



**PURCHASING ITEM  
FOR  
COUNCIL AGENDA  
Memo No. CA11-154**

**1. Agenda Item Number:**  
**21**  
**2. Council Meeting Date:**  
May 12, 2011

**TO: MAYOR & COUNCIL**  
**THROUGH: CITY MANAGER**

**3. Date Prepared:** April 29, 2011  
**4. Requesting Department:** Transportation & Development

**5. SUBJECT:** Award a Project Agreement to Ritoch-Powell & Associates for Alma School Road and Ray Road Intersection Improvements, Project Number ST0704-202, in an amount not to exceed \$96,671.

**6. RECOMMENDATION:** Staff recommends Council award a Project Agreement to Ritoch-Powell & Associates for Alma School Road and Ray Road Intersection Improvements, Project Number ST0704-202, in an amount not to exceed \$96,671.

**7. BACKGROUND/DISCUSSION:** This contract is to design plan modifications for a deceleration lane, traffic signal, waterline stub, and sewer stub in anticipation of the proposed Museum of Tolerance and in accordance with Resolution No. 4356 between the City of Chandler and the Jewish Community Center on the southwest corner of Alma School Road and Ray Road. This contract also includes updates to comply with new upcoming Americans with Disabilities Act (ADA) requirements as identified in the draft version of the Public Right of Way Accessibility Guidelines (PROWAG). Additional Quality Assurance and Quality Control (QA/QC) of the plans will also be performed to ensure consistency between the changes and the existing construction documents.

A separate Construction Manager contract for professional services during construction will be advertised and brought forward for council approval at a later date.

**8. EVALUATION:** On January 27, 2011 Council approved an Annual Civil Design and Platting Services contract, EN1002-101, to Ritoch-Powell & Associates. Staff has reviewed the scope of work, work loads, and total fee for this project and determined that they are reasonable.

**9. FINANCIAL IMPLICATIONS:**

Cost: \$96,671  
Savings: N/A  
Long Term Costs: N/A  
Fund Source:

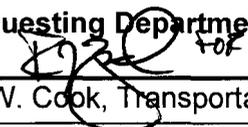
<u>Acct. No.:</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
411.3310.0000.6517.9ST315	GO Bonds-Streets	Alma School/Ray Rd	FY08/09	\$ 96,671

**10. PROPOSED MOTION:** Move that Council award a Project Agreement to Ritoch-Powell & Associates for Alma School Road and Ray Road Intersection Improvements, Project Number ST0704-202, in an amount not to exceed \$96,671.

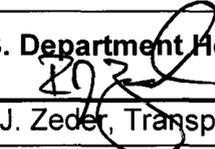
**ATTACHMENTS:** Location Map, Project Agreement

**APPROVALS**

**11. Requesting Department**

  
Daniel W. Cook, Transportation Manager

**13. Department Head**

  
R.J. Zeder, Transportation & Development Director

**12. City Engineer**

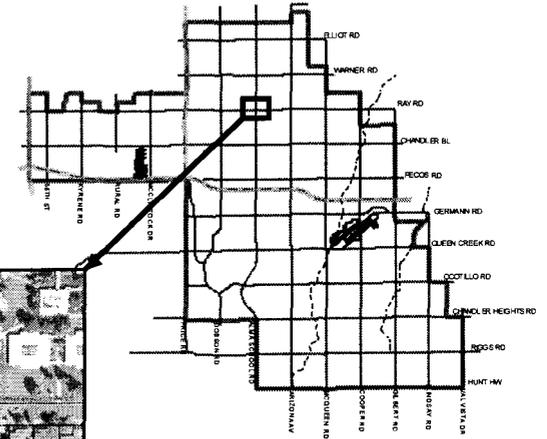
  
Sheina Hughes, City Engineer

**14. Acting City Manager**

  
Rich Dlugas



# ALMA SCHOOL RD & RAY RD PROJECT NO. ST0704-202



**MEMO NO. CA11-154**

 PROJECT AREA



**PROJECT AGREEMENT  
PURSUANT TO ANNUAL CONTRACT NO. EN1002-101**

**AGREEMENT NO: ST0704-202**

This AGREEMENT is made this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_, by and between the City of Chandler, a municipal corporation (hereinafter referred to as "CITY") and Ritoch-Powell & Associates, (hereinafter referred to as "Annual Consultant") and is a project agreement entered into pursuant to Annual Contract No. EN1002-101.

CITY and Ritoch-Powell & Associates, in consideration of the mutual covenants herein set forth, agree as follows:

**ARTICLE 1. DESCRIPTION OF WORK**

This project is **Alma School Road and Ray Road Intersection Improvements**, Project Number **ST0704-202**. The scope of work consists of **public utility coordination; public meetings; paving plan and profiles plans, specifications, and estimate; drainage report; plans, specifications, and probable cost estimate for drainage, traffic signal, striping and signing, landscape and irrigation, waterline, and sewer line; geotechnical evaluation, utility locating, construction sequencing specification**, all as more particularly set forth in **Exhibit A** attached hereto and incorporated herein by reference.

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

**ARTICLE 2. CONTRACT PRICE**

CITY shall pay Annual Consultant for completion of the Work in accordance with the Contract Documents a fee not to exceed **Ninety Six Thousand Six Hundred Seventy One Dollars (\$96,671)** determined and payable as set forth in Annual Contract EN1002-101 and **Exhibit B** attached hereto and made a part hereof by reference.

**ARTICLE 3. CONTRACT TIME**

The contract time is **Ninety** days and Annual Consultant agrees to complete all work within **Ninety (90)** days of the date CITY issues a Notice to Proceed.

**ARTICLE 4. GENERAL**

This Project Agreement is entered into pursuant to Annual Contract No. EN1002-101 and the terms and conditions contained therein are incorporated herein by reference as if set forth in full.

**ARTICLE 5. ARIZONA PROCUREMENT LAW**

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

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

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

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

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

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

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

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

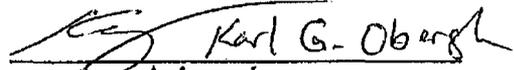
This Agreement will be effective on this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

CITY OF CHANDLER

FOR THE ANNUAL:

\_\_\_\_\_  
MAYOR OR DEPARTMENT HEAD/DESIGNEE      DATE:

By:  
Title:

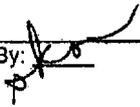
  
President

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

ADDRESS FOR NOTICE  
Mr. Karl Obergh  
Ritoch-Powell & Associates  
3838 N. Central Ave., Ste. 1250  
Phoenix, AZ 85012

APPROVED AS TO FORM:

Phone: 602-263-1177  
Fax: 602-277-6286

ATTEST:      City Attorney By: 

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

## EXHIBIT A SCOPE OF WORK

### A. BACKGROUND

On November 30, 2009, CITY of Chandler City Council adopted Resolution 4356 authorizing the Mayor to sign the development agreement for the construction of a Museum of Tolerance at the southwest corner of Ray Road and Alma School Road.

CITY obligations include a deceleration lane into the project on the west side of Alma School Road and a relocation of an existing 8" waterline located under an existing drive aisle. The Exhibit A of Resolution 4356 states part of the existing Capital Improvement Program (CIP) plan is to extend sewer service to the Jewish Community Center (JCC). The CITY intends to install the pre-duct conduit and pull boxes for a future traffic signal at the entrance into the JCC development.

The deceleration lane into the project site, waterline relocation and sewer improvements were to be incorporated into the existing CIP plans. The Alma School Road and Ray Road Intersection Improvement plans (Project No. ST0704-401) (100% signed and sealed plans), completed by TRISTAR Engineering and Management, Inc., dated February 3, 2011 were completed and finalized without the design elements included in Resolution 4356. Refer to the Scope of Work for the Alma School Road and Ray Road Intersection Improvement project for additional information.

Existing screen walls will need to be relocated as part of the intersection improvements. Some walls have been identified on the 100% signed and sealed plans for either removal or reconstruction. However, the 100% signed and sealed plans do not specifically identify the wall height stepping and refer to a detail to construct all screen walls to be 6'-8" high and not the existing wall height.

The CITY is pursuing Federal Highway Administration (FHWA) Highway Safety Improvement Program (HSIP) funds for the construction of the Alma School Road and Ray Road Intersection. The CITY has already completed the Categorical Exclusion (CE) environmental clearance required for federally funded projects. The CITY is awaiting CE approval from Arizona Department of Transportation (ADOT) in order to submit to FHWA for funding.

The Americans with Disabilities Act (ADA) standards for accessibility were revised in 2010 by the U.S. Access Board. The U.S. Access Board is in the process of updating the Draft Public Rights-of-Way Accessibility Guidelines (PROWAG) for accessibility within public rights-of-way. The Draft PROWAG is planned to be adopted into law in early 2012, and it is considered best practice to meet the requirements of the Draft PROWAG prior to its adoption. The CITY will need to meet the revised 2010 ADA standards at a minimum for this project, but intends to meet the Draft PROWAG guidelines to ensure maximum accessibility within the project right-of-way is met. The 100% signed and sealed plans were finalized without meeting the Draft PROWAG guidelines.

This contract will revise the 100% signed and sealed plans necessary to meet the requirements of Resolution 4356 except the JCC right turn lane will only be designed and submitted to a 60% level for SRP Water and Power to finalize ultimate location and depths of their relocated facilities in this area. This contract will also revise the 100% signed and sealed plans for a future traffic signal pre-duct conduits and pull boxes, revise the screen wall plan and profiles to match existing wall heights and stepping, and revise the 100% signed and sealed Technical Specifications and Engineer's Opinion of Probable Costs to match ADOT bid item numbers. The contract will include a review of the accessibility compliance with the Draft PROWAG within the project right-of-way and amend any plan sheets that require ADA compliance updates. The contract will also include a thorough constructability review of the 100% signed and sealed plans and all supporting signed and sealed documents including:

- Construction Plans
- Technical Specifications
- Engineer's Opinion of Probable Costs
- Geotechnical Report
- Drainage Report
- Pothole Report
- Utility Relocation Plans

### B. GENERAL TASKS

**GENERAL REQUIREMENTS** – The JCC turn lane design and work shall conform to the following:

CITY of Chandler Standard Details and Specifications (2011)  
CITY of Chandler Technical Design Manual #1: Water System Design (2011)  
CITY of Chandler Technical Design Manual #2: Wastewater and Reclaimed Water System Design (2011)  
CITY of Chandler Technical Design Manual # 3: Storm Drainage System Design (2011)  
CITY of Chandler Technical Design Manual #4: Street Design and Access Control (2011)  
CITY of Chandler Technical Design Manual #5: Traffic Signal Design (2007)  
CITY of Chandler Technical Design Manual #6: Street Light Design (2011)  
CITY of Chandler Technical Design Manual #7: Traffic Barricade Design (2010)  
CITY of Chandler Technical Design Manual #8: Landscape and Irrigation Design of Right Of Ways, Retention Basins and Parks (2002)  
MAG Uniform Standard Specifications and Details (2011)  
Manual of Uniform Traffic Control Devices for Streets and Highways (MUTCD) (2009)  
AASHTO Policy on Geometric Design of Highways and Streets (2004)  
The Unified Development Manual of the CITY of Chandler (2011)

**DATA COLLECTION**

CITY shall provide at no cost to DESIGN CONSULTANT the following information as available, not necessarily limited to, full size 100% signed and sealed plans in PDF format, 100% signed and sealed Drainage Report in PDF format, 100% signed and sealed Geotechnical Report in PDF format, 100% Special Provisions and/or Technical Specifications in Microsoft Word format, 100% Engineer's Opinion of Probable Costs in Microsoft Excel format and electronic base files for existing conditions and proposed conditions in AutoCAD format.

DESIGN CONSULTANT shall keep a log of all documents and information provided by CITY staff and related stakeholders.

**PUBLIC UTILITY COORDINATION**

1. CITY shall provide at no cost to the DESIGN CONSULTANT the following information as available, not necessarily limited to, the utility company contact information, utility company agreed upon land rights and requirements, current relocation plans in PDF format, current relocation CAD files, utility company specifications and utility company construction schedules, if known.
2. DESIGN CONSULTANT shall coordinate with utility companies, private development, and the CITY to incorporate existing and proposed utilities into the JCC turn lane construction plans, in accordance with the latest version of the Arizona Utility Coordinating Committee "Public Improvement Project Guide" (PIPG.) DESIGN CONSULTANT shall show all existing and proposed utilities on the paving plan and profile sheets.
3. DESIGN CONSULTANT shall specifically identify utility conflicts with the JCC turn lane improvements, with input from utility companies, which might affect alignment or grade and recommend alignment alternatives.
4. DESIGN CONSULTANT shall provide the utility companies with electronic base files or other pertinent information necessary for the utility companies to design the relocation of their facilities at the JCC turn lane. DESIGN CONSULTANT shall coordinate with the utilities to facilitate the design to relocate their facilities. DESIGN CONSULTANT shall request a letter from each utility impacted by the planned roadway improvement identifying a time line for relocating their facilities.
5. DESIGN CONSULTANT shall work with the CITY's Utility Coordinator to facilitate utility coordination meetings upon notice to proceed and at each submittal.
6. DESIGN CONSULTANT shall work with the CITY's Utility Coordinator to facilitate utility land coordination meetings upon notice to proceed.
7. DESIGN CONSULTANT shall review all utility plans for constructability within the southbound right-turn lane limits.

8. DESIGN CONSULTANT shall review all utility plans for constructability within the Alma School Road and Ray Road Improvement project limits.
9. DESIGN CONSULTANT shall be responsible for ensuring all utility relocation for the JCC turn lane have been designed and coordinated with proposed CITY and private installations, and that such relocations will not impact the proposed construction schedule of the CITY's project.
10. DESIGN CONSULTANT shall be responsible for ensuring all utility relocation for Alma School Road and Ray Road Improvement project limits have been designed and coordinated with proposed CITY and private installations, and that such relocations will not impact the proposed construction schedule of the CITY's project.

#### **PROGRESS MEETINGS**

1. DESIGN CONSULTANT shall hold the following progress meetings at the CITY of Chandler offices or project site. Each meeting will include two (2) DESIGN CONSULTANT staff.

Progress Meetings shall be held every four (4) weeks, but not exceed five (5) meetings.

Comment Resolution Meeting shall be held, in lieu of the scheduled Progress Meeting, no later than two weeks after redlines are returned to DESIGN CONSULTANT at each plan submittal.

Utility Coordination Meetings shall be held as needed, but not exceed five (5) meetings.

Utility Land Coordination Meetings shall be held as needed, but not exceed two (2) meetings.

2. DESIGN CONSULTANT shall prepare and distribute meeting minutes for each Progress Meeting and Utility Coordination Meeting including Action Items to be reviewed and updated at each subsequent meeting.

#### **PUBLIC MEETINGS**

1. DESIGN CONSULTANT shall prepare for and participate in two (2) Public Information Meetings. DESIGN CONSULTANT shall prepare display boards that feature the horizontal alignment and depict both existing and proposed right-of-way from the most recent plan submittal, and also a display board depicting the proposed typical roadway section.
2. DESIGN CONSULTANT shall be responsible for the following:
  - a. Develop and setup display boards
  - b. Give a brief presentation and answer questions as needed
3. CITY shall be responsible for the following:
  - a. Secure a location and time for each public meeting
  - b. Prepare and distribute mailers/flyers to those residents within and adjacent to the project corridor, if required
  - c. Prepare newspaper notice of meeting, if requiredPrepare a meeting sign-in sheet  
Prepare and make available a public comment sheet at each meeting

#### **PROJECT MANAGEMENT**

1. DESIGN CONSULTANT shall prepare regular monthly progress reports, perform monthly budget and schedule monitoring, coordinate with utilities, coordinate CITY representatives and other project stakeholders and manage sub-consultants.

#### **REVIEW OF PLANS, SPECIFICATIONS AND ESTIMATES**

1. DESIGN CONSULTANT shall review the 100% signed and sealed plans for constructability, consistency, accuracy, code compliance and overall design.
2. DESIGN CONSULTANT shall perform a site visit to review existing topographic data and confirm utility structure locations as part of the constructability review of the 100% signed and sealed plans
3. DESIGN CONSULTANT shall review 100% signed and sealed plans for conformance with the Draft PROWAG for curb ramps, sidewalks, driveways, cross walks and accessible pedestrian signals.
4. DESIGN CONSULTANT shall review the 100% signed and sealed cross sections and earthwork quantities determined for accuracy, project earthwork balance and constructability.
5. DESIGN CONSULTANT shall review the 100% signed and sealed Drainage Report for design assumptions, calculation accuracy and consistency with the 100% signed and sealed plans, specifications and Engineer's Opinion of Probable Costs.
6. DESIGN CONSULTANT shall review 100% signed and sealed Engineer's Opinion of Probable Costs for consistency with 100% signed and sealed plans, consistency with 100% signed and sealed specifications, accurate quantities, proper units, reasonable unit costs and appropriate use of allowances and contingencies.
7. DESIGN CONSULTANT shall review 100% signed and sealed specifications for consistency with 100% signed and sealed plans, consistency with 100% signed and sealed Engineer's Opinion of Probable Costs, accurate utility coordination and relocation requirements and necessity of any allowances or contingencies.
8. DESIGN CONSULTANT shall compile plan, cross sections, earthwork quantities, specifications and Engineer's Opinion of Probable Costs review comments and recommendations to discuss with CITY prior to any plan revisions.
9. DESIGN CONSULTANT shall revise all specifications and Engineer's Opinion of Probable Costs item numbers to reflect an Arizona Department of Transportation (ADOT) Standard Bid Item number. Specification and Engineer's Opinion of Probable Cost description of work, means of measurement and method of payment will be in accordance with MAG Standard Specifications and CITY of Chandler Standard Specifications.

#### **CROSS SECTIONS, SPECIFICATIONS AND ESTIMATES FOR NEW DESIGN**

1. DESIGN CONSULTANT shall submit plans, cross sections, specifications and Engineer's Opinion of Probable Costs at the Pre-Final 100% and Final PS&E stages for the JCC turn lane. The plan submittals will follow the checklists provided by the CITY.
2. DESIGN CONSULTANT shall prepare cross sections and earthwork quantities determined, with the intent to provide a balanced earthwork project.
3. Specifications will be in accordance with the MAG Standard Specifications and CITY of Chandler Standard Specifications. DESIGN CONSULTANT shall supply special provisions for all items not adequately covered by the standard specifications. DESIGN CONSULTANT shall include all new item specifications as an addendum to the 100% signed and sealed specifications. DESIGN CONSULTANT shall use ADOT Standard Bid Item numbers for all specification items.
4. DESIGN CONSULTANT shall prepare opinions of probable cost for all pay items per the standard specifications and special provisions. DESIGN CONSULTANT shall include all new item quantities and costs as an addendum to the 100% signed and sealed Engineer's Opinion of Probable Costs. DESIGN CONSULTANT shall use ADOT Standard Bid Item numbers for all bid items.
5. Following each review, DESIGN CONSULTANT shall review the CITY's comments and complete the comment resolution forms provided by the CITY. DESIGN CONSULTANT will provide a matrix that summarizes the comments and indicates whether the comment was incorporated or provides justification for not implementing the change noted in the plan review comments. DESIGN

CONSULTANT shall provide the comment matrix to the CITY one week prior to the Comment Resolution Meeting. All comments will be incorporated unless otherwise authorized by the CITY.

6. DESIGN CONSULTANT shall return all redline plans, review comments and review comments checklists comments received from CITY for each plan submittal with subsequent plan submittal.
7. DESIGN CONSULTANT shall be responsible for delivering to the CITY a complete set of constructible plans and shall be responsible for ensuring constructability of such plans, including, but not limited to, completion of right-of-way, TCE, and drainage easement acquisitions, and completion of utility relocation design as necessary for screen walls revisions and JCC turn lane construction.
8. At the completion of the design, DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format and TIFF images of each plan sheet (signature set.)

#### **PAVING PLANS/PROFILES FOR NEW DESIGN**

1. DESIGN CONSULTANT shall perform work necessary to create Typical Roadway Sections, Detail Sheets, Paving Plan & Profile Sheets and Cross Sections at 50' intervals for a JCC turn lane, along Alma School Road at the existing JCC development driveway in accordance with the Development Agreement (as outlined in Section A) and the CITY of Chandler design standards for a 60% submittal for SRP Water and Power to finalize ultimate location and depths of their relocated facilities in this area.
2. DESIGN CONSULTANT shall amend 100% signed and sealed plans to incorporate a new screen wall on parcel 302-81-007L to replace the existing screen wall called out for removal; new wall height shall match existing wall height. DESIGN CONSULTANT shall amend 100% signed and sealed plans to remove portions of the existing screen wall within the new right-of-way on parcel 302-48-702B and reconstruct the removed portions of the screen wall outside the new right-of-way; new wall height shall match existing wall height. DESIGN CONSULTANT shall amend 100% signed and sealed plans to revise the proposed screen wall design for parcels 302-49-223, 302-49-218, 302-49-217, 302-49-212, 320-49-211, 302-49-206 and 302-49-204 to match existing wall heights.
3. DESIGN CONSULTANT shall amend the 100% signed and sealed plans to conform to the Draft PROWAG for curb ramps, sidewalks, driveways, cross walks and accessible pedestrian signals.
4. DESIGN CONSULTANT shall amend the 100% signed and sealed plans at the limits of the project to extend the half-street pavement replacement structural section over any installation of wet utilities (water, sewer and storm drain).
5. DESIGN CONSULTANT shall prepare paving and profile plans at a scale of 1"=20' horizontal and 1"=2' vertical, to include base sheet preparation including survey control (provided from 100% signed and sealed plans), topographic mapping (provided from 100% signed and sealed plans), centerline stationing (provided from 100% signed and sealed plans), curb and gutter, sidewalk, accessibility ramps, driveways, turn lanes, intersecting streets, utilities, drainage structures, existing right-of-way (provided from 100% signed and sealed plans), proposed right-of-way, existing utilities (provided from 100% signed and sealed plans), construction notes, etc. Profiles shall show centerline stationing, existing ground, proposed curb and gutter grades and benchmarks.
6. DESIGN CONSULTANT shall amend calculations, plans, specifications, quantity determinations and opinion of probable costs for incorporation of the JCC turn lane.
7. Submittals shall be made for Pre-Final 100% and the Final PS&E package except the JCC turn lane and driveway design will only be designed to a 60% submittal.

#### **DRAINAGE REPORT & PLANS/PROFILES FOR NEW DESIGN**

1. DESIGN CONSULTANT shall perform drainage calculations for the additional JCC turn lane.
2. DESIGN CONSULTANT shall incorporate drainage calculations for the JCC right turn lane, as an amendment to the 100% signed and sealed Drainage Report to accompany JCC 60% plan submittal. This report shall document all calculations certifying that the proposed design meets the design criteria.

3. DESIGN CONSULTANT shall incorporate comments received from the 60% submittal into a Final Drainage Report amendment.
4. DESIGN CONSULTANT shall prepare drainage plan and profile sheets to include base sheet preparation including survey control (provided from 100% signed and sealed plans), topographic mapping (provided from 100% signed and sealed plans), centerline stationing (provided from 100% signed and sealed plans), curb and gutter, sidewalk, accessibility ramps, driveways, turn lanes, intersecting streets, utilities, drainage structures, existing right-of-way (provided from 100% signed and sealed plans), proposed right-of-way, existing utilities (provided from 100% signed and sealed plans), existing drainage structures (provided from 100% signed and sealed plans), construction notes, etc. Profiles shall show centerline stationing, existing ground, proposed curb and gutter grades, proposed drainage structures and proposed and existing underground utilities. Drainage plan and profile sheets shall be addendums to the 100% signed and sealed plans as necessary.
5. DESIGN CONSULTANT shall submit legal descriptions and exhibits for drainage easements for screen wall revisions and JCC turn lane construction to the CITY at the Pre-Final 100% submittal.
6. DESIGN CONSULTANT shall amend calculations, plans, specifications, quantity determinations and opinion of probable costs for incorporation of the JCC turn lane. Submittals shall be made for the JCC 60% package only.

#### **TRAFFIC SIGNAL PLANS FOR NEW DESIGN**

1. DESIGN CONSULTANT shall prepare traffic signal plans for conduit and pull box installation for a future traffic signal at the JCC turn lane in accordance with applicable CITY of Chandler Traffic Signal Standards and Specifications.
2. DESIGN CONSULTANT shall amend the 100% signed and sealed plans to conform to the Draft PROWAG for curb ramps, sidewalks, driveways, cross walks and accessible pedestrian signals.
3. DESIGN CONSULTANT shall design the layout of the conduits and pull boxes for the future traffic signal. The traffic signal plans shall be produced at a 1" = 20' scale and include signal plan sheets with notes, conduit runs and pull boxes as addendums to the 100% signed and sealed plans as necessary.
4. DESIGN CONSULTANT plans shall accommodate relocation and reestablishment of the existing fiber optic interconnect circuits and amend plans as necessary for the JCC turn lane and associated traffic signal improvements.
5. DESIGN CONSULTANT shall amend calculations, plans, specifications, quantity determinations and opinion of probable costs for incorporation of the JCC turn lane. Submittals shall be made for Pre-Final 100% and the Final PS&E package.

#### **STRIPING AND SIGNING PLANS FOR NEW DESIGN**

1. DESIGN CONSULTANT shall amend traffic signing and striping plans to incorporate the JCC turn lane in accordance with applicable CITY of Chandler Standards and Specifications.
2. DESIGN CONSULTANT shall amend the 100% signed and sealed plans to conform to the Draft PROWAG for curb ramps, sidewalks, driveways, cross walks and accessible pedestrian signals.
3. The signing and striping plans shall be produced at 1" = 40' scale (double stacked) and shall include striping and signing plan sheets as addendums to the 100% signed and sealed plans as necessary.
4. DESIGN CONSULTANT shall amend plans, specifications, quantity determinations and opinion of probable costs for incorporation of the JCC turn lane. Submittals shall be made for Pre-Final 100% and the Final PS&E package except the JCC turn lane and driveway design will only be designed to a 60% submittal.

#### **STREET LIGHT PLANS FOR NEW DESIGN**

1. DESIGN CONSULTANT shall perform a site visit and document to the extent possible the equipment and conditions related to the existing street lighting, the lighting control equipment, underground conduit and conductor routes.
2. DESIGN CONSULTANT shall revise street lighting relocation plans for the JCC turn lane, including relocated pole locations. The first existing street light on each side of the roadway beyond the limit of the new paving shall be shown on the plans.
3. DESIGN CONSULTANT shall complete electrical distribution system design and prepare plans for conduit to be used in the future for up-lighting median landscape features and/or architectural features.
4. DESIGN CONSULTANT shall amend calculations, plans, specifications, quantity determinations and opinion of probable costs for incorporation of the JCC turn lane. Submittals shall be made for Pre-Final 100% and the Final PS&E package.

#### **CONSTRUCTION SEQUENCING SPECIFICATIONS**

1. DESIGN CONSULTANT shall prepare construction sequencing specifications (construction milestones) for the intersection improvements, utility relocations and additional JCC turn lane in accordance with CITY of Chandler requirements. The construction sequencing specifications shall note what improvements are to be constructed during each phase and where to minimize impacts to traffic and local business.

#### **LANDSCAPE & IRRIGATION PLANS FOR NEW DESIGN**

1. DESIGN CONSULTANT shall review existing irrigation water meters, valves, mainline, controllers, and other major irrigation infrastructure locations to determine potential for salvage within the original intersection improvements as well as the JCC turn lane improvement limits. Locations shall be derived from as-built and design plans provided by the CITY. DESIGN CONSULTANT shall overlay the existing irrigation location on the paving plan sheets.
2. DESIGN CONSULTANT shall utilize the revised Landscape Concept Plan approved by the CITY for all median and right-of-way landscaping, including current design pass through landscaping in the southeast corner of the intersection.
3. DESIGN CONSULTANT shall design irrigation systems using a solar power source.
4. DESIGN CONSULTANT shall amend landscape plans for the original intersection improvements as well as the JCC turn lane improvements to incorporate the revised Landscape Concept Plan. The plans shall show location and species of proposed new trees, existing trees to remain, salvaged and relocated trees, and specific shrub species. Plant schedule, landscape notes, and CITY standard landscape details shall be shown. Plant quantities shall be shown. Revised plan sheets shall be addendums to the 100% signed and sealed plans as necessary.
5. DESIGN CONSULTANT shall amend Irrigation plans for the original intersection improvements as well as the JCC turn lane improvements. The plans shall show locations of existing infrastructure to remain in place and new locations of water meter(s), mainline, and valves. Revised plan sheets shall be addendums to the 100% signed and sealed plans as necessary.
6. DESIGN CONSULTANT shall provide specifications and an opinion of probable cost for each plan submittal.
7. DESIGN CONSULTANT shall show the water taps for irrigation equipment on the utility plans or roadway plans, as appropriate. DESIGN CONSULTANT shall provide the complete design and all necessary details for these water taps and power for the irrigation controllers.
8. Bioassay testing, archeology, soil fertility, and other tests to determine plant viability in existing conditions are not considered part of this scope of work.

9. DESIGN CONSULTANT shall amend calculations, plans, specifications, quantity determinations and opinion of probable costs for incorporation of the original intersection improvements as well as the JCC turn lane. Submittals shall be made for Pre-Final 100% and the Final PS&E package.

#### **WATERLINE & SANITARY SEWER LINE PLANS FOR NEW DESIGN**

1. DESIGN CONSULTANT shall design the relocation of existing 8" waterline serving the JCC development per the Development Agreement.
2. DESIGN CONSULTANT shall design an 8" sanitary sewer lateral for the JCC development per the Development Agreement.
3. DESIGN CONSULTANT shall prepare waterline and sanitary sewer line plan and profile plans at a scale of 1"=20' horizontal and 1"=2' vertical, to include base sheet preparation including survey control, topographic mapping, centerline stationing, curb and gutter, sidewalk, accessibility ramps, driveways, turn lanes, intersecting streets, utilities, drainage structures, existing right-of-way, proposed right-of-way, existing utilities, construction notes, etc. Profiles shall show centerline stationing, existing ground, finished ground and existing and proposed utilities.
4. DESIGN CONSULTANT shall prepare and submit Maricopa County Environmental Services (MCESD) permit applications for the JCC waterline and sanitary sewer line designs.
5. DESIGN CONSULTANT shall prepare calculations, plans, specifications, quantity determinations and opinion of probable costs. Submittals shall be made for Pre-Final 100% and the Final PS&E package.

#### **GEO TECHNICAL**

1. DESIGN CONSULTANT shall review the 100% signed and sealed Geotechnical Report for the new pavement areas.
2. DESIGN CONSULTANT shall obtain CITY of Chandler and Maricopa County right-of-way permits to conduct field work.
3. DESIGN CONSULTANT shall arrange for off-duty police officer, as needed, to be on site during field work.
4. DESIGN CONSULTANT shall establish test locations in the field and arrange for the mark-out of underground utilities through Arizona Blue Stake.
5. DESIGN CONSULTANT shall prepare an addendum to the 100% signed and sealed geotechnical report for this project that will present our field findings. In addition, the addendum will contain vicinity maps depicting the project limits, plans showing the coring locations, and a narrative description of the cores.

#### **UTILITY LOCATING SERVICES (POTHOLING)**

1. DESIGN CONSULTANT shall review previously completed pothole data for sufficient field data and recommend any additional areas of interest.
2. DESIGN CONSULTANT shall conduct Subsurface Utility Engineering (SUE) per ASCE publication CI/ASCE 38-02 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" at a "Quality Level A".
3. DESIGN CONSULTANT shall develop a suggested pothole list for the southbound turn lane improvements that identifies coordinates, stationing and offset. DESIGN CONSULTANT will provide the list to utility companies affected by the project, and facilitate coordination of a master pothole list. Twelve (12) total potholes are anticipated.
4. DESIGN CONSULTANT shall provide vacuum excavation potholes (testholes) on existing subsurface utilities at locations identified on the master pothole list. Pertinent pothole data will be presented in spreadsheet format on a standard "Testhole Data Summary" form that includes the depth, horizontal and vertical location, size and material composition of the utility line exposed.

5. DESIGN CONSULTANT shall be responsible for field survey to initially stake the pothole location in white paint or white flagging for Blue Stake notification and as a reference point for the surveyed location of each pothole. DESIGN CONSULTANT shall identify the pothole number, northing, easting and elevation of the staked location. DESIGN CONSULTANT shall measure and record adjustments from the surveyed location to the steel reference pin set above the centerline of each exposed utility.
6. Vacuum excavation potholing will include mobilization, set-up, traffic control (excluding uniformed police officer, special barricading, permit fees or inspections required by any governmental agencies), pavement cut and removal (if any), pavement patch as specified in Streetcut Permit (if any), excavation, backfill and compaction, all information requested, and clean up. DESIGN CONSULTANT shall apply for and obtain CITY of Chandler permit for potholing.

### **C. CONSTRUCTION DOCUMENTS**

#### **60% JCC TURN LANE AND PRE-FINAL (100%) PLANS**

1. DESIGN CONSULTANT shall submit to the CITY eight (8) full size sets of construction plans, eight (8) half size sets of JCC turn lane amended 100% signed and sealed plans sheets, five (5) copies of the amended final drainage report, five (5) copies of the construction opinion of probable cost and six (6) copies of the draft technical special provisions. In addition, DESIGN CONSULTANT shall send one (1) half size set of construction plans, along with conflict letters to each utility company affected by the project.

#### **FINAL PS&E CONSTRUCTION DOCUMENTS**

1. DESIGN CONSULTANT shall incorporate any changes, corrections and/or additions as a result of the pre-final plan review. DESIGN CONSULTANT shall submit to the CITY 100% redlines, one (1) copy of 100% plan comments and annotated comment sheets, one (1) sealed final drainage report (including all amendments), one (1) sealed set of technical special provisions, one (1) full size set of sealed JCC turn lane amended 100% signed and sealed plans sheets on reproducible 4 mil Mylar with cover sheet signed by ADEQ or Maricopa Environmental Services, if applicable, and one (1) copy of the final construction opinion of probable cost and bid schedule.
2. DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format, and AutoCAD .DWF (Design Web Format) exports of each plan sheet or scanned .TIF images of each plan sheet.

#### D. PROJECT SCHEDULE

The following schedule was developed based on past experience and is indexed to the notice to proceed date. It has been assumed that all agencies have a three week review period.

Notice to Proceed (NTP)	0
Data Collection	NTP + 1 week
100% Plan Review	NTP + 3 weeks
Utility Company Relocation Plan Review	NTP + 3 weeks
100% Drainage Report Review	NTP + 3 weeks
100% Geotechnical Plan Review	NTP + 3 weeks
100% Special Provisions/Technical Specifications Plan Review	NTP + 3 weeks
100% Opinion of Probable Cost Review	NTP + 3 weeks
Pre-Final Design and Plan Production	NTP + 6 weeks
Submit Pre-Final Plans (100%)	NTP + 6 weeks
City Review	NTP + 8 weeks
Revise Plans	NTP + 10 weeks
Submit PS&E	NTP + 10 weeks
Final Plan Approval	NTP + 12 weeks

1. DESIGN CONSULTANT shall adhere to the production schedule established for the project and such schedule may not be modified or deviated from without written consent by the CITY. DESIGN CONSULTANT shall revise and submit for review an updated schedule whenever completion of the project design, or any of the partial completion points listed in the schedule are delayed by one week or more. Such adjusted schedule shall include a written explanation stating the reasons for the schedule change and a plan for getting back on schedule. DESIGN CONSULTANT shall take all reasonable action necessary to get the project back on schedule and CITY shall cooperate to assist DESIGN CONSULTANT.

#### E. QUALITY CONTROL

Quality control is a management system for producing a product, which complies with the terms of the contract. The DESIGN CONSULTANT is responsible for maintaining a Quality Control Program that will provide a quality product. The DESIGN CONSULTANT shall meet with the CITY to review and discuss the designed system they have implemented to ensure a successful end product throughout the design. The system shall be acceptable to the CITY. Subsequent changes may be determined necessary if the program is not producing the quality of work required by the contract.

#### F. EXCLUSIONS

1. Traffic Analysis is not included within this scope of work.
2. Erosion and Sediment Control plan revisions for the JCC turn lane design are not included within this scope of work.
3. Pre-final (95%) and Final (100%) Plans for the JCC turn lane are not included within this scope of work.
4. Post Design Services are not included within this scope of work.

**EXHIBIT B  
FEE SCHEDULE**

<b>LABOR FEE:</b>				
Classification	Hours	Rates	Labor Costs	
Project Manager	32	\$56.00	\$ 1,792.00	
Senior PE/RLS	193	\$43.00	\$ 8,299.00	
Design Engineer/LSIT	316	\$30.00	\$ 9,480.00	
CADD Designer	188	\$25.00	\$ 4,700.00	
Clerical	17	\$21.00	\$ 357.00	
Total Hours	746	Total Direct Labor (DL)	\$ 24,628.00	
Overhead Rate	145.00%	Total Labor with OH	\$ 35,711.00	
Fixed Fee	10%	Net Fee (DL X 10%)	\$ 8,034.00	
<b>Subtotal Labor Fee</b>			<b>\$ 66,373.00</b>	
<b>SUBCONSULTANTS FEE:</b>				
Subconsultant	Task	Fee		
Dave Jeffers	Drainage	\$ 2,405.00		
SouthWest Traffic Engineering	Signals, Lighting & Signing & Striping	\$ 8,630.00		
J2 Engineering	Landscape & Irrigation	\$ 11,244.00		
<b>Subtotal Subconsultants Fee</b>			<b>\$ 22,279.00</b>	
<b>DIRECT AND OUTSIDE EXPENSES ALLOWANCE:</b>				
Description/Task	Unit	Unit Rate	Quantity	Total
Vehicle Mileage	Miles	\$0.51	900	\$ 459.00
Printing (8-1/2" x 11")	Each	\$0.06	500	\$ 30.00
Printing (12" x 18")	Each	\$0.52	272	\$ 141.00
Printing (24" x 36") bond	Each	\$6.00	272	\$ 1,632.00
Printing (24" x 36") mylar	Each	\$18.00	34	\$ 612.00
Deliveries/Postage	Each	\$3.00	15	\$ 45.00
Potholing (Cardno/TBE)	Each	\$525.00	6	\$ 3,150.00
Pothole permitting	LS	\$1,200.00	1	\$ 1,200.00
Legal Description & Exhibit	Each	\$750.00	1	\$ 750.00
<b>Subtotal Direct and Outside Expenses Allowance</b>				<b>\$ 8,019.00</b>
<b>TOTAL FEE:</b>			<b>\$ 96,671.00</b>	

**EXHIBIT C  
CONTRACTOR IMMIGRATION WARRANTY  
TO BE COMPLETED BY CONSULTANT PRIOR TO EXECUTION OF CONTRACT**

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

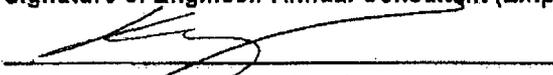
By completing and signing this form the Engineer/Annual Consultant shall attest that it and all subconsultants performing work under the cited contract meet all conditions contained herein.

Project Number: ST0704-202		
Name (as listed in the contract):		
Street Name and Number:		
City:	State: AZ	Zip Code:

I hereby attest that:

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

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



Printed Name: Karl G. Obergh

Title: President

Date (month/day/year): 5/2/11