



**PURCHASING ITEM
FOR
COUNCIL AGENDA
Memo No. CA10-096**

1. Agenda Item Number: 28
2. Council Meeting Date: November 19, 2009

TO: MAYOR & COUNCIL

3. Date Prepared: October 30, 2009

THROUGH: CITY MANAGER

4. Requesting Department: Public Works

5. SUBJECT: Approve a contract in the amount of \$37,745 to Y.S. Mantri & Associates LLC for the Arizona Avenue Fiber Optic Interconnect (Pecos Road to Riggs Road), Project No. ST1003-201.

6. RECOMMENDATION: Staff recommends that Council approve a contract in the amount of \$37,745 to Y.S. Mantri & Associates LLC for the Arizona Avenue Fiber Optic Interconnect (Pecos Road to Riggs Road), Project No. ST1003-201.

7. BACKGROUND/DISCUSSION: This project will design the fiber optic communications cable installation along Arizona Avenue (from Pecos Road to Riggs Road) that will greatly improve reliability of traffic signal synchronization. This fiber will also provide high-speed communication between field controllers and the Traffic Management Center (TMC). CMAQ funding will be utilized for the construction and install the fiber, which is planned for fiscal year 2010-11.

8. EVALUATION: This consultant was selected in accordance with the City's selection process. The design fees have been evaluated by City staff and compared to historical design rates for similar projects.

9. FINANCIAL IMPLICATIONS:

Original Design Contract: \$37,745

Fund Source:

<u>Acct. No.:</u> 215.3310.0000.6516.10T323	<u>Fund Name:</u> HURF	<u>Program Name:</u> Signal System Communication Intertie	<u>CIP Funded:</u> FY09/10	<u>Amount:</u> \$37,745
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10. PROPOSED MOTION: Move that Council approve a contract in the amount of \$37,745 to Y.S. Mantri & Associates LLC for the Arizona Avenue Fiber Optic Interconnect (Pecos Road to Riggs Road), Project No. ST1003-201.

ATTACHMENTS: Location Map, Contract

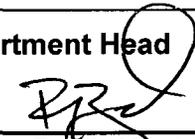
APPROVALS

11. Requesting Department

13. Department Head

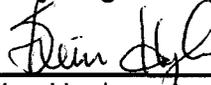
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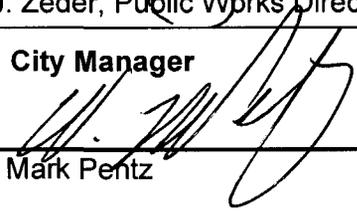
Daniel W. Cook, Deputy Public Works Director


R.J. Zeder, Public Works Director

12. City Engineer

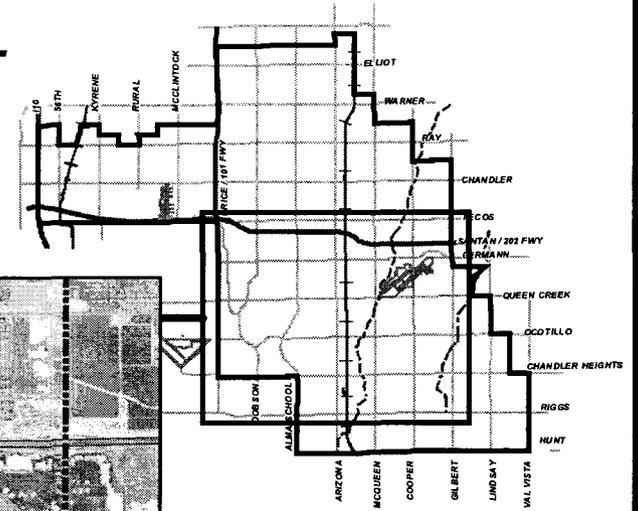
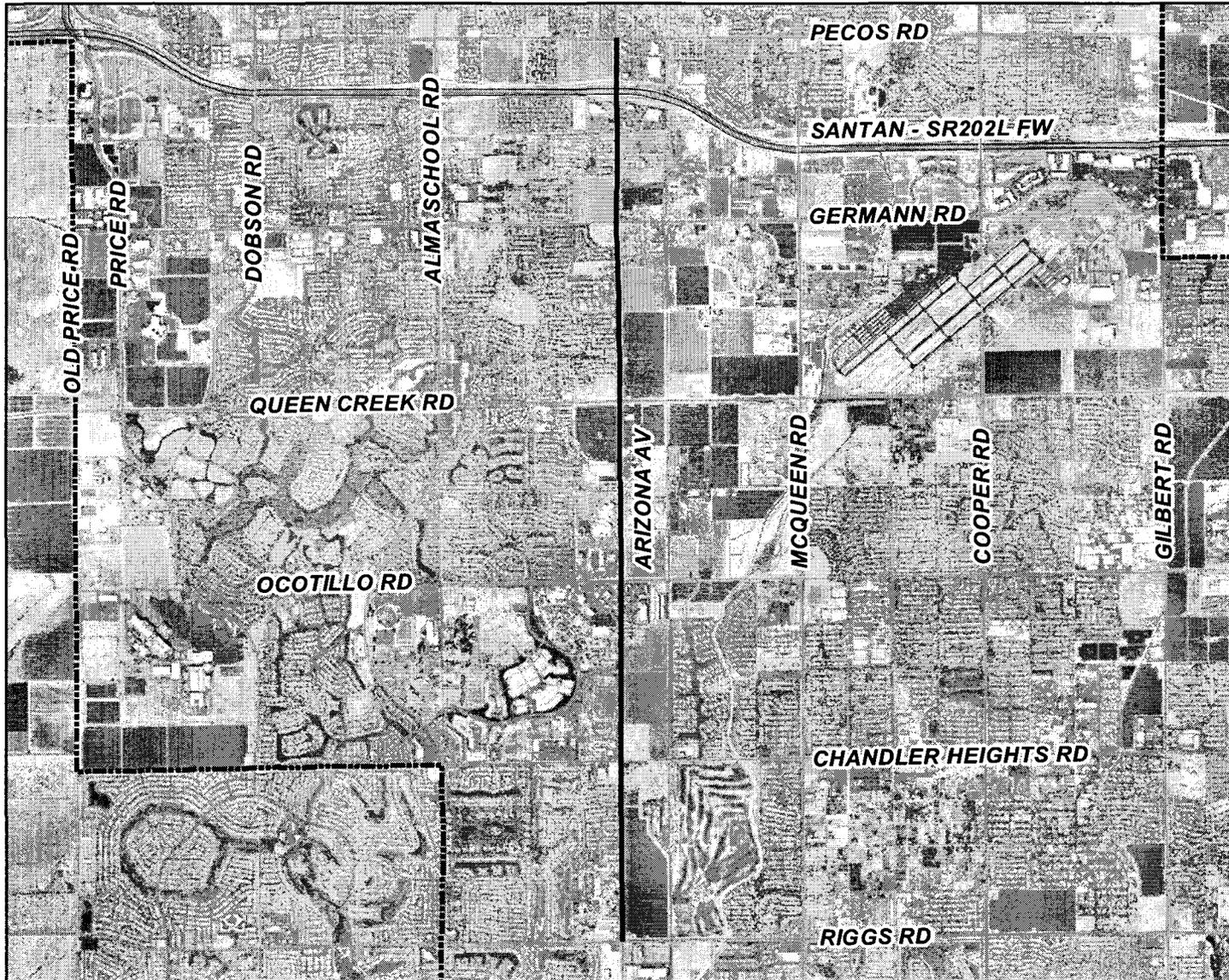
14. City Manager


Sheina Hughes, Assistant Public Works
Director/City Engineer


W. Mark Pentz



ARIZONA AVE FIBER OPTIC INTERCONNECT (PECOS RD TO RIGGS RD) PROJECT NO. ST1003-201



MEMO NO. CA10-096

-  PROJECT AREA
-  CITY LIMITS



ENGINEERING SERVICES CONTRACT

PROJECT TITLE: **Arizona Avenue Fiber Optics Interconnect**
PROJECT NO: **ST1003-201**

This contract is made and entered into by and between the City of Chandler, Arizona, a municipal Corporation, hereinafter called the CITY, and Y.S. Mantri & Associates LLC (YSMA), an Arizona corporation, hereinafter called ENGINEER.

WHEREAS, ENGINEER represents ENGINEER 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 contracts 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 ENGINEER, as follows:

1. DESCRIPTION OF PROJECT

Prepare design plans for installation of fiber-optic infrastructure on Arizona Avenue from Riggs Road to Pecos Road.

2. SCOPE OF WORK

ENGINEER shall provide those services described in Exhibit A attached hereto and made a part hereof by reference.

3. PAYMENT SCHEDULE

For services described in paragraph 2 of this Agreement, the CITY shall pay ENGINEER a fee based on the fee schedule attached hereto and made a part hereof by reference Exhibit B not to exceed the sum **Thirty Seven Thousand Seven Hundred Forty Five dollars (\$37,745)**. 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: a clear, detailed invoice reflecting items being billed for, a summary sheet showing percentage of work completed to date, amount/percent billed to date and current status of all tasks within a project; any/all backup documentation supporting the above items. Work schedule updates will be included in the monthly progress payment requests.

4. PERIOD OF SERVICE

ENGINEER shall complete all services described in paragraph 2 within **One Hundred Twenty (120)** calendar days after "Notice to Proceed" is issued by the CITY. In the event delays are experienced beyond the control of ENGINEER, the completion date may be extended as mutually agreed upon by CITY and ENGINEER.

5. OPINIONS OF PROBABLE COSTS (ESTIMATES)

Any opinions of probable project cost or probable construction cost provided by ENGINEER are made on the basis of information available to ENGINEER and on the basis of ENGINEER's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since ENGINEER 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,

ENGINEER does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost ENGINEER prepares.

6. APPROVALS

All work shall be subject to the approval by the City Engineer.

ENGINEER agrees to exercise the skill and care which would be exercised by comparable professional engineers performing similar services at the time and in the locality such services are performed. If the failure to meet these standards results in faulty work, ENGINEER shall undertake at its own expense, the corrective adjustments or modifications.

7. REPORTING

Written monthly reports, along with updated work schedules, will be made by ENGINEER in the format prescribed by the CITY. These reports will be delivered to the CITY per schedule. When requested by the CITY, ENGINEER 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 ENGINEER 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. ENGINEER shall not deviate nor substitute any of these team members without prior written approval by CITY.

B ENGINEER shall be familiar with CITY's Standard Details and Specifications and other relevant CITY regulations. ENGINEER 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 ENGINEER, any standard details or specifications incorporated therein by reference, and the Construction Contract.

C Correction of Mistakes: ENGINEER shall be responsible for the completeness and accuracy of the work prepared or compiled under ENGINEER's obligation for this project and shall correct, at ENGINEER'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 ENGINEER. The cost of the design necessary to correct those errors attributable to ENGINEER and any damage incurred by CITY as a result of additional construction costs caused by such engineering or architectural errors shall be chargeable to ENGINEER and shall not be considered a cost of the Work. The fact that CITY has reviewed or approved ENGINEER's work shall in no way relieve ENGINEER of any of its responsibilities.

9. INDEMNIFICATION

(a) For Professional Liability:

To the fullest extent permitted by law, ENGINEER 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 ENGINEER, 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 ENGINEER 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 ENGINEER, 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, ENGINEER 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 ENGINEER and alleged to have been caused in whole or in part by any act or omission of ENGINEER, anyone directly or indirectly employed by them or anyone for whose acts ENGINEER 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 ENGINEER, its agents, employees or representatives to fulfill ENGINEER'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 ENGINEER, 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:

- A ENGINEER, 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 ENGINEER 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 ENGINEER.
- 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 ENGINEER'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, 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 ENGINEER'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 ENGINEER. ENGINEER 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 ENGINEER 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 ENGINEER with reasonable promptness in accordance with the ENGINEER'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 ENGINEER until such time as the ENGINEER 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, ENGINEER shall furnish to CITY Certificates of Insurance, issued by ENGINEER'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 ENGINEER, 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 ENGINEER of any deficiencies in such policies and endorsements, and such receipt shall not relieve ENGINEER from, or be deemed a waiver of CITY's right to insist on, strict fulfillment of ENGINEER's obligations under this Agreement.

10.3 Required Coverage

Such insurance shall protect ENGINEER from claims set forth below which may arise out of or result from the operations of ENGINEER under this Contract and for which ENGINEER may be legally liable, whether such operations be by the ENGINEER 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 ENGINEER'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

ENGINEER 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 ENGINEER'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

ENGINEER shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over ENGINEER'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, ENGINEER will require the Subcontractor to provide Workers' Compensation and Employer's Liability to at least the same extent as required of ENGINEER.

10.3.5 Professional Liability

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

11. AMENDMENTS

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

12. TERMINATION WITHOUT CAUSE

CITY may at any time and for any or no reason, at its convenience, terminate this contract or any part of the services to be rendered pursuant thereto by written notice to ENGINEER specifying the termination date. Immediately after receiving such notice, ENGINEER shall discontinue advancing the work under this Contract and shall deliver to the CITY all drawings, notes, calculations, sketches and other materials entirely or partially completed, together with all unused materials supplied by the CITY.

ENGINEER 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 ENGINEER(S) fee described in this Contract under paragraph 3 and shall be in the amount to be agreed mutually by ENGINEER and the CITY. The CITY shall make this final payment within sixty (60) days after ENGINEER has delivered the last of the partially completed items.

13. TERMINATION WITH CAUSE

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

- (a) ENGINEER abandons Work;
- (b) ENGINEER 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) ENGINEER 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) ENGINEER fails or refuses to perform any obligation under the Agreement, or fails to remedy such nonperformance within seven (7) days after its occurrence;
- (e) ENGINEER fails to comply with any applicable Laws and fails to remedy such nonperformance within seven (7) days after its occurrence;
- (f) ENGINEER 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.

14. OWNERSHIP OF DOCUMENTS

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

15. 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 ENGINEER to be suitable for reuse for any other project. Any reuse without written verification or adaptation by ENGINEER for the specific purpose intended will be at CITY's sole risk and without liability or legal exposure to ENGINEER.

16. NO KICK-BACK CERTIFICATION

ENGINEER warrants that no person has been employed or retained to solicit or secure this Contract 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 ENGINEERING firm.

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

17. CONFLICT OF INTEREST

ENGINEER 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 Contract.

Pursuant to A.R.S. Section 38-511, the City may cancel this contract within three (3) years after its execution, without penalty or further obligation by the City if any person significantly involved in initiating,

negotiating, securing, drafting or creating the contract on behalf of the City of Chandler is, at any time while the contract is in effect, an employee of any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract.

18. ALTERNATE DISPUTE RESOLUTION

- 18.1 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.
- 18.2 Arizona Law. This Agreement shall be governed and interpreted according to the laws of the State of Arizona.
- 18.3 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.
- 18.4 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.

19. CONTROLLING LAW

The law of the state of Arizona shall govern this Contract.

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 Engineer hereby warrants to the City that the Engineer 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 "Engineer Immigration Warranty").

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

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

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

21. NO ASSIGNMENT

ENGINEER shall not assign, transfer, convey or subcontract this contract or the services to be rendered pursuant thereto without the prior written consent of CITY

22. NOTICES

Any notice required under this Contract shall be in writing, addressed to the appropriate party at its address on the signature page and given personally or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names to this _____ day of _____ 2009.

CITY OF CHANDLER

MAYOR Date

ENGINEER:
By: Myrtle S. Metz
Title: Principal

ADDRESS FOR NOTICE
City of Chandler
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008
Phone: 480-782-3307
Fax: 480-782-3355

ADDRESS FOR NOTICE

Phone: _____
Fax: _____

ATTEST:

City Clerk

ATTEST: If Corporation

Secretary

APPROVED AS TO FORM:

City Attorney by: [Signature] SEAL

**EXHIBIT A
SCOPE OF WORK**

DESCRIPTION OF PROJECT:

Providing engineering services and to prepare design plans for installation of fiber-optic infrastructure on Arizona Ave from Riggs Rd to Pecos Rd. Prepare plans, specifications & construction cost estimates (PS&E) for installing an Intelligent Transportation System (ITS) communication segment using fiber optic cable as a medium. The segment shall be approximately 5 miles in length and for the purposes of this scope is broken down as follows:

Segment Number	Description	Field conditions	Project Scope
Segment 1	Arizona Ave from Riggs Rd to Chandler Heights Rd	No conduit	Install new conduit and pull boxes with 96-SMFO.
Segment 2	Arizona Ave from Chandler Heights Rd to Ocotillo Rd	Existing 4" empty conduit, west side	Install new 96-SMFO.
Segment 3	Arizona Ave from Ocotillo Rd to Applebee Rd	Existing 2" with twisted pair	Most likely shall need new 4" conduit with 96-SMFO. Install communications vault for public school with a branch connection to library.
	Arizona Ave from Applebee Rd to Queen Creek Rd	Existing 4" multi-duct west side	Install 96-SMFO.
Segment 4	Arizona Ave from Queen Creek to Germann.	Existing 2" on west side, with No. 5 pullboxes spaced at 500'	Replace No. 5 pullboxes with No. 7 pullboxes. 144-SMFO is planned for installation.
Segment 5	Arizona Ave from Germann to Shallis.	Existing 2" on west side, with No. 5 pullboxes.	Replace No. 5 pullboxes with No. 7 pullboxes. 144-SMFO is planned for installation.
Segment 6	Arizona Ave from Shallis to Pecos	Existing 4" on west side to south intersection of SR-202. Conduit crosses to east side at SR-202 and runs from controller cabinet on NEC, to Walmart intersection, from there crosses back to west side	Pull inner duct from SR-202 to Walmart, install 144-SMFO (planned now).

All new and existing cable shall be spliced per ITS communication setup provided by the City of Chandler.

Installation scope shall be limited to installation of conduit, multi-duct, pull-boxes and communication vaults, splice closures and termination panels, removal of existing cables, where needed, splicing of new and existing cable, preliminary testing of each segment and final testing of entire communication rings with provision of OTDR results.

ENGINEER shall provide the following services:

TASK 1: Project Walkthrough, Understanding, Schedules & Kick-off:

City staff and project team shall complete a walk-through of the project limits. The intention of this task is to understand the project intricacies and decide the level of details of survey, the details of design elements to be shown on the plans, and the formats of the plans.

After this walkthrough, the consultant shall put together meetings minutes with key decisions made and a detailed schedule of design work. City shall hold a project kick-off meeting.

Deliverables:

- Meeting Minutes
- Detailed Design Schedule
- Recommendation for level of survey

TASK 2: Base Data Collection:

The ENGINEER shall review and collect as-built plans from the City to confirm the location of existing conduit within the corridor. The consultant shall also review the ROW strip maps provided by the City to note the existing ROW and ensure that no additional ROW shall be required for this project. The Consultant shall work with the City staff to identify the preferred route of the fiber optic cable installation. Intent shall be to maximize the use of existing conduit and to tie in as many existing and proposed traffic signal installations as possible.

ENGINEER shall also coordinate with survey consultant and provide the survey team the base data collected in this Task necessary for survey work.

ENGINEER shall identify areas outside of the City of Chandler right of ways and assist in coordination and preparation of joint use agreements with relevant agencies, particularly with Maricopa County Department of Transportation (MCDOT).

Data Collection includes review and collection of:

- City As-Builts
- City Right of Way (ROW)
- Property information of adjacent parcels including ownership, addresses, and parcel numbers.
- Survey tie-ins and benchmarks
- Agency policies, regulations, manuals and standards

TASK 3: Utility Coordination

Utility information shall be shown at the intersections where conduit installation, new pullbox installations or street cutting is anticipated. The ENGINEER shall coordinate with utility companies to identify utilities to be shown on the plans in accordance with the Arizona Utility Coordinating Committee Public Improvement Project Guide (AUCC PIPG) manual. Utility coordination tasks shall consist of:

- Contact Blue Stake to obtain a list of utilities with facilities in the area
- Send letters and plans of intent to each of the identified utilities
- Prepare and maintain utility coordination log
- Resolve utility conflict issues as they arise
- Prepare and maintain utility clearance letter

The City shall provide all as-built drawings and improvement plans that are available in-house at the intersections or at the areas where conduit, pullbox installation or street cutting is anticipated.

TASK 4: Prepare Base Plans

The ENGINEER shall prepare base plans for the project area. The base plans shall be prepared in English units at 1:40 scale. Potential conflicts to trenching (such as landscape, monument signs, utility lines, etc) shall be identified. Wherever necessary, the ENGINEER shall include enlarged details of intersection and controller cabinet foundation areas. The ENGINEER shall meet with City staff to verify cabinet information shown on existing plan sheets and to determine how the cabinet shall be connected to the trunk line.

Deliverables:

- Base plans at scale of 1:40
- Meeting minutes

TASK 5: Prepare 70 Percent Construction Documents

The ENGINEER shall prepare 70 percent plans, engineer's cost estimate and construction special provisions (PS&E) that shall include the following:

- Location of new pull boxes and pull boxes to be replaced
- The conduit system
- Trunk fiber optic communication runs
- Branch fiber optic cable connections to main communication runs
- Splice tables
- Modifications to existing cabinet foundations, or pull boxes
- Base plan information
- Preliminary cost estimate

The City shall provide the most recent standard title sheet. The plans shall be delivered to the City in AutoCAD 2004 compatible DWG files. Thirteen sets of plans shall be submitted in 24"x36" sheet format to the City and additional plans sets shall be delivered to relevant utility companies.

The City shall direct the ENGINEER to use specific equipment to connect the traffic signal controller and the video detection and surveillance equipment to the fiber optic cable. Consultant shall prepare the necessary details showing the equipment and the connections. Plans shall be suitable for construction by low bidding contractor using City guidelines and Federal should it become a federally funded project.

Deliverables:

- Seventy percent PS&E.
- Meeting minutes documenting key decisions made.

TASK 6: Review Meeting – 70 Percent

The ENGINEER shall meet once with the City staff to review plans and to respond to comments.

TASK 7: Prepare 100 Percent Construction Documents

The ENGINEER shall prepare a 100 percent PS&E package based on the City's comments to the 70 percent submittal and responses from utility companies. Plans shall be suitable for construction by low bidding contractor using City guidelines and Federal guidelines should it become a federally funded project. The 100 percent submittal shall include all of the information from the 70 percent submittal plus the following:

- Completed conductor schedules
- Special details as required
- Locations and details of splice closures and termination panels
- Splice tables
- Technical special provisions
- Cost estimate and bid item summary
- Encroachment and Electrical permit applications

Thirteen copies of PS&E package shall be submitted to the City. The plan sheets shall also be submitted to relevant utility companies where previous conflicts have been identified.

Deliverable:

- One hundred percent plan set, technical special provisions, cost estimates, and bid item summaries.

TASK 8: Review Meeting – 100 Percent

The ENGINEER shall meet once with the City staff to review plans, estimates and technical special provisions and to respond to comments.

TASK 9: Prepare Final Construction Documents

Based upon City's comments, the ENGINEER shall prepare the final biddable PS&E suitable for construction by low bidding contractor using City guidelines and Federal guidelines should it become a federally funded project. One sealed full-size Mylar cover sheet, one full-size plan sheets and five half-size sets, five hardcopies of the technical special provisions and cost estimate shall be submitted to the City for inclusion in the bid packages. At this time electronic copies of PS&E shall also be submitted to the City.

Deliverable:

- Final sealed plans in hardcopy, PDF, and AutoCAD; special provisions, cost estimates, bid item summaries in PDF, word, and/or excel.

TASK 10: Bidding Phase Assistance

The ENGINEER shall attend and provide assistance to the City during the pre-meeting and pre-construction meeting. If bids are over or under the engineer's estimate by more than 10%, ENGINEER shall provide written justification and if necessary provide assistance to the city to rebid.

Exclusions:

- Attend additional meetings or perform additional engineering services, beyond those identified in the scope of work.
- Utility coordination related to joint trenching with other utilities.

CITY TO PROVIDE:

This work assignment and estimate of fee is based on the City providing the following information:

- Available as-built plans and all relevant improvement plans and record drawings
- Right of way strip maps
- Standard Cover sheets for bid sets

DELIVERABLES TO BE PRODUCED BY CONSULTANT:

The ENGINEER shall deliver the following documents:

- Meeting minutes
- Survey Recommendations
- Formal response to comments sheets
- Detailed design schedule
- Base plans
- 70 percent PS&E
- 100 percent PS&E, including bid item summaries
- Final biddable/constructible sealed plans, special provisions, cost estimates, and bid item summaries
- Three Review meetings with the City and three site visits

**EXHIBIT B
FEE SCHEDULE**

Task	Group of Activities	Prncpl (QA/QC) \$ 130.00	PM/ Eng. \$ 90.00	Desgnr. \$ 85.00	EIT/ CADD \$ 75.00	Admin \$ 45.00	Total
Hourly Rate							
1	Project Walkthrough, Understanding, Schedule	4	16	9	0	0	\$ 2,725.00
	Project Walkthrough		6	6			\$ 1,050.00
	Prepare project Schedule	2	4				\$ 620.00
	Prepare meeting minutes & survey recommendations		4				\$ 360.00
	Kick off meeting	2	2	3			\$ 695.00
2	Base Data Collection	4	12	18	16	0	\$ 4,330.00
	Gather, review as-built roadway plans, utility plans		2	8			\$ 860.00
	Compile ROW info from as-built info & show it on the plans, field review if necessary	2	2	6	16		\$ 2,150.00
	Identify ROW problem areas, Identify parcel ownership		4	4			\$ 700.00
	Collect and review applicable standards, regulations, manuals and standards	2	4				\$ 620.00
3	Utility Coordination	0	8	24	16	0	\$ 3,960.00
	Open design ticket with Blue-Stake			2			\$ 170.00
	Contact Utilities & gather plans				8		\$ 600.00
	Prepare and maintain utility coordination log, file clearance letters			6			\$ 510.00
	Submit 60% Plans & 100% Plans		4	8	8		\$ 1,640.00
	Utility Conflict resolution		4	8			\$ 1,040.00
4	Prepare Base Plans	0	4	17	0	0	\$ 1,805.00
	Clean up Survey			6			\$ 510.00
	Prepare Base plans based upon survey		1	8			\$ 770.00
	Meet w/City to present base plans, prepare meeting min.		3	3			\$ 525.00
5	Prepare 70 Percent Construction Documents	10	30	34	16	2	\$ 8,180.00
	Plans	2	8	8	16		\$ 2,860.00
	Cost Estimate	1	2	6			\$ 820.00
	Prepare detail sheets	2	6	12			\$ 1,820.00
	Splice tables	1	4	8			\$ 1,170.00
	Special provisions	4	10			2	\$ 1,510.00
6	Review Meeting - 70 Percent	0	7	9	4	2	\$ 1,785.00
	Meeting including field review		5	5			\$ 875.00
	Revisions and documentation		2	4	4	2	\$ 910.00
7	Prepare 100 Percent Construction Documents	10	26	24	16	0	\$ 6,880.00
	Conductor Schedule for #7, #9 pull box splicing	2	8	8	16		\$ 2,860.00
	100% Plans with Detail Drawings	4	4	8			\$ 1,560.00
	100 % Cost estimate	1	4				\$ 490.00
	100% Special Provisions	2	6	4			\$ 1,140.00
	100% Splice Tables	1	4	4			\$ 830.00
8	Review Meeting - 100 Percent	0	5	10	4	0	\$ 1,600.00
	Meeting, Minutes		3	6			\$ 780.00
	Revisions and documentation		2	4	4		\$ 820.00
9	Prepare Final Construction Documents	7	8	9	6	0	\$ 2,845.00
	Final Plans	4	3	3	6		\$ 1,495.00
	Final Cost estimate	1	2	3			\$ 565.00
	Final Special Provisions	2	3	3			\$ 785.00
10	Bidding Phase Assistance	0	30	0	0	0	\$ 2,700.00
	Assistance with bid announcement and contracts		8				\$ 720.00
	Attend pre-bid meeting + follow-up		8				\$ 720.00

**EXHIBIT B
FEE SCHEDULE (CONT.)**

Assist in bid evaluation and award			6			\$ 540.00
Attend pre-construction meeting + follow-up			8			\$ 720.00
Labor Subtotal	35	146	154	78	4	\$36,810.00
Reimbursables			Qty	Unit	Unit Cost	\$ 935.00
Black and White Photo Copies (letter size)			2050	copy	\$ 0.02	\$ 41.00
Black and White plot, 24x36" sheet			600	plot	\$ 1.00	\$ 600.00
Veillum/Mylar, 24x36" sheet			1	plot	\$ 10.00	\$ 10.00
Color Copies (11" x 17")			0	copy	\$ 0.90	\$ -
Mileage			400	mile	\$ 0.59	\$ 234.00
Deliveries of Documents			5	delivery	\$ 10.00	\$ 50.00
Total						\$37,745.00

EXHIBIT C
Engineer Immigration Warranty
To Be Completed by Engineer Prior to Execution of Contract

A.R.S. § 41-4401 requires as a condition of your contract verification of compliance by the Engineer 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.

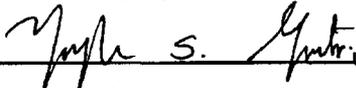
By completing and signing this form the Engineer shall attest that it and all subcontractors performing work under the cited contract meet all conditions contained herein.

Project Number/Division: ST1003-201 AZ Ave. Fiber Optics Interconnect		
Name (as listed in the contract):		
Street Name and Number:		
City:	State:	Zip Code:

I hereby attest that:

1. The Engineer 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 Engineer has identified all Engineer 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: Yogesh S. Mantri

Title: Principal

Date (month/day/year): 11.05.2009