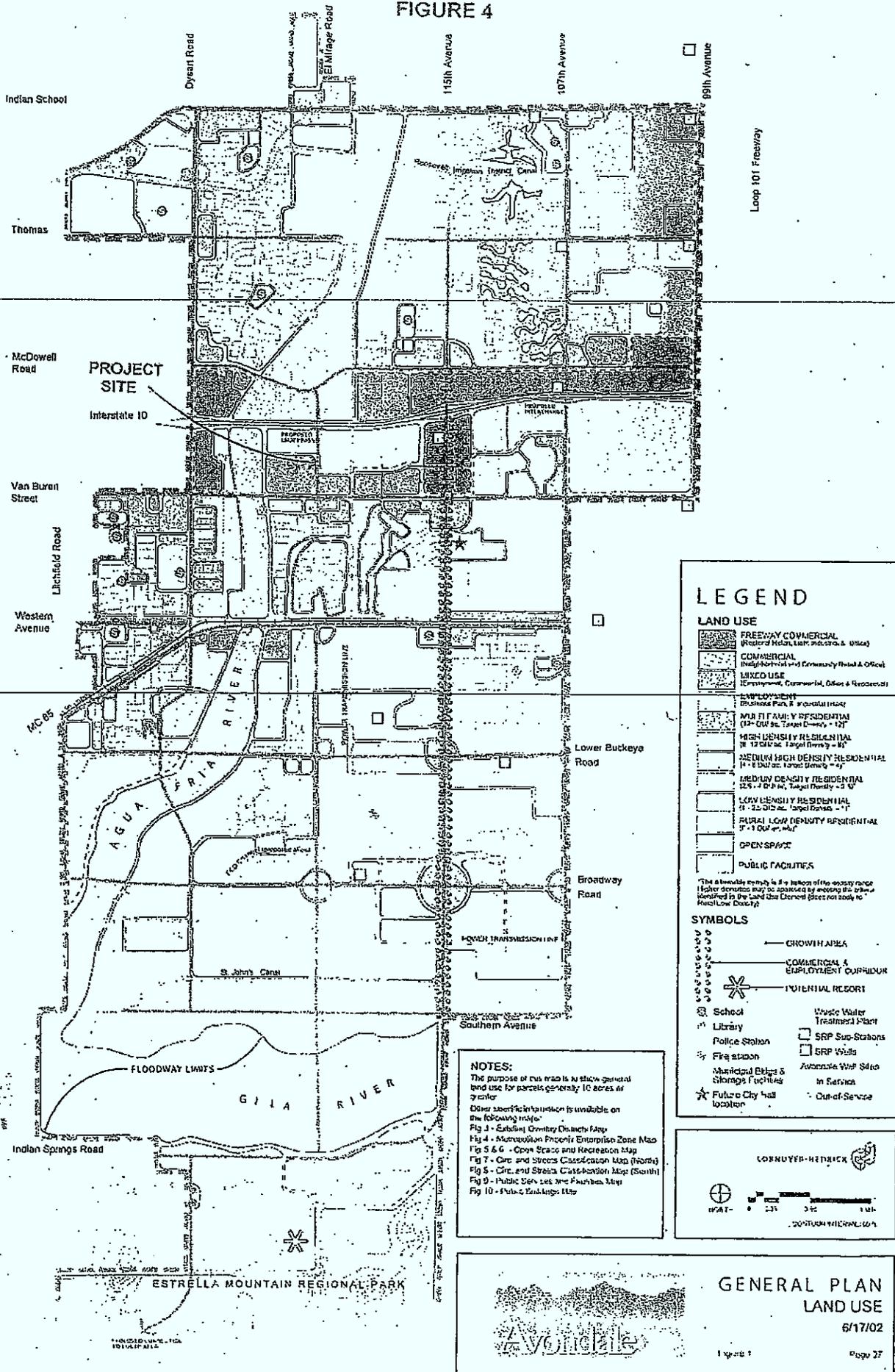


**LAPOUR PARTNERS**  
 REAL ESTATE DEVELOPMENT & INVESTMENT

**Avondale Crossing**  
 NEC El Mirage Road & Roosevelt Street  
 Avondale, Arizona

Figure 3

FIGURE 4



**LEGEND**

- LAND USE**
- FREEWAY COMMERCIAL**  
(Regional Mall, Light Industrial Office)
  - COMMERCIAL**  
(Neighborhood and Community Retail & Office)
  - MIXED USE**  
(Entertainment, Community, Office & Residential)
  - EMPLOYMENT CENTER**  
(Business Park, Regional Office)
  - MID-FAMILY RESIDENTIAL**  
(12-20 DU ac, Target Density = 12)
  - HIGH DENSITY RESIDENTIAL**  
(8-12 DU ac, Target Density = 8)
  - MEDIUM HIGH DENSITY RESIDENTIAL**  
(11-15 DU ac, Target Density = 11)
  - MEDIUM DENSITY RESIDENTIAL**  
(15-25 DU ac, Target Density = 15)
  - LOW DENSITY RESIDENTIAL**  
(25-35 DU ac, Target Density = 25)
  - RURAL LOW DENSITY RESIDENTIAL**  
(35-50 DU ac, Target Density = 35)
  - OPEN SPACE**
  - PUBLIC FACILITIES**

The density range is a portion of the density range. Higher densities may be achieved by meeting the criteria identified in the Land Use Element (does not apply to Rural Low Density).

- SYMBOLS**
- GROWTH AREA**
  - COMMERCIAL & EMPLOYMENT CORRIDOR**
  - POTENTIAL RESORT**
  - School**
  - Library**
  - Police Station**
  - Fire Station**
  - Municipal Buildings & Storage Facilities**
  - Future City Hall Location**
  - Wastewater Treatment Plant**
  - SRP Sub-Station**
  - SRP Wada**
  - Avondale Waf Station In Service**
  - Out-of-Service**

**NOTES:**  
The purpose of this map is to show general land use for parcels generally 10 acres or greater.  
Other identification is available on the following maps:  
Fig 1 - Existing Zoning Districts Map  
Fig 4 - Metropolitan Planning Enterprise Zone Map  
Fig 5 & 6 - Open Space and Recreation Map  
Fig 7 - Circ. and Streets Classification Map (North)  
Fig 8 - Circ. and Streets Classification Map (South)  
Fig 9 - Public Services and Facilities Map  
Fig 10 - Public Buildings Map

**CORNUYER-HERBICK**

**SCALE**  
0 125 250 500 1000  
FOOT METER

**GENERAL PLAN LAND USE**  
6/17/02  
Page 27

Trees

1. Sweet Acacia
2. Catclaw Acacia
3. Weeping Wattle
4. Twisted Acacia
5. Blue Palo Verde
6. Palo Brea
7. Chitalpa
8. Ironwood
9. Texas Ebony
10. Mesquite
11. Chilean Mesquite
12. Honey Mesquite
13. Southern Live Oak
14. Date Palms
15. Desert Museum Palo Verde
16. Shoestring Acacia
17. Evergreen Bird of Paradise
18. Desert Willow
19. Dalbergia Sissoo
20. Cascalote
21. Willow Acacia

Groundcovers

1. Desert Marigold
2. Angelita Daisy
3. Bush Lantana
4. Lantana 'New Gold'
5. Trailing Ice Plant
6. Blackfoot Daisy
7. Gooding Verbena
8. Goldeneye
9. Bush Morning Glory
10. Turf - Hybrid Bermuda, "Midiron"
11. Purple Trailing Lantana
12. "Little Katies" Ruellia
13. Yellow Dots
14. Myoporum
15. Dwarf Trailing Lantana
16. Carissa sp (not in ROW)
17. Bush Morning Glory

Shrubs

1. Desert Carpet
2. Bursage
3. Desert Milkweed
4. Bush Bougainvillea 'Barbara Karst'
5. Shrubby Senna
6. Mexican Bird of Paradise
7. Red Bird of Paradise
8. Yellow Bird of Paradise
9. Deer Grass
10. Nashville Grass
11. Brittle Bush
12. Turpentine Bush
13. Desert Lavender
14. Chuparosa
15. Regal Mist
16. Firecracker Penstemon
17. Desert Penstemon
18. Lady Bank's Rose
19. Mexican Barrio Ruellia
20. Cleveland Sage
21. Jojoba
22. Globe Mallow
23. Ruellia Species
24. Green Cloud Sage
25. Chihuahuan Sage
26. Salvia Species
27. Valentine Bush
28. Paper Flower
29. Petite Pink Oleander

Accents

1. Century Plant
2. Octopus Agave
3. Gentry's Agave
4. Weber's Agave
5. Saguaro Cactus
6. Peruvian Apple
7. Desert Spoon
8. Fishhook Barrel
9. Ocotillo
10. Giant Hesperaloe
11. Red Yucca
12. Tree Bear Grass
13. Bear Grass
14. *Opuntia* sp. (Cactus varieties)
15. Golden Barrel
16. Toothless Desert Spoon
17. Agave sp. (variety)
18. Twisted Yucca
19. Agave Sp.

# BUSINESS PARK



\* CONTRAST IN COLOR & MATERIAL TO CREATE VISUAL INTEREST

\* DETAIL AT TOP OF WALL FOR ADDITIONAL IDENTITY



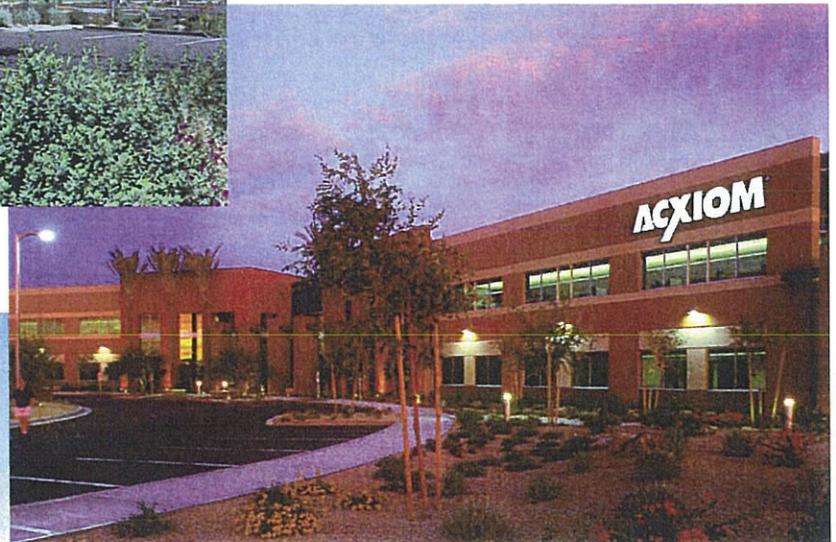
\* STRONG, BOLD FORMS



\* LANDSCAPING TO COMPLIMENT ARCHITECTURE



\* DESERT BASED COLOR PALETTE  
\* VARIATIONS IN TEXTURE  
\* SURFACE ARTICULATION

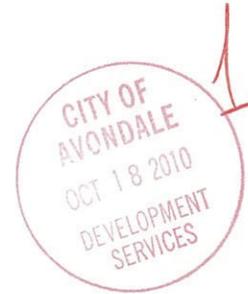


REPRESENTATIVE IMAGES  
Figure 6

# LAPOUR

October 11, 2010

City of Avondale  
 Development Services Division  
 11465 W. Civic Center Drive #110  
 Avondale, AZ. 85323



RE: PAD extension for parcel 500-01-001Q

To Whom It May Concern:

Please accept this correspondence as an official request for extension of the approved PAD for parcel 500-01-001Q located at the northeast corner of El Mirage Road and Corporate Drive and is comprised of approximately 25 net acres.

The property was annexed into the City of Avondale from Maricopa County in 1986. On October 15<sup>th</sup> 2007, the City Council approved our application, Z-07-2, to rezone the site from AG zoning to a Planned Area Development (PAD).

We are hereby requesting the maximum one (1) year extension to the approval set to expire October 14, 2010.

The property was not developed within the allotted three (3) year period due to the current economic conditions of the commercial real estate market. There is presently a surplus of space on the market and very weak demand due to three (3) primary factors – rising unemployment, negative absorption and rising vacancy. It has been noted that Arizona was one of the states that was hit the hardest during this economic downturn and is lagging behind other parts of the county. The overall industrial market for 2Q10 recorded positive absorption for the first time since third quarter 2008, however the market continues to be impacted by both the national and local economies.

The overall vacancy rate for industrial product in Phoenix this quarter stands at 16.0%. The Southwest Submarket over all product types is reporting a vacancy rate of 18.7%.

Construction activity throughout Phoenix continues to be dominated by build-to-suit projects, as no speculative buildings broke ground during the 2<sup>nd</sup> quarter. This trend is expected to continue due to a difficult and challenging financial environment and an oversupply of existing space for all property types.

commercial  
 hospitality  
 development  
 asset management

The unemployment rate for Phoenix for August 2010 ticked up to 9.7%, the highest for the state in 27 years. In May of this year, the University of Arizona projected that metro Phoenix would lose 47,700 jobs in 2010 before seeing an increase in years 2011 and 2012.

For further information, please reference the full report from CBRE, attached for your review.

This extension will allow the market time to recover and for demand to return.

We will continue to market the product to the end users as depicted on the site plan that has been provided. Darren Tappen and Pat Harlan of Cushman & Wakefield have the property listed as For Lease or For Sale. Marketing efforts include brochures, property signage, online marketing via successful sites such as PropertyLine and LoopNet to reach other brokers and end users. At the first indication of qualified users we will immediately move toward development and construction in accordance with the marketing site plan that is attached providing for adjustments to accommodate potential users.

Your consideration of this extension is appreciated. Should you require additional information or have questions concerning the request, please contact me at 702.222.3022 #107.

Sincerely,



Lisa Chasteen  
LaPour Partners, Inc.

**PROJECT NARRATIVE**

This project is a multi-phase development consisting of 12 lots (12 lots) to be developed in three phases (Phase I, Phase II, and Phase III) in accordance with the City of Phoenix's Comprehensive Zoning Ordinance (CZO) and the City of Phoenix's Comprehensive Land Use Plan (CLUP). The project is located in the Employment Zone (Business Park & Industrial Use) consistent with the current General Land Use Plan.

The project consists of an approx. 29 acre, 3-phase, single-story, general, multi-building business park of approx. 350,000 sq. ft. The project is divided into three phases (Phase I, Phase II, and Phase III) to be developed in a sequential manner following a site and subdivision review process.

Each of the three phases will be defined after the initial Phase I development. The initial Phase I development will be used to support the initial Phase I development.

Maximum building height proposed is 10 ft to top of roof. Building setbacks are typically min. 50 feet from property line, min. 10 feet from adjacent property line, and 10 feet from street. Minimum lot area of approx. 1.0 acre (10%) to be provided on site.

**SITE DATA**

PHASE I	PHASE II	PHASE III	ENTIRE SITE
1A	2A	3A	1A
1B	2B	3B	1B
1C	2C	3C	1C
1D	2D	3D	1D
1E	2E	3E	1E
1F	2F	3F	1F
1G	2G	3G	1G
1H	2H	3H	1H
1I	2I	3I	1I
1J	2J	3J	1J
1K	2K	3K	1K
1L	2L	3L	1L
1M	2M	3M	1M
1N	2N	3N	1N
1O	2O	3O	1O
1P	2P	3P	1P
1Q	2Q	3Q	1Q
1R	2R	3R	1R
1S	2S	3S	1S
1T	2T	3T	1T
1U	2U	3U	1U
1V	2V	3V	1V
1W	2W	3W	1W
1X	2X	3X	1X
1Y	2Y	3Y	1Y
1Z	2Z	3Z	1Z
1AA	2AA	3AA	1AA
1AB	2AB	3AB	1AB
1AC	2AC	3AC	1AC
1AD	2AD	3AD	1AD
1AE	2AE	3AE	1AE
1AF	2AF	3AF	1AF
1AG	2AG	3AG	1AG
1AH	2AH	3AH	1AH
1AI	2AI	3AI	1AI
1AJ	2AJ	3AJ	1AJ
1AK	2AK	3AK	1AK
1AL	2AL	3AL	1AL
1AM	2AM	3AM	1AM
1AN	2AN	3AN	1AN
1AO	2AO	3AO	1AO
1AP	2AP	3AP	1AP
1AQ	2AQ	3AQ	1AQ
1AR	2AR	3AR	1AR
1AS	2AS	3AS	1AS
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1BH	2BH	3BH	1BH
1BI	2BI	3BI	1BI
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1BK	2BK	3BK	1BK
1BL	2BL	3BL	1BL
1BM	2BM	3BM	1BM
1BN	2BN	3BN	1BN
1BO	2BO	3BO	1BO
1BP	2BP	3BP	1BP
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1BR	2BR	3BR	1BR
1BS	2BS	3BS	1BS
1BT	2BT	3BT	1BT
1BU	2BU	3BU	1BU
1BV	2BV	3BV	1BV
1BW	2BW	3BW	1BW
1BX	2BX	3BX	1BX
1BY	2BY	3BY	1BY
1BZ	2BZ	3BZ	1BZ
1CA	2CA	3CA	1CA
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1CI	2CI	3CI	1CI
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1CK	2CK	3CK	1CK
1CL	2CL	3CL	1CL
1CM	2CM	3CM	1CM
1CN	2CN	3CN	1CN
1CO	2CO	3CO	1CO
1CP	2CP	3CP	1CP
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1KN	2KN	3KN	1KN
1KO	2KO	3KO	1KO
1KP	2KP	3KP	1KP

# MarketView

## Phoenix Industrial

www.cbre.com/research

Second Quarter 2010

### Quick Stats

	Current	Change from last	
		Yr.	Qtr.
Vacancy	16.0%	↑	↔
Lease Rates	\$0.55	↓	↔
Net Absorption*	1.1M	↑	↑
Completions	466,000	↓	↓
Under Construction	802,600	↓	↓

\* The arrows are trend indicators over the specified time period and do not represent a positive or negative value. (e.g., absorption could be negative, but still represent a positive trend over a specified period.)

### Hot Topics

- Vacancy decreased, albeit slightly, for the first time since third quarter 2007 when the vacancy rate was 7.1 percent.
- Vacant distribution space accounts for 16.6 million square feet or 38.3 percent of all vacant industrial product in metropolitan Phoenix.
- Over the last year, the net direct average asking lease rate has declined 7.3 percent, dropping from \$0.59 NNN to \$0.55 NNN at the end of the second quarter.
- Construction activity has declined to 802,600 square feet from 2.5 million square feet one year ago.
- Build-to-suit projects represent 97.5 percent of all product currently under construction.
- Build-to-suit projects of note currently under construction include Café Valley Bakery, W.L. Gore, Cox Communications and Keller Electrical Industries.

At mid-year, the healing process for Arizona's economy had begun according to the second quarter economic outlook released by The Forecasting Project at the University of Arizona. This downturn has affected the Arizona economy differently than in past downturns, where economic growth has returned quickly and at a faster pace. It should be noted that Arizona was one of the states that was hit the hardest during this economic downturn and is lagging behind other parts of the country in the recovery phase according to the outlook. The outlook added that an entire decade of growth has been lost as the state's economy suffered extensive damage that will take years to restore.

Two significant events, which could significantly impact the economies of both metropolitan Phoenix and the state, occurred in the second quarter. On April 23rd, Governor Brewer signed into law Arizona Senate Bill 1070 which has been described as the most wide-reaching and strictest immigration law in decades. The second event was the announcement on June 29th by Governor Brewer that the newly named Arizona Commerce Authority would replace the Arizona Department of Commerce as a public-private economic development group for the state.

Although the metropolitan Phoenix industrial market recorded positive absorption for the first time since third quarter 2008, the market

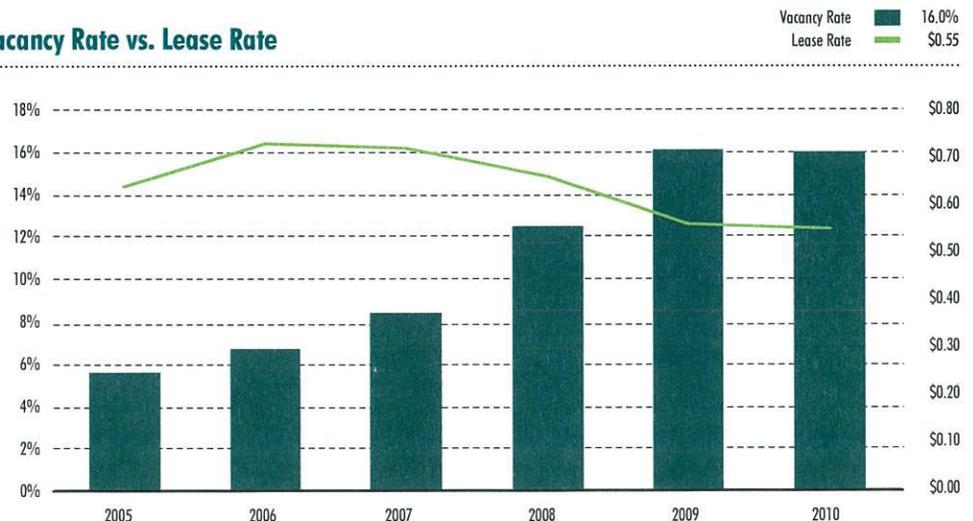
continues to be impacted by both the national and local economies. In the second quarter, the market absorbed 1.1 million square feet of space with 3.5 million square feet of gross activity.

The industrial market in metropolitan Phoenix, with an inventory of 271.2 million square feet, ended the second quarter with a vacancy rate of 16.0 percent for all product types. This reflects a 40 basis point decline in the vacancy rate from last quarter. One year ago, the Valley's vacancy rate was 15.2 percent.

Construction activity throughout the Phoenix area continues to be dominated by build-to-suit projects, as no speculative buildings broke ground during the second quarter. This trend is expected to continue due to a difficult and challenging financial environment and an oversupply of existing space for all property types throughout the marketplace. Build-to-suits currently account for 97.5 percent of all the product under construction Valley-wide, or 782,800 square feet.

Economic uncertainty has significantly impacted tenant activity among industrial buildings in the Phoenix area, as both consumers and businesses remain cautious about the future. However, companies that are looking for space will benefit, finding multiple opportunities from which to choose at extremely competitive lease rates.

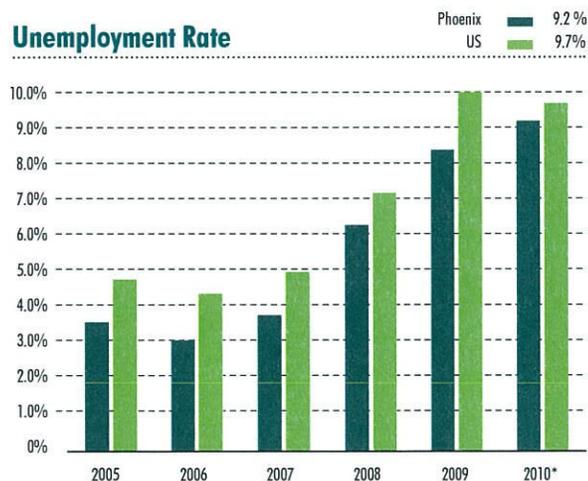
### Vacancy Rate vs. Lease Rate



## Market Statistics

Market	Rentable Area SF	Vacancy Rate	YTD Net Absorption SF	Under Construction SF	Average Asking Lease Rate - \$ SF/MO	Availability Rate
Northwest	36,525,718	17.5%	(301,816)	354,600	\$0.68	20.1%
Southwest	89,497,757	18.7%	1,757,218	285,000	\$0.32	20.9%
Airport	48,293,623	12.5%	(279,253)	145,000	\$0.55	14.3%
Northeast	13,446,908	15.9%	(209,820)	0	\$0.96	17.9%
Southeast	83,430,779	14.7%	(125,772)	18,000	\$0.69	18.8%
Metropolitan Phoenix	271,194,785	16.0%	840,557	802,600	\$0.55	18.8%

## Unemployment Rate



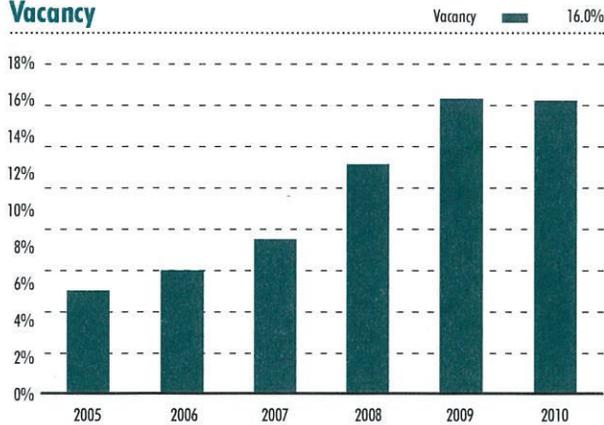
\*May 2010

Source: Arizona Department of Commerce, Research Administration; U.S. Bureau of Labor Statistics

The Arizona Department of Commerce, Research Administration reported that the unemployment rate in metropolitan Phoenix in May 2010 was 9.2 percent, compared to 8.7 percent in May 2009. The metropolitan Phoenix unemployment rate is below both the state and national unemployment rates of 9.6 percent and 9.7 percent, respectively.

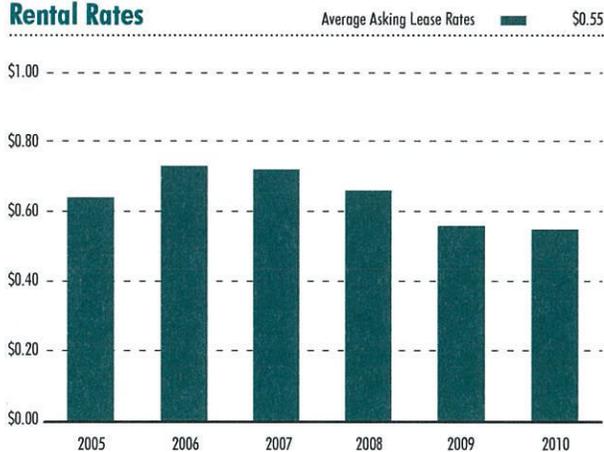
In May of this year, the University of Arizona projected that metropolitan Phoenix would lose 47,700 jobs in 2010 followed by job increases of 40,100 in 2011 and 78,500 in 2012. The long-term forecast period of 2012 through 2016 calls for employment growth to average 4.7 percent with an increase of 367,400 jobs during the forecast period.

### Vacancy



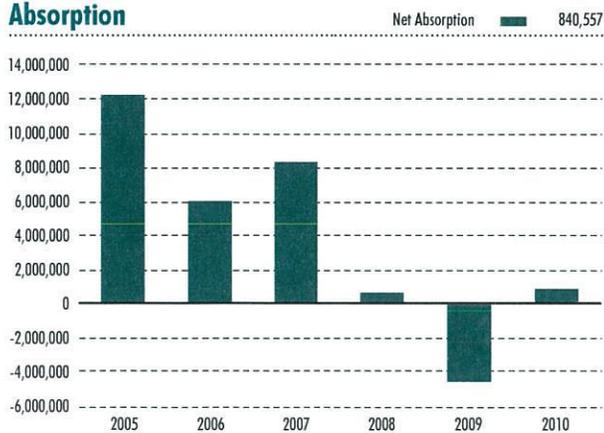
The metropolitan Phoenix industrial vacancy rate decreased in the second quarter to 16.0 percent, from 16.4 percent at the end of the first quarter. In comparison, the vacancy rate one year ago was 15.2 percent. Continuing to have the most significant impact on the overall vacancy rate is the distribution market, which ended the first quarter at 21.1 percent vacant, compared to 20.9 percent vacant one year ago. Vacant distribution space totals 16.6 million square feet or 38.3 percent of all vacant space Valley-wide. One year ago, there was 15.9 million square feet of vacant distribution space, which accounted for 39.2 percent of all the vacant industrial space in metro Phoenix.

### Rental Rates



While the net direct average asking lease rate in metropolitan Phoenix varies considerably based on submarket and product type, the second quarter average asking lease rate remained unchanged from the previous quarter. At the end of the second quarter the net direct average asking rate for existing product was \$0.55 per square foot. One year ago the rate was \$0.59 per square foot. By product type, the current net direct average asking lease rates for existing product are as follows: \$0.69 per square foot for multi-tenant buildings, \$0.33 per square foot for distribution buildings, \$0.59 per square foot for general industrial buildings and \$1.00 per square foot for back office buildings.

### Absorption



At the end of the second quarter the metropolitan Phoenix industrial market had positive absorption of 1.1 million square feet with 3.5 million square feet of gross activity. This marks the first time that the industrial market has had positive absorption since third quarter 2008, with 16 of its 28 submarkets reporting more space was occupied than lost. One year ago, the market had negative absorption of 1.6 million square feet with 1.9 million square feet of gross activity. During the second quarter, all property types experienced positive absorption with the exception of multi-tenant properties. Property types with positive absorption included major user buildings with 453,401 square feet, distribution buildings with 356,986 square feet, general industrial buildings with 189,495 square feet and freestanding buildings with 140,959 square feet. Multi-tenant properties had negative absorption of 101,501 square feet.

**MarketView Phoenix Industrial**

**Top Transactions**

Size (Sq. Ft.)	Tenant	Address
466,000	Home Depot	9181 W. Washington Street, Tolleson
453,401	Tower Automotive	17300 W. Broadway Road, Goodyear
100,129	Big O Tires	9180 W. Buckeye Road, Tolleson
93,366	21st Century Healthcare	2404 S. Wilson Street, Tempe
81,413	Wal-Mart	901 S. 86th Avenue, Tolleson

**Submarket Map**



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**Average Asking Lease Rate**

Rate determined by multiplying the asking net lease rate for each building by its available space, summing the products, then dividing by the sum of the available space with net leases for all buildings in the summary.

**Net Leases**

Includes all lease types whereby the tenant pays an agreed rent plus most, or all, of the operating expenses and taxes for the property, including utilities, insurance and/or maintenance expenses.

**Market Coverage**

Includes all competitive industrial buildings 5,000 square feet and greater in size.

**Net Absorption**

The change in occupied square feet from one period to the next.

**Net Rentable Area**

The gross building square footage minus the elevator core, flues, pipe shafts, vertical ducts, balconies, and stairwell areas.

**Occupied Area (Square Feet)**

Building area not considered vacant.

**Under Construction**

Buildings which have begun construction as evidenced by site excavation or foundation work.

**Available Area (Square Feet)**

Available building area which is either physically vacant or occupied.

**Availability Rate**

Available square feet divided by the net rentable area.

**Vacant Area (Square Feet)**

Existing building area which is physically vacant or immediately available.

**Vacancy Rate**

Vacant building feet divided by the net rentable area.

**Normalization**

Due to a reclassification of the market, the base, number and square footage of buildings of previous quarters have been adjusted to match the current base. Availability and vacancy figures for those buildings have been adjusted in previous quarters.

For more information regarding the MarketView, please contact:

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 jeff.cooledge@cbre.com