



**PURCHASING ITEM  
FOR  
COUNCIL AGENDA  
Memo No. CA10-059**

**1. Agenda Item Number:**  
**39**  
**2. Council Meeting Date:**  
October 22, 2009

**TO: MAYOR & COUNCIL**

**3. Date Prepared:** September 10, 2009

**THROUGH: CITY MANAGER**

**4. Requesting Department:** Public Works

**5. SUBJECT:** Award a design consultant services contract to Ritoch-Powell for the Chandler Boulevard and Price Loop 101 Bike Lane and Left Turn Lane Improvements Project, Project No. ST0806-202, in an amount not to exceed \$360,807.

**6. RECOMMENDATION:** Staff recommends that Council award a design consultant services contract to Ritoch-Powell for the Chandler Boulevard and Price Loop 101 Bike Lane and Left Turn Lane Improvements Project, Project No. ST0806-202, in an amount not to exceed \$360,807.

**7. BACKGROUND/DISCUSSION:** The City has received federal Congestion Mitigation and Air Quality (CMAQ) funds for design of bicycle lanes and an additional left turn lane under the Price Loop 101 Freeway at Chandler Boulevard.

This project will design bicycle lanes in both the eastbound and westbound directions to provide bicycle lane connectivity and a second left turn lane for westbound to southbound traffic movements under the Price Loop 101 Freeway at Chandler Boulevard to improve traffic circulation. This project will also include modifications to the 101 Freeway underpass bridge retaining wall, landscaping, street lighting, traffic signals, traffic signal interconnects, right-of-way acquisition and utility relocations.

The Design Concept Report (DCR) and federal environmental clearance documents were completed under a separate design services contract and have been subsequently approved by the Arizona Department of Transportation (ADOT).

The project is slated to start construction in Spring 2011 with an estimated CIP construction budget of \$3.0 million.

**8. EVALUATION:** The City selection process was developed in accordance with the state law for selecting design services. Nine Statements of Qualification were received from qualified firms on April 30, 2009. The selection committee included the following members:

Paul Young, Senior Engineer  
Kurt Krause, Engineer Project Manager  
William Fay, Public Works Engineer  
Chris Lamm, Engineer Project Manager  
Omar Cervantes, Chandler Resident

Ritoch-Powell was selected based on qualifications, design capability, current workload, and experience, and is recommended for approval for this contract.

**9. FINANCIAL IMPLICATIONS:**

Cost: \$360,807  
Savings: N/A  
Long Term Costs: N/A  
Fund Source:

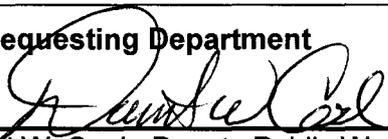
<u>Acct. No.:</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
411.3310.0000.6517.9ST650	GO Bonds	Chandler Blvd Bike Lanes @ Loop 101	FY08/09	\$360,807

**10. PROPOSED MOTION:** Move that Council award a design consultant services contract to Ritoch-Powell for the Chandler Boulevard and Price Loop 101 Bike Lane and Left Turn Lane Improvements Project, Project No. ST0806-202, in an amount not to exceed \$360,807, and authorize the Mayor to sign the contract documents.

**ATTACHMENTS:** Location Map, Contract

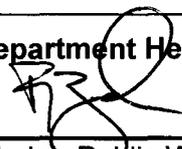
**APPROVALS**

**11. Requesting Department**



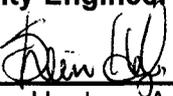
Daniel W. Cook, Deputy Public Works Director

**13. Department Head**



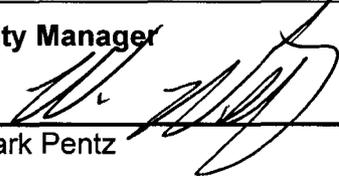
R.J. Zeder, Public Works Director

**12. City Engineer**



Sheina Hughes, Assistant Public Works Director/  
City Engineer

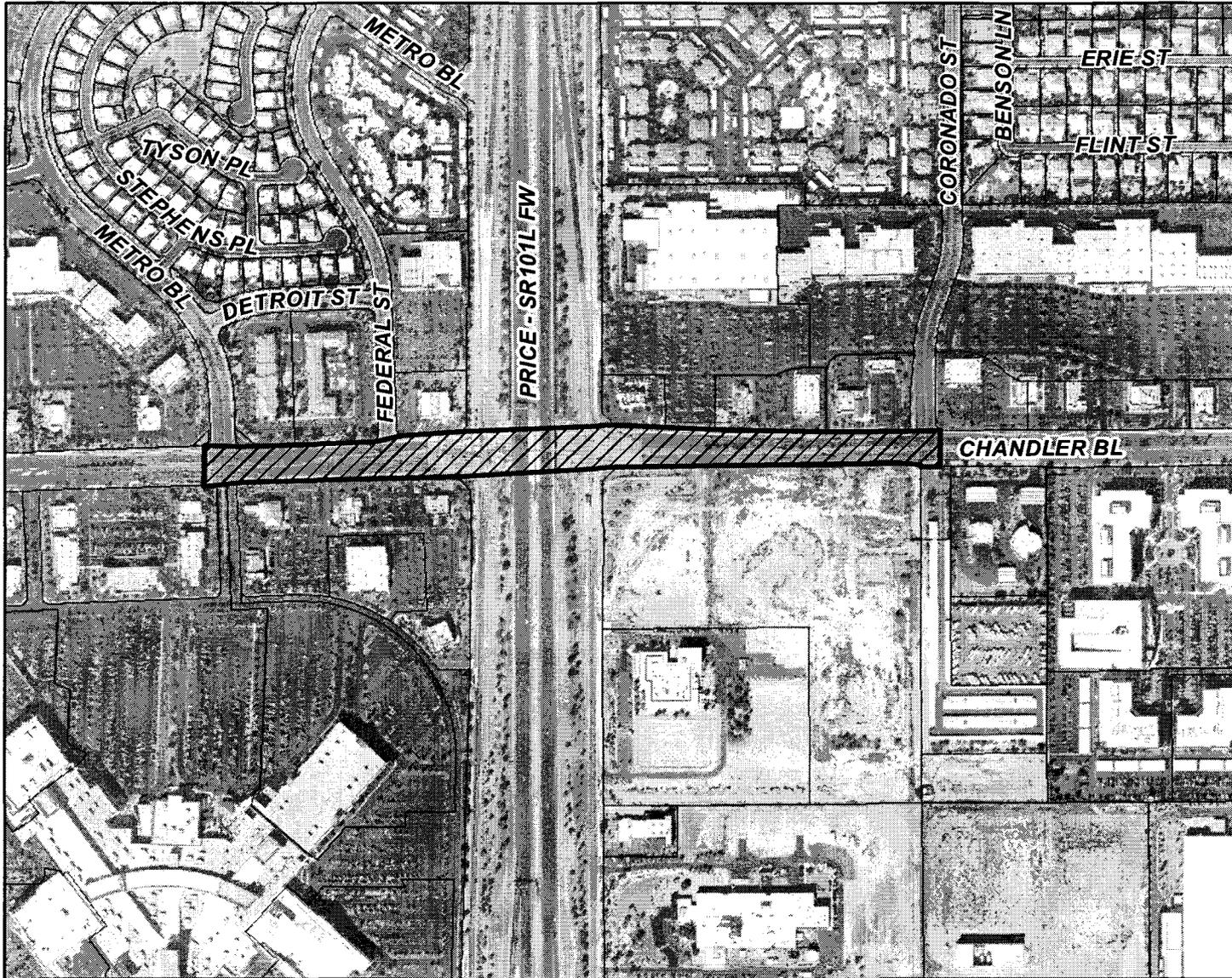
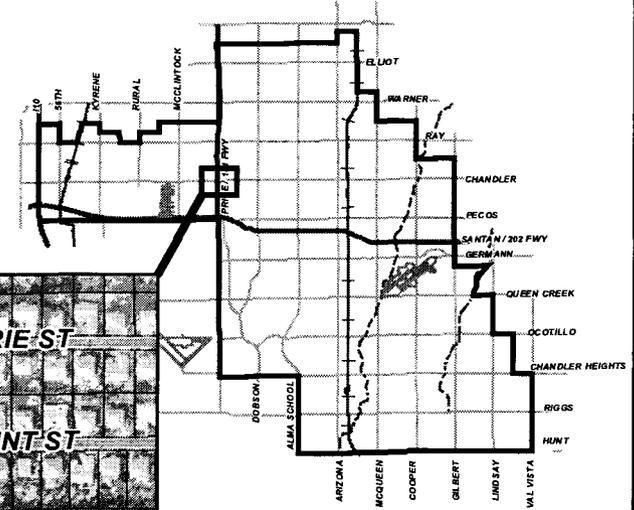
**14. City Manager**



W. Mark Pentz



**BIKE LANE AND LEFT TURN LANE IMPROVEMENTS  
CHANDLER BOULEVARD & PRICE ROAD  
PROJECT NO. ST0806-202**



**MEMO NO. CA10-059**

 PROJECT AREA



## DESIGN CONSULTANT SERVICES CONTRACT

PROJECT TITLE: **Chandler Boulevard/Price 101 Bike Lanes & Left Turn Lane Improvements**

PROJECT NO: **ST0806-202**

This Agreement is made and entered into by and between the City of Chandler, Arizona, a municipal Corporation, hereinafter called the CITY, and **Ritoch-Powell & Associates, an Arizona corporation**, hereinafter called DESIGN CONSULTANT.

WHEREAS, DESIGN CONSULTANT represents DESIGN CONSULTANT has the expertise and is qualified to perform the services described in this Agreement; and

WHEREAS, the Mayor and City Council/City Manager of the City of Chandler are authorized and empowered by the provisions of the City Charter to execute Agreements for Professional Services;

NOW THEREFORE, for and in consideration of the mutual covenants and conditions hereinafter contained, it is agreed by and between the CITY and DESIGN CONSULTANT, as follows:

1. DESCRIPTION OF PROJECT: The Project known as the Chandler Boulevard/Price 101 Bike Lanes & Left Turn Lane Improvements. Project is more specifically described in Exhibit A attached hereto and incorporated herein by reference.

2. DEFINITIONS: Words used in this Agreement which are defined in CITY's General Conditions for Construction Contracts shall have the meaning stated therein. DESIGN CONSULTANT is the Project Designer as defined in said General Conditions.

3. SCOPE OF WORK: DESIGN CONSULTANT shall design the Project all as more specifically described in Exhibit A attached hereto and incorporated herein by reference.

4. PAYMENT SCHEDULE: For services described in paragraph 3 of this Agreement, the CITY shall pay DESIGN CONSULTANT a fee not to exceed a sum of **Three Hundred Sixty Thousand Eight Hundred Seven** dollars (\$360,807) in accordance with the fee schedule attached hereto as Exhibit B and made a part hereof by reference. Payment will be made monthly on the basis of progress reports. An Application and Certification for Payment Sheet must be provided. In addition, the following must also be included with each application for payment: a clear, detailed invoice reflecting items being billed for; a summary sheet showing percentage of work completed to date; amount/percent billed to date; current status of all tasks within a project; and any/all backup documentation supporting the above items. Work schedule updates shall also be included in the monthly progress payment requests.

5. PERIOD OF SERVICE:

A. Following receipt of a "Notice to Proceed" with the design work, DESIGN CONSULTANT shall complete the design and have all documents ready for bidding within **365** calendar days of the date indicated on the Notice to Proceed.

B. The Bid and Award period will be approximately 45 days. Following the General Contractors "Notice To Proceed" with construction of the Project.

C. DESIGN CONSULTANT shall complete all services specified herein in accordance with the Production Schedule and progress milestones included in Exhibit A attached herein. In the event

delays are experienced beyond the control of DESIGN CONSULTANT, the completion date may be extended as mutually agreed upon by CITY and DESIGN CONSULTANT.

6. OPINIONS OF PROBABLE COSTS (ESTIMATES): Any opinions of probable project cost or probable construction cost provided by DESIGN CONSULTANT are made on the basis of information available to DESIGN CONSULTANT and on the basis of DESIGN CONSULTANT's experience and qualifications, and represents its best judgment as an experienced, licensed and qualified professional. However, since DESIGN CONSULTANT has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s) methods of determining prices, or over competitive bidding or market conditions, DESIGN CONSULTANT does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost DESIGN CONSULTANT prepares.

7. REPORTS & APPROVALS: All work shall be subject to the approval by CITY and each phase of the work will be submitted to CITY in accordance with schedule included in Exhibit A and in the format prescribed by CITY. When requested by CITY, DESIGN CONSULTANT will attend Council meetings and provide finished documents including correspondence for Council action, supporting charts, graphs, drawings and colored slides of same.

8. STANDARDS OF PERFORMANCE:

A This design contract has been awarded to DESIGN CONSULTANT based on their proposal that those personnel and consultants listed in Exhibit A attached hereto will perform the portions of the work listed on said Exhibit A. DESIGN CONSULTANT shall not deviate nor substitute any of these team members without prior written approval by CITY.

B DESIGN CONSULTANT shall be responsible for the technical accuracy of its services and documents resulting therefrom, and CITY shall not be responsible for discovering deficiencies therein. DESIGN CONSULTANT shall correct any such deficiencies without additional compensation or cost to CITY, except to the extent any such deficiency is directly attributable to deficiencies in CITY-furnished information.

C DESIGN CONSULTANT shall be familiar with CITY's Standard Details and Specifications and other relevant CITY regulations. DESIGN CONSULTANT shall ensure there are no conflicts among the Contract Documents including, but not limited to, the CITY's General and Supplementary Conditions for Construction Contracts, the plans and specifications prepared by DESIGN CONSULTANT, any standard details or specifications incorporated therein by reference, and the Construction Contract.

D Correction of Mistakes: DESIGN CONSULTANT shall be responsible for the completeness and accuracy of the work prepared or compiled under DESIGN CONSULTANT's obligation for this project and shall correct, at DESIGN CONSULTANT's expense, all errors or omissions therein which may be disclosed. Correction of errors disclosed and determined to exist during any construction of the project on architectural or engineering drawings and specifications shall be accomplished by DESIGN CONSULTANT. The cost of the design necessary to correct those errors attributable to DESIGN CONSULTANT and any damage incurred by CITY as a result of additional construction costs caused by such engineering or architectural errors shall be chargeable to DESIGN CONSULTANT and shall not be considered a cost of the Work. The fact that CITY has reviewed or approved DESIGN CONSULTANT's work shall in no way relieve DESIGN CONSULTANT of any of its responsibilities.

9. INDEMNIFICATION

(a) For Professional Liability:

To the fullest extent permitted by law, DESIGN CONSULTANT shall defend, indemnify and hold harmless the City of Chandler, its agents, representatives, officers, directors, officials and employees, individually and collectively, (hereinafter CoC) from and against all losses, claims, damages, suits, actions, payments, judgments, demands, expenses, and costs, including but not limited to, attorney's fees, defense costs, court costs, and the cost of appellate proceedings, or actions of any kind and nature related to, arising out of, or alleged to have resulted from the errors, mistakes or omissions relating to professional services by DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors in the performance of this Contract or of any other person for whose errors, mistakes or omissions DESIGN CONSULTANT may be legally liable. This indemnity shall not be construed to include losses, claims, damages, suits, or actions of any kind and nature, to the extent arising from or alleged to have resulted from the errors, mistakes or omissions of CoC (other than DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors). The provisions of this paragraph shall survive termination of this Contract.

(b) For all Other Liabilities, Hazards and Exposures:

To the fullest extent permitted by law, DESIGN CONSULTANT shall defend, indemnify and hold harmless the City of Chandler, its agents, representatives, officers, directors, officials and employees, individually and collectively, (hereinafter CoC) from and against all losses, claims, damages, suits, actions, payments, judgments, demands, expenses, and costs, including but not limited to, attorney's fees, defense costs, court costs, and the cost of appellate proceedings, or actions of any kind and nature, wages or overtime compensation due employees in rendering service under this Contract and whether to any person or property, including natural resources and any claim made under the Fair Labor Standards Act or any other federal or state laws, related to, arising out of, or alleged to have resulted from the actions of DESIGN CONSULTANT and alleged to have been caused in whole or in part by any act or omission of DESIGN CONSULTANT, anyone directly or indirectly employed by them or anyone for whose acts DESIGN CONSULTANT may be legally liable, and from any claims or amounts arising or recovered under Workers' Compensation laws or any other law, bylaw, or ordinance, order or decree or any failure on the part of DESIGN CONSULTANT, its agents, employees or representatives to fulfill DESIGN CONSULTANT'S obligations under this Contract. This indemnity shall not be construed to include losses, claims, damages, suits, or actions of any kind and nature, to the extent arising from or alleged to have resulted from the errors, mistakes or omissions of CoC, (other than DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors). The provisions of this paragraph shall survive termination of this Contract.

(c) Consequential Damages:

The parties intend that damages and/or costs and all other terms implying an amount tied to liability shall include consequential damages and loss of productivity limited to the total value of this contract in dollars as payable by the City of Chandler or twice the amount of aggregate insurance required by this Contract, whichever is greater.

(d) Insurance does not limit liability:

The amount and type of insurance coverage requirements set forth herein will in no way be construed as limiting the scope of the indemnity in this paragraph.

10. INSURANCE REQUIREMENTS

10.1 General Requirements:

- A DESIGN CONSULTANT, at its own expense, shall purchase and maintain insurance of the types and amounts required in this section, with companies possessing a current A.M. Best,

- Inc. rating of B++6, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to CITY.
- B With the exception of professional liability policies, policies written on a "Claims made" basis are not acceptable without written permission from the City's Risk Manager.
  - C 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 is satisfactorily completed and formally accepted. Failure to do so may, at the sole discretion of CITY, constitute a material breach of this Agreement and may result in termination of this contract.
  - D If any of the insurance policies are not renewed prior to expiration, payments to the DESIGN CONSULTANT may be withheld until these requirements have been met, or at the option of the City, the City may pay the Renewal Premium and withhold such payments from any monies due the DESIGN CONSULTANT.
  - E All insurance policies, except Workers' Compensation and Professional Liability required by this Agreement, and self-insured retention or deductible portions, shall name, to the fullest extent permitted by law for claims arising out of the performance of this contract, the City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insureds.
  - F DESIGN CONSULTANT's insurance shall be primary insurance over any insurance available to the CITY and as to any claims resulting from this contract, it being the intention of the parties that the insurance policies so effected shall protect both parties and be primary coverage for any and all losses covered by the described insurance.
  - G The insurance policies, except Workers' Compensation and Professional Liability, shall contain a waiver of transfer rights of recovery (subrogation) against CITY, its agents, representatives, officers, directors, officials and employees for any claims arising out of DESIGN CONSULTANT's acts, errors, mistakes, omissions, work or service.
  - H The insurance policies may provide coverage which contain deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall be assumed by and be for the account of, and at the sole risk of DESIGN CONSULTANT. DESIGN CONSULTANT shall be solely responsible for the deductible and/or self-insured retention. The amounts of any self-insured retentions shall be noted on the Certificate of Insurance. CITY, at its option, may require DESIGN CONSULTANT to secure payment of such deductibles or self-insured retentions by a Surety Bond or an irrevocable and unconditional letter of credit. Self-insured retentions (SIR) in excess of \$25,000 will only be accepted with the permission of the Management Services Director/designee.
  - I All policies and certificates shall contain an endorsement providing that the coverage afforded under such policies shall not be reduced, canceled or allowed to expire until at least thirty (30) days prior written notice has been given to CITY.
  - J Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the DESIGN CONSULTANT with reasonable promptness in accordance with the DESIGN CONSULTANT's information and belief.
  - K In the event that claims in excess of the insured amounts provided herein, are filed by reason of any operations under this contract, the amount of excess of such claims, or any portion thereof, may be withheld from payment due or to become due the DESIGN CONSULTANT

until such time as the DESIGN CONSULTANT shall furnish such additional security covering such claims as may be determined by the CITY.

#### 10.2 Proof of Insurance - Certificates of Insurance

- A Prior to commencing work or services under this Agreement, DESIGN CONSULTANT shall furnish to CITY Certificates of Insurance, issued by DESIGN CONSULTANT's insurer(s), as evidence that policies providing the required coverages, conditions and limits required by this Agreement are in full force and effect and obtain from the City's Risk Management Division approval of such Certificates.
- B If a policy does expire during the life of this Agreement, a renewal certificate must be sent to the City of Chandler five (5) days prior to the expiration date.
- C All Certificates of Insurance shall identify the policies in effect on behalf of DESIGN CONSULTANT, their policy period(s), and limits of liability. Each Certificate shall include the job site and project number and title. Coverage shown on the Certificate of Insurance must coincide with the requirements in the text of the contract documents. Information required to be on the certificate of Insurance may be typed on the reverse of the Certificate and countersigned by an authorized representative of the insurance company.
- D CITY reserves the right to request and to receive, within 10 working days, certified copies of any or all of the herein required insurance policies and/or endorsements. CITY shall not be obligated, however, to review same or to advise DESIGN CONSULTANT of any deficiencies in such policies and endorsements, and such receipt shall not relieve DESIGN CONSULTANT from, or be deemed a waiver of CITY's right to insist on, strict fulfillment of DESIGN CONSULTANT's obligations under this Agreement.

#### 10.3 Required Coverage

Such insurance shall protect DESIGN CONSULTANT from claims set forth below which may arise out of or result from the operations of DESIGN CONSULTANT under this Contract and for which DESIGN CONSULTANT may be legally liable, whether such operations be by the DESIGN CONSULTANT or by a Sub-consultant or subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Coverage under the policy will be at least as broad as Insurance Services Office, Inc., policy form CG00011093 or equivalent thereof, including but not limited to severability of interest and waiver of subrogation clauses.

- A Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
- B Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- C Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- D Claims for damages insured by usual personal injury liability coverage;
- E Claims for damages, other than to Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- F Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; Coverage will be at least as broad

as Insurance Service Office, Inc., coverage Code "I" "any auto" policy form CA00011293 or equivalent thereof.

- G Claims for bodily injury or property damage arising out of completed operations;
- H Claims involving contractual liability insurance applicable to the Contractor's obligations under the Indemnification Agreement;
- I Claims for injury or damages in connection with one's professional services;
- J Claims involving construction projects while they are in progress. Such insurance shall include coverage for loading and off loading hazards. If any hazardous material, as defined by any local, state or federal authorities are to be transported, MCS 90 endorsement shall be included.

#### 10.3.1 Commercial General Liability - Minimum Coverage Limits:

The Commercial General Liability insurance required herein shall be written for not less than \$1,000,000 limits of liability or ten percent (10%) of the Contract Price, whichever coverage is greater. Any combination between general liability and excess general liability alone amounting to a minimum of \$1,000,000 per occurrence (or 10% per occurrence) and an aggregate of \$2,000,000 (or 20% whichever is greater) in coverage will be acceptable. The Commercial General Liability additional insured endorsement shall be as broad as the Insurance Services, Inc's (ISO) Additional Insured, Form B, CG 20101001, and shall include coverage for DESIGN CONSULTANT's operations and products, and completed operations.

#### 10.3.2 General Liability - Minimum Coverage Limits

The General Liability insurance required herein, including, Comprehensive Form, Premises-Operations, Explosion and Collapse, Underground Hazard, Products/Completed Operations, Contractual Insurance, Broad Form Property Damage, Independent Contractors, and Personal Injury shall be written for Bodily Injury and Property Damage Combined shall be written for not less than \$1,000,000 or 10% of the contract cost and with a \$2,000,000 aggregate.

#### 10.3.3 Automobile Liability

DESIGN CONSULTANT shall maintain Commercial/Business Automobile Liability insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 each occurrence with respect to any owned, hired, and non-owned vehicles assigned to or used in performance of the DESIGN CONSULTANT's work. Coverage shall be at least as broad as coverage code 1, "any auto", (Insurance Service Office, Inc. Policy Form CA 00011293, or any replacements thereof). Such insurance shall include coverage for loading and off loading hazards if hazardous substances, materials or wastes are to be transported and a MCS 90 endorsement shall be included with coverage limits of \$5,000,000 per accident for bodily injury and property damage.

#### 10.3.4 Worker's Compensation and Employer's Liability:

DESIGN CONSULTANT shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over DESIGN CONSULTANT's employees engaged in the performance of the work or services; and, Employer's Liability insurance of not less than \$1,000,000 for each accident, \$1,000,000 disease coverage for each employee, and \$1,000,000 disease policy limit. In case any work is subcontracted, DESIGN CONSULTANT will require the Subcontractor to provide Workers' Compensation and Employer's Liability to at least the same extent as required of DESIGN CONSULTANT.

### 10.3.5 Professional Liability:

DESIGN CONSULTANT shall maintain Professional Liability insurance covering acts, errors, mistakes and omissions arising out of the work or services performed by DESIGN CONSULTANT, or any person employed by DESIGN CONSULTANT, with a claims made policy limit of not less than \$1,000,000.

## 11. ALTERNATE DISPUTE RESOLUTION

- 11.1 Alternative Dispute Resolution. The parties hereby agree that there shall be a sixty (60) day moratorium on litigation commencing on the day that a claim is filed by CONTRACTOR pursuant to A.R.S. § 12-821.01 during which time the parties will negotiate in good faith to resolve the dispute and evaluate the viability of pursuing alternative dispute resolution procedures such as mediation and arbitration.
- 11.2 Arizona Law. This Agreement shall be governed and interpreted according to the laws of the State of Arizona.
- 11.3 Jurisdiction and Venue. The parties agree that this Agreement is made in and shall be performed in Maricopa County. Any lawsuits between the Parties arising out of this Agreement shall be brought and concluded in the courts of Maricopa County in the State of Arizona, which shall have exclusive jurisdiction over such lawsuits.
- 11.4 Fees and Costs. Except as otherwise agreed by the parties, the prevailing party in any adjudicated dispute relating to this Agreement is entitled to an award of reasonable attorney's fees, expert witness fees and costs including, as applicable, arbitrator fees; provided, however, that no award of attorney's fees shall exceed ten percent (10%) of the damages awarded the prevailing party unless the non-prevailing party has been determined to have acted in bad faith or in a frivolous manner during the adjudication.

12. AMENDMENTS: Whenever a change in the Scope of Work contemplated in this Agreement is determined to be necessary, the work will be performed in accordance with this Agreement provided, however, that BEFORE such work is started, an Amendment shall be executed by CITY and DESIGN CONSULTANT. Additions to, modifications of, or deletions from the project provided herein may be made and the compensation to be paid to DESIGN CONSULTANT may be adjusted accordingly by mutual agreement of the contracting parties. It is agreed that no claim for extra work by DESIGN CONSULTANT will be allowed by CITY except as provided herein, nor shall DESIGN CONSULTANT do any work not covered by this Agreement unless such work is authorized through an executed amendment.

13. TERMINATION WITHOUT CAUSE: CITY may at any time and for any or no reason, at its convenience, terminate this Agreement or any part of the services to be rendered pursuant thereto by ten (10) day written notice to DESIGN CONSULTANT specifying the termination date. Immediately after receiving such notice, DESIGN CONSULTANT shall discontinue advancing the work under this Agreement and shall deliver to CITY all drawings, notes, calculations, sketches and other materials entirely or partially completed, together with all unused materials supplied by CITY.

DESIGN CONSULTANT shall receive as compensation in full for services performed to date of such termination, a fee for the percentage of work actually completed. This fee shall be a percentage of DESIGN CONSULTANT(S) fee described in this Agreement under paragraph 4 and shall be in an amount to be agreed mutually by DESIGN CONSULTANT and CITY. CITY shall make this final

payment within sixty (60) days after DESIGN CONSULTANT has delivered the last of the partially completed items.

#### 14. TERMINATION WITH CAUSE

This Agreement may be terminated by CITY for cause should the DESIGN CONSULTANT fail to perform any provision of this Agreement, including without limitation, for any of the following reasons:

- (a) DESIGN CONSULTANT abandons Work;
- (b) DESIGN CONSULTANT assigns or attempts to assign its rights or obligations under this Agreement or any part thereof to any third-party (without the prior written consent of CITY);
- (c) DESIGN CONSULTANT is adjudged bankrupt or insolvent, makes a general assignment for the benefit of creditors, has a trustee or receiver appointed for its property, or files a petition to take advantage of any debtor's act;
- (d) DESIGN CONSULTANT fails or refuses to perform any obligation under the Agreement, or fails to remedy such nonperformance within seven (7) days after its occurrence;
- (e) DESIGN CONSULTANT fails to comply with any applicable Laws and fails to remedy such nonperformance within seven (7) days after its occurrence;
- (f) DESIGN CONSULTANT fails to achieve the required dates for performance required pursuant to the Agreement.

The CITY'S right of termination for cause as set forth herein shall be in addition to, and not a limitation of, any and all other remedies available to CITY at law, in equity, or under the terms and provisions of this Agreement.

15. OWNERSHIP OF DOCUMENTS: All documents, including, but not limited to, preliminary designs, tracings, drawings, original mylars, estimates, field notes, investigations, design analysis and studies which are prepared in the performance of this Agreement are to be, and shall remain the property of CITY. DESIGN CONSULTANT shall furnish CITY, upon its request, originals or reproducible copies of technical specifications and copies of all other documents listed above. DESIGN CONSULTANT shall endorse, by his professional seal, all plans and engineering data furnished by it.

16. RE-USE OF DOCUMENTS: The parties agree the documents, drawings, specifications and designs, although the property of CITY, are prepared for this specific project and are not intended nor represented by DESIGN CONSULTANT to be suitable for re-use for any other project. Any reuse without written verification or adaptation by DESIGN CONSULTANT for the specific purpose intended will be at CITY'S sole risk and without liability or legal exposure to DESIGN CONSULTANT.

17. NO KICK-BACK CERTIFICATION: DESIGN CONSULTANT warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage or contingent fee; and that no member of the City Council or any employee of the CITY has any interest, financially or otherwise, in the DESIGN CONSULTANT firm.

For breach or violation of this warranty, CITY shall have the right to annul this Agreement without liability, or at its discretion to deduct from the Agreement Price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

18. CONFLICT OF INTEREST: DESIGN CONSULTANT stipulates that its officers and employees do not now have a conflict of interest and it further agrees for itself, its officers and its employees that it will not contract for or accept employment for the performance of any work or services with any individual business, corporation or government unit that would create a conflict of interest in the performance of its obligations pursuant to this Agreement.

Pursuant to A.R.S. Section 38-511, CITY may cancel this Agreement within three (3) years after its execution, without penalty or further obligation by CITY if any person significantly involved in initiating, negotiating, securing, drafting or creating this Agreement on behalf of CITY is, at any time while this Agreement is in effect, an employee of any other party to this Agreement in any capacity, or a consultant to any other party of this Agreement with respect to the subject matter of this Agreement.

19. CONTROLLING LAW: The laws of the State of Arizona shall govern this agreement.

20. REQUIRED COMPLIANCE WITH ARIZONA PROCUREMENT LAW

Compliance with A.R.S. § 41-4401. Pursuant to the provisions of A.R.S. § 41-4401, the Design Consultant hereby warrants to the City that the Design Consultant and each of its subcontractors ("Subcontractors") 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 "Design Consultant Immigration Warranty").

A breach of the Design 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 Design Consultant or Subcontractor employee who works on this Contract to ensure that the Design Consultant or Subcontractor is complying with the Design Consultant Immigration Warranty. The Design 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 Design Consultant and any Subcontractors to ensure compliance with Design Consultants Immigration Warranty. The Design Consultant agrees to assist the City in performing any such random verifications.

The provisions of this Article must be included in any contract the Design 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 Design Consultant or subcontractor. 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 Design Consultant hereby certifies that the offeror does not have scrutinized business operations in Iran.

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

21. NO ASSIGNMENT: DESIGN CONSULTANT shall not assign, transfer, convey or subcontract this Agreement or the services to be rendered pursuant thereto without the prior written consent of CITY.



**EXHIBIT A  
SCOPE OF WORK**

**PROJECT DESCRIPTION & SCOPE OF CONSTRUCTION:**

**A. BACKGROUND**

CITY of Chandler's Project No. ST0806-202 will widen approximately one-half mile of Chandler Boulevard between Coronado Street and Metro Boulevard to add a second left turn lane for west to south traffic movements, add east bound bike lane and add west bound bike lane to provide bicycle connectivity and improve traffic circulation. The City is currently finalizing the DCR for Project Number ST0806-201. The project construction budget shown in the DCR is \$3,119,000. This is a partially federally funded project and is currently programmed for construction in FY 2010/2011. The project is a Congestion Management Air Quality (CMAQ) project. It is listed as ID#CHN12-805 in the federally funded Highway Projects section of the Maricopa Association of Governments (MAG) Transportation Improvement Program. The corresponding ADOT TRACS No. is SS677 03.

**B. GENERAL TASKS**

**B 1.0 GENERAL REQUIREMENTS** – The design and all work shall conform to the latest edition and amendments of the following:

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

**B 2.0 DATA COLLECTION**

1. CITY shall provide at no cost to DESIGN CONSULTANT the following existing information as available, not necessarily limited to, as-built drawings, related design studies and reports, geotechnical investigations, traffic data and projections, maintenance records, and drawings of developments planned within the project area.
2. DESIGN CONSULTANT shall keep a log of all documents and information provided by CITY staff and related stakeholders.

**B 3.0 PUBLIC UTILITY COORDINATION**

1. DESIGN CONSULTANT shall coordinate with utility companies, private development, and the CITY to incorporate existing and proposed utilities into the 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.

2. DESIGN CONSULTANT shall coordinate with each utility company to determine if the utilities have any need to upgrade their facilities before or during the project's construction.
3. DESIGN CONSULTANT shall work with the CITY's Utility Coordinator to coordinate the early determination of facilities that may be abandoned or deactivated.
4. DESIGN CONSULTANT shall be responsible for field verifying the horizontal locations of all utilities within the project limits prior to the Preliminary (15%) design submittal. DESIGN CONSULTANT shall prepare base maps detailing all existing utility data and transmit them to the utility companies for verification and comment concerning the utility locations. DESIGN CONSULTANT shall incorporate the utility company comments into the base maps.
5. DESIGN CONSULTANT shall specifically identify utility conflicts, with input from utility companies, which might affect alignment or grade and recommend alignment alternatives.
6. Prior to the 30% plan submittal, DESIGN CONSULTANT shall submit title reports for affected properties to SRP Water Users and SRP Power.
7. DESIGN CONSULTANT shall send a letter to each utility company notifying them of the project and defining the project scope and timeline, and shall also send one set 15%, 30%, 60%, 95%, and Final plans to each utility company for their review along with a request for written response from each company to determine the disposition of their utility as it relates to the planned roadway improvements. DESIGN CONSULTANT shall incorporate the utility company and private developer construction requirements into the plan set.
8. 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. 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.
9. Prior to 30% plan submittal, DESIGN CONSULTANT shall develop preliminary alignments of any utilities requiring relocation for which the CITY's Utility Coordinator has requested an alignment design. DESIGN CONSULTANT shall submit preliminary locations to each utility for review along with a request for written response from each utility. DESIGN CONSULTANT shall make joint trenching recommendations for underground utilities, and submit those recommendations to the CITY's Utility Coordinator for approval.
10. DESIGN CONSULTANT shall identify utility easements and provide legal descriptions to the CITY, between the 30% and 60% design completion, to facilitate land acquisition during the design phase.
11. At the 30% design submittal, DESIGN CONSULTANT shall develop a utility strip map showing all existing and proposed utilities, and existing and proposed easements for each utility, to include parcel numbers and addresses, at a scale of 1"=20' H.
12. For each submittal to the utility companies, DESIGN CONSULTANT shall provide the CITY's Project Manager and Utility Coordinator each with a written record of receipt.

13. DESIGN CONSULTANT shall work with the CITY's Utility Coordinator to facilitate utility coordination meetings upon notice to proceed and at each submittal (30%, 60%, 95%) and provide a strip map showing proposed CITY and private installations, and existing and proposed easements.
14. DESIGN CONSULTANT shall work with the CITY's Utility Coordinator to facilitate utility land coordination meetings upon notice to proceed and at each submittal (30%, 60%, 95%) and provide a strip map showing proposed CITY and private installations.
15. DESIGN CONSULTANT shall review all utility plans for constructability within the project limits.
16. Prior to submittal of Final (100%) construction documents, DESIGN CONSULTANT shall be responsible for ensuring all utility relocations 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.

#### **B 4.0 PROGRESS MEETINGS**

1. DESIGN CONSULTANT shall hold the following progress meetings at the CITY of Chandler offices or project site.
  - a. Bi-Weekly Progress Meetings shall be held up to the 60% plan submittal and shall be held every four (4) weeks or as needed after the 60% plan submittal.
  - b. Comment Resolution Meetings shall be held, in lieu of the scheduled Bi-Weekly Progress Meetings, no later than two weeks after redlines are returned to DESIGN CONSULTANT at each plan submittal.
  - c. Utility Coordination Meetings shall be held at project kickoff, at each plan submittal, and as needed.
2. DESIGN CONSULTANT shall prepare and distribute meeting minutes for each Progress Meeting, Comment Resolution Meeting and Utility Coordination Meeting including Action Items to be reviewed and updated at each subsequent meeting.

#### **B 5.0 PUBLIC MEETINGS**

1. DESIGN CONSULTANT shall prepare for and participate in four (4) 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. Prepare a meeting sign-in sheet
  - c. Give a brief presentation and answer questions as needed
  - d. Prepare and make available a public comment sheet at each meeting
  - e. Provide snack foods and beverages for each public meeting
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 required

#### **B 6.0 STAKEHOLDER MEETINGS**

1. DESIGN CONSULTANT shall prepare for and participate in monthly Stakeholder Meetings for the duration of the project. DESIGN CONSULTANT shall prepare display boards that feature the horizontal alignment and depict both existing and proposed right-of-way, 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. Prepare a meeting sign-in sheet
  - c. Give a brief presentation and answer questions as needed
  - d. Prepare distribute meeting minutes, including Action Items to be reviewed and updated at each Stakeholder Meeting
3. CITY shall be responsible for the following:
  - a. Secure a location and time for each Stakeholder Meeting
  - b. Send invitations to stakeholders

#### **B 7.0 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.

#### **B 8.0 DESIGN SURVEY**

1. DESIGN CONSULTANT shall perform ground survey to establish horizontal and vertical control throughout the project limits based on the datum specified by the CITY. Survey control for the project shall be in accordance with CITY requirements. The horizontal survey data used for the project shall be presented in State Plane Coordinates, North American Datum of 1983 (NAD 83) 1992 epoch, and Arizona Central Zone, International Foot. Vertical datum shall be referenced to the North American Vertical Datum of 1988 (NAVD 88), International Foot. Existing roadway centerline shall be established through Maricopa County Recorder's maps and land surveys in conjunction with existing street monuments.
2. DESIGN CONSULTANT shall perform a full topographic survey of all existing features including but not limited to curb and gutter, median curb, catch basins, scuppers, culverts, box culverts, water meter boxes, water and gas valves, manholes, utility poles and guy wires, traffic signal poles, utility boxes, fences, trees, mailboxes, public and private irrigation, plants and shrubs.
3. DESIGN CONSULTANT survey and design limits are:
  - a. Chandler Boulevard – The east Coronado Street curb return to the east Metro Boulevard curb return.
  - b. Coronado Street – 200' north of the north curb return.
  - c. Metro Boulevard – 200' north of the north curb return and 250' south of the south curb return.

4. DESIGN CONSULTANT shall take pavement elevations at the centerline of Chandler Boulevard, Coronado Street and Metro Boulevard at 50 feet intervals within the survey limits stated in Item B8.3 above. In addition, DESIGN CONSULTANT shall take elevations at the gutter pan and top of curb for all existing curb and gutter and existing ground at 25 ft intervals beyond the edge of pavement or back of curb to the existing right-of-way lines.
5. DESIGN CONSULTANT shall take elevations along the centerline and/or edges of each driveway at 50' intervals beginning at the Chandler Boulevard back of curb to a distance of 200' beyond the Chandler Boulevard back of curb. DESIGN CONSULTANT shall take ground elevations shots at all grade breaks along each driveway centerline and edges.
6. DESIGN CONSULTANT shall take elevations at the inverts of all catch basins, manholes, pipes and all water valve nuts within the project limits. DESIGN CONSULTANT shall establish benchmarks at 500 feet intervals along Chandler Boulevard for the length of the project.
7. DESIGN CONSULTANT shall provide a sketch showing each benchmark with a minimum of 3 ties to features that will not be disturbed by construction.
8. DESIGN CONSULTANT shall provide a digital photo log of the project. The photos shall be taken looking upstation at no less than 50-foot increments along the proposed curb line. The photos shall also include intersections at all cross/intersecting streets, driveways, curb ramps, existing above-ground utilities, existing obstructions, drainage features, ditches, railroads, roadway signage, private signage, existing landscaping, streetlights, existing miscellaneous structures, walls and any other features that may impact the design of the project. The photo log shall provide station, offset and/or direction of the picture, or other identifying description, for each picture. DESIGN CONSULTANT shall provide the CITY two CDs of the photo log.

#### **B 9.0 RIGHT-OF-WAY SURVEY**

1. At Preliminary (15%) Design, DESIGN CONSULTANT shall prepare a right-of-way strip map overlain on an aerial photograph of the project limits, showing existing property rights for right-of-way, easements and utilities on Chandler Boulevard, Coronado Street and Metro Boulevard for the limits stated in Item B8.3. The right-of-way strip map is for the purpose of identifying property boundaries to prepare legal descriptions and exhibits for new property acquisitions for road right of way, future bus bays, drainage easements, temporary construction easements, sight vision easements and utility easements and shall include a list of identified properties and property rights. DESIGN CONSULTANT shall obtain litigation reports for the parcels where property acquisition is needed.
2. DESIGN CONSULTANT shall provide legal descriptions and exhibits for new property acquisitions for road right of way, future bus bays, drainage easements, temporary construction easements, sight vision easements and utility easements. CITY shall provide title search documents with Schedule "B" attachments for each parcel requiring right of way or easement legal description. DESIGN CONSULTANT shall provide right-of-way research and a survey to define the boundaries of adjacent properties where new right-of-way or easements are anticipated. DESIGN CONSULTANT shall provide closure data for all written legal descriptions and exhibits. The scope of work includes, but is not limited to:
  - a. The preparation of written legal description and exhibits for up to three (3) parcels. Legal descriptions and exhibits for each parcel shall include new right-of-way, drainage easements, temporary construction easements, sight vision easements and utility

easements. If more than 3 parcels require one or more of these legal descriptions, the cost for such additional work will be paid from the allowance included in the Contract Price.

3. DESIGN CONSULTANT shall submit final right-of-way documents to the CITY between 30% and 60% design completion. These documents shall include legal descriptions, exhibits, parcel maps, right-of-way strip maps, a draft drainage report and 30% design plans for all acquisitions and easements.
4. DESIGN CONSULTANT shall field stake right-of-way once per the direction of the CITY. Right of way staking will be provided at changes in alignment and angle points and will not provide stakes at each parcel property line affected by the new right of way.

#### **B 10.0 PLANS, SPECIFICATIONS AND ESTIMATES**

1. DESIGN CONSULTANT shall prepare plans, specifications and estimates for the project in accordance with CITY standards. The plans shall include, but not be limited to:
  - Cover Sheet
  - General Notes Sheets
  - Design Data and Index of Sheets
  - Paving Plans/Profiles (1"=20'H/1"=2' V) – See Item B 11.0 for additional information
  - Drainage Plans (1"=20'H/1"=2'V) – See Item 12.0 for additional information
  - Structure Plans (Scale varies) – See Item 13.0 for additional information
  - Traffic Signal Plans – See Item 15.0 for additional information
  - Striping and Signing Plans (1"=40') – See Item 16.0 for additional information
  - Street Light Plans – See Item 17.0 for additional information
  - Landscape and Irrigation Plans – See Item 18.0 for additional information
  - Erosion and Sediment Control Plans and Storm Water Pollution Prevention Plans – see Item 19.0 for additional information
  - Waterline, Sanitary Sewer and Reclaimed Waterline Plans (1"=20' H/1"=2' V) – See Item 20.0 for additional information.
  - Utility Relocation Plans (if required, by others)
2. DESIGN CONSULTANT shall submit plans at the 30%, 60%, 95% and 100% stages. The plan submittals will follow the checklists provided by the CITY.
3. At the 30%, 60% and 95% plan submittals, 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.
4. At the completion of the design, DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format and scanned .TIF images of each plan sheet (signature set.)
5. 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.
6. DESIGN CONSULTANT shall prepare cross sections and earthwork quantities determined, with the intent to provide a balanced earthwork project.

7. DESIGN CONSULTANT shall prepare opinions of probable cost for all pay items per the standard specifications and special provisions, except that volumetric measurements will not be used for pay items.
8. 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.
9. 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.
10. 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.

#### **B 11.0 PAVING PLAN/PROFILES**

1. DESIGN CONSULTANT shall perform work necessary to create Typical Roadway Sections, Geometric Layout, Paving Plan & Profile Sheets and Cross Sections at 50' intervals within the project limits stated in Item B8.3 using design and right-of-way needs for a major arterial (CITY of Chandler Standard Detail C-203) for Chandler Boulevard from Coronado Street to Metro Boulevard.
2. 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, topographic mapping, centerline stationing, curb and gutter, sidewalk, handicap ramps, driveways, turn lanes, intersecting streets, utilities, existing right-of-way, proposed right-of-way, existing utilities, construction notes, etc. Profiles shall show centerline stationing, existing ground, proposed curb and gutter grades, benchmarks and underground utilities.
3. DESIGN CONSULTANT shall prepare calculations, plans, specifications, quantity determinations and opinion of probable costs. Submittals shall be made for 30%, 60%, 95%, Pre-Final 100% and the Final PS&E package.

#### **B 12.0 DRAINAGE REPORT & PLANS/PROFILES**

1. DESIGN CONSULTANT shall prepare a drainage analysis to define the new runoff expected as a result of the Chandler Boulevard widening construction and recommend the drainage improvements required.
2. DESIGN CONSULTANT shall prepare and provide separate street runoff drainage calculations for undeveloped parcels adjacent Chandler Boulevard.
3. DESIGN CONSULTANT shall perform drainage calculations and incorporate them into a Draft Drainage Report to accompany the 30% plan submittal. The limits of analysis shall be to existing improvements. DESIGN CONSULTANT shall verify that the existing basins constructed along Chandler Boulevard within the project limits stated in Item B8.3 match the as-built plans. The Draft Drainage Report shall identify proposed retention basins and any

required drainage easements. This report shall document all calculations certifying that the proposed design meets the design criteria.

4. DESIGN CONSULTANT shall incorporate comments received from the Draft Drainage Report into a Final Drainage Report between the 30% and 60% plan submittals.
5. DESIGN CONSULTANT shall submit legal descriptions and exhibits for drainage easements, including volumetric calculations, to the CITY between 30% and 60% plan submittals.
6. DESIGN CONSULTANT shall prepare calculations, plans, specifications, quantity determinations and opinion of probable costs. Submittals shall be made for 30%, 60%, 95%, Pre-Final 100% and the Final PS&E package.

### **B 13.0 STRUCTURE PLANS**

1. DESIGN CONSULTANT shall prepare an Analysis Memorandum summarizing structural investigation, analysis and impact to the existing underpass bridge abutment and drilled shafts resulting from removal of the existing retaining wall and the soil between the wall and the face of the abutment. Based on the findings of the structural integrity of the existing abutment, one or two type of retaining walls recommendations will be made. The Memorandum shall also include a description of existing roadway geometrics, existing bridge abutment type, quantities and a cost estimate.
  - a. DESIGN CONSULTANT shall field review existing site conditions for the retaining wall and bridge abutment and gather record drawings.
  - b. DESIGN CONSULTANT shall analyze the existing abutment.
  - c. DESIGN CONSULTANT shall recommend one or two retaining wall types based on the findings of the existing abutment.
  - d. DESIGN CONSULTANT shall prepare schematic plan sheets (Removal Details, Plan, Elevation, Typical Section and Miscellaneous Details) for the recommended wall type.
2. DESIGN CONSULTANT shall prepare calculations, final plans, specifications, quantity determinations and opinion of probable costs for the selected alternative for each structure. Submittals shall be made for 30%, 60%, 95%, Pre-Final 100% and the Final PS&E package.

### **B 14.0 TRAFFIC ANALYSIS**

1. Not used.

### **B 15.0 TRAFFIC SIGNAL PLANS**

1. DESIGN CONSULTANT shall prepare traffic signal plans to modify the traffic signal at the intersection of L101 and Chandler Boulevard in accordance with applicable ADOT and City of Chandler Traffic Signal Standards and Specifications.
2. DESIGN CONSULTANT shall perform a site visit and document to the extent possible the equipment and conditions related to existing traffic signal poles, pull boxes, wiring, traffic signal equipment, fiber optic interconnect, dome camera, underground conduit, etc.
3. DESIGN CONSULTANT shall evaluate the need to relocate the existing power source and coordinate any necessary relocations with Salt River Project (SRP).

4. DESIGN CONSULTANT shall design the layout of the signal modifications caused by the street widening. The traffic signal plans shall be produced at a 1" = 20' scale and include the following sheets:
  - a. Signal Plan with notes, pole locations, conduit runs and pull boxes
  - b. Pole Schedule with pole type, mast arm length, signal head, mount and pedestrian head types, luminaire type and pedestrian push buttons
  - c. Conductor Schedule with circuits, wire size and conduit size
  - d. Signal Details and Sequence Sheet
5. DESIGN CONSULTANT plans shall accommodate relocation and reestablishment of the existing fiber optic interconnect circuits.
6. DESIGN CONSULTANT shall prepare plans, specifications, quantity determinations and opinion of probable costs. Submittals shall be made for 30%, 60%, 95%, Pre-Final 100% and the Final PS&E package.

#### **B 16.0 STRIPING AND SIGNING PLANS**

1. DESIGN CONSULTANT shall develop preliminary traffic signing and striping plans within the project limits stated in Item B8.3 at the 30% plan stage in accordance with applicable CITY of Chandler Standards and Specifications. DESIGN CONSULTANT shall finalize the traffic signing and striping plans at the 60% plan stage. The signing and striping plans shall be produced at 1" = 40' scale (double stacked) and shall include the following sheets:
  - a. Index Sheet
  - b. General Striping Notes Sheet (including striping quantities)
  - c. General Signing Summary and Notes
  - d. General Detail Sheet
  - e. Striping and Signing Plan Sheets
2. DESIGN CONSULTANT shall prepare calculations, plans, specifications, quantity determinations and opinion of probable costs. Submittals shall be made for 30%, 60%, 95%, Pre-Final 100% and the Final PS&E package.

#### **B 17.0 STREET LIGHT PLANS**

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 prepare street lighting relocation plans within the project limits stated in Item B8.3 as a result of new curb, 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 provide plan sheets for the following:
  - a. Plan Sheets (double stacked) @ scale 1" = 40' with pole locations, conduit runs and pull boxes
  - b. Pole Schedule and Notes
  - c. Conductor Schedule
  - d. Lighting Relocation Details, as necessary

4. DESIGN CONSULTANT shall prepare calculations, plans, specifications, quantity determinations and opinion of probable costs. Submittals shall be made for 30%, 60%, 95%, Pre-Final 100% and the Final PS&E package.

#### **B 18.0 LANDSCAPE, HARDSCAPE & IRRIGATION PLANS**

1. DESIGN CONSULTANT shall inventory existing trees, located via GPS survey and catalogue to determine if they are to remain in place, be salvaged for reuse, or demolished. DESIGN CONSULTANT shall identify the tree species, record the caliper, ascertain the general health, and record the viability for transplant. CITY shall provide an existing tree inventory and salvage plan.
2. DESIGN CONSULTANT shall review existing irrigation water meters, valves, mainline, controllers, and other major irrigation infrastructure locations to determine potential for salvage. 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.
3. DESIGN CONSULTANT shall coordinate with the CITY's Landscape Architect to determine the desired types of plant material, irrigation equipment and aesthetic theme features.
4. DESIGN CONSULTANT shall complete electrical distribution system design, calculate power requirements, coordinate service connection point with SRP and prepare plans for up-lighting median landscape features and/or architectural features.
5. DESIGN CONSULTANT shall develop 30% landscape and hardscape plans showing location and species of proposed new trees, existing trees to remain, and salvaged and relocated trees. Shrub massing shall be shown. Specific shrub species shall be shown at the 60% plan submittal. Plant schedule, landscape notes, and City standard landscape details shall be shown. Plant quantities shall be shown at the 60% plan submittal. 30% hardscape plans will show preliminary aesthetic and architectural treatments of retaining walls and slope paving at the traffic interchange. Aesthetic and architectural treatments will be coordinated with City and ADOT.
6. DESIGN CONSULTANT shall develop 30% Irrigation plans showing locations of existing infrastructure to remain in place and new locations of water meter(s), mainline, and valves. Reclaimed water will be used for irrigation.
7. DESIGN CONSULTANT shall provide a table of contents identifying the specifications that shall be used at the 30% plan submittal, and develop an opinion of probable cost for each plan submittal.
8. DESIGN CONSULTANT shall identify individual shrubs and develop irrigation laterals for the 60% plan submittal. 60% submittal will show aesthetic and architectural treatments of retaining walls and slope paving at the traffic interchange. Aesthetic and architectural treatments will be coordinated with City and ADOT.
9. DESIGN CONSULTANT shall generate landscape, hardscape and irrigation specifications at the 60% plan stage.
10. 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.

11. Bioassay testing, archeology, soil fertility, and other tests to determine plant viability in existing conditions are not considered part of this scope of work.
12. DESIGN CONSULTANT shall prepare calculations, final plans, specifications, quantity determinations and opinion of probable costs. Submittals shall be made for 30%, 60%, 95%, Pre-Final 100% and the Final PS&E package.

#### **B 19.0 STORMWATER POLLUTION PREVENTION PLANS**

1. DESIGN CONSULTANT shall develop a Storm Water Pollution Prevention Plan (SWPPP), as required on all projects that will or have the potential to impact any adjacent drainage system, under the provisions of section 402(p) of the Clean Water Act (CWA). The SWPPP shall meet all requirements outlined in the most current Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Discharge from Construction Activities to Waters of the United States. The SWPPP shall include a completed checklist (<http://www.azdeq.gov/environ/water/permits/download/cswppp.pdf>) that identifies the location of the required SWPPP components outlined in the Construction General Permit. Erosion and Sediment Control Plans meeting the requirements of the CITY shall also be developed and submitted. A copy of the SWPPP and Erosions and Sediment Control Plans shall be provided to the CITY and the Contractor.
2. DESIGN CONSULTANT shall prepare calculations, final plans, specifications, quantity determinations and opinion of probable costs. Submittals shall be made for 60%, 95%, Pre-Final 100% and the Final PS&E package.

#### **B 20.0 WATERLINE, SANITARY SEWER & RECLAIMED WATERLINE PLANS**

1. Not used.

#### **B 21.0 GEOTECHNICAL**

1. DESIGN CONSULTANT shall attend up to three (3) coordination meetings.
2. DESIGN CONSULTANT shall conduct a visual geologic reconnaissance of the project area and review available geologic literature and aerial photographs of the project site and shall conduct a visual pavement reconnaissance of the roadway segment in question.
3. DESIGN CONSULTANT shall obtain CITY of Chandler and Maricopa County right-of-way permits to conduct field work.
4. DESIGN CONSULTANT shall arrange for off-duty police officer, as needed, to be on site during fieldwork.
5. DESIGN CONSULTANT shall establish test locations in the field and arrange for the mark-out of underground utilities through Arizona Blue Stake.
6. DESIGN CONSULTANT shall core the existing pavement of the roadway segment in question at up to ten (10) locations to determine the existing structural (asphalt and aggregate base) section.
7. DESIGN CONSULTANT shall drill up to twelve (12) hollow-stem auger borings using a truck-mounted two-wheel drive drill rig. The pavement borings will extend about 5 feet deep, the retaining wall borings will extend about 20 feet deep and the Loop 101 borings will extend about 40 feet. Please note that the retaining wall borings may call for a low-

clearance drill rig because of the existing bridge structure. DESIGN CONSULTANT shall collect ring samples and bulk samples for laboratory testing and will be responsible for preparation of field boring logs.

8. DESIGN CONSULTANT shall perform laboratory testing to evaluate the index, compressibility, expansion and chemical characteristics of the subsurface soils encountered.
9. DESIGN CONSULTANT shall prepare a draft geotechnical report, to accompany the 30% submittal, which will contain the results of the field and laboratory analyses, with presentations of the engineering parameters for design of the new pavement and recommendations for construction. In addition, the reports will contain vicinity maps depicting the project limits, plans showing the boring locations, narrative descriptions of the surface and subsurface conditions, laboratory test results and geotechnical recommendations related to excavation characteristics, bedding material, backfilling guidelines, subgrade support for new pavements, pavement design recommendations, pavement rehabilitation recommendations, and the re-use of on-site soils for engineered fill.
10. DESIGN CONSULTANT shall prepare a Pavement Design Summary/Material Design report for the new pavement areas.
11. DESIGN CONSULTANT shall incorporate comments received on the draft geotechnical report into final geotechnical report to accompany the 60% submittal.

#### **B 22.0 PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA)**

1. DESIGN CONSULTANT shall attend up to three (3) coordination meetings.
2. DESIGN CONSULTANT shall conduct a Phase I Environmental Site Assessment (ESA) in accordance with ASTM-1527-05 and submit a draft Phase I ESA report inclusive of each property requiring new right-of-way on three (3) parcels to the CITY's project manager no more than forty five (45) calendar days after the 30% plan submittal. The objective of this assessment is to evaluate whether past or current activities have resulted in "recognized environmental conditions" as defined in ASTM E 1527-05.
3. DESIGN CONSULTANT shall conduct physical review of site facilities and practices as follows:
  - a. Review readily available maps and reports pertaining to the site. The CITY of Chandler is requested to provide copies of documents in its possession, if applicable.
  - b. Conduct interviews with the property owner and the tenant(s) regarding the environmental status of the site.
  - c. Perform a site reconnaissance to visually identify areas of possibly contaminated surficial soil or surface water, improperly stored hazardous materials, possible sources of polychlorinated biphenyls, and possible risks of contamination from activities at the site and adjacent properties.
  - d. Obtain and review on-site regulatory records (e.g., chemical inventory, permits, waste records, etc.).
  - e. Note utility connections at the site.
4. DESIGN CONSULTANT shall conduct assessment of past and present site usage as follows:

- a. Obtain and review a 50-year chain-of-title report for each parcel to evaluate probable past site uses and their possible impact on the current environmental status of each site.
  - b. Review owner information provided by the CITY of Chandler, including ASTM user questionnaire.
  - c. Identify previous and existing on-site uses of the site.
  - d. Review readily available historical documents including aerial photographs (site and adjacent properties), Sanborn Insurance Maps (site and available adjacent properties), Building Department Records (site only), and Reverse CITY Directories (site and available adjacent properties), as appropriate.
  - e. Review readily available local regulatory agency files for the site. Requests will be made to the County Environmental Services Department, the local Air Pollution Control District, and the local Fire and Building Departments.
  - f. Review available regulatory agency databases for the site and for properties located within a specified radius of the site. The purpose of this review is to evaluate the possible environmental impact to the site. Databases will identify locations of known hazardous waste sites, landfills, and leaking underground storage tanks, permitted facilities that utilize underground storage tanks (USTs), and facilities that use, store or dispose of hazardous materials, as well as Declaration of Environmental Uses Restrictions and Voluntary Environmental Mitigation Use Restrictions.
  - g. Conduct interviews with current and past owner(s) and tenant(s) of the site (i.e., knowledgeable persons). Interview efforts will include phone contact and/or correspondence if knowledgeable persons are not readily available for personal interviews.
5. DESIGN CONSULTANT shall conduct evaluation of site characteristics as follows:
- a. Review available topographic, soil, geologic, and hydrologic information, including depth to groundwater for indications of surface and subsurface characteristics of the property.
  - b. Review wetlands and flood zone information pertaining to the site.
  - c. Document manmade features, including USTs, aboveground storage tanks, sumps, surface impoundments, septic tanks, oil/water separators, transformers, water wells, dry wells, and storm drains.
  - d. Observe surface drainage, cracking in concrete slabs and foundations, staining, and identify areas of chemical or hazardous material storage.
  - e. Discuss site observations as they relate to the possible presence of asbestos-containing materials. Collection of asbestos samples is not included within this scope of work.
6. DESIGN CONSULTANT shall conduct adjacent property evaluation as follows:
- a. Evaluate adjacent properties for the potential to contaminate the subject property. If during the course of the evaluation adjacent properties appear to have the potential to contaminate the subject property, DESIGN CONSULTANT will notify the CITY for approval to perform Tasks 2, 3 and 4 on the subject property.
  - b. Conduct interviews with adjacent property owners, if readily available
7. DESIGN CONSULTANT shall prepare Phase 1 ESA Report as follows:
- a. Prepare a Phase I ESA report documenting findings and providing opinions and recommendations regarding possible environmental impacts at the site. Color photographs and a site diagram will be provided in the report. If archaeological sites are found on the property, the report will evaluate if historic development on the

property may have impacted such sites. The report will be initially be submitted in draft form. Following review and comment, three hard copies and an electronic copy (on CD-ROM) of the final Phase I ESA report will be submitted.

8. DESIGN CONSULTANT shall complete Phase 1 ESA updates as follows:
  - a. Prepare and submit up to three Phase I ESA Updates (ESAUs) if the subject properties are not acquired within six months of the date of the initial assessment. According to the AAI rule codified in Code of Federal Regulations (40 CFR Part 312), the following components of the all appropriate inquiry must be updated within 180 days prior to the date on which the property is acquired:
    - i. Interviews with past and present owners, operators, and occupants (§312.23);
    - ii. Searches for recorded environmental cleanup liens (§ 312.25);
    - iii. Reviews of federal, tribal, state, and local government records (§ 312.26);
    - iv. Visual inspections of subject properties and of adjoining properties (§ 312.27);  
and
    - v. The declaration by the environmental professional (§312.21(d)).
  - b. DESIGN CONSULTANT shall conduct the following tasks to update the AAI-compliance Phase I ESA conducted on the three (3) three referenced above:
    - i. Conduct a site visit at each site and attempt to interview past owners and/or occupants of each property. Since past owner/occupants may be unavailable for interview, DESIGN CONSULTANT will attempt to interview current owners or occupants of neighboring properties (knowledgeable persons), regarding the environmental status of each vacant property during the site visit. Interview efforts will include phone contact and/or correspondence if knowledgeable persons are not readily available for personal interviews.
    - ii. Review applicable federal, tribal (if appropriate), state, and local government records.
    - iii. Conduct a search for recorded environmental cleanup liens.
    - iv. Prepare a brief letter report summarizing our findings and recommendations regarding possible environmental impacts at the site. The summary report will include a current declaration by the environmental professional conducting the Phase I ESAU and will be submitted in accordance with the CITY of Chandler prescribed format.

#### **B 23.0 UTILITY LOCATING SERVICES (POTHOLING)**

1. 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".
2. During the 30% design phase, DESIGN CONSULTANT shall develop a suggested pothole list 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. Thirty (30) total potholes are anticipated.
3. Prior to completion of the 30% plans, 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.

4. 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.
5. 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.
6. For identified water and sewer lines, while the pothole is excavated, representatives from the CITY's Water and Sewer Department and DESIGN CONSULTANT will perform visual inspection of the condition of the lines. Formal recommendations for potential rehabilitation or replacement will be developed by the CITY's Water and Sewer representatives and DESIGN CONSULTANT and provided to the CITY's project manager in memorandum form.

### C. CONSTRUCTION DOCUMENTS

DESIGN CONSULTANT shall prepare the construction documents for each design submittal listed in the table below.

Construction Document	30% Stage	ROW	60% Stage	95% Stage	100% Stage	Final PS&E
Face Sheet	P		F	F	S	S
Design Sheet/Index			P	F	S	S
Special Detail Drawings			P	F	S	S
Typical Roadway Sections	P		F	F	S	S
Geometric Configuration	P		F	F	S	S
Paving Plan & Profile Sheets	P		F	F	S	S
Drainage Plans & Details	P		F	F	S	S
Erosion and Sediment Control Plans & Details	P		F	F	S	S
Intersection Plans & Details	P		F	F	S	S
Utility Plan/Profile/Details	P		F	F	S	S
Traffic Signal Plans & Details	P		P	F	S	S
Signing and Pavement Marking Plans & Details	P		P	F	S	S
Lighting Plans & Details	P		P	F	S	S
Landscape Plans & Details	P		P	F	S	S
Roadway Cross Sections	P		F	F	S	S
Quantity & Opinion of probable cost	P		P	F	F	F
Special Provisions	P		P	F	S	S
Drainage Report	P	F	S			
Geotechnical Report	S					
Stormwater Pollution Prevention Plan					F	F
Environmental Site Assessment Report		S				
Right-of-Way Legal Descriptions		S				
Right-of-Way Strip Map	F	F	F	F	F	F
Utility Strip Map	P	P	F	F	F	F

P – Denotes Preliminary, F – Denotes Final, S – Denotes Sealed

### **C 1.0 ALIGNMENT (15%) PLANS**

1. DESIGN CONSULTANT shall submit to the CITY three (3) full size sets of alignment plans and three (3) copies of the right-of-way strip map. In addition, DESIGN CONSULTANT shall send one (1) full size set of alignment plans, along with a matrix detailing all identified utility conflicts to each utility company affected by the project.

### **C 2.0 PRELIMINARY (30%) PLANS**

1. DESIGN CONSULTANT shall submit to the CITY eight (8) full size sets of construction plans, eight (8) half size sets of construction plans, five (5) copies of the draft drainage report, five (5) copies of the draft geotechnical report, two (2) copies of the "Testhole Data Summary Sheet", five (5) copies of the construction opinion of probable cost, eight (8) copies of the outline special provisions, two (2) copies of the final right-of-way strip map, two (2) copies of the utility strip map, and plan checklists. In addition, DESIGN CONSULTANT shall send two (2) full size sets of construction plans, along with conflict letters and a copy of the "Testhole Data Summary Sheet" to each utility company affected by the project.
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.

### **C 3.0 RIGHT-OF-WAY SUBMITTAL**

1. DESIGN CONSULTANT shall submit two (2) copies of the final drainage reports, the final legal descriptions for acquisitions, drainage easements, sight vision easements, utility easements, and TCEs, two (2) copies of the final right-of-way strip map, two (2) copies of the utility strip map, and one (1) copy of the draft Phase I Environmental Assessment.

### **C 4.0 PRELIMINARY (60%) PLANS**

1. DESIGN CONSULTANT shall incorporate any changes, corrections and/or additions as a result of the preliminary plan review. DESIGN CONSULTANT shall submit to the CITY 30% redlines, eight (8) copies of 30% plan comments and annotated comment sheet, eight (8) full size sets of construction plans, eight (8) half-size sets of construction plans, four (4) copies of the sealed drainage report, five (5) copies of the final geotechnical report, five (5) copies of the construction opinion of probable cost, six (6) copies of the technical special provisions, plan checklists, one (1) copy of the final right-of-way strip map, two (2) copies of the utility strip map, and two (2) copies of the final Phase I ESA. In addition, DESIGN CONSULTANT shall send two (2) full size sets of construction plans, along with conflict letters to each utility company affected by the project.
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.

### **C 5.0 PRE-FINAL (95%) PLANS**

1. DESIGN CONSULTANT shall incorporate any changes, corrections and/or additions as a result of the preliminary plan review. DESIGN CONSULTANT shall submit to the CITY 60% redlines, eight (8) copies of 60% plan comments and annotated comment sheets, eight (8) full size sets of construction plans, eight (8) half size sets of construction plans, five (5) copies of the construction opinion of probable cost, six (6) copies of the final technical special provisions, plan checklists, one (1) copy of the final right-of-way strip map, and two

(2) copies of the utility strip map. In addition, DESIGN CONSULTANT shall send two (2) full size sets of construction plans, along with conflict letters to each utility company affected by the project.

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.

#### **C 6.0 PRE-FINAL (100%) 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 95% redlines, one (1) copy of 95% plan comments and annotated comment sheets, one (1) sealed set of specifications including technical special provisions, one (1) full size set of sealed construction plans on reproducible 4 mil Mylar with cover sheet signed by ADEQ or Maricopa Environmental Services, if applicable, one (1) copy of the final construction opinion of probable cost and bid schedule, one (1) copy of the final right-of-way strip map, and two (2) copies of the final utility strip map.
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.

#### **C 7.0 FINAL PS&E CONSTRUCTION DOCUMENTS**

3. 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 set of specifications including technical special provisions, one (1) full size set of sealed construction plans on reproducible 4 mil Mylar with cover sheet signed by ADEQ or Maricopa Environmental Services, if applicable, one (1) copy of the final construction opinion of probable cost and bid schedule, one (1) copy of the final right-of-way strip map, and two (2) copies of the final utility strip map.
4. 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. POST DESIGN SERVICES**

1. DESIGN CONSULTANT shall attend Prebid Meeting, respond to prospective bidders questions and prepare Addendum as required.
2. DESIGN CONSULTANT shall assist the CITY during construction by performing shop drawing reviews, responding to Requests for Information (RFIs) and attending construction meeting when requested. Construction meeting attendance is anticipated to be every other week for the first three months and then once each month for the final nine months of construction schedule.
3. Construction management and full time observation and inspection are not included in this scope of work. DESIGN CONSULTANT scope includes construction project review and observation for the remaining part of the work day after attending the weekly construction meeting to become familiar with construction progress, techniques and conformance to plans.

- DESIGN CONSULTANT shall prepare as-built drawings from redlined plans after the construction is complete.

#### E. 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	0
Data Collection	NTP + 6 weeks
Public Meeting #1	NTP + 6 weeks
Submit H&V (15%) for Council Approval	NTP + 8 weeks
Submit 30% Plans	NTP + 20 weeks
Public Meeting #2	NTP + 22 weeks
Submit ROW Acquisition Documents	NTP + 24 weeks
Submit 60% Plans	NTP + 30 weeks
Public Meeting #3	NTP + 32 weeks
Submit 95% Plans	NTP + 52 weeks
Submit Final Plans (100%)	NTP + 60 weeks
Submit PS&E	NTP + 64 weeks
Public Meeting #4	NTP + 66 weeks

- 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.

#### F. QUALITY CONTROL

DESIGN CONSULTANT shall institute and comply with the DESIGN CONSULTANT'S Quality Control Plan established for the project.

**EXHIBIT B  
FEE SCHEDULE**

**PROJECT TITLE: Chandler Boulevard/Price 101 Bike Lanes & Left Turn Lane Improvements]  
PROJECT NO. ST0806-202  
Chandler, AZ.**

For services described in paragraph 3 of this Agreement, the CITY shall pay DESIGN CONSULTANT a fee not to exceed the sum of Three Hundred Sixty Thousand Eight Hundred Seven dollars (\$360,807) in accordance with the schedule set forth in exhibits B-1 attached hereto and incorporated herein by reference.

1. **PAYMENT SCHEDULE:** Payments to Design Consultant will be made in accordance with the fee schedule attached as Exhibit B-1.
2. The fee shown on the attached fee schedule, Exhibit B-1 is the total fee and includes "reimbursables".
3. Payment will be made monthly on the basis of progress reports and deliverables. Work schedule updates will be included in the monthly progress payment requests.
4. An application and certification for payment must be provided by Design Consultant. Such application must provide a clear, detailed invoice reflecting all items billed for. The summary sheet will show percentage of work completed to date, previous payment invoiced/received and current fee requested.
5. Such application shall also include any/all backup documentation (i.e.: receipts, invoices, logs, etc) supporting reimbursable expenses and consultant fees.

**EXHIBIT B-1**

<b>TRANSPORTATION</b>				
<b>CLASSIFICATION</b>	<b>MAN HOURS</b>	<b>LABOR RATES</b>	<b>BILLABLE RATES</b>	<b>LABOR COSTS</b>
Project Principal	0	\$ 77.00	\$ 204.13	\$ -
Project Manager	161	\$ 56.00	\$ 148.46	\$ 9,016.00
Senior PE/RLS	447	\$ 43.00	\$ 113.99	\$ 19,221.00
Design Engineer	513	\$ 30.00	\$ 79.53	\$ 15,390.00
CADD Designer	702	\$ 25.00	\$ 66.28	\$ 17,550.00
Survey Crew	120	\$ 59.00	\$ 156.41	\$ 7,080.00
Clerical	46	\$ 21.00	\$ 55.67	\$ 966.00
<b>Total Hours</b>	1,989			
<b>Total Direct Labor</b>				\$ 69,223.00
<b>Total Labor with Overhead (Overhead Rate 135%)</b>				\$ 93,562.00
<b>Net Fee (Subtotal Labor X 10% Fixed Fee)</b>				\$ 16,279.00
<b>Subtotal Transportation</b>				\$ 179,064.00
<b>DIRECT AND OUTSIDE EXPENSES:</b>				
<b>Description</b>	<b>Unit</b>	<b>Unit Rate</b>	<b>Qty</b>	<b>G. Total</b>
Vehicle Mileage	Miles	\$ 0.45	495	\$ 220.00
Survey Vehicle Mileage	Miles	\$ 0.45	420	\$ 187.00
Copying (8-1/2" x 11")	Each	\$ 0.06	600	\$ 36.00
Copying (12" x 18")	Each	\$ 0.18	3,875	\$ 697.50
Printing (12" x 18")	Each	\$ 0.52	240	\$ 124.80
Printing (24" x 36") bond	Each	\$ 6.00	930	\$ 5,580.00
Printing (24" x 36") mylar	Each	\$ 18.00	30	\$ 540.00
Deliveries/Postage	Each	\$ 3.00	30	\$ 90.00
GPS Rental	Each/Day	\$ -	5	\$ -
<b>Subtotal Direct and Outside Expenses</b>				\$ 7,475.00
<b>Fee</b>			<b>Subtotal Transportation Labor</b>	\$ 179,064.00
<b>Subconsultant</b>	<b>Task</b>	<b>Fee</b>	<b>Subtotal Municipal Utilities Labor</b>	N/A
J2 Engineering & Environ.	Landscaping	\$59,110.00	<b>Subtotal Expenses</b>	\$ 7,475.00
Ninyo & Moore	Environmental	\$5,000.00		
Ninyo & Moore	Geotechnical	\$29,880.00	<b>Subtotal Subconsultants</b>	\$ 152,713.00
Lee Engineering	Traffic	\$27,958.00		
TBE	Potholing	3,000.00		
TYLIN	Structural	\$27,764.00		
<b>Subtotal Subconsultants</b>		\$ 152,713.00	<b>Subtotal Fee</b>	342,857.00
<b>ALLOWANCES</b>				
<b>Description</b>	<b>Unit</b>	<b>Unit Rate</b>	<b>Qty</b>	<b>I. Total</b>
Parcel Legal Descriptions	Each	\$ 1,100.00	2	\$ 2,200.00
Potholing	Each	\$ 525.00	30	\$ 15,750.00
<b>Subtotal Allowances</b>				\$ 17,950.00
<b>TOTAL FEE + ALLOWANCES</b>				<b>\$ 360,807</b>

**EXHIBIT C**

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

A.R.S. § 41-4401 requires as a condition of your contract verification of compliance by the contractor and subcontractors 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 contractor shall attest that it and all subcontractors performing work under the cited contract meet all conditions contained herein.

<b>Project Number/Division:</b> ST0806-202 Chandler Blvd./Price 101 Bike Lanes & Left Turn Lane Imp.		
<b>Name (as listed in the contract):</b>		
<b>Street Name and Number:</b>		
<b>City:</b>	<b>State:</b>	<b>Zip Code:</b>

I hereby attest that:

1. The contractor 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 subcontractors 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 contractor has identified all contractor and subcontractor 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 (Employer) or Authorized Designee:**

  
\_\_\_\_\_  
**Printed Name:** Karl G. Obergh  
**Title:** President  
**Date (month/day/year):** 9/16/09