

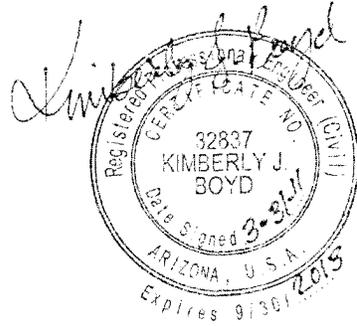
CITY CLERK
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#8753

PROJECT SPECIFICATIONS AND
CONTRACT DOCUMENTS

C-7706
06/14/2011

PROJECT 101103
MISSOURI AVENUE WATERLINE EXTENSION
APRIL 2011



CITY OF GLENDALE
ENGINEERING DEPARTMENT
5850 W. Glendale Avenue, Glendale, Arizona 85301 (623) 930-3630

PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

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NOTICE TO CONTRACTORS

Sealed bids shall be either mailed to the City of Glendale Engineering Department, 5850 West Glendale Avenue, Glendale, Arizona, 85301, or hand-delivered to the Engineering Department office, third floor, 5850 West Glendale Avenue, Glendale, Arizona, for furnishing all plant, material, equipment and labor, and to complete construction of: **PROJECT NO. 101103 MISSOURI AVENUE WATERLINE EXTENSION.** The construction of 1,249 lineal feet of 8-inch water line in Missouri Avenue from 45th Avenue to Grand Avenue including four (4) new fire hydrants, six (6) 8" water valves, one (1) 16" water valve and two (2) 1" water service connections as shown on the construction plans. In addition, this project includes the removal of an existing 16" butterfly valve located on the west side of the Missouri Avenue/Grand Avenue intersection within Burlington Northern Santa Fe (BNSF) Railway Company property.

Bids must be received by the Engineering Department of the City of Glendale no later than 10:00 A.M., APRIL 27, 2011. Any bid received after that time will not be considered and will be returned to the bidder. At that time, the bids will be publicly opened and read aloud in the Engineering Department Conference Room, 5850 West Glendale Avenue, Glendale, Arizona.

A pre-bid conference will be held on APRIL 20, 2011, at 3:30 P.M., in the Engineering Department Conference Room, 5850 West Glendale Avenue, Glendale, Arizona. Bidders, contractors, and other interested parties are invited to attend this conference which will be conducted by the Owner and Engineer to answer any questions

Plans, specifications and contract documents may be examined, and copies may be obtained at City of Glendale Engineering Department, 5850 West Glendale Avenue, Glendale, Arizona. A non-refundable charge of \$20.00 shall be paid for each set of plans and specifications issued from this office.

Each bid shall be in accordance with the plans, specifications and contract documents, and shall be set forth and submitted on the BID DOCUMENTS included with the project specifications book. The BID DOCUMENTS may be removed from the project specifications book and submitted independently of such book. Each bid shall be accompanied by a proposal guarantee, in the form of a certified or cashier's check or bid bond for ten percent (10%) of the amount of bid, made payable to the order of the City of Glendale, Arizona, to insure that the successful bidder will enter into the contract if awarded to him and submit the required Certificate of Insurance, Payment Bond and Performance Bond. All proposal guarantees, except those of the three lowest qualified bidders, will be returned immediately following the opening and checking of proposals. The proposal guarantees of the three lowest qualified bidders will be returned immediately after the contract documents have been executed by the successful bidder. The proposal guarantee shall be declared forfeited as liquidated damages if the successful bidder refuses to enter into said contract or submit the Certificate of Insurance, Payment Bond and Performance Bond after being requested to do so by the City of Glendale, Arizona.

The City of Glendale reserves the right to reject any or all bids or waive any informality or irregularity in a bid. No bidder may withdraw his bid for a period of fifty (50) days after opening and reading of the bids.

The City of Glendale is an equal opportunity employer and minority business enterprises and women's business enterprises are encouraged to submit bids.

CITY OF GLENDALE, ARIZONA

Published: APRIL 7, 2011 AND APRIL 14, 2011
The Glendale Star

INFORMATION FOR BIDDERS

1. **ELIGIBILITY OF CONTRACTORS:** When calling for bids for contracts for public work to be performed on behalf of the State or any political subdivision thereof, which will be paid for from public funds, no bid shall be considered for performance of a contract, including construction work which is not submitted by a bidder duly licensed as a contractor in this State. No bid shall be awarded to any contractor or entity not authorized to do business in the State of Arizona by the Arizona Corporation Commission, as required by statute.

2. **PROPOSAL:** Bids to receive consideration shall be made in accordance with the following instructions:

(a) Before submitting a bid, bidders shall carefully examine the plans and specifications and contract documents, visit the site of the work, fully inform themselves as to all existing conditions and limitations.

(b) Bids shall be submitted on the "PROPOSAL" forms provided and delivered to the City of Glendale Engineering Department on or before the day and hour set in the "NOTICE TO CONTRACTORS," as published. Bids shall be enclosed in a sealed envelope marked on the outside lower right-hand corner indicating:

1. The bidder's name and address.
2. The project number.
3. The title of the project.
4. The time and date the bids are to be received.

(c) It is the sole responsibility of the bidder to see that his bid is received in proper time. Any bids received after the scheduled closing time for receipt of bids will be returned to the bidder unopened.

(d) The signatures of all persons shall be in longhand. Any interlineations, alterations, or erasures must be initialed by the signer of the bid.

(e) Bids shall not contain any recapitulations of the work to be done. No oral, telegraphic, telephonic, or modified proposals will be considered.

3. **BID SECURITY:** Each proposal shall be accompanied by a proposal guarantee in the form of a certified or cashier's check or bid bond, with a properly executed Power of Attorney attached, in an amount equal at least to ten percent (10%) of the proposal payable without condition to the City. If a bid bond is submitted with the bid it shall be issued by a company licensed with the Arizona Department of Insurance and authorized to issue such bonds in this state. **NO BONDS ISSUED BY INDIVIDUAL SURETIES WILL BE ACCEPTED. The company issuing the bid bond shall have a rating of not less than A- in the BEST rating available at the time this project was let to bid.** The proposal guarantee shall guarantee that the bidder, if awarded the contract, will, within ten (10) working days after the award, execute such contract in accordance with the proposal and in manner and form required by the contract documents, and will furnish good and sufficient bond for the faithful performance of the same, a payment bond and a certificate of insurance. The bid securities of the three (3) lowest bidders will be retained until the contract is awarded, or other disposition made thereof. The bid securities of all bidders, except the three (3) lowest, will be returned promptly after the canvass of bids. In the event the Contractor fails, within ten (10)

working days after the award, to execute said Contract and deliver the Performance and Labor and Material Payment Bonds and the Certificate of Insurance, the Bid Security shall become the property of the City.

4. **WITHDRAWAL OF BID:** Any bidder may withdraw his bid, either personally, by telegram or by written request, at any time prior to the scheduled closing time for receipt of bids. No bid may be withdrawn by telephone. Any bid withdrawn will not be opened and will be returned to the bidder. After opening and reading of the bids, no bidder may withdraw his bid for a period of fifty (50) days from the date of opening and reading.

5. **LATE BIDS:** Bids received after the scheduled closing time for receipt of bids, as contained in the "Notice to Contractors," will not be considered and will be returned to the bidder.

6. **AWARD OR REJECTION OF BIDS:** The contract will be awarded to the lowest and best qualified responsive bidder complying with these instructions and with the "NOTICE TO CONTRACTORS." The City of Glendale, Arizona, however, reserves the right to accept or reject any or all bids or to waive any or all informalities or irregularities in the bid. Alternates may be accepted depending upon the availability of City funds. Accepted alternates will be considered in determining the lowest responsive and responsible bidder.

7. **BIDDERS INTERESTED IN MORE THAN ONE BID:** No person, firm or corporation shall be allowed to make, file, or be interested in more than one (1) bid for the same work unless alternate bids are called for in the specifications or any addenda. A person, firm, or corporation who has submitted a sub-proposal to a bidder, or who has quoted prices on materials to a bidder is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders.

8. **CONTRACT AND BONDS:** The form of contract, which the successful bidder as Contractor will be required to execute and the forms of bonds which he shall be required to furnish are included in the contract documents and should be carefully examined by the bidder. The successful bidder shall use the forms provided or such other forms as are acceptable by the City. The Contract and Performance and Labor and Material Payment Bonds will be executed in FOUR (4) original counterparts. All bonds shall be issued by companies licensed with the Arizona Department of Insurance and authorized to issue such bonds in this state. **NO BONDS ISSUED BY INDIVIDUAL SURETIES WILL BE ACCEPTED.** The company issuing any bond shall have a rating of not less than A- in the BEST rating available at the time this project was let to bid.

9. **INSURANCE REQUIREMENTS:** Contractor, and each Sub-contractor performing work or providing materials related to this Agreement must procure and maintain the insurance coverages described (collectively, "Contractor's Policies"), until each Parties' obligations under this Agreement are completed. Contractor must at all times relevant hereto carry a commercial general liability policy with a combined single limit of at least \$1,000,000 per occurrence and \$2,000,000 annual aggregate. **Contracts in excess of \$250,000 shall require \$2,000,000 single occurrence/\$5,000,000 annual aggregate.**

Sub-contractors must at all times relevant hereto carry a general commercial liability policy with a combined single limit of at least \$1,000,000 per occurrence.

This commercial general liability insurance must include independent contractors' liability, contractual liability, broad form property coverage, products and completed operations, XCU

hazards if requested by the City, and a separation of insurance provision.

These limits may be met through a combination of primary and excess liability coverage.

Auto. A business auto policy providing a liability limit of at least \$1,000,000 per accident for Contractor and \$1,000,000 per accident for Sub-contractors and covering owned, non-owned and hired automobiles.

Workers' Compensation and Employer's Liability. A workers' compensation and employer's liability policy providing at least the minimum benefits required by Arizona law.

Equipment Insurance. Contractor must secure, pay for, and maintain all-risk insurance as necessary to protect the City against loss of owned, non-owned, rented or leased capital equipment and tools, equipment and scaffolding, staging, towers and forms owned or rented by Contractor or its Sub-contractors.

The following requirements apply to the portion of work in BNSF Railway Right-of-Way:
(Licensor refers to BNSF Railway Company)

Contractor and any sub-contractor shall procure and maintain until each Parties' obligations under this Agreement are completed the following insurance coverage:

(a) Commercial General Liability Insurance. This insurance shall contain broad form contractual liability with a combined single limit of a minimum of \$5,000,000 each occurrence and an aggregate limit of at least \$10,000,000 but in no event less than the amount otherwise carried by Contractor. Coverage must be purchased on a post 2004 ISO occurrence or equivalent and include coverage for, but not limited to, the following:

- Bodily Injury and Property Damage
- Personal Injury and Advertising Injury
- Fire legal liability
- Products and completed operations

This policy shall also contain the following endorsements, which shall be indicated on the certificate of insurance:

- The definition of insured contract shall be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.
- Waiver of subrogation in favor of and acceptable to Licensor.
- Additional insured endorsement in favor of and acceptable to Licensor and Jones Land LaSalle Global Services – RR, Inc.
- Separation of insureds.
- The policy shall be primary and non-contributing with respect to any insurance carried by Licensor.
- No other endorsements limiting coverage may be included on the policy.

It is agreed that the workers' compensation and employers' liability related exclusions in the Commercial General Liability Insurance policy(s) required herein are intended to apply to employees of the policy holder and shall not apply to Licensor's employees.

- (b) Business Automobile Insurance. This insurance shall contain a combined single limit of at least \$1,000,000 per occurrence, and include coverage for, but not limited to the following:
- Bodily injury and property damage.
 - Any and all vehicles owned, used or hired.
 - Waiver of subrogation in favor of and acceptable to Licensor.
 - Additional insured endorsement in favor of and acceptable to Licensor.
 - Separation of insureds.
 - The policy shall be primary and non-contributing with respect to any insurance carried by Licensor.
- (c) Workers' Compensation and Employers' Liability Insurance. This insurance shall include coverage for, but not limited to:
- Contractor's statutory liability under the workers' compensation Legal Requirements of the state(s) in which the work is to be performed. If optional under state Legal Requirements, the insurance must cover all employees anyway.
 - Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 by disease policy limit, \$500,000 by disease each employee.

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- Waiver of subrogation in favor of and acceptable to Licensor.
- (d) Railroad Protective Liability Insurance. This insurance shall name only Licensor as the Insured with coverage of at least \$5,000,000 per occurrence and \$10,000,000 in the aggregate. The coverage obtained under this policy shall only be effective during the initial installation and/or construction of the PIPELINE. THE CONSTRUCTION OF THE PIPELINE SHALL BE COMPLETED WITHIN ONE (1) YEAR OF THE EFFECTIVE DATE. If further maintenance of the PIPELINE is needed at a later date, an additional Railroad Protective Liability Insurance Policy shall be required. The policy shall be issued on a standard ISO form CG 00 35 12 03 and include the following:
- Endorsed to include the Pollution Exclusion Amendment.
 - Endorsed to include the Limited Seepage and Pollution Endorsement.
 - Endorsed to include Evacuation Expense Coverage Endorsement.
 - No other endorsements restricting coverage may be added.
 - The original policy must be provided to Licensor prior to performing any work or services under the License.

In lieu of providing a Railroad Protective Liability Policy, for a period of one (1) year from the Effective Date, Contractor may participate in Licensor's Blanket Railroad Protective Liability Insurance Policy available to Licensee or its contractor. The limits of coverage are the same as above. The cost is \$1000.00.

10. **SUBCONTRACTORS LISTING AND CERTIFICATION OF CONTRACT COMPLIANCE:**
The contractor will be required to furnish the form of subcontractors listing and certification of contract compliance with the executed contract documents. This information is requested for tracking and insurance purposes only.

11. INTERPRETATION OF PLANS AND DOCUMENTS: If any person contemplating a bid for proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other proposed contract documents, or finds discrepancies in or omissions from the plans and specifications, he may submit to the Engineering Department, a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Questions received less than ninety-six (96) hours before the bid opening time may not be answered. Any interpretation or correction of the documents will be made only by Addendum, duly issued and a copy of such Addendum will be mailed or delivered to each person receiving a set of such documents. The City of Glendale will not be responsible for any other explanations or interpretations of the proposed documents.

12. CHANGES TO PLANS AND DOCUMENTS: Any changes to the plans and documents shall be made only by Addendum. No verbal or other changes to the plans and documents will be valid. A copy of each Addendum will be mailed or delivered as provided in Section 12 below.

13. ADDENDUM: Any addenda will be faxed, mailed or delivered to all who are known by the City to have received a complete set of bid documents, and to offices where bid documents have been filed for review purposes. It is the responsibility of each bidder to ascertain that he has received all addenda issued by telephoning the office identified in the NOTICE TO CONTRACTORS as the location where bid documents are available prior to submitting his bid.

Bidders shall acknowledge all addenda in the appropriate location on the "PROPOSAL" form. Failure to acknowledge receipt of Addenda shall render the bid proposal non-responsive and it will be rejected.

14. ASSIGNMENT OF CONTRACT: No assignment by the Contractor of any contract to be entered into hereunder, or any part thereof, or of funds to be received thereunder by the Contractor, will be recognized by the Owner by the Owner unless such assignment has had prior approval of the Owner, and the Surety has been given due notice of such assignment in writing and has consented thereto in writing.

15. PLANS AND SPECIFICATIONS TO SUCCESSFUL BIDDER: The successful bidder may obtain five (5) sets of plans and specifications for this project from the City.

16. TIME OF COMPLETION: The Contractor shall commence work under this project on or before the tenth day following receipt of the Notice to Proceed for that project from the City of Glendale and shall fully complete all work under the project within SIXTY (60) consecutive calendar days from and including the date of receipt of such Notice to Proceed. Time is of the essence in the completion of all work required under this contract. The Contractor shall, at all times, during the continuance of the contract, prosecute the work with such force and equipment as is sufficient to complete all work within the time specified.

17. CITY OF GLENDALE TRANSACTION PRIVILEGE TAX: The City of Glendale transaction privilege tax shall **NOT** be waived under the provisions of this contract. The current privilege tax rate can be obtained from the City of Glendale Sales Tax and Licenses Department. The Contractor shall be responsible for reporting and payment of all city, county, state or federal taxes.

18. PRE-BID CONFERENCE: A pre-bid conference will be held on APRIL 20, 2011, at 3:30 P.M., in the Engineering Department Conference Room, 5850 West Glendale Avenue, Glendale,

Arizona. Bidders, contractors, and other interested parties are invited to attend this conference which will be conducted by the Owner and Engineer to answer any questions.

19. ALTERNATES: Alternate proposals will not be considered unless called for in the documents or any addenda thereto. When alternates are requested, all requested alternates or alternate bid items, unless otherwise stated, shall be bid. If no change in the base bid will occur with the alternate, enter "No Change."

20. APPROVAL OF SUBSTITUTIONS: The materials, products and equipment described in the Documents and Addenda establish a standard or required function, dimension, appearance and quality to be met by any proposed substitution. No substitute will be considered, before bid opening, unless written request for approval has been received by the City Engineer at least ten (10) working days prior to the scheduled closing time for receipt of bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including any drawings, cuts, performance and test data and any other information necessary for evaluation of the substitute. Bidder shall not be entitled to approval of a substitute.

If a substitute is approved, the approval shall be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

21. USE OF "EQUALS": When the specifications for materials, articles, products and equipment state "or equal," contractor may bid upon, and use materials, articles, products and equipment which will perform equally the duties imposed by the general design. The City Engineering Department will have the final approval of all materials, articles, products and equipment proposed to be used as an "equal." It shall not be purchased or installed without the prior written approval from the City Engineering Department.

Approvals for "equals," before bid opening, may be requested in writing to the City Engineering Department for approval. Requests must be received at least ten (10) days prior to the date set for opening the Bid Proposals. The request shall state the name of the material, article, product or equipment for which the item is sought to be considered an equal and a complete description of the proposed equal including any drawings, cuts, performance and test data and any other information necessary for approval of the equal. All approvals will be issued in the form of an addendum.

22. EXAMINATION OF CONTRACT DOCUMENTS AND VISIT SITE: Before submitting a Bid Proposal, bidders should carefully examine the Contract Documents, visit the site of the work, fully inform themselves as to all existing conditions and limitations. No consideration will be granted for any alleged misunderstanding of the material, articles or piece of equipment to be furnished or work to be done. It is understood that the tender of the Bid Proposal carries with it the agreement to all items and conditions referred to herein or indicated in the Contract Documents.

23. BIDDERS IN DEFAULT: No bid will be awarded to any person, firm or corporation that is not authorized by the Arizona Corporation Commission to do business in the State of Arizona, in arrears or is in default to the City of Glendale upon any debt or contract, or that is a defaulter as surety or otherwise upon any obligation to the City of Glendale, or has failed to faithfully perform any previous contract with the City of Glendale.

END OF INFORMATION FOR BIDDERS

PROPOSAL

Place Phoenix, Arizona

Date 4/27/2011

Proposal of Markham Contracting Co., Inca Corporation organized and existing under the laws of the State of Arizona. a partnership consisting of _____; or an individual trading as _____.

TO THE HONORABLE MAYOR AND COUNCIL
CITY OF GLENDALE
GLENDALE, ARIZONA

Gentlemen:

The undersigned hereby proposes and agrees to furnish any and all required labor, materials, construction equipment, transportation and services for the construction of: **PROJECT 101103 - MISSOURI AVENUE WATERLINE EXTENSION**, in strict conformity with the plans and specifications for the following unit prices:

(Extension of these unit prices on the basis of estimated quantities and the totaling of these extensions are for the purpose of comparing bids only. The mathematics of such extensions and totaling will be checked and corrected by the Engineering Department, before evaluating the bids, and the lowest of such corrected and checked totals will determine the lowest bids.)

City of Glendale
MISSOURI AVENUE WATERLINE EXTENSION
Project No. 101103

BID SCHEDULE

| Item No. | Description | Quantity | Unit | Unit Cost | Total Cost |
|--------------------------------------|---|----------|------|--------------|--------------|
| 8-INCH WATERLINE CONSTRUCTION | | | | | |
| 1 | Allowance for Construction Contingency | 1.00 | LS | \$ 30,000.00 | \$ 30,000.00 |
| 2 | Construction Surveying and Layout | 1.00 | LS | \$ 2,400.00 | \$ 2,400.00 |
| 3 | Public Information and Notification | 1.00 | LS | \$ 1,000.00 | \$ 1,000.00 |
| 4 | Mobilization/Demobilization | 1.00 | LS | \$ 7,600.00 | \$ 7,600.00 |
| 5 | Permits (Allowance) | 1.00 | LS | \$ 2,000.00 | \$ 2,000.00 |
| 6 | Off Duty Police Officer (Allowance) | 40.00 | HR | \$ 40.00 | \$ 1,600.00 |
| 7 | Traffic Control | 1.00 | LS | \$ 8,000.00 | \$ 8,000.00 |
| 8 | Construction Sign | 1.00 | LS | \$ 1,150.00 | \$ 1,150.00 |
| 9 | Arizona Pollutant Discharge Elimination System (AZPDES) | 1.00 | LS | \$ 2,000.00 | \$ 2,000.00 |
| 10 | Remove & Replace Speed Cushion | 18.00 | SY | \$ 150.00 | \$ 2,700.00 |
| 11 | Sawcut, Remove and Replace Asphalt Pavement per COG SD G-319 | 953.00 | SY | \$ 33.00 | \$ 31,449.00 |
| 12 | Remove Portland Cement Concrete Sidewalk, Driveway, Valley Gutter & Slab | 274.00 | SF | \$ 5.00 | \$ 1,370.00 |
| 13 | Concrete Valley Gutter, MAG STD Detail 240 | 274.00 | SF | \$ 7.00 | \$ 1,918.00 |
| 14 | Remove Concrete Sidewalk, Tiles, etc. | 122.00 | SF | \$ 5.00 | \$ 610.00 |
| 15 | Replace Concrete Sidewalk | 122.00 | SF | \$ 5.25 | \$ 640.50 |
| 16 | Remove Portland Cement Concrete Single Curb; Curb and Gutter; Header Curb and Embankment Curb | 36.00 | LF | \$ 6.50 | \$ 234.00 |
| 17 | Combined Concrete Curb and Gutter, STD Detail 220, Type "A", H=6" | 36.00 | LF | \$ 23.00 | \$ 828.00 |
| 18 | Remove and Cap Existing Corp Stop | 1.00 | EA | \$ 150.00 | \$ 150.00 |
| 19 | Pavement Restriping | 22.00 | LF | \$ 70.00 | \$ 1,540.00 |
| 20 | Restore Existing Landscaping & Irrigation | 1.00 | LS | \$ 1,000.00 | \$ 1,000.00 |
| 21 | Miscellaneous Removal and Other Work | 1.00 | LS | \$ 775.00 | \$ 775.00 |
| 22 | 8" Water Pipe & Fittings, Furnish & Install | 1249.00 | LF | \$ 41.00 | \$ 51,209.00 |
| 23 | Connection to Existing 8" Waterline | 1.00 | EA | \$ 750.00 | \$ 750.00 |
| 24 | 1" Water Meter Service Connect Pipe and Fittings, Main to Meter, Furnish & Install | 2.00 | EA | \$ 2,000.00 | \$ 4,000.00 |

| | | | | | |
|--|--|-------|-----|-------------|----------------------|
| 25 | 6" Fire Hydrant Extension Assembly, Furnish & Install | 4.00 | EA | \$ 4,400.00 | \$ 17,600.00 |
| 26 | 8" Valve, Furnish & Install | 4.00 | EA | \$ 1,550.00 | \$ 6,200.00 |
| 27 | 8" x 8" x 8" Tapping Sleeve, Valve Box & Cover, Furnish & Install | 2.00 | EA | \$ 4,200.00 | \$ 8,400.00 |
| 28 | 16" x 16" x 8" Tapping Sleeve, Valve Box & Cover, Furnish & Install | 1.00 | EA | \$ 5,900.00 | \$ 5,900.00 |
| Subtotal: | | | | | \$ 193,023.50 |
| 16-INCH VALVE REPAIR IN BNSF RIGHT-OF-WAY | | | | | |
| 29 | Subgrade Prep | 12.00 | SY | \$ 30.00 | \$ 360.00 |
| 30 | Asphalt Concrete Surface Course, Type C3/4 | 7.00 | TON | \$ 410.00 | \$ 2,870.00 |
| 31 | Portland Cement Concrete Pavement, 5000 PSI, 18" Thick | 52.00 | SF | \$ 28.00 | \$ 1,456.00 |
| 32 | Remove Portland Cement Concrete Pavement | 52.00 | SF | \$ 18.00 | \$ 936.00 |
| 33 | Remove Asphalt Concrete Pavement | 12.00 | SY | \$ 16.00 | \$ 192.00 |
| 34 | Pavement Restriping | 21.00 | LF | \$ 75.00 | \$ 1,575.00 |
| 35 | Permanently Open 16" Butterfly Valve, Remove Valve Riser, Backfill & Compact | 1.00 | LS | \$ 1,200.00 | \$ 1,200.00 |
| Subtotal: | | | | | \$ 8,589.00 |
| TOTAL BASE BID | | | | | \$ 201,612.50 |
| ADD ALTERNATE NO. 1 - IN THE CASE THAT 16" VALVE CANNOT BE PERMANENTLY OPENED | | | | | |
| 36 | Remove Existing Valve Box & Cover | 1.00 | EA | \$ 900.00 | \$ 900.00 |
| 37 | 16" Ductile Iron Water Pipe and Fittings, Furnish & Install | 1.00 | LS | \$ 5,674.00 | \$ 5,674.00 |
| Subtotal: | | | | | \$ 6,574.00 |
| TOTAL BASE BID WITH ADD ALTERNATE NO. 1 | | | | | \$ 208,186.50 |

OK 

The undersigned hereby declares that he has visited the site(s) and has carefully examined the contract documents relating to the work covered by the above bid or bids.

Upon receipt of notice of the acceptance of this bid, we will execute the formal contract attached within ten (10) days, and will deliver a one hundred percent (100%) Performance Bond for the faithful performance of this Contract, together with a one hundred percent (100%) Payment Bond and Certificate of Insurance.

The bid security attached, with endorsement, in the sum of ten percent (10%) of the total bid, is to become the property of the City of Glendale, Arizona, in the event the Contract and Bonds are not executed within the time set forth, as liquidated damages for the delay and additional work caused thereby.

The undersigned has checked carefully all the above figures and understands that the City of Glendale, Arizona, will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

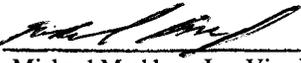
The undersigned understands that the Mayor and Council of the City of Glendale, Arizona, reserves the right to reject any or all bids or to waive any informalities or irregularities in the bid.

Respectfully submitted,

Arizona Contractor's
Classification and
License No.

ROC 072454 A

Markham Contracting Co., Inc.
Contractor

By 
Michael Markham Jr., Vice President/COO

22820 N. 19th Avenue

Phoenix, Arizona 85027

(Complete business address)

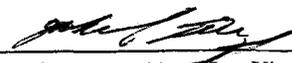
Telephone Number: 623-869-9100

Fax Number 623-869-9400

Bidder shall signify receipt of all Addenda here (if any):

None

Failure to acknowledge receipt of all Addenda shall render the bid proposal non-responsive and will be rejected.

Acknowledged by 
Michael Markham Jr., Vice President/COO

CONSTRUCTION AGREEMENT

This Construction Agreement ("Agreement") is entered into and effective between the CITY OF GLENDALE, an Arizona municipal corporation ("City"), and Markham Contracting Co., Inc., an Arizona corporation ("Contractor") as of the 14 day of JUNE, 2011.

RECITALS

- A. City intends to undertake a project for the benefit of the public and with public funds that is more fully set forth in the **Notice to Contractors** and the attached **Exhibit A** ("Project");
- B. City desires to retain the services of Contractor to perform those specific duties and produce the specific work as set forth in the Project, the plans and specifications, the **Information for Bidders**, and the **Maricopa Association of Governments ("MAG") General and Supplemental Conditions and Provisions**;
- C. City and Contractor desire to memorialize their agreement with this document.

AGREEMENT

In consideration of the Recitals, which are confirmed as true and correct and incorporated by this reference, the mutual promises and covenants contained in this Agreement, and other good and valuable consideration, City and Contractor agree as follows:

1. Project.

- 1.1 **Scope.** Contractor will provide all services and material necessary to assure the Project is completed timely and efficiently consistent with Project requirements, including, but not limited to, working in close interaction and interfacing with City and its designated employees, and working closely with others, including other contractors, providers or consultants retained by City.
- 1.2 **Documents.** The following documents are, by this reference, entirely incorporated into this Agreement and attached Exhibits as though fully set forth herein:

- (A) Notice to Contractors;
- (B) Information for Bidders;
- (C) MAG General Conditions, Supplemental General Conditions, Special and Technical Provisions;
- (D) Proposal;
- (E) Bid Bond;
- (F) Payment Bond;
- (G) Performance Bond;
- (H) Certificate of Insurance;
- (I) Appendix; and
- (J) Plans and Addenda thereto.

Should a conflict exist between this Agreement (and its attachments), and any of the incorporated documents as listed above, the provisions of this Agreement shall govern.

1.3 Project Team.

- (A) **Project Manager.** Contractor will designate an employee as Project Manager with sufficient training, knowledge, and experience to, in the City's opinion, to complete the project and handle all aspects of the Project such that the work produced by Contractor is consistent with applicable standards as detailed in this Agreement.

(B) Project Team.

- (1) The Project manager and all other employees assigned to the project by Contractor will comprise the "Project Team."
- (2) Project Manager will have responsibility for and will supervise all other employees assigned to the project by Contractor.

(C) Sub-contractors.

- (1) Contractor may engage specific technical contractor (each a "Sub-contractor") to furnish certain service functions.
- (2) Contractor will remain fully responsible for Sub-contractor's services.
- (3) Sub-contractors must be approved by the City, unless the Sub-contractor was previously mentioned in the response to the solicitation.
- (4) Contractor shall certify by letter that contracts with Sub-contractors have been executed incorporating requirements and standards as set forth in this Agreement.

2. **Schedule.** The Project will be undertaken in a manner that ensures it is completed in a timely and efficient manner. If not otherwise stated in **Exhibit A**, the Project shall be completed by no later than sixty (60) consecutive calendar days from and including the date of receipt of the Notice to Proceed.

3. **Contractor's Work.**

3.1 **Standard.** Contractor must perform services in accordance with the standards of due diligence, care, and quality prevailing among contractors having substantial experience with the successful furnishing of services and materials for projects that are equivalent in size, scope, quality, and other criteria under the Project and identified in this Agreement.

3.2 **Licensing.** Contractor warrants that:

- (A) Contractor and Sub-contractors will hold all appropriate and required licenses, registrations and other approvals necessary for the lawful furnishing of services ("Approvals"); and
- (B) Neither Contractor nor any Sub-contractor has been debarred or otherwise legally excluded from contracting with any federal, state, or local governmental entity ("Debarment").
 - (1) City is under no obligation to ascertain or confirm the existence or issuance of any Approvals or Debarments or to examine Contractor's contracting ability.
 - (2) Contractor must notify City immediately if any Approvals or Debarment changes during the Agreement's duration and the failure of the Contractor to notify City as required will constitute a material default of this Agreement.

3.3 **Compliance.** Services and materials will be furnished in compliance with applicable federal, state, county and local statutes, rules, regulations, ordinances, building codes, life safety codes, or other standards and criteria designated by City.

3.4 **Coordination; Interaction.**

- (A) If the City determines that the Project requires the coordination of professional services or other providers, Contractor will work in close consultation with City to proactively interact with any other contractors retained by City on the Project ("Coordinating Entities").
- (B) Subject to any limitations expressly stated in the budget, Contractor will meet to review the Project, schedules, budget, and in-progress work with Coordinating Entities and the City as often and for durations as City reasonably considers necessary in order to ensure the timely work delivery and Project completion.
- (C) If the Project does not involve Coordinating Entities, Contractor will proactively interact with

any other contractors when directed by City to obtain or disseminate timely information for the proper execution of the Project.

- 3.5 **Hazardous Substances.** Contractor is responsible for the appropriate handling, disposal of, and if necessary, any remediation and all losses and damages to the City, associated with the use or release of hazardous substances by Contractor in connection with completion of the Project.
- 3.6 **Warranties.** At any time within two years after completion of the Project, Contractor must, at Contractor's sole expense and within 20 days of written notice from the City, uncover, correct and remedy all defects in Contractor's work. City will accept a manufacturer's warranty on approved equipment as satisfaction of the Contractor's warranty under this subsection.
- 3.7. **Bonds.** Upon execution of this Agreement, and if applicable, Contractor must furnish Payment and Performance bonds as required under A.R.S. § 34-608.

4. **Compensation for the Project.**

- 4.1 **Compensation.** Contractor's compensation for the Project, including those furnished by its Sub-contractors will not exceed \$208,186.50, as specifically detailed in the Contractor's bid and set forth in **Exhibit B** ("Compensation").
- 4.2 **Change in Scope of Project.** The Compensation may be equitably adjusted if the originally contemplated scope of services as outlined in the Project is significantly modified by the City.
 - (A) Adjustments to the Scope or Compensation require a written amendment to this Agreement and may require City Council approval.
 - (B) Additional services which are outside the scope of the Project and not contained in this Agreement may not be performed by the Contractor without prior written authorization from the City.

5. **Billings and Payment.**

5.1 **Applications.**

- (A) The Contractor will submit monthly invoices (each, a "Payment Application") to City's Project Manager and City will remit payments based upon the Payment Application as stated below.
- (B) The period covered by each Payment Application will be one calendar month ending on the last day of the month.

5.2 **Payment.**

- (A) After a full and complete Payment Application is received, City will process and remit payment within 30 days.
- (B) Payment may be subject to or conditioned upon City's receipt of:
 - (1) Completed work generated by Contractor and its Sub-contractors; and
 - (2) Unconditional waivers and releases on final payment from Sub-contractors as City may reasonably request to assure the Project will be free of claims arising from required performances under this Agreement.

5.3 **Review and Withholding.** City's Project Manager will timely review and certify Payment Applications.

- (A) If the Payment Application is rejected, the Project Manager will issue a written listing of the items not approved for payment.
- (B) City may withhold an amount sufficient to pay expenses that City reasonably expects to incur in correcting the deficiency or deficiencies rejected for payment.

- (C) Contractor will provide, by separate cover, and concurrent with the execution of this Agreement, all required financial information to the City, including City of Glendale Transaction Privilege License and Federal Taxpayer identification numbers.
- (D) City will temporarily withhold Compensation amounts as required by A.R.S. 34-221(C).

6. Termination.

6.1 For Convenience. City may terminate this Agreement for convenience, without cause, by delivering a written termination notice stating the effective termination date, which may not be less than 15 days following the date of delivery.

- (A) Contractor will be equitably compensated any services and materials furnished prior to receipt of the termination notice and for reasonable costs incurred.
- (B) Contractor will also be similarly compensated for any approved effort expended and approved costs incurred that are directly associated with Project closeout and delivery of the required items to the City.

6.2 For Cause. City may terminate this Agreement for cause if Contractor fails to cure any breach of this Agreement within seven days after receipt of written notice specifying the breach.

- (A) Contractor will not be entitled to further payment until after City has determined its damages. If City's damages resulting from the breach, as determined by City, are less than the equitable amount due but not paid Contractor for Service and Repair furnished, City will pay the amount due to Contractor, less City's damages.
- (B) If City's direct damages exceed amounts otherwise due to Contractor, Contractor must pay the difference to City immediately upon demand; however, Contractor will not be subject to consequential damages more than \$1,000,000 or the amount of this Agreement, whichever is greater.

7. Insurance.

7.1 Requirements. Contractor must obtain and maintain the following insurance ("Required Insurance"):

- (A) Contractor and Sub-contractors. Contractor, and each Sub-contractor performing work or providing materials related to this Agreement must procure and maintain the insurance coverages described below (collectively, "Contractor's Policies"), until each Parties' obligations under this Agreement are completed.
- (B) General Liability.
 - (1) Contractor must at all times relevant hereto carry a commercial general liability policy with a combined single limit of at least \$1,000,000 per occurrence and \$2,000,000 annual aggregate.
 - (2) Sub-contractors must at all times relevant hereto carry a general commercial liability policy with a combined single limit of at least \$1,000,000 per occurrence.
 - (3) This commercial general liability insurance must include independent contractors' liability, contractual liability, broad form property coverage, products and completed operations, XCU hazards if requested by the City, and a separation of insurance provision.
 - (4) These limits may be met through a combination of primary and excess liability coverage.
- (C) Auto. A business auto policy providing a liability limit of at least \$1,000,000 per accident for Contractor and 1,000,000 per accident for Sub-contractors and covering owned, non-owned and hired automobiles.
- (D) Workers' Compensation and Employer's Liability. A workers' compensation and employer's

liability policy providing at least the minimum benefits required by Arizona law.

- (E) Equipment Insurance. Contractor must secure, pay for, and maintain all-risk insurance as necessary to protect the City against loss of owned, non-owned, rented or leased capital equipment and tools, equipment and scaffolding, staging, towers and forms owned or rented by Contractor or its Sub-contractors.
- (F) Notice of Changes. Contractor's Policies must provide for not less than 30 days' advance written notice to City Representative of:
 - (1) Cancellation or termination of Contractor or Sub-contractor's Policies;
 - (2) Reduction of the coverage limits of any of Contractor or and Sub-contractor's Policies; and
 - (3) Any other material modification of Contractor or Sub-contractor's Policies related to this Agreement.
- (G) Certificates of Insurance.
 - (1) Within 10 business days after the execution of the Agreement, Contractor must deliver to City Representative certificates of insurance for each of Contractor and Sub-contractor's Policies, which will confirm the existence or issuance of Contractor and Sub-contractor's Policies in accordance with the provisions of this section, and copies of the endorsements of Contractor and Sub-contractor's Policies in accordance with the provisions of this section.
 - (2) City is and will be under no obligation either to ascertain or confirm the existence or issuance of Contractor and Sub-contractor's Policies, or to examine Contractor and Sub-contractor's Policies, or to inform Contractor or Sub-contractor in the event that any coverage does not comply with the requirements of this section.
 - (3) Contractor's failure to secure and maintain Contractor Policies and to assure Sub-contractor policies as required will constitute a material default under this Agreement.
- (H) Other Contractors or Vendors.
 - (1) Other contractors or vendors that may be contracted by Contractor with in connection with the Project must procure and maintain insurance coverage as is appropriate to their particular agreement.
 - (2) This insurance coverage must comply with the requirements set forth above for Contractor's Policies (e.g., the requirements pertaining to endorsements to name the parties as additional insured parties and certificates of insurance).
- (I) Policies. Except with respect to workers' compensation and employer's liability coverages, the City must be named and properly endorsed as additional insureds on all liability policies required by this section.
 - (1) The coverage extended to additional insureds must be primary and must not contribute with any insurance or self insurance policies or programs maintained by the additional insureds.
 - (2) All insurance policies obtained pursuant to this section must be with companies legally authorized to do business in the State of Arizona and acceptable to all parties.

7.2 Sub-contractors.

- (A) Contractor must also cause its Sub-contractors to obtain and maintain the Required Insurance.
- (B) City may consider waiving these insurance requirements for a specific Sub-contractor if City is satisfied the amounts required are not commercially available to the Sub-contractor and the insurance the Sub-contractor does have is appropriate for the Sub-contractor's work under this

Agreement.

- (C) Contractor and Sub-contractors must provide to the City proof of Required Insurance whenever requested.

7.3 Indemnification.

- (A) To the fullest extent permitted by law, Contractor must defend, indemnify, and hold harmless City and its elected officials, officers, employees and agents (each, an "Indemnified Party," collectively, the "Indemnified Parties"), for, from, and against any and all claims, demands, actions, damages, judgments, settlements, personal injury (including sickness, disease, death, and bodily harm), property damage (including loss of use), infringement, governmental action and all other losses and expenses, including attorneys' fees and litigation expenses (each, a "Demand or Expense"; collectively, "Demands or Expenses") asserted by a third-party (i.e. a person or entity other than City or Contractor) and that arises out of or results from the breach of this Agreement by the Contractor or the Contractor's negligent actions, errors or omissions (including any Sub-contractor or other person or firm employed by Contractor), whether sustained before or after completion of the Project.
- (B) This indemnity and hold harmless policy applies even if a Demand or Expense is in part due to the Indemnified Party's negligence or breach of a responsibility under this Agreement, but in that event, Contractor shall be liable only to the extent the Demand or Expense results from the negligence or breach of a responsibility of Contractor or of any person or entity for whom Contractor is responsible.
- (C) Contractor is not required to indemnify any Indemnified Parties for, from, or against any Demand or Expense resulting from the Indemnified Party's sole negligence or other fault solely attributable to the Indemnified Party.

7.4 Waiver of Subrogation. Contractor waives, and will require any Subcontractor to waive, all rights of subrogation against the City to the extent of all losses or damages covered by any policy of insurance.

8. Immigration Law Compliance.

- 8.1 Contractor, and on behalf any subcontractor, warrants, to the extent applicable under A.R.S. § 41-4401, compliance with all federal immigration laws and regulations that relate to their employees as well as compliance with A.R.S. § 23-214(A) which requires registration and participation with the E-Verify Program.
- 8.2 Any breach of warranty under subsection 8.1 above is considered a material breach of this Agreement and is subject to penalties up to and including termination of this Agreement.
- 8.3 City retains the legal right to inspect the papers of any Contractor or subcontractor employee who performs work under this Agreement to ensure that the Contractor or any subcontractor is compliant with the warranty under subsection 8.1 above.
- 8.4 City may conduct random inspections, and upon request of City, Contractor shall provide copies of papers and records of Contractor demonstrating continued compliance with the warranty under subsection 8.1 above. Contractor agrees to keep papers and records available for inspection by the City during normal business hours and will cooperate with City in exercise of its statutory duties and not deny access to its business premises or applicable papers or records for the purposes of enforcement of this section 8.
- 8.5 Contractor agrees to incorporate into any subcontracts under this Agreement the same obligations imposed upon Contractor and expressly accrue those obligations directly to the benefit of the City. Contractor also agrees to require any subcontractor to incorporate into each of its own subcontracts under this Agreement the same obligations above and expressly accrue those obligations to the benefit of the City.
- 8.6 Contractor's warranty and obligations under this section to the City is continuing throughout the term of this Agreement or until such time as the City determines, in its sole discretion, that Arizona law has been modified in that compliance with this section is no longer a requirement.

8.7 The "E-Verify Program" above means the employment verification program administered by the United States Department of Homeland Security, the Social Security Administration, or any successor program.

9. **Conflict.** Contractor acknowledges this Agreement is subject to A.R.S. § 38-511, which allows for cancellation of this Agreement in the event any person who is significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on City's behalf is also an employee, agent, or consultant of any other party to this Agreement.

10. **Prohibitions.** Contractor certifies under A.R.S. §§ 35-391 *et seq.* and 35-393 *et seq.*, that it does not have, and during the term of this Agreement will not have "scrutinized" business operations, as defined in the preceding statutes, in the countries of Sudan or Iran.

11. **Non-Discrimination Policies.** Contractor must not discriminate against any employee or applicant for employment on the basis of race, religion, color sex or national origin. Contractor must develop, implement and maintain non-discrimination policies and post the policies in conspicuous places visible to employees and applicants for employment. Contractor will require any Sub-contractor to be bound to the same requirements as stated within this section.

12. **Notices.**

12.1 A notice, request or other communication that is required or permitted under this Agreement (each a "Notice") will be effective only if:

- (A) The Notice is in writing, and
- (B) Delivered in person or by private express overnight delivery service (delivery charges prepaid), certified or registered mail (return receipt requested).
- (C) Notice will be deemed to have been delivered to the person to whom it is addressed as of the date of receipt, if:
 - (1) Received on a business day, or before 5:00 p.m., at the address for Notices identified for the Party in this Agreement by U.S. Mail, hand delivery, or overnight courier on or before 5:00 p.m.; or
 - (2) As of the next business day after receipt, if received after 5:00 p.m.
- (D) The burden of proof of the place and time of delivery is upon the Party giving the Notice.
- (E) Digitalized signatures and copies of signatures will have the same effect as original signatures.

12.2 **Representatives.**

(A) Contractor. Contractor's representative ("Contractor's Representative") authorized to act on Contractor's behalf with respect to the Project, and his or her address for Notice delivery is:

Michael Markham Jr.
Markham Contracting Co., Inc.
22820 N. 19th Avenue
Phoenix, AZ 85027

(B) City. City's representative ("City's Representative") authorized to act on City's behalf, and his or her address for Notice delivery is:

City of Glendale
Attn: Jayme Chapin
5850 West Glendale Avenue
Glendale, Arizona 85301

With required copies to:

City of Glendale
City Manager
5850 West Glendale Avenue
Glendale, Arizona 85301

City of Glendale
City Attorney
5850 West Glendale Avenue
Glendale, Arizona 85301

(C) Concurrent Notices.

- (1) All notices to City's representative must be given concurrently to City Manager and City Attorney.
- (2) A notice will not be considered to have been received by City's representative until the time that it has also been received by City Manager and City Attorney.
- (3) City may appoint one or more designees for the purpose of receiving notice by delivery of a written notice to Contractor identifying the designee(s) and their respective addresses for notices.

(D) **Changes.** Contractor or City may change its representative or information on Notice, by giving Notice of the change in accordance with this section at least ten days prior to the change.

13. **Financing Assignment.** City may assign this Agreement to any City-affiliated entity, including a non-profit corporation or other entity whose primary purpose is to own or manage the Project.

14. **Entire Agreement; Survival; Counterparts; Signatures.**

14.1 **Integration.** This Agreement contains, except as stated below, the entire agreement between City and Contractor and supersedes all prior conversations and negotiations between the parties regarding the Project or this Agreement.

- (A) Neither Party has made any representations, warranties or agreements as to any matters concerning the Agreement's subject matter.
- (B) Representations, statements, conditions, or warranties not contained in this Agreement will not be binding on the parties.
- (C) Any solicitation, addendums and responses submitted by the Contractor are incorporated fully into this Agreement as Exhibit A. Any inconsistency between Exhibit A and this Agreement will be resolved by the terms and conditions stated in this Agreement.

14.2 **Interpretation.**

- (A) The parties fairly negotiated the Agreement's provisions to the extent they believed necessary and with the legal representation they deemed appropriate.
- (B) The parties are of equal bargaining position and this Agreement must be construed equally between the parties without consideration of which of the parties may have drafted this Agreement.
- (C) The Agreement will be interpreted in accordance with the laws of the State of Arizona.

14.3 **Survival.** Except as specifically provided otherwise in this Agreement each warranty, representation, indemnification and hold harmless provision, insurance requirement, and every other right, remedy and responsibility of a Party, will survive completion of the Project, or the earlier termination of this Agreement.

14.4 **Amendment.** No amendment to this Agreement will be binding unless in writing and executed by the parties. Any amendment may be subject to City Council approval.

14.5 **Remedies.** All rights and remedies provided in this Agreement are cumulative and the exercise of any one or more right or remedy will not affect any other rights or remedies under this Agreement or applicable law.

14.6 Severability. If any provision of this Agreement is voided or found unenforceable, that determination will not affect the validity of the other provisions, and the voided or unenforceable provision will be reformed to conform to applicable law.

14.7 Counterparts. This Agreement may be executed in counterparts, and all counterparts will together comprise one instrument.

15. Dispute Resolution. Each claim, controversy and dispute ("Dispute") between Contractor and City will be resolved in accordance with Exhibit C. The final determination will be made by the City.

16. Exhibits. The following exhibits, with reference to the term in which they are first referenced, are incorporated by this reference.

| | |
|-----------|--------------------|
| Exhibit A | Project |
| Exhibit B | Compensation |
| Exhibit C | Dispute Resolution |

The parties enter into this Agreement as of the date shown above.

City of Glendale,
an Arizona municipal corporation

Horatio Skals for
By: Ed Beasley
Its: City Manager

ATTEST:

[Signature]
City Clerk (SEAL)

APPROVED AS TO FORM:

[Signature]
City Attorney

MARKHAM CONTRACTING CO., INC.
an Arizona corporation

[Signature]
By: Michael F. Markham Sr. Jr.
Its: ~~President~~ VICE PRESIDENT/COO

WOMEN-OWNED/MINORITY BUSINESS [] YES NO
CITY OF GLENDALE TRANSACTION PRIVILEGE TAX NO. [REDACTED]
FEDERAL TAXPAYER IDENTIFICATION NO. [REDACTED]

**EXHIBIT A
CONSTRUCTION AGREEMENT**

PROJECT

The construction of 1,249 lineal feet of 8-inch water line in Missouri Avenue from 45th Avenue to Grand Avenue including four (4) new fire hydrants, six (6) 8" water valves, one (1) 16" water valve and two (2) 1" water service connections as shown on the construction plans. In addition, this project includes the removal of an existing 16" butterfly valve located on the west side of the Missouri Avenue/Grand Avenue intersection within Burlington Northern Santa Fe (BNSF) Railway Company property.

**EXHIBIT B
CONSTRUCTION AGREEMENT**

COMPENSATION

METHOD AND AMOUNT OF COMPENSATION

By bid, including all services, materials and costs.

NOT-TO-EXCEED AMOUNT

The total amount of compensation paid to Contractor for full completion of all work required by the Project during the entire term of the Project must not exceed \$208,186.50.

DETAILED PROJECT COMPENSATION

| | |
|--------------------|---------------------|
| Base Bid | \$201,612.50 |
| <u>Alternate 1</u> | <u>\$ 6,574.00</u> |
| <i>Total</i> | <i>\$208,186.50</i> |

**EXHIBIT C
CONSTRUCTION AGREEMENT**

DISPUTE RESOLUTION

1. Disputes.

- 1.1 Commitment. The parties commit to resolving all disputes promptly, equitably, and in a good-faith, cost-effective manner.
- 1.2 Application. The provisions of this Exhibit will be used by the parties to resolve all controversies, claims, or disputes ("Dispute") arising out of or related to this Agreement-including Disputes regarding any alleged breaches of this Agreement.
- 1.3 Initiation. A party may initiate a Dispute by delivery of written notice of the Dispute, including the specifics of the Dispute, to the Representative of the other party as required in this Agreement.
- 1.4 Informal Resolution. When a Dispute notice is given, the parties will designate a member of their senior management who will be authorized to expeditiously resolve the Dispute.
 - (A) The parties will provide each other with reasonable access during normal business hours to any and all non-privileged records, information and data pertaining to any Dispute in order to assist in resolving the Dispute as expeditiously and cost effectively as possible;
 - (B) The parties' senior managers will meet within 10 business days to discuss and attempt to resolve the Dispute promptly, equitably, and in a good faith manner, and
 - (C) The Senior Managers will agree to subsequent meetings if both parties agree that further meetings are necessary to reach a resolution of the Dispute.

2. Arbitration.

- 2.1 Rules. If the parties are unable to resolve the Dispute by negotiation within 30 days from the Dispute notice, and unless otherwise informal discussions are extended by the mutual agreement, the Dispute will be decided by binding arbitration in accordance with Construction Industry Rules of the AAA, as amended herein. Although the arbitration will be conducted in accordance with AAA Rules, it will not be administered by the AAA, but will be heard independently.
 - (A) The parties will exercise best efforts to select an arbitrator within 5 business days after agreement for arbitration. If the parties have not agreed upon an arbitrator within this period, the parties will submit the selection of the arbitrator to one of the principals of the mediation firm of Scott & Skelly, LLC, who will then select the arbitrator. The parties will equally share the fees and costs incurred in the selection of the arbitrator.
 - (B) The arbitrator selected must be an attorney with at least 15 years experience with commercial construction legal matters in Maricopa County, Arizona, be independent, impartial, and not have engaged in any business for or adverse to either Party for at least 10 years.
- 2.2 Discovery. The extent and the time set for discovery will be as determined by the arbitrator. Each Party must, however, within ten (10) days of selection of an arbitrator deliver to the other Party copies of all documents in the delivering party's possession that are relevant to the dispute.
- 2.3 Hearing. The arbitration hearing will be held within 90 days of the appointment of the arbitrator. The arbitration hearing, all proceedings, and all discovery will be conducted in Glendale, Arizona unless otherwise agreed by the parties or required as a result of witness location. Telephonic hearings and other reasonable arrangements may be used to minimize costs.
- 2.4 Award. At the arbitration hearing, each Party will submit its position to the arbitrator, evidence to support that position, and the exact award sought in this matter with specificity. The arbitrator must select the award sought by one of the parties as the final judgment and may not independently alter or modify the awards sought by the parties, fashion any remedy, or make any equitable order. The arbitrator has no authority to consider or award punitive damages.

2.5 Final Decision. The Arbitrator's decision should be rendered within 15 days after the arbitration hearing is concluded. This decision will be final and binding on the Parties.

2.6 Costs. The prevailing party may enter the arbitration in any court having jurisdiction in order to convert it to a judgment. The non-prevailing party shall pay all of the prevailing party's arbitration costs and expenses, including reasonable attorney's fees and costs.

3. **Services to Continue Pending Dispute.** Unless otherwise agreed to in writing, Contractor must continue to perform and maintain progress of required services during any Dispute resolution or arbitration proceedings, and City will continue to make payment to Contractor in accordance with this Agreement.

4. **Exceptions.**

4.1 Third Party Claims. City and Contractor are not required to arbitrate any third-party claim, cross-claim, counter claim, or other claim or defense of a third-party who is not obligated by contract to arbitrate disputes with City and Contractor.

4.2 Liens. City or Contractor may commence and prosecute a civil action to contest a lien or stop notice, or enforce any lien or stop notice, but only to the extent the lien or stop notice the Party seeks to enforce is enforceable under Arizona Law, including, without limitation, an action under A.R.S. § 33-420, without the necessity of initiating or exhausting the procedures of this Exhibit.

4.3 Governmental Actions. This Exhibit does not apply to, and must not be construed to require arbitration of, any claims, actions or other process filed or issued by City of Glendale Building Safety Department or any other agency of City acting in its governmental permitting or other regulatory capacity.

CITY OF GLENDALE, ARIZONA
PUBLIC WORKS/ENGINEERING DEPARTMENT

CONTRACTOR'S AFFIDAVIT
REGARDING
SETTLEMENT OF CLAIMS

PROJECT 101103 - MISSOURI AVENUE WATERLINE EXTENSION

To the City of Glendale, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the consideration of \$ _____, as set out in the final pay estimate, as full and complete payment under the terms of the contract, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Glendale against any and all liens, claims of liens, suits, actions, damages, charges, costs, litigation expenses, attorneys' fees and any other and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performance and materials furnished for the performance of said installation.

Signed and dated at _____, this ____ day of _____, 20__.

Contractor

By _____

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this ____ day of _____, 20__

Notary Public

My Commission Expires: _____

INDIVIDUAL SURETIES WILL NOT BE ACCEPTED
STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34,
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract Amount)

BOND 105630668

KNOW ALL MEN BY THESE PRESENTS:

That Markham Contracting Co., Inc. (hereinafter called the Principal), as Principal, and **
, a corporation organized and existing under the laws of the State of CT with its principal office in the
City of Hartford, CT, (hereinafter called the Surety), as Surety, are held and firmly bound unto the City of
Glendale, a municipal corporation, (hereinafter called the Oblige), in the amount of
Two Hundred Eight Thousand, One Hundred Eighty-Six and 50/100 Dollars (\$ 208,186.50), for the
payment whereof; the said Principal and Surety bind themselves, and their heirs, administrators, successors and
assigns, jointly and severally, firmly by these presents. **Travelers Casualty and Surety Company of America

WHEREAS, The Principal has entered into a certain written contract with the Oblige, dated the 14th day of
June, 2011, to construct **PROJECT 101103 - MISSOURI AVENUE WATERLINE EXTENSION**, which
contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length
herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall
faithfully perform and fulfill all undertakings, covenants, terms, conditions and agreements of said contract
during the original term of said contract any extension thereof, with or without notice to the Surety, and during
the life of any guaranty required under the contract and shall also perform and fulfill all the undertakings,
covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that
may hereafter be made, notice of which modifications to the Surety being hereby waived; then the above
obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article
2, of the Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the
provisions of said Title, Chapter, and Article, to the extent as if it were copied at length herein.

The prevailing party or any party which recovers judgment on this bond shall be entitled to such reasonable
attorney's fees as may be fixed by the court or a judge thereof.

Witness our hands this 23rd day of June, 2011.

Markham Contracting Co., Inc.
Principal Seal

By [Signature]

By: Carol A. Tabone Carol A. Tabone
Travelers Casualty and Attorney-in-Fact
Surety Surety Company of America Seal

Minard-Ames Insurance Services LLC
Agency of Record

4646 E Van Buren #200, Phoenix, AZ 85008
Agency Address

Telephone Number: 602-273-1625

INDIVIDUAL SURETIES WILL NOT BE ACCEPTED
STATUTORY PAYMENT BOND PURSUANT TO TITLE 34,
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

BOND 105630668

That, Markham Contracting Co., Inc. (hereinafter called the Principal), as Principal, and **, a corporation organized and existing under the laws of the State of Connecticut with its principal office in the City of Hartford, CT, (hereinafter called the Surety), as Surety, are held and firmly bound unto the City of Glendale, a municipal corporation, (hereinafter called the Obligee), in the amount of Two Hundred* Dollars (\$ 208,186.50), for the payment whereof; the said Principal and Surety bind themselves, and their heirs, administrators, successors and assigns, jointly and severally, firmly by these presents. ** Travelers Casualty and Surety Company of America

*Eight Thousand, One Hundred Eighty-Six and 50/100

14th WHEREAS, The Principal has entered into a certain written contract with the Obligee, dated the day of June, 2011, to construct PROJECT 101103 - MISSOURI AVENUE WATERLINE EXTENSION which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall promptly pay all monies due to all persons supplying labor or materials to him or his subcontractors in the prosecution of the work provided for in said Contract, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond having been required of the said Principal in order to comply with the provisions of Title 34, Chapter 2, Article 2, of the Arizona Revised Statutes, all rights and remedies on this bond shall inure solely to such persons and shall be determined in accordance with the provisions, conditions, and limitations of said Title, Chapter and Article, to the same extent as if they were copied at length herein.

The prevailing party or any party which recovers judgment on this bond shall be entitled to such reasonable attorney's fees as may be fixed by the court or a judge thereof.

Witness our hands this 23rd day of June, 2011.

Principal Markham Contracting Co., Inc. Seal

By [Signature]

By: Carol A. Tabone Carol A. Tabone Attorney-in-Fact

Surety Travelers Casualty and Surety Company of America Seal

Minard-Ames Insurance Services LLC
Agency of Record

Agency Address

4646 E Van Buren #200, Phoenix, AZ 85008

Telephone 602-273-1625



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 217147

Certificate No. 003757405

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Deborah K. Anderson, Lori L. Dawson, Michael D. Specht, Mikal F. Cronin, Steven E. Minard, Carol A. Tabone, and William A. Ames

of the City of Phoenix, State of Arizona, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 8th day of July, 2010.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
George W. Thompson, Senior Vice President

On this the 8th day of July, 2010, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal. My Commission expires the 30th day of June, 2011.



[Signature]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kori M. Johanson, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 23rd day of June, 2011.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

Kori M. Johanson
Kori M. Johanson, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.



CERTIFICATE OF LIABILITY INSURANCE

OP ID: ER

DATE(MM/DD/YYYY)

06/28/11

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | | | |
|---|--|--|---------------|
| PRODUCER Eaton & Associates Inc. P.O. Box 1960 Scottsdale, AZ 85262-1960 Kathryn Allen | 480-941-4895 | CONTACT NAME: _____ PHONE (A/C No. Ext): _____ FAX (A/C No.): _____ E-MAIL ADDRESS: _____ PRODUCER CUSTOMER ID #: MARK-C5 | |
| | 480-946-3512 | | |
| INSURED Markham Contracting Co., Inc. 22820 N. 19th Avenue Phoenix, AZ 85027 | INSURER(S) AFFORDING COVERAGE | | NAIC # |
| | INSURER A: Zurich American Ins. Company | | 16535 |
| | INSURER B: Travelers Prop. Cas. Co. of Americ | | 25674 |
| | INSURER C: | | |
| | INSURER D: | | |
| INSURER E: | | | |

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADOL | SUBR | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|----------|---|------|------|---------------|-------------------------|-------------------------|---|--|
| A | <input checked="" type="checkbox"/> GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Per Proj Agg GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC | X | X | GLA4277487 | 06/01/11 | 06/01/12 | EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 | |
| | <input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS <input checked="" type="checkbox"/> Hired Auto | X | X | GLA4277487 | 06/01/11 | 06/01/12 | COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ | |
| | <input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DEDUCTIBLE \$ RETENTION \$ | | | | | | EACH OCCURRENCE \$ AGGREGATE \$ | |
| A | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below | Y/N | N/A | X | WC9669914 | 06/01/11 | 06/01/12 | <input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000 |
| B | Rented/Leased Equipment | | | QT6605629B326 | 06/01/11 | 06/01/12 | 1,500,000 3,000,000 Per Item Occurrence | |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

City of Glendale, Arizona is listed as an additional insured on a primary noncontributory basis per Form U-GL-1175-C CW 07/10 & CA 20 48 02 99 regarding work performed by the named insured under Project 101103, Missouri Avenue Waterline Extension. Markham Job #3753. Waiver of Subrogation applies per attached Forms CG 24 04 05 09; U-CA-320-B CW 4/94 & WC 00 03 13.

CERTIFICATE HOLDER**CANCELLATION**

| | |
|---|---|
| CIT1039 City of Glendale, Arizona Attn: Engineering Department 5850 W. Glendale Ave. Glendale, AZ 85301 | SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Kathryn K Allen</i> |
|---|---|

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ZURICH®

Additional Insured – Automatic – Owners, Lessees Or Contractors

| Policy No. | Eff. Date of Pol. | Exp. Date of Pol. | Eff. Date of End. | Producer No. | Add'l. Prem | Return Prem. |
|------------|-------------------|-------------------|-------------------|--------------|-------------|--------------|
| GLA4277487 | 06/01/2011 | 06/01/2012 | 06/01/2011 | 47607-000 | N/A | N/A |

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

Named Insured: Markham Contracting Co., Inc.

Address (including ZIP Code): 22820 N. 19th Avenue
Phoenix, AZ 85027

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part

- A. Section II – Who Is An Insured is amended to include as an insured any person or organization who you are required to add as an additional insured on this policy under a written contract or written agreement.**
- B. The insurance provided to the additional insured person or organization applies only to "bodily injury", "property damage" or "personal and advertising injury" covered under Section I - Coverage A - Bodily Injury And Property Damage Liability and Section I - Coverage B - Personal And Advertising Injury Liability, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:**
1. Your acts or omissions; or
 2. The acts or omissions of those acting on your behalf,
- and resulting directly from your ongoing operations or "your work" as included in the "products-completed operations hazard", which is the subject of the written contract or written agreement, performed for the additional insured person or organization.
- C. However, regardless of the provisions of Paragraphs A. and B. above:**
1. We will not extend any insurance coverage to any additional insured person or organization:
 - a. That is not provided to you in this policy; or
 - b. That is any broader coverage than you are required to provide to the additional insured person or organization in the written contract or written agreement; and
 2. We will not provide Limits of Insurance to any additional insured person or organization that exceed the lower of:
 - a. The Limits of Insurance provided to you in this policy; or
 - b. The Limits of Insurance you are required to provide in the written contract or written agreement.
- D. The insurance provided to the additional insured person or organization does not apply to:**
- "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering or failure to render any professional architectural, engineering or surveying services including:
1. The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and
 2. Supervisory, inspection, architectural or engineering activities.

E. The additional insured must see to it that:

1. We are notified as soon as practicable of an "occurrence" or offense that may result in a claim;
2. We receive written notice of a claim or "suit" as soon as practicable; and
3. A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured, if the written contract or written agreement requires that this coverage be primary and non-contributory.

F. For the coverage provided by this endorsement:

1. The following paragraph is added to Paragraph 4.a. of the Other Insurance Condition of Section IV – **Commercial General Liability Conditions**:

This insurance is primary insurance as respects our coverage to the additional insured person or organization, where the written contract or written agreement requires that this insurance be primary and non-contributory with respect to any other policy upon which the additional insured is a Named Insured. In that event, we will not seek contribution from any other such insurance policy available to the additional insured on which the additional insured person or organization is a Named Insured.

2. The following paragraph is added to Paragraph 4.b. of the Other Insurance Condition of Section IV – **Commercial General Liability Conditions**:

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

- G. This endorsement does not apply to an additional insured which has been added to this policy by an endorsement showing the additional insured in a Schedule of additional insureds, and which endorsement applies specifically to that identified additional insured.

All other terms and conditions of this policy remain unchanged.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:

ANY PERSON OR ORGANIZATION THAT REQUIRES YOU TO WAIVE YOUR RIGHTS OF RECOVERY, IN A WRITTEN CONTRACT OR AGREEMENT WITH THE NAMED INSURED THAT IS EXECUTED PRIOR TO THE ACCIDENT OR LOSS.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. Transfer Of Rights Of Recovery Against Others To Us of Section IV - Conditions:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

POLICY NUMBER: GLA4277487

COMMERCIAL AUTO
CA 20 48 02 99

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM
GARAGE COVERAGE FORM
MOTOR CARRIER COVERAGE FORM
TRUCKERS COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "Insureds" under the Who Is An Insured Provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

| | |
|--|--|
| Endorsement Effective: 06/01/2011 | Countersigned By: |
| Named Insured: Markham Contracting Co., Inc. | <i>Kathryn J. Allen</i> (Authorized Representative) |

SCHEDULE

Name of Person(s) or Organization(s):

ANY PERSON OR ORGANIZATION WITH WHOM YOU HAVE AGREED, THROUGH WRITTEN CONTRACT, AGREEMENT OR PERMIT, EXECUTED PRIOR TO THE LOSS, TO PROVIDE ADDITIONAL INSURED COVERAGE.

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to the endorsement.)

Each person or organization shown in the Schedule is an "insured" for Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured Provision contained in Section II of the Coverage Form.



Waiver Of Transfer Of Rights Of Recovery Against Others To Us

| Policy No. | Eff. Date of Pol. | Exp. Date of Pol. | Eff. Date of End. | Agency No. | Addl. Prem. | Return Prem. |
|------------|-------------------|-------------------|-------------------|------------|-------------|--------------|
| GLAA277487 | 06/01/2011 | 06/01/2012 | 06/01/2011 | 47607-000 | N/A | N/A |

This endorsement is issued by the company named in the Declarations. It changes the policy on the effective date listed above at the hour stated in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY..

Named Insured: Markham Contracting Co., Inc.
Address (including ZIP code): 22820 N. 19th Avenue
Phoenix, AZ 85027

This endorsement modifies insurance provided under the:

- Business Auto Coverage Form**
- Truckers Coverage Form**
- Garage Coverage Form**
- Motor Carrier Coverage Form**

SCHEDULE

Name of Person or Organization: ALL PERSONS AND/OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON OR ORGANIZATION.

We waive any right of recovery we may have against the designated person or organization shown in the schedule because of payments we make for injury or damage caused by an "accident" or "loss" resulting from the ownership, maintenance, or use of a covered "auto" for which a Waiver of Subrogation is required in conjunction with work performed by you for the designated person or organization. The waiver applies only to the designated person or organization shown in the schedule.

Countersigned: Kathryn K. Allen Date: 05/24/2011

WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE POLICY

WC 00 03 13

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement, effective on June 1, 2011 at 12:01 A.M. standard time, forms a part of

Policy No. WC9669914 of the Zurich American Insurance Company
issued to Markham Contracting Co., Inc.

Kathryn K. Allen

Authorized Representative

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.*

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

ALL PERSONS AND/OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON AND/OR ORGANIZATION.

SUPPLEMENTAL GENERAL CONDITIONS

1. GENERAL: By Ordinance No. 1110 New Series, the City of Glendale adopted the "Uniform Standard Specifications for Public Works Construction," which are sponsored and distributed by the Maricopa Association of Governments. Copies of these documents, with revisions, are on file in the office of the City Engineer of the City of Glendale, and are hereby made a part of these Contract Documents.

Whenever in the Uniform Standard Specifications, the words "The Contracting Agency" are used, the meaning shall be the City of Glendale.

In all cases where ASTM, AASHTO, AWWA, USAG, Federal, City of Phoenix, MAG Specifications, Maricopa County, Arizona State Highway, or other standard specifications are referred to, unless otherwise stated, revisions, supplements or addenda issued on or before the date of this contract, shall prevail. In the event of any conflict between these project specifications and the requirements of the plans, detail drawings, MAG Standard Details and Specifications, these project specifications shall prevail.

2. DEFINITIONS: The following terms, as used in or pertaining to the Contract Documents, are defined as follows:

CITY: The word "City" refers to the City of Glendale, Arizona. The official representative of said City in these proceedings shall be the City Engineer.

CONTRACTOR: The word "Contractor" means the person, firm, or corporation with whom the Contract is made by the City.

MATERIALS: The term "Materials" includes, in addition to materials incorporated in the project, equipment and other material used and/or consumed in the performance of the work.

SUBCONTRACTOR: The word "Subcontractor" includes those having a direct contract with the Contractor and those who furnish material worked to a special design according to the plans and/or specifications for this work, but does not include those who merely furnish materials not so worked.

ENGINEER: The word "Engineer" means a person, firm or corporation duly authorized by the City, to act for the City in staking out the work, inspecting materials and construction, and interpreting plans and specifications.

CONTRACT DOCUMENTS: The words "Contract Documents" mean the Notice to Contractors, Information for Bidders, "Uniform Standard Specifications for Public Works Construction," MAG General Conditions, Supplemental General Conditions, Special Provisions, Supplemental Specifications, Proposal, Contract, Payment Bond, Performance Bond, Certificates of Insurance, Plans and Addenda thereto.

3. PROPOSAL QUANTITIES: It is expressly understood and agreed by the parties hereto that the quantities of the various classes of work to be done and material to be furnished under this Contract, which have been estimated as stated in the Proposal, are only approximate and are to be used SOLELY for the purpose of comparing, on a consistent basis, the proposals offered for the work under this Contract; and the Contractor further agrees that the City will not be held responsible if any of the quantities shall be found incorrect; and the Contractor will not make any claim for damages or for loss of profits because of a difference between the quantities of the various classes of work as estimated and the work actually done. If any error, omission, or mis-statement is found to occur in the estimated quantities, the same shall not invalidate this Contract or release the Contractor from the execution and completion of the whole or any part of the work in accordance with the specifications and the plans herein mentioned, or for the prices herein agreed upon and fixed therefore, or excuse him from any of the obligations or liabilities hereunder, or entitle him to any damages or compensation except as may be provided for in this Contract.

4. WITHDRAWAL OF PROPOSALS: No proposal shall be withdrawn following the opening and reading of the bids for a period of 50 days from the date of opening without the consent of the contracting agency through the body or agent duly authorized to accept or reject the proposal.

5. LOSSES AND DAMAGES: All loss or damage arising out of the nature of the work to be done or from the action of the elements, or from any unforeseen circumstances in the prosecution of the same, or from any unusual obstructions or difficulties which may be encountered in and/or during the prosecution of the work, or from any casualty whatsoever of every description, shall be sustained and borne by the Contractor at his own cost and expense except as otherwise provided by the contract documents or the laws of the State of Arizona.

6. DUST PREVENTION: The Contractor shall take whatever steps, procedures or means required to prevent abnormal dust conditions due to his construction operations in connection with this contract. The dust control measures shall be maintained at all times during construction of the project, to the satisfaction of the Engineer, in accordance with the requirements of the "Maricopa County Health Department Air Pollution Control Regulations" which have been adopted pursuant to A.R.S. § 36-779.

The Contractor shall be required to obtain the necessary permit from the Maricopa County Air Pollution Control Bureau, 1001 N. Central Ave., Phoenix, Arizona 85004 - telephone (602) 506-6727.

7. EXCESS MATERIAL: Excess material shall be removed from the work site and wasted at a location approved by the Engineer. Broken concrete and asphalt may be delivered to the Glendale Sanitary Landfill located at 115th Avenue and Glendale Avenue. The prevailing regulations and fee schedule will not be waived for work under this project. All materials, to be disposed of at the landfill, shall be weighed and disposed of at the prevailing rate.

8. STOCKPILE OF MATERIALS: The Contractor may place or stockpile materials in the public right-of-way, if approved by the Engineer, provided they do not prevent access to adjacent properties or prevent compliance with traffic regulations.

Traffic shall not be required to travel over stockpiled materials, and proper dust control shall be maintained.

9. REFUSE COLLECTION ACCESS: At any time the project construction shall require the closure or disruption of traffic in any roadway, alley, or refuse collection easement such that normal refuse collection will be interfered with, the Contractor shall, at least 48 hours prior to causing such closure or disruption, make arrangements with the Field Operations Department in order that refuse collection service can be maintained.

10. CLEAN-UP: After all work under this contract is completed, the Contractor shall remove all loose concrete, lumber, wire, reinforcing, debris, and other materials not incorporated in the work, from the site of the work. Clean-up shall include the removal of all excess pointing mortar materials within pipes and removal of over-size rocks and boulders left after finish grading. The contractor shall provide for the legal disposal of all waste products, debris, etc., and shall make necessary arrangements for such disposal.

11. SHOP DRAWINGS: The Contractor shall provide shop drawings as may be necessary for the prosecution of the work as required by the contract documents. The Engineer shall promptly review all shop drawings. The Engineer's approval of any shop drawing shall not release the Contractor from responsibility for deviations from the contract documents. The approval of any shop drawing which substantially deviates from the requirements of the contract documents shall be evidenced by a change order.

When submitted for the Engineer's review, shop drawings shall bear the contractor's certification that he has reviewed, checked, and approved the shop drawings and that they are in conformance with the requirements of the contract documents.

Portions of the work requiring a shop drawing or sample submission shall not begin until the shop drawing or sample submission has been approved by the Engineer. A copy of each approved shop drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.

12. PROTECTION OF FINISHED OR PARTIALLY FINISHED WORK: The Contractor shall properly guard and protect all finished or partially finished work, and shall be responsible for the same until the entire contract is completed and accepted, in writing, by the City. The Contractor shall turn over the entire work in full accordance with the specifications before final settlement shall be made.

13. STATUS OF EMPLOYEES: Contractor shall be responsible for assuring the legal working status of its employees and its subcontractor's employees.

14. LAWS AND REGULATIONS: This Contract shall be governed by and constructed in accordance with the laws of the State of Arizona. The Contractor shall keep himself fully informed of all existing and future City and County Ordinances and Regulations and State and Federal Laws and Occupational Safety and Health Standards (OSHA) in any manner affecting the work herein specified. He shall at all times observe and comply with said Ordinances, Regulations, or Laws.

15. PERMITS: The City has obtained certain required permits which are included in the project specifications, but it will be the duty of the Contractor to determine that all the necessary permits have been obtained. The Contractor shall, at his own expense, obtain all required permits which have not been furnished by the City. A no-fee permit will be issued for work in the City of Glendale right-of-way and easement. (Also see Paragraph 7. Dust Prevention.)

16. ELECTRIC POWER AND WATER: The Contractor shall make his own arrangements for electric power and water. Subject to the convenience of the City, he may be permitted to connect to existing facilities where available, but he shall meter and bear the cost of such power or water. Fire hydrant meters may be obtained from the City of Glendale. Installation and removal of meters should be scheduled at least forty-eight (48) hours in advance through the Public Works/Utilities Division at 930-2700. A \$1,555.50 deposit is required for each meter. The cost of the water is at the prevailing rate.

17. SURVEY CONTROL POINTS AND MONUMENTS: Existing survey monuments indicated on the plans or found during construction shall be protected by the Contractor, and in the event removal is necessary, removal and replacement shall be performed by permission of the Engineer, under direct supervision of the Engineer or his authorized representative. Survey monuments shall be constructed to conform to the requirements of MAG Specifications, Section 405, and Standard Details.

18. EXISTING UTILITIES: The Contractor is hereby advised that the location of all utilities, as shown on the plans, may not be complete nor exact and the Contractor shall satisfy himself as to the exact location of the utilities by contacting Blue Stake or the utility companies before proceeding with the work. After the underground utilities are located by Blue Stake or the utility company, the contractor shall excavate in a careful and prudent manner to prevent unwillful damage to the underground utilities.

In the event the Contractor or its Subcontractor damages an existing, properly identified underground City of Glendale water or sewer line, the Contractor shall be responsible for the repairs at its expense.

The exact location of all existing underground service utilities, whether or not indicated on the plans, shall be determined by the Contractor at no expense to the City, and he shall conduct his work so as to prevent interruption of service or damage to them.

The Contractor shall protect existing utility services and be responsible for their replacement if damaged by him, or to make necessary adjustment in their location, if required, in order to complete the work for his Contract.

Utility companies and other interested parties have been provided with construction plans and the construction schedule for this project. The Contractor shall comply with MAG Specifications 105.6 to cooperate with the utility companies.

19. MAINTENANCE OF IRRIGATION FACILITIES: Where irrigation facilities interfere with construction, the Contractor shall remove and replace the affected irrigation facilities to its original condition. Final acceptance of replaced facilities will depend upon final approval of the Engineer.

20. OVERHEAD UTILITY LINES AND POLES: Contractor is advised that when work around overhead lines and poles is required on a project the Contractor is required to coordinate with Utility Companies who own and operate overhead lines and poles. The coordination may include, but not be limited to the following activities: pole bracing, de-energizing of lines, and temporary relocations. Contractor is responsible to contact the applicable Utility Company representative and discuss his proposed construction methods; in order to determine what actions the Utility Company must take and the costs related to those actions. The Contractor shall include these costs in the applicable bid items for this project.

The primary and the backup representatives for this review and cost determinations are as follows:

| | | |
|-------------------------|------------------|--------------|
| Arizona Public Service: | Mr. Bobby Garza | 602-371-7989 |
| Qwest: | Mr. Ron Floyd | 602-630-1932 |
| Salt River Project: | Mr. Tim Rinn | 602-236-8694 |
| Salt River Project: | Ms. Mariann Ward | 602-236-6389 |
| Cox Communications: | Mr. Ron Pint | 623-328-3529 |
| Cox Communications: | Ms. Linda Facio | 623-328-3500 |

21. SOUTHWEST GAS FACILITIES EXPOSED DURING CONSTRUCTION: The Contractor, upon exposing a gas line during construction, shall call SOUTHWEST GAS at 602-271-4277. The Southwest Gas patrolman will respond, usually within an hour, to inspect the line. Minor cuts or abrasions to the pipe coating will be rewrapped and tracer wire will be reconnected at no cost to the City.

22. UNDERGROUND UTILITIES' BEDDING: All water, sewer, storm drain, irrigation and other conduits installed within the City of Glendale shall be bedded from bottom of excavation to one foot above the pipe with granular bedding material meeting the requirements of Section 601.4.6 of MAG Uniform Standard Specifications. The initial bedding under the pipe is required for pipe having an inside diameter of 12 inches or larger, and in all cases where rock larger than 1-1/2" is encountered in the trench bottom.

23. SEWER SERVICE LINES: The Contractor shall be responsible for locating, and protecting from damage during construction, all sewer service lines within the project which are not owned by the City. Contractor will be permitted to review the "as-builts" to assist Contractor in locating the non-City owned sewer service lines. These "as-builts" were prepared, and supplied to the City, by private developers or contractors who installed the non-City owned sewer service lines. Therefore, the City does not guarantee or warranty the accuracy of such "as-builts" and the contractor, as a condition for being allowed to review such "as-builts", hereby agrees to hold the City harmless for any and all damages or other expenses contractor may incur as a result of any inaccuracies or incorrect information in these "as-builts".

24. RIGHTS-OF-WAY: The City will provide rights-of-way and easements for all work specified in this Contract, and the Contractor shall not enter or occupy with man, tools, equipment or materials any private ground outside the property of the City of Glendale, Maricopa County, Arizona, without the consent of the owner of such property.

25. SUBCONTRACTS: Subcontracts shall be in accordance with, and the Contractor shall be bound by, the following provisions:

All subcontracts shall be subject to the approval of the City.

All subcontracts shall be in writing and shall provide that all work to be performed thereunder shall be performed in accordance with the terms of the Contract.

Certified copies of any and all subcontracts shall be furnished to the City Engineering Department; however, prices may be omitted.

Subcontracts shall conform to the regulations governing employment of labor.

The subcontracting of any part of the work will in no way relieve the Contractor of his responsibility under the Contract.

26. **PRE-CONSTRUCTION CONFERENCE:** After completion of the Contract Documents, to include bonds, insurance and signatures, and prior to the commencement of any work on the project, the Engineer will schedule a Pre-Construction Conference. This will be held at the City of Glendale, 5850 West Glendale Avenue, Glendale, Arizona.

The purpose of this Conference is to establish a working relationship between the Contractor, Utility Companies, and the Engineer. The agenda will include critical elements of the construction schedule, procedures for handling shop drawings and other submittals, cost breakdown of major lump sum items, payment application and processing, coordination with the involved utility companies, emergency telephone numbers for all representatives involved in the course of construction, and establishment of the Notice to Proceed date.

Minimum attendance by the Contractor shall be a responsible official of the company/corporation, who is authorized to execute and sign documents on behalf of the company/corporation.

27. **OVERTIME:**

Regular Work Hours: The work required to be performed by the Plans and Specifications for the Project shall be performed only during regular working hours, unless the City has authorized overtime work in accordance with the procedures set forth below. Regular working hours shall be defined as one 8-1/2 hour shift per day, Monday through Friday, or, upon prior approval of the City, one 10-1/2 hour shift per day on a compressed four day work week during Monday through Friday. Regular working hours shall not include Saturdays, Sundays or City recognized legal holidays.

Authorization and Costs: If the Contractor desires to schedule work for times other than regular work hours (overtime), the Contractor shall make a written request to the City at least two business days prior to the scheduled overtime. The City reserves the right to deny the request to work overtime based on the best interest and needs of the City. If an overtime request is denied, the City may, at its sole discretion, extend the contract time at no additional costs to the City.

In the event the Contractor does perform work overtime, with or without the prior approval of the City, the Contractor shall be responsible to the City for all additional costs that may be incurred by the City as a result of the Contractor's overtime work, including costs for engineering, inspections, testing, surveying and construction administration, all in accordance with MAG Section 108.5. However, the Contractor shall not be responsible for City's costs incurred as a result of overtime work requested by the City or overtime work resulting from an emergency which is not the responsibility of the Contractor or its employees, subcontractors or suppliers. The City's cost will be billed directly to the Contractor or may, at the City's option, be deducted from monies due the Contractor.

28. **CONTRACTOR'S CONSTRUCTION SCHEDULE:** Concurrently, with the execution of the contract and prior to the pre-construction conference, the Contractor shall submit a preliminary schedule for the Engineer's acceptance. The schedule shall be in sufficient detail to allow the Engineer to determine if the proposed schedule will conform to an approved program of construction operations, as determined by the contracting agency. Within ten calendar days after the preliminary schedule, described above, has been approved by the Engineer, the Contractor shall submit a progress schedule, utilizing the critical path method scheduling technique, showing the order in which he proposes to carry out the work, the dates on which he will start each phase of the work, and the contemplated date

for completion of each phase. The Contractor shall not be permitted to commence construction until the schedule complying with this paragraph has been submitted to the City. The Contractor will not be granted any extension to the contract time or compensation for any damages as a result of the City's refusal to allow Contractor to commence construction until the critical path method progress schedule has been submitted and approved by the Engineer.

The critical path method (CPM) scheduling technique requires a breakdown of the entire work into individual tasks and an analysis of the number of days required to perform each task. The schedule submitted to the City should highlight and identify the critical path for the project. After the work is in progress, the Contractor shall submit supplementary progress schedules, using the critical path method technique, of the progress to date and projection for completion. The supplementary progress schedules shall be submitted with each pay request in accordance with the paragraph, "Payments to Contractors," of these Supplemental General Conditions. The progress schedules shall be subject to the approval of the Engineer. In the event the Contractor fails to submit a supplementary progress schedule acceptable to the Engineer, the City may withhold further progress payments to the Contractor until the Contractor submits an acceptable supplementary progress schedule, which is approved by the Engineer, to the City. Schedule changes requiring an increase in the City's engineering personnel on the project shall not be put into effect until the Engineer has approved such increase and made arrangements for the required additional personnel.

29. CHARACTER OF WORKMEN: None but skilled foremen and workmen shall be employed on work requiring special qualifications. When required by the Engineer, the Contractor shall discharge any person who is, in the opinion of the Engineer, disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable. The Contractor shall keep the City harmless from damages or claims for compensation that may occur in the enforcement of this section of the specifications.

30. HINDRANCES AND DELAYS: Except as otherwise provided herein, no charge shall be made by the Contractor for hindrances or delays from any cause during the progress of the work embraced in this Contract; but such delays, if due to no fault or neglect of the Contractor, shall entitle the Contractor to an extension of time allowed for completing the work, sufficient to compensate for the delay, the amount of the delay to be determined by the Engineer, provided the Contractor shall give said Engineer immediate notice in writing of the cause of such delay.

30.1 Delay: In the event of a delay for which the City is solely responsible, which is unreasonable under the circumstances and which was not within the contemplation of City and Contractor at the time this Contract is executed, City and Contractor shall negotiate, in good faith, a payment by the City to Contractor for the expenses incurred by Contractor as a result of such delay, in accordance with the City of Glendale Engineering Department's POLICY STATEMENT FOR CALCULATING DELAYS AND DAMAGES. This provision shall not be construed to void any provision in the contract which requires notice of delay or provides for liquidated damages. However, if the delay is the result of any act or neglect of a third party, including the architect, engineer or other contractor employed by the City, or by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably foreseeable, unavoidable casualties, or any causes beyond the Contractor's control, the Contractor shall not be entitled to any payments or compensation for expenses incurred as a result of such delay, but the Contract Time shall be extended by Change Order for such reasonable time as the Engineer may determine. No extension or compensation will be granted for any delay which is the result, wholly or partially, of any act or neglect of Contractor or any Subcontractor hired by Contractor.

31. LIQUIDATED DAMAGES:

31.1 Should the contractor fail to substantially complete the work under this contract within the time for completion stated in the paragraph "Time of Completion," in the Information for Bidders, then the contractor shall pay the City of Glendale, Arizona, liquidated damages, pursuant to the provisions of Section 108.9, Standard Specifications for Public Works Construction, Maricopa Association of Governments, until the work is substantially complete.

31.2 Should the contractor fail to fully and finally complete the work under this contract within the

time for completion set forth in the paragraph "Time of Completion," in the Information for Bidders, even though the contractor has achieved substantial completion of the work within such time, then the contractor shall pay the City of Glendale, liquidated damages (pursuant to the provisions of Section 108.9, Standard Specifications for Public Works Construction, Maricopa Association of Governments), in an amount equal to 100% of the applicable liquidated damage rate set forth in MAG Section 108.9 for each and every calendar day of delay until the work is fully and finally complete and accepted.

31.3 The date of substantial completion shall be the date when the work is sufficiently complete, in accordance with the contract documents, so the owner can fully occupy and utilize the work or designated portion thereof for the use for which it is intended, with all the project's parts and systems operable as required by the contract documents and all the work is complete, accessible, operable, and usable by the owner for its intended purpose(s), and all parts, systems and sitework are 100% complete and cleaned for the owner's use. Only incidental corrective work and final cleaning (if required), beyond cleaning needed for the owner's full use, may remain for final completion.

31.4 Full and final completion shall be that date when all work under the project, including incidental corrective work under punch list and final cleaning, has been completed and the entire project is accepted by the owner.

32. PAYMENTS TO CONTRACTOR: The measurements of quantities and the payments to the Contractor shall be in accordance with MAG Uniform Standard Specifications for Public Works Construction, Part 100 - General Conditions, Section 109 - Measurements and Payments.

Payments will be made on the basis of itemized, monthly statements prepared by the City and signed by the Contractor. The Contractor shall submit an itemized, duly certified and approved estimate for work completed through the last day of the preceding month in accordance with MAG Specifications, as amended by these Supplemental General Conditions. Upon approval of the pay estimate, the City will mail the check directly to the Contractor.

The pay estimate shall be accompanied by an updated progress schedule as required by these Supplemental General Conditions and a cash flow report when required by the Special Provisions. Approval of progress payments shall be conditional upon submittal of progress schedules and cash flow reports, when required, which are acceptable to the Engineer.

Upon 100% completion and acceptance of the project, and with the request for final payment, the Contractor shall complete and submit the "Contractor's Affidavit Regarding Settlement of Claims" form which is included in these specifications. Before final payment and release of retention, Contractor must arrange for its Surety to provide the City with a fully executed AIA Consent of Surety form. To avoid delays in the final payment, the Surety may send the Consent of Surety directly to the City via fax at (623) 915-2689, and mail the original to the City of Glendale Engineering Department, 5850 West Glendale Avenue, Glendale, Arizona 85301. Should any ambiguity arise between the Contract and these Conditions, the provisions of the Contract shall prevail.

END OF SUPPLEMENTAL GENERAL CONDITIONS



Project Life Cycle Cash Flow Schedule

Project No.: _____ Date: _____

Project Name: _____

Company Name: _____

Project Start Date: Project Completion Date:
 Original Updated Revised

| Qtr. | Fiscal Yr. | Estimated | | Actual | |
|--------|---------------|-----------|--------|--------|--------|
| | | Amount | Accum. | Amount | Accum. |
| 1st | 07/06 - 09/06 | \$ - | | | |
| 2nd | 10/06 - 12/06 | | | | |
| 3rd | 01/07 - 03/07 | | | | |
| 4th | 04/07 - 06/07 | | | | |
| 1st | 07/07 - 09/07 | | | \$ - | \$ - |
| 2nd | 10/07 - 12/07 | | | | |
| 3rd | 01/08 - 03/08 | | | | |
| 4th | 04/08 - 06/08 | | | | |
| 1st | 07/08 - 09/08 | | \$ - | \$ - | \$ - |
| 2nd | 10/08 - 12/08 | | | | |
| 3rd | 01/09 - 03/09 | | | | |
| 4th | 04/09 - 06/09 | | | | |
| 1st | 07/09 - 09/09 | \$ - | \$ - | \$ - | \$ - |
| 2nd | 10/09 - 12/09 | | | | |
| 3rd | 01/10 - 03/10 | | | | |
| 4th | 04/10 - 06/10 | | | | |
| 1st | 07/10 - 09/10 | | | | |
| 2nd | 10/10 - 12/10 | \$ - | \$ - | \$ - | \$ - |
| 3rd | 01/11 - 03/11 | | | | |
| 4th | 04/11 - 06/11 | | | | |
| Totals | | \$ - | | \$ - | |

* COG's fiscal year is July 1, (current year) through June 30, (following year)

For Engineering Use Only:

Account No: _____

PO No. _____

CONSTRUCTION SIGN DETAIL

CONSTRUCTION SIGNS ARE TO BE IN PLACE BEFORE PHYSICAL CONSTRUCTION BEGINS

SIGNS SHALL BE MADE OF 3/4" AC EXTERIOR PLYWOOD OR OTHER MATERIAL APPROVED BY THE ENGINEER

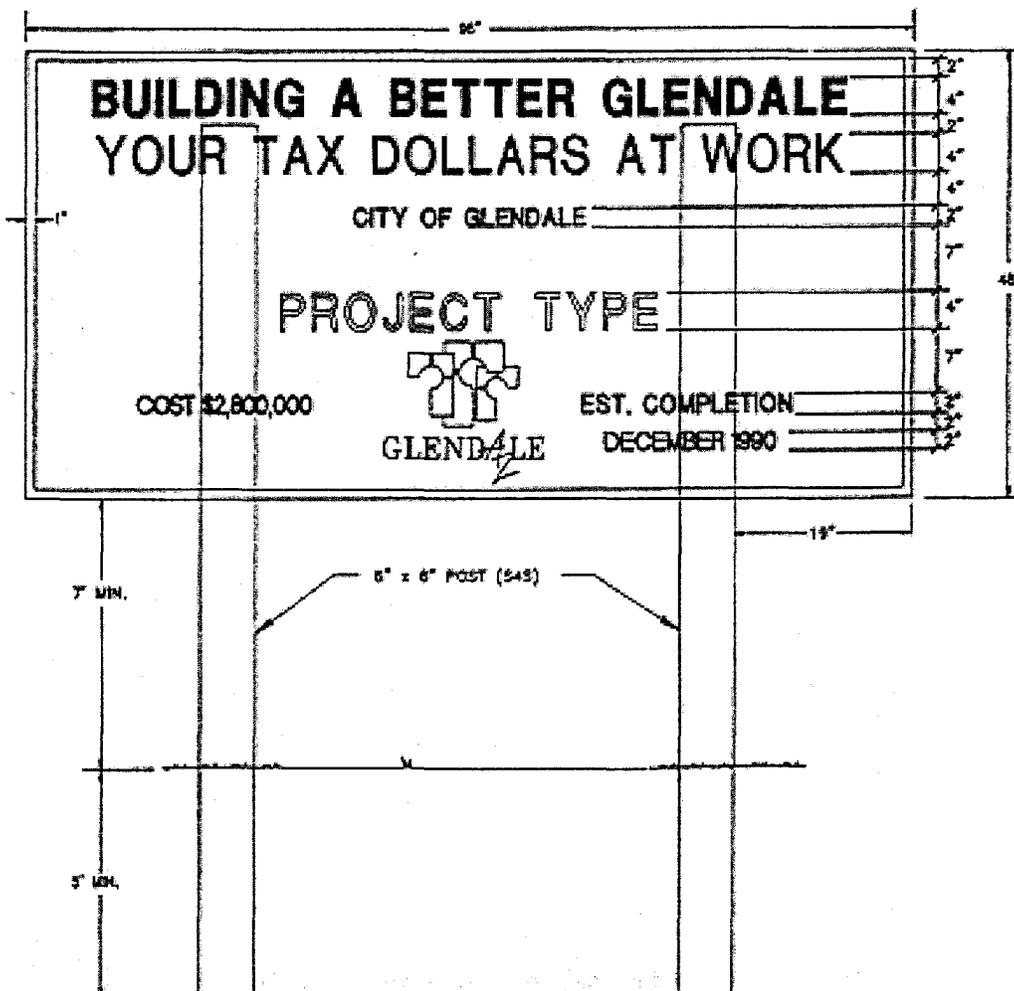
BACKGROUND TO BE PAINTED WHITE WITH STENCIL BLACK LETTERS, NUMERALS AND BORDER.

POSTS SHALL BE PAINTED WHITE. ALL MOUNTING HARDWARE TO BE RUST PROOF MATERIAL

SIGNS SHALL BE SO PLACED THAT THEY WILL NOT OBSCURE OR DETRACT FROM OTHER SIGNING.

CONTRACTOR TO FILL IN THE PROJECT TYPE, COMPLETION DATE, AND COST AS DIRECTED.

THE 12"X13" TWO COLOR GLENDALE LOGO IS AVAILABLE BY CONTACTING THE CITY OF GLENDALE ENGINEERING DEPT. COST \$16.00



SPECIAL PROVISIONS

1. SCOPE OF WORK:

The construction of 1,249 lineal feet of 8-inch water line in Missouri Avenue from 45th Avenue to Grand Avenue including four (4) new fire hydrants, six (6) 8" water valves, one (1) 16" water valve and two (2) 1" water service connections as shown on the construction plans. In addition, this project includes the removal of an existing 16" butterfly valve located on the west side of the Missouri Avenue/Grand Avenue intersection within Burlington Northern Santa Fe (BNSF) Railway Company property.

2. DEFINITIONS:

2.1. Section: Reference to a Section on the plans or in these Specifications shall mean a Section of the Uniform Standard Specifications for Public Works Construction, sponsored and distributed by Maricopa Association of Governments (MAG), latest revision. The provisions of MAG Uniform Standard Specifications and Details for Public Works Construction, which are not altered or modified by the drawings or by these Special Provisions or by any subsequently issued Addendum, shall apply to the contract even though the Contractor's attention is not specifically drawn to such provisions.

2.2. Standard Detail: Reference to a MAG Standard Detail (MAG S.D.) on the plans or in these specifications shall mean a standard detail drawing in the latest revision of the Uniform Standard Specifications for Public Works Construction, sponsored and distributed by Maricopa Association of Governments. City of Glendale Standard Detail (C.O.G. S.D.) shall mean a standard detail drawing in the City of Glendale's Engineering Design and Construction Standards, latest revision. City of Phoenix Standard Detail (C.O.P. S.D.) shall mean a standard detail drawing in the Phoenix Supplemental Standard Details for Public Works Construction, latest revision.

3. ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES):

Add the following new section:

Subsection 107.2.1 - AZPDES Permit Requirements:

3.1. This project is subject to the Arizona Pollutant Discharge Elimination System (AZPDES) Stormwater requirements for construction sites under the Environmental Protection Agency (EPA) General Permit for Arizona. Under provisions of that permit, the Contractor shall be designated as permittee, and shall take all necessary measures to assure compliance with the AZPDES General Permit for Arizona as well as all other applicable Federal, State and local laws, ordinances, statutes, rules and regulations pertaining to stormwater discharge. As the permittee, the Contractor is responsible for preparing, in a manner acceptable to the EPA, **ADEQ, and the City of Glendale**, all documents required by this regulation, including but not necessarily limited to

A. Stormwater Pollution Prevention Plan (SWPPP) for the project, including certification of compliance form. Contractor shall be required to develop, implement, update and revise the SWPPP, as necessary, in order to assure compliance with the ADEQ permit requirements. **All SWPPP revisions must be reviewed by the City of Glendale's Land Development Engineer prior to implementation.** The SWPPP shall be retained on the project site at all times during construction.

B. Notice of Intent (NOI) to assure compliance with the AZPDES General Permit for Arizona, including certification of signatures.

C. Notice of Termination (NOT) of coverage under AZPDES General Permit for Arizona.

3.2. Three copies of the SWPPP and the NOI shall be submitted to the City of Glendale during the pre-construction meeting and shall be subject to review by the City prior to implementation.

3.3. Contractor shall submit the completed and duly signed NOI forms no later than forty-eight (48) hours prior to the **pre-construction meeting** for the project to the following agency:

Arizona Department of Environmental Quality; Surface Water Section/Stormwater
and General Permits Unit
1110 West Washington, 5415A-1
Phoenix, AZ 85007

The contractor may also go online and use the Stormwater SMART NOI System at:

<http://www.az.gov/webapp/noi/main.doc>

Failure by the Contractor (or Subcontractors of any tier) to submit NOI's within the mandated time frame shall result in delay of the construction start date, and no claim for extension of time will be granted for such delay. A copy of the completed NOI shall be posted at the construction site.

3.4. Inspections of all stormwater pollution control devices on the project shall be performed by the Contractor on a monthly basis and following each rainfall of 0.50 inches or more in a 24-hour period at the project site as required under provisions of the AZPDES General Permit for Arizona. Contractor shall prepare reports on such inspections and retain the reports for a period of three years following the completion of the project. Inspection reports shall be submitted monthly to the City along with progress payment requests. Additionally, Contractor shall maintain all stormwater pollution control devices on the project in proper working order, which shall include cleaning and/or repair during the duration of the project.

3.5. Contractor warrants that its employees and Subcontractors of any tier and their employees shall at all times comply with all applicable laws, ordinances, statutes, rules and regulations set forth by all federal, state and local governments and the Arizona Department of Environmental Quality in connection with AZPDES Permitting requirements and laws and regulations pertaining to air, groundwater and surface water quality.

Fines and penalties imposed by the ADEQ against the City of Glendale or the Contractor, for Contractor's failure to comply with any of the requirements of AZPDES General Permit of Arizona, shall be borne by the Contractor.

3.6 Upon project completion, acceptance and demobilization, Contractor shall use the SMART NOI web-based service to complete the NOT process and also provide a copy of the

NOT to **the City of Glendale** thereby terminating all AZPDES permit coverage for the project. Contractor shall then surrender to the City all inspection information and other documents prepared and maintained by the Contractor in compliance of the AZPDES General Permit. Contractor shall retain the originals of such documents for a period of three (3) years following the completion of the project.

3.7 Copies of all required forms and guidance for preparing the SWPPP are available at the ADEQ website <http://www.adeq.gov/environ/water/permits/stormwater.html>.

3.8 The Lump Sum price for the SWPPP shall include all material, labor, and all other costs relating to the preparation, installation and maintenance of the SWPPP during project construction, including assuring proper operation of the pollution control devices installed, and all maintenance, cleaning, and disposal costs associated with clean-up and repair following storm events, runoff or releases on the project. The Lump Sum price for the SWPPP shall be inclusive of all costs, and no additional claims shall be made by Contractor under any other specification provision of these documents, including Change Conditions. Payment for this bid item shall be upon final completion and acceptance of the project, as per Section 109.1.

Payment for AZPDES / SWPPP permit requirements shall be made on the basis of lump sum for all work described in Subsection 107.2.1 for **ITEM 9 - ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)**. Payment shall include installation of inlet markers, supplied by the City, on all catch basins, scuppers, drywells and elsewhere as directed by the City. Markers shall be installed using a suitable 2-part epoxy as approved by the City.

4. **CONSTRUCTION SURVEYING AND LAYOUT:** The MAG Uniform Standard Specifications, Section 105.8 shall be modified as follows.

The work under this item shall consist of furnishing all materials, personnel, equipment, and traffic control necessary to perform all surveying, staking, and verification of the accuracy of all control points per the plans and as directed by the Engineer. Included in this work shall be all calculations required for the satisfactory completion of the project in conformance with the plans and these Special Provisions. The work shall be done under the direction of a registered professional engineer or a registered land surveyor employed by the Contractor. The crew chief shall be NICET Certified Level III or a registered land surveyor. The Contractor shall furnish all equipment, materials and other devices necessary for establishing, checking, marking and maintaining points, lines, grades and layouts.

Throughout the work, the Contractor shall set all stakes including, but not limited to; centerline stakes; offset stakes; reference point stakes; slope stakes; pavement lines, curb lines and grade stakes at intervals not greater than 25 feet; stakes for sewers, roadway drainage, pipe, under drains, clearing, paved gutter, fence, right of way markers, and survey monuments; blue tops of subgrade, subbase and base courses at intervals not greater than 50 feet; permanent as-built elevation marks; and all other horizontal or vertical controls necessary for complete and accurate layout and construction of the work. Stakes for horizontal and vertical curves shall be set at intervals appropriate for the length of curve. The coordinates of any new control points established by the Contractor during the course of the work shall be given to the Engineer within five working days of control point establishment.

Field notes shall be kept in standard field notebooks furnished by the Contractor. Field notes shall

be kept in a clear, orderly and neat manner consistent with standard surveying practices. The standard field notebooks or copies of, shall be made available to the Engineer upon request at any time during the prosecution of the work.

When utility adjustments are a part of the contract, the Contractor shall perform all layout work and set all control points, stakes and references necessary for carrying out all such adjustments. The Contractor shall cross-section all fill areas for monthly, quantity estimates and as directed by the Engineer. The Engineer may verify the accuracy of same. The Engineer shall check all measurements that involve determination of final quantities.

Any errors, omissions or discrepancies in the project plans shall be immediately brought to the attention of the Engineer. The Contractor shall promptly notify the Engineer in writing, explaining the problem in detail. The Engineer will advise the Contractor within three working days of any corrective actions deemed necessary. No changes in the project plans will be allowed without the approval of the Engineer.

The Contractor shall be compensated for additional work associated with survey and layout when:

- A. The project plans do not provide sufficient information and new calculations must be performed.
- B. The Contractor performs survey work based on erroneous plan information, which results in the duplication of work.
- C. Changes by the Engineer to the plan information for which the Contractor has already performed the work and results in the duplication of such work.

The Contractor shall not be due compensation for any survey work when:

- A. Information provided on the plans is sufficiently complete to allow any additional information necessary for the complete layout of the work to be routinely calculated.
- B. The Contractor fails to inform the Engineer of discovered plan errors before the performance of any extra survey work.
- C. Work is included in any other pay item.

The Contractor shall inform the Engineer in a timely manner of any omissions, ambiguities, or errors which the Contractor feels may result in extra calculations or survey work, so as not to delay the project or create any unnecessary calculations.

All additional survey work shall be documented by the Contractor and verified by the Engineer before compensation may be granted. Documentation shall consist of a detailed diary specifically addressing the work involved in the alleged problem area. The Contractor may be required to provide calculations, charts, graphs, drawings, or any other physical evidence, which will verify additional work.

The Contractor shall be responsible for verifying curb and gutter grades before placement of concrete using a steel straightedge, string line or other method approved by the Engineer. The

field verification shall be performed in the presence of the Engineer or designated representative.

The Engineer reserves the right to make inspections and random checks of the staking and layout. Inspection or acceptance of all or any part of the Contractor's staking and layout by the Engineer does not relieve the Contractor of full responsibility to secure the proper dimensions, grades and elevations of the work.

If, in the Engineer's opinion, the work is not being performed in a manner that will assure proper controls and accuracy, the Engineer will order any or all of the staking and layout work redone at no additional cost to the City. If any portion of the Contractor's staking and layout work is ordered redone and requires additional rechecking by the Engineer, the City shall be reimbursed for all costs for such additional checking. The amount of such costs will be deducted from the Contractor's monthly estimate.

The Contractor shall provide final "as-constructed" field surveying, including both vertical and horizontal data based on the finished work. The Contractor shall also furnish final Record Drawings for all improvements. The Record Drawings shall be prepared by a Registered Land Surveyor and submitted to the Owner for approval prior to final acceptance of the project. The Record Drawings shall be prepared on a set of reproducible copies of the construction plans. The completed drawings shall be signed and sealed by the Registered Land Surveyor responsible for obtaining the As-built information and preparing the Record Drawings.

All survey field books and documentation shall be available for inspection by the Engineer.

Payment for this item will be made at the contract lump sum price fully complete for **Item 2 - CONSTRUCTION SURVEYING AND LAYOUT.**

5. SUSPENSION OF WORK: The Engineer reserves the right to suspend the work wholly or in part if deemed necessary for the best interest of the City. This suspension will be without compensation to the Contractor, other than to adjust the contract time in accordance with MAG Section 108.

6. COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS: In all instances wherein the item and/or specifications require installation or construction in accordance with either manufacturers or supplier's recommendations and/or instructions, said recommendations and/or instructions shall be submitted with the applicable portions clearly marked for approval prior to the commencement of work on that item or portion of the contract.

7. TRAFFIC REGULATIONS:

7.1 All traffic affected by this construction shall be regulated in accordance with the City of Phoenix "Traffic Barricade Manual," the Manual of Uniform Traffic Control Devices and these Special Provisions. The following traffic restrictions are minimum requirements throughout the construction period:

- A. All traffic restrictions listed herein are to supplement the City of Phoenix "Traffic Barricade Manual," and are not intended to delete any part of the manual. All references in the City of Phoenix "Traffic Barricade Manual" and the "Manual of Uniform Traffic Control Devices to "arterial" and/or "collector" streets shall mean

"arterial and/or major arterial" streets and are referred to as "major" streets in the following sections.

- B. A minimum of two travel lanes (one for each direction) shall be opened to traffic at all times on all major streets. All work that enters or crosses a major street must be done at times other than 6:00 a.m. to 8:30 a.m., and 4:00 p.m. to 6:00 p.m. unless approved by the Transportation Director or designee.
- C. A travel lane shall be defined as ten (10) feet of roadway not obstructed by traffic control devices with a safe motor vehicle operating speed of twenty-five (25) miles per hour.
- D. A travel lane will not be considered as open to traffic until it has been graded reasonably smooth and is paved with a minimum of two (2) inches of asphalt. This shall be considered temporary pavement and shall be removed completely before proceeding with final surfacing.
- E. The Contractor shall provide and maintain all required and requested traffic control devices to protect and guide traffic for all work in the construction area.
- F. Intersection area shall be defined as all of the area within the right-of-way of intersecting streets, plus two-hundred fifty (250) feet beyond the center of the intersected streets on all legs of the intersection.
- G. The Contractor shall maintain all existing traffic signs erect, clean and in full view of the intended traffic at all times. Street name signs at major street intersections shall be maintained erect at all times. If any signs interfere with construction, the Contractor shall notify the Transportation Department at least 48 hours in advance before covering or removing said signage. The Contractor shall be responsible for reinstalling all signs removed or covered and verify they are correctly placed. The Transportation Department will inspect all signage prior to completion of project.
- H. Local access to all properties on the subject project shall be maintained at all possible times in the form of a safe and reasonable direct route to at least one of the above defined major streets. Whenever local access cannot be maintained, the Contractor shall notify the affected property owner or user and the Engineer at least seventy-two (72) hours in advance.
- I. The Contractor shall be required to provide a uniformed off-duty City of Glendale police officer to assist with traffic control whenever traffic in any one direction is restricted to one lane at a signalized major intersection or at other locations if it should become necessary in the opinion of the Transportation Director or designee. If the Contractor chooses to use a police officer at other locations during peak traffic hours or to assist with his other traffic control operations, the cost shall be included in the lump sum for "Traffic Control" and not paid out of the hours allowed for "Off Duty Glendale Police Officer." All requests for off-duty officers will be made through the Glendale Police Department, Off-Duty Work Administrator. The Contractor must provide evidence of workmen's compensation coverage before any officer will be permitted to work.

Measurement for payment of the uniformed off-duty Glendale police officer hours will be made by the actual number of man-hours used for traffic control at signalized major intersections or as approved by the Engineer. Because the quantity of hours is dependent on the Contractors schedule of activities, the unit price bid for this item will be administered as a contingency bid item and any adjustment in hours will not be subject to the 20 percent limitation.

Payment for the off-duty Glendale police officer will be made at the contract unit price bid per hour for **OFF DUTY GLENDALE POLICE OFFICER (ITEM 6)** and shall include the net hourly rate of \$35.00 per police officer with a three (3) hour minimum. The net hourly rate shall be increased to include withholding for Federal, State, FICA, Medicare, Workmen's Compensation insurance and any payroll administrative costs.

- J. The Contractor shall prepare a traffic control plan for the project and submit it to the City Transportation Director or designee for review and approval at least fifteen (15) working days prior to the start of construction. The Traffic Control Plan must be submitted through the City of Glendale On-Line Traffic Control Plan Application Process at <http://www.glendaleaz.com/transportation/TrafficControlForm.cfm>. The traffic control plan shall include Message Boards installed a minimum of (7) working days prior to restrictions when requested by the Transportation Director or Designee, additional public notification shall be required for major restrictions that impact adjacent stakeholders. Any changes to the traffic control plan during construction shall be submitted to the City Transportation Director or designee for approval at least seventy-two (72) hours before implementation. Payment for this item shall be made at the contract lump sum price for **TRAFFIC CONTROL (ITEM 7)**.
- K. It is the City's desire to maintain one lane of traffic in each direction on minor streets whenever possible. Should it become imperative for the Contractor to close off a portion of any minor street or reduce the travel way to a single lane, he/she must obtain approval from the City Transportation Director or designee, seventy-two (72) hours prior to implementing a traffic control change. He/she must provide all the necessary signs to detour traffic and/or flag person to control traffic for a single lane.
- L. Certain portions of the work will be done within ADOT right-of-way (Grand Avenue). The contractor will be required to obtain an ADOT right-of-way permit, submit a Traffic Control Plan to ADOT, and follow all requirements for this project from Arizona Department of Transportation as needed to complete the work to be done within ADOT right-of-way.

8. ENERGIZED AERIAL ELECTRICAL POWER LINES: The utility company maintains energized aerial electrical power lines in the immediate vicinity of this project. Do not consider these lines to be insulated. Construction personnel working in proximity to these lines are exposed to an extreme hazard from electrical shock. Contractors, their employees, and all other construction personnel working on this project must be warned of the danger and instructed to take adequate protective measures, including maintaining a minimum ten (10) feet clearance between the lines and all construction equipment and personnel. (See: OSHA Standard 1926.550(a)15.) As an additional safety precaution, Contractors should also be instructed to call the utility company to arrange, if possible, to have these lines de-energized or relocated when the work reaches their immediate vicinity. The cost of such temporary arrangements would be borne by the Contractor. The utility company can often respond to such requests if two days advance notice is given, but some situations may require up to sixty (60) days lead time for relocation or other arrangements.

9. WEEKLY NEWSLETTER: The Contractor shall prepare, subject to the approval of the Engineer, and distribute on a weekly basis by U.S. Mail, a one page newsletter containing a brief description of the work completed during the past week and work expected to be accomplished during the next week. Information such as, but not limited to, detours or hotline telephone numbers shall be included as required. Payment shall be made as a proportionate share of the lump sum as based on original calendar completion date, however, the Contractor shall continue preparation and distribution until one week after the date of substantial completion. The City shall supply the Contractor with a list of names and addresses not to exceed 500. Payment for this item shall be made at the contract price per job for **PUBLIC INFORMATION AND NOTIFICATION ALLOWANCE (ITEM 3)**.

10. CONCRETE GUTTER WATER TESTING: The MAG Uniform Standard Specifications, Section 340.3, CONSTRUCTION METHODS, shall be modified as follows: The 1/2 inch referenced in Paragraph 16 beginning, "When required by the Engineer, gutter having a slope of 0.8 foot...", shall be changed to 1/4 inch.

11. RECORD DRAWINGS: The Contractor shall maintain one set of contract drawings with all changes, deviations, additions and deletions clearly marked thereon. Upon completion of the work, this set of drawings, shall be marked "RECORD DRAWINGS," dated, and delivered to the Engineer prior to approval of the Contractor's final payment request.

12. CASH FLOW REPORT: The Contractor shall prepare a Cash Flow Report for projected monthly project cash flow on a City provided form and submit it for approval prior to issuance of the Notice to Proceed. The accumulation of monthly pay estimate costs shall be plotted versus time in accordance with the proposed construction schedule. After approval, the Contractor shall submit an updated Cash Flow Report prior to the receipt of each Progress Payment. Each updated Cash Flow Report shall reflect the Contractor's actual monthly payment versus the actual elapsed contract time.

At the City's request, if the projected quarterly project cash flow varies by more than ten percent of the total contract price, the Contractor shall prepare a revised Cash Flow Report. Each revised Cash Flow Report is subject to approval by the City prior to issuance of the progress payment.

Revisions to the report resulting from Contractor initiated delays or work schedule changes shall be at no cost to the City. Any revisions required by City initiated delays or changes to the work shall be paid as an integral part of the approved Change Order.

13. CONSTRUCTION SIGN: The project type to be indicated on the sign shall be "101103 - MISSOURI AVENUE WATERLINE EXTENSION - GRAND AVENUE TO 45TH AVENUE". See "Construction Sign Detail."

14. ALLOWANCE FOR CONSTRUCTION CONTINGENCIES: Bid schedule includes a lump sum contingency allowance. This allowance is at all times the property of the City and is for the sole purpose of reimbursing Contractor for any unforeseen work not apparent at the time of bidding or additional work requested by the CITY OF GLENDALE.

No work anticipated for reimbursement under this Bid Item shall be initiated by Contractor until Contractor, City of Glendale Representative and City of Glendale agree on the scope and cost to perform the additional work. The Contractor shall prepare and submit to City of Glendale Representative a cost itemization and summary for the additional work. City of Glendale Representative and City of Glendale shall review and approve prior to Contractor proceeding with any additional work. Any portion of the stated sum not expended remains the property of the City

of Glendale.

Work under this section shall consist of any additional work identified by the owner and contractor due to construction activity. All work under this item shall be itemized as per MAG requirements and deducted from the set amount of \$30,000.00. All work under this section shall include but is not limited to all necessary materials, tools, layout, survey and labor required to complete each task.

Measurement and payment for this item shall be made on an individual basis per task and as described above. Limit for this item is set at \$30,000.00 on the bid form, under line item **ALLOWANCE FOR CONSTRUCTION CONTINGENCY (ITEM 1).**

15. WORK WITHIN BNSF RIGHT-OF-WAY: The City will provide the Contractor with a copy of the Pipeline License Agreement between the City and BNSF Railway Company for the repair on the 16-inch waterline valve. The Contractor will be required to comply with all BNSF applicable safety rules and regulations and comply with BNSF insurance requirements. See Section 9 in Information for Bidders.

The Contractor should also note that the 16-inch valve lies in the concrete runway utilized by the crane for loading and unloading operations. The Contractor will need to coordinate construction sequencing and timing well in advance with the BNSF Terminal Manager to minimize disruptions to crane operations.

16. WATER LINE CONSTRUCTION:

16.1 General: Water line construction shall be performed as detailed in the project plans and specifications. These Supplemental Specifications shall take precedence over all other specifications, except the project Special Provisions and/or any and all Addenda to the project plans and specifications.

16.2 Pipe Materials:

- A. Pipe: Pipe used for water line 12-inch through 18-inch diameter shall be ductile iron pipe (DIP) and shall be in accordance MAG Uniform Standard Specifications for Public Works Construction Section 750 - Iron Water Pipe and Fittings, as modified by these specifications; and installation shall be in accordance with Section 610.3 (Materials) of the MAG Specifications, except as modified on the plans and in these specifications. The ductile iron pipe for water distribution lines 4-inch through 12-inch diameter shall be pressure class 350, polywrapped ductile iron pipe, in accordance with MAG Uniform Standard Specifications for Public Works Construction Section 750 and ANSI/AWWA C151/A21.51. The interior of the ductile iron pipe shall be smooth cement lined and given a seal coat of asphaltic materials in accordance with the most recent edition of AWWA C104. The exterior of the ductile iron pipe shall also be coated with an asphaltic material per the most recent edition of AWWA C104. All ductile iron pipe shall have push on joints unless otherwise specified on the plans, standard details or in these specifications. The ductile iron pipe for water transmission lines 14-inch through 18-inch diameter shall be pressure class 300, in accordance with ANSI/AWWA C151/A21.51.
- B. Restrained Joint Ductile Iron Pipe (RJDIP): Where RJ or RJDIP is called for on the plans, the ductile iron pipe shall conform to the requirements of the most recent edition of AWWA C-111. Restrained joints shall be Mega lug, as manufactured by EBAA Iron of Eastland, Texas, or equal, as approved by the Engineer.

- C. Polyethylene corrosion protection: All ductile iron pipe and fittings shall be encased in a polyethylene tube and installed in accordance with the most recent editions of AWWA C105 and AWWA C600 and installation shall also comply with Section 610.5 (Polyethylene Corrosion Protection) of the MAG Uniform Standard Specifications for Public Works Construction, except as modified on the plans and in these specifications.
- D. Fittings: Ductile iron pipe fittings shall be in accordance AWWA C110 and MAG Uniform Standard Specifications for Public Works Construction Section 750 - Iron Water Pipe and Fittings, as modified by these specifications; and installation shall be in accordance with Section 610.3 (Materials) of the MAG Specifications, except as modified on the plans and in these specifications. The interior of the ductile iron pipe fittings shall be smooth cement lined and given a seal coat of asphaltic materials in accordance with the most recent edition of AWWA C104. The exterior of the ductile iron pipe fittings shall also be coated with an asphaltic material per the most recent edition of AWWA C104. All ductile iron pipe fittings shall have mechanical joints unless otherwise specified on the plans, standard details or in these specifications.

16.3 Valves:

- A. Gate Valves: Gate valves shall be used on all water lines, 12" and smaller. The gate valves furnished and installed shall be resilient seated, solid wedge gate, fully encapsulated and open left, and installation shall comply with Section 630.3 (Gate Valves) of the MAG Uniform Standard Specifications for Public Works Construction, except as modified on the plans and in these specifications.

The following are the only acceptable manufacturers of valves to be used on public water mains: Clow, Mueller, Kennedy, American Flow Control and J & S.

- B. Tapping Sleeves and Valves: Installation shall comply with Section 630.4 (Tapping Sleeves and Valves) of the MAG Uniform Standard Specifications for Public Works Construction, except as modified on the plans and in these specifications. Gate valves for tapping valve installations shall be identical in construction with the previous specifications for gate valves.
- C. Blocking will be concrete only per MAG Standard Detail 380 and COG Detail G-601.
- D. Valve boxes shall be 8-inch slip joint concrete pipe or 8-inch SDR PVC with 8-inch lids. Lids shall have the word "WATER" clearly marked on them (see Detail G-660). Valve boxes shall also conform to MAG Detail 391-1, Type A.
- E. All new valve boxes shall have debris caps per MAG Detail 392.
- F. Bedding and backfill around all water valves shall conform to COG Detail G-690.
- G. If the valve operating nut is greater than 5-feet below finished grade, then an extension shall be required.
- H. Spacing: The maximum spacing of valves in industrial, commercial and multi-family districts shall be 500 feet. In single-family residential, the maximum spacing shall be 700 feet. A valve shall be placed at every tee and cross in the mainline, for each pipe run.

One fire hydrant if the preferred number to be out of service and twenty (20) homes per fire hydrant shutdown shall be the maximum number to be without water per closure.

- I. Location: In local streets, the valves shall be located within 3 feet of the tee or cross (see Detail G-607).

Valves for fire hydrant connections shall be flanged to the tee, except when a second valve is required, and then it shall be 20 feet from the hydrant. No valve shall be located in concrete pavement, sidewalks, brick pavers, or curb.

- J. Operation: All valves that control the City's energized water lines shall only be operated by a Valve System Operator from the City's Utilities Department or a City of Glendale Construction Engineering inspector.

City personnel will be responsible for opening and closing of all existing water valves where a contractor must tie into an existing water main stub. A minimum 24 hour notification is required.

Only City personnel shall turn on the water that lies between the new system and the existing system for the purposes of chlorinating the water lines, flushing lines, pressure testing water lines, and bacteria sampling.

Only City personnel shall operate valves that control the Water system Zone Split. These valves are normally designated by a welded "Z" on the valve cover with a debris cap inside the valve box.

16.4 Water Line Installation: Water line installation, testing and disinfection shall be performed in accordance with the most recent edition of the MAG Uniform Standard Specifications for Public Works Construction, Section 610 WATER LINE CONSTRUCTION, as modified on the plans and in these specifications.

- A. Pipe Bedding and Backfill Requirements:

All water lines within City of Glendale right-of-way or easements shall be constructed per City of Glendale Standard Detail G-690 and MAG Section 601 with the following modifications. All other specification sections of MAG Section 601 shall remain the same:

1. MAG 601.2.3 Trench Grade: This section shall apply for all pipes within City of Glendale right-of-way or easements, regardless of pipe diameter.
2. MAG 601.4.2 Bedding: *(This section of MAG to be replaced in its entirety.)*
 - a. Water lines installed in the City of Glendale easements and rights-of-way shall be bedded from bottom of excavation to one foot (compacted) above the top of pipe with MAG ABC material meeting the requirements of MAG Section 601.4.6 and MAG Section 702. Chips or open graded rock will not be permitted.
 - b. Bedding material for all sizes of pipe or conduit shall be placed in lifts, with the maximum compacted thickness not to exceed 8 inches. In no case shall the depth of the first lift exceed the spring line of the pipe.
 - c. Water consolidation is explicitly excluded for bedding material.
3. MAG 601.4.3 Backfill: *(This section of MAG to be replaced in its entirety.)*
 - a. Backfill material shall be clean sound earthen material free from broken concrete, broken pavement, wood or other deleterious material. Unless

otherwise specified, backfill may be screened native material with no piece larger than four (4) inches, select material or aggregate base course.

- b. Water consolidation shall not be permitted under any circumstance. Mechanical compaction shall be required except when ABC Slurry or CLSM is chosen as the backfill material. The maximum un-compacted lift thickness for mechanically compacted backfill shall be 12 inches for any trench width. Nothing contained in these specifications shall be construed to violate or reduce any trench shoring requirements normally required by O.S.H.A.
 - c. The moisture content of backfill materials shall be carefully maintained between the limits of +2 and -4 percent of optimum moisture content as determined by AASHTO T-99 or ASTM D-698.
 - d. Water consolidation is NOT an acceptable method of bedding or backfill compaction.
4. MAG 601.4.4 Compaction Densities: *(This section of MAG to be replaced as noted.)* Unless otherwise noted, all backfill compaction densities shall be 95.0% minimum as determined by ASTM D-2922 and D-3017 using the Standard Proctor Method, AASHTO T-99 or ASTM D-698.
 5. MAG 601.4.5 Compaction Methods: *(This section of MAG to be replaced in its entirety.)* Water consolidation for backfill will not be permitted within the City of Glendale. The backfill compaction shall be accomplished by mechanical methods using equipment such as rollers, pneumatic tamps, hydro hammers, or other approved devices which secure uniform and required density without injury to the pipe or related structures.
- B. Line Stop Valves: Line Stop Valve installations are intended to provide temporary isolation of sections of existing water lines (usually asbestos cement pipe, or ACP) that must be removed or re-aligned to accommodate new water line construction. The Line Stop Valves are to be used to minimize or prevent disruption of water service in the vicinity of the removal or re-alignment work. The unit price for each Line Stop Valve, on the Bid Schedule, shall include all labor, materials and equipment needed to implement the line stop, and remove and restore the area when the line stoppage is no longer required. This shall include, but is not necessarily limited to: excavation, shoring, existing water line exposure and pipe support, fittings, pipe tapping, testing, line stop insertion and removal, barricading and/or temporary surface plating, backfilling and compaction, pavement replacement and surface restoration and cleanup; all as required to provide a safe and effective Line Stop Valve installation. Actual Line Stop Valve fittings, equipment and installation, including pipeline tapping, line stop plug installation and removal shall be performed by Koppl Company, Inc., or an approved equal with at least ten years of demonstrated expertise in Line Stop Valve installation. Upon removal of the Line Stop Valve line plug, and installation of the blind flange on the Line Stop Valve tapping sleeve, a sensing wire or other suitable location system/device shall be installed so that the buried Line Stop Valve tapping sleeve can be relocated at a future date if needed.
- C. Half Sack Slurry Bedding and Backfill: At the Contractor's option, some or all of the backfill within the project area may consist of Sack Concrete Slurry in accordance with Section 728 of the MAG Uniform Standard Specifications for Public Works

Construction. No additional compensation will be made for Sack Concrete Slurry backfill, and the cost for using it must be included on the Bid Schedule in the unit price per linear foot of DIP.

- D. All water main stub-outs, all bends without valves and all end-of-service lines shall be located with an electronic marker of the 3M "Magic Ball" type, or an approved equal. The depth of the marker ball shall be no more than 3 feet below finished grade.
- E. Fire Hydrants: Fire hydrants shall be provided in accordance with the most recent edition of the MAG Uniform Standard Specifications for Public Works Construction, Section 756 FIRE HYDRANTS, and installation shall comply with COG SD G-660 and Section 610.8 (Fire Hydrants) of MAG, as modified on the plans and in these specifications. Where Fire Hydrants are called for on the plans and in the Bid Schedule, and unless otherwise noted, each fire hydrant shall be supplied with a 6" gate valve with MAG Standard Detail No. 391 Type 'A' valve box and cover, and with fire hydrant markers as detailed and required in City of Glendale Design Guidelines Standard Detail G-650. The cost of supplying and installing the fire hydrant; valve, box & cover; and fire hydrant markers shall be included in the unit price of each fire hydrant. The only acceptable fire hydrant models and manufacturers are: Kennedy Guardian, Mueller Centurion, Clow 2500, Clow Medallion and Waterous Pacer.
 - 1. Hydrants shall be installed in such a way that the depth of bury including extensions does not exceed 5 feet (see Details G-660 & G-665).
 - 2. Backfill around fire hydrants shall be MAG ABC compacted to the standards in Table 6.1, to avoid differential settling.
 - 3. Bedding over fire lines shall be MAG ABC with a minimum compacted thickness of 12" compacted according to the standards in Table 6.1.

16.5 Abandonments And Removals:

- A. Asbestos Cement Pipe (ACP): Where removal of asbestos cement pipe (ACP) is required, and unless otherwise noted on the plans or elsewhere in the specifications, the Contractor shall remove only as much ACP as must be removed to safely complete the connections, re-alignments and/or abandonments required. Furthermore, where possible, ACP shall be removed joint to joint without breaking or cutting anymore ACP than is absolutely necessary. All ACP removed shall be handled and disposed of in a safe and legal manner, and in compliance with all applicable federal, state and local laws, codes and regulations related to the handling and disposal of asbestos containing materials.
- B. Cutting and Plugging: Where cutting and plugging an existing pipeline (such as for abandonment) is called for on the plans, the Contractor shall cut and remove only as much pipe as is needed to complete the work. After cutting and removing pipe as needed, the contractor shall cap or plug the open ends of the remaining pipe, to the satisfaction of the Engineer, to prevent migration of bedding and/or backfill material into the abandoned pipeline. Furthermore, the cap or plug installed on any pipeline stub which will be pressurized after completing the cutting and plugging (or on the non-pressurized side of an abandoned valve which will be exposed to system water pressure) shall be a restrained-joint cap or plug, and a thrust block shall also be installed against the cap or plug to further restrain the installed cap or plug. The Contractor shall then backfill the excavation and perform surface restoration as needed to complete the work.

- C. Valve (& Valve Box) Abandonment: Where in-place abandonment of valves and valve boxes is called for on the plans or in the specifications, the contractor shall fill the valve box with concrete (Class C concrete is acceptable) to within 3" of the bottom of the valve box cover ring, and leave the valve box ring and cover intact. There is no separate pay item for this work, and the cost of this work shall be included in the bid item for Miscellaneous removal and other work.
- D. In-Place Abandonment: Where in-place abandonment is called for on the plans or in these specifications, the Contractor shall excavate down to and cut the pipe to be abandoned at the location shown on the plans, or on the non-pressurized side of the valve nearest to the main water pipe line which will remain in service. The Contractor shall cap or plug the cut pipe ends as previously specified. The Contractor shall then backfill the abandonment excavation and perform surface restoration as needed to complete the abandonment. Furthermore, all line valves that are on the abandoned water pipe shall be abandoned in-place by the Contractor as is detailed in these specifications in the previous section. There is no separate pay item for this work, and the cost of this work is to be included in the bid item for "Miscellaneous Removal and Other Work".
- E. Salvaging Materials: Where called for on the plans or in the specifications, the Contractor shall salvage materials removed during the course of construction. At least one work day in advance of the removal of an item scheduled for salvage, the Contractor shall notify the City of the approximate time the removal will take place to allow the City to make arrangements for receiving the salvaged item.

16.6 Services:

A. New Services:

1. New water services shall be installed in accordance with the most recent edition of the MAG Uniform Standard Specifications for Public Works Construction, Section 631 WATER TAPS AND METER SERVICE CONNECTIONS, and in strict accordance with City of Glendale Design Guidelines Standard Detail G-642, except as modified on the plans or in these specifications. The bid item for each size of new water service to be installed shall include all materials and labor for installation of each service line including: a double strap heavy duty bronze service saddle; a corp. stop; an average of 40 linear feet of Type 'K' copper roll pipe; an angle curb stop; a meter box with cover; and all backfill, compaction and surface restorations required to provide a complete new water service in accordance with COG Design Guidelines Standard Detail G-642.
2. Water meters shall not be located in sidewalks, parking lots, service driveways, residential driveways, or in areas of concrete or asphalt paving.
3. Meters will not be fenced in or enclosed and must be accessible at all times. Meter boxes will be installed so that any runoff will flow away from the meter.
4. The use of alternative material for backfilling any trench with an exposed water service line shall require the installation of a PVC conduit around the service line prior to backfilling. The size of the conduit will be two (2) times greater than the service line diameter. If Controlled Low Strength Material (CLSM) is used, then the water service shall be backfilled using ABC to within 1 foot above service.

5. Only soft K copper is to be used on water services. Copper service lines shall be continuous (no fittings) from main to meter box. Sweated joints will not be allowed in the City right-of-way. Only double strap brass saddles are to be used.
 6. All corporation stops, straight stops, and angle stops shall be pack joint, manufactured by Ford or meet the same specifications as those manufactured by Ford. Any other manufacturer must be approved by the City's Utilities Department.
- B. Replacing/Reconnecting Existing Services: Where replacing and reconnecting an existing service is called for on the plans or in the specifications, it shall include all of the materials and requirements as listed above for a new service except the existing meter box and cover shall be re-used, unless otherwise shown on the plans, in the specifications or directed in the field.
- C. Abandoning Existing Services: Unless otherwise shown on the plans or indicated in the specifications, where existing services are to be abandoned, they shall be abandoned in place by removing the water meter, water meter box and water meter setting materials. Where the water service line on the City side of the meter location is installed under non-paved surfaces (no asphalt or concrete), the water service shall be removed to a depth of 18 below finished grade; the service line stub remaining shall be crimped, folded over and tied or wrapped with wire to prevent unfolding. Where the water service line on the City side of the meter location is installed under paved surfaces (such as asphalt or concrete), if possible the water service line stub shall be crimped, folded over under the edge of pavement and tied or wrapped with wire to prevent unfolding. On the customer side of the meter location, the water service line adjacent to the meter location shall be crimped, folded over and tied or wrapped with wire to prevent unfolding. After removal of the meter materials and tying the ends of the water service stub on either side of the meter location, any open service line trench and the meter box hole shall be backfilled and compacted, and the surface restored. There is no separate pay item for this work, and the cost of this work shall be included in the bid item for miscellaneous removal and other work.

16.7. Maintaining Water Service: Water service shall be maintained at all times, except as authorized by the City. No individual water service shall be interrupted for a period longer than six (6) hours, unless prior approval is obtained from the affected water service customer, or unless provision is made for temporary water service from an alternate source during a service interruption in excess of six (6) hours. The Contractor shall notify the affected service at least 48 hours in advance of any water service shut-down. Prior to commencing construction, the Contractor shall provide the City with a listing of all individual services which must be temporarily interrupted, the anticipated duration of the interruption(s), and the planned date(s) of the interruption(s). Every effort shall be made to schedule service interruptions during off-peak and preferably non-use periods for the services affected.

17. PAVEMENT MARKINGS THERMOPLASTIC

17.1 General: The work under this section consists of the contractor furnishing all materials, preparing the pavement surface and installing the pavement markings. All pavement marking materials shall be approved by the City of Glendale Transportation Department prior to installation.

The contractor shall contact the City of Glendale Transportation Department (phone number (623-930-2940) a minimum of 72 hours in advance of striping lay-out to obtain the necessary lane

closure permits.

The contractor shall lay-out all striping and markings for the City of Glendale Transportation Department review and approval, a minimum of two (2) working days before installation.

All newly paved or over-lay roadways shall first be striped in water based paint and then re-striped with thermoplastic markings a minimum of 30 days after final paving. (See City of Glendale water based paint specifications for material type and installation).

Roadway striping shall not be done on weekends or holidays unless permission is granted in advance by the City Transportation Director, a minimum of two working days before installation.

All pavement striping dimensions are to face of curb and center of stripe, or to the center of double stripes.

17.2 Marking Removal: The contractor shall remove all existing pavement markings and striping in conflict with the final striping plan, by ultra high pressure water (36,000 P.S.I.) This removal method shall be done in conformance with E.P.A. requirements. If the removal of striping causes a depression of 1/8 inch or greater in depth in the pavement surface, the contractor shall seal the area with slurry per M.A.G. Standard Specifications 713 and 715, Type Two. Covering existing markings with black paint, tar or any other substance does not constitute line removal and will not be approved.

17.3 Lane Lines And Centerline: Application of the white lane line and yellow centerline striping shall be performed in accordance with Arizona Department of Transportation (ADOT) Standard Specification 704. The application equipment shall be truck mounted per ADOT Standard Specification 704-3.01.

Materials for white lane line and yellow center line striping shall be in accordance with ADOT Standard Specification 704 with the exception that the material shall be Alkyd Thermoplastic. All long line striping shall be spray type and be applied at a thickness of 60 mils.

All yellow and white broken lane lines shall have a common start point and cycle length, so as to be restriped simultaneously, using a common cycle length on both sides of the truck carriage. The cycle length is to be 40 feet with a 10 foot long line and a 30 foot space between lines.

17.4 Crosswalks and Stop Bars: Installation for striping all stop bars and crosswalks shall be in accordance with Section 704 of the ADOT Standard Specification, with the exception that the material shall be Alkyd Thermoplastic. The crosswalk and stop bars shall be the extruded type and applied at a thickness of 90 mils.

17.5 Pavement Turn Arrows and Symbols: Installation and material for left and right turn arrows shall be in accordance with Section 705 of the ADOT Standard Specifications. Material to be 3M Sta-Mark Series SMS-5730 or approved equal. Apply 3M contact cement, E-44 or approved equal, to the roadway for the installation of all arrows.

17.6 Raised Pavement Markings: Raised pavement markers shall be in accordance with Section 706 of the ADOT Standard Specifications. Material to be Stimsonite 911 raised pavement markers with un-tempered glass lens, or approved equal. Install the markers per City of Glendale details M1-5 and M1-6.

A double sided blue raised pavement marker shall be installed at each fire hydrant in accordance

with City of Glendale Standard Detail G-650.

18. WATER-BASED PAVEMENT MARKINGS

18.1 General: The work under this section consists of the contractor furnishing all materials, preparing the pavement surface and installing the pavement markings. All pavement marking materials shall be approved by the City of Glendale Transportation Department prior to installation.

The contractor shall contact the City of Glendale Transportation Department (phone number 623-930-2940) a minimum of 72 hours in advance of striping lay-out to obtain the necessary lane closure permits.

The contractor shall lay-out all striping and markings for the City Transportation Department review and approval, a minimum of two (2) working days before installation.

All newly paved or over-lay roadways shall first be striped in water based paint and then re-striped with thermoplastic markings a minimum of 30 days after final paving.

Roadway striping shall not be done on weekends or holidays unless permission is granted in advance by the City Transportation Director, a minimum of two working days before installation.

All pavement striping dimensions are to face of curb and center of stripe, or to the center of double stripes.

18.2 Marking Removal: The contractor shall remove all existing pavement markings and striping in conflict with the final striping plan, by ultra high pressure water (36,000 P.S.I.). This removal method shall be done in conformance with all E.P.A. requirements. If the removal of striping causes a depression of 1/8 inch or greater in depth in the pavement surface, the contractor shall seal the area with slurry per M.A.G. Standard Specifications 713 and 715, Type Two. Covering existing markings with black paint, tar or any other substance does not constitute line removal and will not be approved.

18.3 Lane Lines And Centerline: Application of the white lane line and yellow centerline striping shall be performed in accordance with Arizona Department of Transportation (ADOT) Standard Specification 708. The application equipment shall be truck mounted per ADOT Standard Specification 708-3.01.

Materials for white lane line and yellow center line striping shall be in accordance with ADOT Standard Specification 708, with the exception that water based traffic marking paint shall be used.

All yellow and white broken lane lines shall have a common start point and cycle length, so as to be restriped simultaneously, using a common cycle length on both sides of the truck carriage. The cycle length is to be 40 feet with a 10 foot long line and a 30 foot space between lines.

18.4 Crosswalks and Stop Bars: Installation for striping all stop bars and crosswalks shall be in accordance with Section 704 of the ADOT Standard Specification, with the exception that the material shall be Alkyd Thermoplastic. The crosswalk and stop bars shall be the extruded type and applied at a thickness of 90 mils.

18.5 Pavement Turn Arrows and Symbols: Installation and material for left and right turn arrows shall be in accordance with Section 705 of the ADOT Standard Specifications. Material to be 3M

Sta-Mark Series SMS-5730 or approved equal. Apply 3M contact cement, E-44 or approved equal, to the roadway for the installation of all arrows.

18.6 Raised Pavement Markings: Raised pavement markers shall be in accordance with Section 706 of the ADOT Standard Specifications. Material to be Stimsonite 911 raised pavement markers with untempered glass lens, or approved equal. Install the markers per ADOT drawing 4-M-2-03.

A double sided blue raised pavement marker shall be installed at each fire hydrant in accordance with City of Glendale Standard Detail G-650.

END OF SPECIAL PROVISIONS