



**CITY OF BULLHEAD CITY, ARIZONA
UTILITIES DEPARTMENT**

SPECIFICATIONS AND CONTRACT DOCUMENTS

7TH STREET SLIPLINING PROJECT

PROJECT NO. 23-U-013

January 21, 2026

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City of Bullhead City, Arizona

**Construction Contract
7TH STREET SLIPLINING PROJECT
Project No. 23-U-013**

THIS AGREEMENT, made and entered by and between CITY OF BULLHEAD CITY an Arizona municipal corporation, hereinafter designated the "CITY" and _____, Inc., an Arizona Corporation, hereinafter designated the "CONTRACTOR."

RECITALS

- A. The City Manager of the City of Bullhead City, Arizona, is authorized and empowered by approval of the City Council to execute this contract for construction services.
- B. The Project involves the installation of one new production well for the Bullhead City public water supply system.
- C. The Contractor has represented to the City the ability to construct the Project and based on this representation the City has engaged _____ to construct the Project.

AGREEMENT

NOW THEREFORE, for and in consideration of the mutual covenants and considerations hereinafter contained, it is agreed by and between the City and the Contractor as follows:

ARTICLE 1 - INVITATION TO BID & BID DOCUMENTS

PROJECT NO. 23-U-013

1.0 INVITATION TO BID

Req./Contract #: 23-U-013
Project Name: 7TH STREET SLIPLINING PROJECT
Bid Due Date / Time: February 25, 2026 / 3:00 PM Arizona Time

Project Description:

This project consists of sliplining two sections of 24-inch sanitary sewer main, and the rehabilitation of three (3) 60-inch manholes near the intersection of Highway 95 and 7th Street in Bullhead City, Az. This sewer main carries approximately 0.46 million gallons per day (MGD) with a peak wet weather flow of 0.91 MGD. Bypass pumping or other approved methods of flow control are required throughout the duration of this project. In preparation for sliplining the pipelines, heavy cleaning consisting of jet rodding, descaling, bucket cleaning and/or other methods may be required.

Sealed bids for the project specified will be received by the Bullhead City Clerk's Office at the First Floor Receptionist Desk, 2355 Trane Road, Bullhead City, Arizona, 86442-5966 on the time and date specified. Bidders shall submit one original of their bid. Bids received by the correct time and date will be opened and read aloud shortly thereafter in the City of Bullhead City, City Clerk's office.

Bids must be in the actual possession of the City Clerk's office on or prior to the exact time and date indicated above. Late bids will not be considered under any circumstances.

Bids must be submitted in a sealed opaque envelope with the Project Name and the bidder's name and address clearly indicated on the envelope. All bids must be completed in ink or typewritten on the form contained within the specifications titled Invitation for Bid.

For information or to obtain plans, specifications and bid documents or to submit questions concerning the IFB, contact Jackie Renfroe, Administrative Analyst, 2355 Trane Road, Bullhead City, Arizona 86442-5966, at phone (928) 763-9400, ext. 8840, or at jrenfroe@bullheadcityaz.gov. Brief procedural questions may be submitted and responded to informally. Technical questions regarding the substance of this IFB must be submitted in writing or by email to Ryan Farnell, Utilities Construction Manager rfarnell@bullheadcityaz.gov and received no later than 2:00 p.m. on February 04, 2026 . Questions may then be responded to by written amendment to this document. Oral statements or instructions do not constitute an amendment to the IFB. Only those plan holders registered with the City of Bullhead City will receive any modifications to the plans, specifications and bid documents and any notices that are issued during bidding. The City of Bullhead City reserves the right to accept or reject any or all responses or parts thereto.

Plans may be reviewed at:

- City of Bullhead City, Utilities Department, 2355 Trane Road, Bullhead City, AZ 86442-5966, (928) 763-9400, ext. 8840 Fax (928) 763-0131
- Performance Graphics Digital Printing, 4140 S. Lynn Drive, Suite 107, Fort Mohave, AZ 86426, (928) 763-6860
- Dodge Digital Plan Room, 300 American Metro Blvd, Ste 185, Hamilton, NJ 08619 Phone (877) 784-9556
- Colorado River Building Industry Assoc., 2182 McCulloch Blvd, Suite #1, Lake Havasu City, AZ 86403, (928) 453-7755
- Yuma Southwest Contractors Assoc., 2741 S. Eighth Ave., Ste B, Yuma, AZ 85364 (928) 539-9035 Fax (928) 539-9036
- Construction Notebook, 3131 Meade Ave., Suite B, Las Vegas, NV 89102, (702) 876-8660 Fax (702) 876-5683
- A&E Reprographics Plan Room, 1030 Sandretto Drive Suite F, Prescott, AZ 86305, (928) 442-9116 Fax (928) 776-1550

- Sierra Plan Room, 3111 So. Valley View # B-120, Las Vegas, NV 89102, (702) 871-1077 Fax (702) 871-8220
- Just Blueprints, 112 N. 8th Street, Kingman, AZ 86401, (928) 753-0872 Fax (928) 753-0878
- iSqFt/Grand Minority Contracts Planroom Partnership, 3301 N. 24th St., Phoenix, AZ 85016, 800-364-2059 Fax (866) 570-8187
- Construction Market Data, 30 Technology Parkway S., Ste. 100, Norcross, GA 30052, (800) 876-4045 Fax (800) 642-2437
- IDT Plan Room, 4633 E Broadway Blvd., Tucson, AZ 85711, (520) 319-0988 Fax (520) 319-1430
- Shirley's Plan Service, 425 S. Plumer, Tucson, AZ 85719, (520) 791-7436 Fax (520) 882-9208
- The Blue Book Building & Construction Network, 800 E Main St., Jefferson Valley, NY 10535, (888) 720-1710
- <https://www.bullheadcityaz.gov/business-development/bid-opportunities/>
- <https://www.publicpurchase.com>

BONDS:

| | |
|-------------------|-------------|
| Bid Bond: | <u>10%</u> |
| Payment Bond: | <u>100%</u> |
| Performance Bond: | <u>100%</u> |

Project Completion Date: 180 Calendar days or less after Notice to Proceed.

A Pre-Bid Conference will be held at the City of Bullhead City - City Hall, 2355 Trane Road, Bullhead City, AZ, January 29, 2026, 10:00 AM, Arizona Time. Representatives of the Owner will be present. City of Bullhead City reserves the right to accept or reject any or all bids or any part thereof and waive informalities deemed in the best interest of the City.

Pursuant to the Americans with Disabilities Act (ADA), City of Bullhead City endeavors to ensure the accessibility of all of its programs, facilities and services to all persons with disabilities. If you need an accommodation for this meeting, please contact the Human Resources Director at (928) 763-9400, ext. 301, at least 24 hours prior to the meeting so that an accommodation may be arranged.

1.1 RECEIPTS AND OPENING OF BIDS The City of Bullhead City, Arizona, (hereinafter called the "Owner" or the "City") invites Bids on the form attached hereto for the 7TH STREET SLIPLINING PROJECT. All blanks must be appropriately filled in. The bidder shall also complete and submit a form listing proposed subcontractors as enclosed herein. Bids for this project will be received by the City Clerk's Office at the City of Bullhead City, 2355 Trane Road, Bullhead City, Arizona 86442-5966 until 3:00 PM, Arizona Time February 25, 2026, where the Bids will be publicly opened and read aloud shortly thereafter.

The Owner may, at its option, waive immaterial errors or omissions in bids not prepared and submitted in accordance with the provisions of this Invitation for Bids and/or the requirements of the City's procurement ordinance or, alternatively, may reject any and all bids not prepared and submitted in accordance with the provisions of this Invitation for Bids and/or the requirements of the City's procurement ordinance. Any Bid may be withdrawn prior to the above scheduled time for the opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified shall not be considered. No bidder may withdraw a Bid within 90 calendar days after the actual date of the opening thereof.

1.2 PREPARATION OF BID Each Bid must be submitted on the prescribed Form. All blank spaces for Bid prices must be filled in, in ink or typewritten, in both words and figures.

Each Bid must be submitted in a sealed opaque envelope bearing on the outside the name of the bidder, the bidder's address, and the name of the project for which the Bid is submitted. If forwarded

by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed as specified in the Bid form.

The following fully-executed items shall be included with the bid submittal. Failure to include any of these items may result in that bid being considered incomplete, and the Bid may be rejected.

- Bid Proposal
- Bid Schedule
- Bid Bond
- Bidder's Statement of Qualifications
- Affidavit of Non-Collusion
- Acknowledgement of Each Addendum Issued

1.3 **PRE-BID MEETING** The pre-bid conference will be held for this project at the time and place stipulated in Section 1.0 Invitation to Bid, or as modified by Addenda.

1.4 **FACSIMILE BIDS OR MODIFICATIONS** No facsimile ("FAX") Bids or bid modifications will be accepted.

Any proposed modifications to the Bid shall be made by an authorized representative of the bidder in writing.

1.5 **QUALIFICATIONS OF BIDDER** The Owner may make investigations as he deems necessary to determine the qualifications and the ability of the bidder to perform the Work, and the bidder shall furnish the Owner any information and data for this purpose as the Owner may request.

The Owner may request other information and data from the bidder that may include:

A list of any actions taken by the Arizona Registrar of Contractors to suspend and/or revoke the Contractor's license of the bidder for a period of two years preceding the bid.

The Owner reserves the right to reject any or all bids or withhold the award of a contract to any bidder for any reason the Owner determines in accordance with the provisions of §34-201 (A) (4), Arizona Revised Statutes.

All bidders and listed subcontractors must be valid Arizona Licensed Contractors at the time of Bidding, approved by the Arizona State Registrar of Contractors to do the type and amount of work specified in these documents.

1.6 **ARITHMETIC DISCREPANCIES IN THE BID** For the purpose of evaluating bids, the following criteria will be utilized by Owner in resolving arithmetic discrepancies found on the face of the Bid Schedule as submitted by bidders:

- Obviously misplaced decimal points will be corrected;
- In case of discrepancy between unit price and extended price, the unit price will govern;
- Apparent errors in extension of unit prices will be corrected;
- Apparent errors in addition of lump sums and extended prices will be corrected; and
- In case of discrepancy between words and figures in unit prices, the amount shown in words shall govern.

For the purpose of Bid evaluation, the Owner will evaluate the bids on the basis of the unit prices, extensions, and totals arrived at by resolution of arithmetic discrepancies as provided above.

1.7 **INCOMPLETE BIDS** Failure to submit a Bid on all items in the Bid Schedule may result in that bid being considered incomplete, and the Bid may be rejected. Unit and/or lump sum prices must be shown for each Bid Item within the Schedule.

1.8 **BID SECURITY** Each bid must be accompanied by a bid bond in the form of a certified or cashier's check made payable to the Owner in an amount equal to ten percent (10%) of the bid submitted, or alternatively, through a surety bond issued in the form substantially similar to the one attached to these bid documents or on another form approved by the Owner in the amount of ten percent (10%) of the amount of the bid submitted that conforms with the requirements of §34-201, Arizona Revised Statutes (A.R.S.). The bond document itself must contain the actual bid amount or higher. A statement inserted into the bond form such as "10% of the Bid Amount" is not acceptable. If the bid security provided by the bidder is in the form of a surety bond, solely a surety company or companies holding a certificate of authority to transact surety business in the State of Arizona, issued by the director of the Department of Insurance, pursuant to Title 20, Chapter 2, Article 1, shall execute the surety bond. An individual surety or sureties shall not execute the surety bond, even if the requirements of §7-101 A.R.S. are satisfied. The certified check, cashier's check or surety bond submitted by each bidder as bid security shall be returned to the bidders whose proposals are not accepted, and to the successful contractor upon the execution of satisfactory payment and performance bonds for the construction contract, as provided for in these bid documents and under State law.

1.9 **LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT** The successful bidder, upon failure or refusal to execute and deliver the Agreement, Bonds, and certificates required within ten calendar days from the date of the Notice of Award, shall forfeit to the Owner, as liquidated damages for the failure or refusal, its bid bond and shall owe the Owner the difference between its bid and the amount of the contract actually entered into with another party.

1.10 **SECURITY FOR FAITHFUL PERFORMANCE AND PAYMENT** Simultaneously with his delivery of the executed Contract, the successful bidder shall furnish on the forms provided herein, in a sum equal to 100% of the face amount of the Contract awarded: 1) a surety bond as security for the performance of the Contract awarded; and 2) a surety bond as security for the payment of all persons performing labor or furnishing materials in connection with the project under the Contract awarded, as specified in the General Conditions included herein. In accordance with Section §34-201 of the Arizona Revised Statutes, commonly known as Arizona's Little Miller Act, payment and performance bonds shall be issued by a duly authorized surety company satisfactory to the Owner and authorized to transact business in the State of Arizona. All bonds shall be issued by a surety insurer possessing at least a "A" rating, based upon the most recent issue of Best's Insurance Guide.

1.11 **POWER OF ATTORNEY** Attorneys-in-fact who sign Bid Bonds or Contract bonds must file with each bond a certified and effectively dated copy of their power-of-attorney.

1.12 **LAWS AND REGULATIONS** The bidder's attention is directed to the fact that all applicable Federal Laws, State Laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

1.13 **METHOD OF AWARD/PROTEST** The Owner shall award the Contract to the lowest responsive and responsible bidder, in accordance with §34-201 and §34-221 of the Arizona Revised Statutes. Any protest of a bid selected for award shall be submitted in accordance with City Administrative Regulation 2-1, Section 1.9, within 10 days of notice of the pending award. Contact the City representative listed under Section 1.0 herein for submission details.

1.14 **OBLIGATION OF THE BIDDER** At the time of the opening of Bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the Plans and Contract Documents (including all Addenda, if applicable). The failure or omission of the bidder to examine any form, instrument or document, or site changes due to natural causes, shall in no way relieve any bidder from any obligation in respect to his bid. Site changes due to natural causes prior to Bid opening shall not be cause for Bid alteration or withdrawal.

1.15 **TIME OF COMPLETION AND LIQUIDATED DAMAGES** The bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" from the Owner, and to complete all of the work and achieve Final Acceptance on or before a completion date to be specified in the written "Notice to Proceed."

The bidder agrees to pay actual damages related to the cost of completion as set forth in Section 8.58 and as elsewhere assessable herein, and liquidated damages, intended to compensate the City for injury resulting from the delay. The bidder agrees to pay as liquidated damages the sum indicated in the following "Schedule of Liquidated Damages" and as provided in Section 8.62 of the General Conditions, for each calendar day that the Contract remains incomplete. Note that these damages apply for special scheduled completion dates for miscellaneous elements as defined in the special provisions. For the purposes of determining the calendar day rate of Liquidated Damages for the Project, the Original contract amount shall be that which is included in the Agreement between the Owner and the Contractor for the Project.

| <u>SCHEDULE OF LIQUIDATED DAMAGES</u> | | |
|--|-------------------------|--------------------------|
| Original Contract Amount | | Daily Charges |
| From | To and Including | Calendar Day Rate |
| \$0 | \$25,000.00 | \$300 |
| \$25,000.01 | \$50,000.00 | \$325 |
| \$50,000.01 | \$100,000.00 | \$364 |
| \$100,000.01 | \$500,000.00 | \$559 |
| \$500,000.01 | \$1,000,000.00 | \$741 |
| \$1,000,000.01 | \$2,000,000.00 | \$923 |
| \$2,000,000.01 | \$5,000,000.00 | \$1,391 |
| \$5,000,000.01 | \$10,000,000.00 | \$1,846 |
| \$10,000,000.01 | \$10,000,000.01+ | \$2,314 |

1.16 **CONDITIONS OF WORK** Each bidder must research the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of the obligation to furnish all material and labor necessary to carry out the provisions of the Contract. Insofar as possible, the Contractor, in performing the work, must employ methods or means as will not cause any interruption of or interference with the work of any other Contractor.

1.17 **ADDENDA AND INTERPRETATIONS** No interpretation of the meaning of the Plans, Specifications, or other pre-bid documents will be made to any bidder orally.

Every request for interpretation shall be in writing addressed to the Bullhead City Utilities Department at 2355 Trane Road, Bullhead City, AZ 86442-5966, and to be given consideration, must be received at least seven calendar days prior to the date fixed for the opening of Bids. Any and all interpretations and any supplemental instructions will be in the form of written Addenda to the Specifications which, if issued, will be sent to all prospective bidders (at the respective addresses furnished for such purposes), not later than five calendar days prior to the date fixed for the opening of Bids, provided that the prospective bidders are registered plan holders on the project with the City of Bullhead City. The Owner will send all addenda by FAX or e-mail, or if practical, by U.S. Mail. Failure of any bidder to incorporate any Addendum or interpretation or to be registered with the City of Bullhead City for the project shall not relieve bidder from any obligation under his/her bid as submitted. All Addenda so issued shall become part of the Contract Documents.

1.18 **CONFLICT OF INTEREST** Pursuant to A.R.S. Section §38-511, this Contract is subject to cancellation by Owner if any person significantly involved initiating, negotiating, securing, drafting or creating the Contract on behalf of the City of Bullhead City is, at any time while the Contract is in effect, an employee of any other party to the Contract in any capacity or a consultant to any other party of the Contract with respect to the subject matter of the Contract.

1.19 **NON-COLLUSION** The bidder will be required to complete, notarize and submit as part of this bid package the "Non Collusion Affidavit" form, as attached herein. Failure of the bidder to submit a properly executed affidavit may be grounds for rejection of the bid.

1.20 **EXAMINATION OF THE PLANS AND SPECIFICATIONS** Each Bid shall be made in accordance with the Plans and Specifications, which may be examined at the following locations:

- City of Bullhead City, Utilities Department 2355 Trane Road, Bullhead City, AZ 86442-5966, (928) 763-0128 Fax (928) 763-0131
- Performance Graphics Digital Printing, 4140 S. Lynn Drive, Suite 107, Fort Mohave, AZ 86426, (928) 763-6860
- Dodge Digital Plan Room, 300 American Metro Blvd, Ste 185, Hamilton, NJ 08619 Phone (877) 784-9556
- Colorado River Building Industry Assoc., 2182 McCulloch Blvd, Suite #1, Lake Havasu City, AZ 86403, (928) 453-7755
- Yuma Southwest Contractors Assoc., 2741 S. Eighth Ave., Ste B, Yuma, AZ 85364 (928) 539-9035 Fax (928) 539-9036
- Construction Notebook, 3131 Meade Ave., Suite B, Las Vegas, NV 89102, (702) 876-8660 Fax (702) 876-5683
- A&E Reprographics Plan Room, 1030 Sandretto Drive Suite F, Prescott, AZ 86305, (928) 442-9116 Fax (928) 776-1550
- Sierra Plan Room, 3111 So. Valley View # B-120, Las Vegas, NV 89102, (702) 871-1077 Fax (702) 871-8220
- Just Blueprints, 112 N. 8th Street, Kingman, AZ 86401, (928) 753-0872 Fax (928) 753-0878
- iSqFt/Grand Minority Contracts Planroom Partnership, 3301 N. 24th St., Phoenix, AZ 85016, 800-364-2059 Fax (866) 570-8187
- Construction Market Data, 30 Technology Parkway S., Ste. 100, Norcross, GA 30052, (800) 876-4045 Fax (800) 642-2437
- IDT Plan Room, 4633 E Broadway Blvd., Tucson, AZ 85711, (520) 319-0988 Fax (520) 319-1430
- Shirley's Plan Service, 425 S. Plumer, Tucson, AZ 85719, (520) 791-7436 Fax (520) 882-9208
- The Blue Book Building & Construction Network, 800 E Main St., Jefferson Valley, NY 10535, (888) 720-1710
- <https://www.bullheadcityaz.gov/business-development/bid-opportunities/>
- <https://www.publicpurchase.com>

ARTICLE 2 – BID PROPOSAL

PROJECT NO. 23-U-013

The following Sections prescribe the proper form for bid proposal.

2.0 BID PROPOSAL

PROJECT NO: 23-U-013

PROJECT NAME: 7TH STREET SLIPLINING PROJECT

The undersigned, as bidder, declares that we have received and examined the Bid documents entitled "7TH STREET SLIPLINING PROJECT" and will contract with the OWNER, on the form of Agreement provided herewith, to do everything required for the fulfillment of the contract for the project at the prices and on the terms and conditions of the Bid documents, drawing, etc.

We agree that the following shall form a part of this proposal:

| <u>Article</u> | <u>Title</u> |
|----------------|--------------------------------------|
| 2.0 | Bid Proposal |
| 3.0 | Bid Schedule |
| 4.0 | Arizona Statutory Bid Bond |
| 5.0 | Bidder's Statement of Qualifications |

We acknowledge that addenda numbers _____ have been received and have been examined as part of the Contract Documents.

We certify that our proposal is genuine, and not sham or collusive, nor made in the interest or behalf of any undisclosed person, organization, or corporation, and that we have not directly or indirectly induced or solicited any other bidder to put in a sham bid, or directly or indirectly inducted or solicited any other potential bidder to refrain from bidding, and that we have not in any manner sought by collusion to secure an advantage over any other bidder.

The bidder agrees that this Bid shall be good and may not be withdrawn for a period of 90 calendar days after the scheduled closing time for receiving Bids.

Upon receipt of written notice of the acceptance of this bid, bidder shall execute the formal Agreement attached within 10 calendar days and deliver a Performance Bond, Payment Bond, and Certificates of Insurance as required by Sections 8.69 & 8.70 of the General Conditions within the same time.

We hereby declare that we have visited the site and have carefully examined the Contract Documents relating to the work covered by the above bid or bids.

Enclosed herewith is a certified or cashier's check or bid bond, payable to the City of Bullhead City, Arizona, in the amount of ten percent (10%) of the total bid. This check or bond is submitted as a guarantee that we will enter into a Contract, and furnish the required bonds in the event a contract is awarded us. The bid security attached, without endorsement, is to become the property of the City of Bullhead City, Arizona, in the event the Contract and Bonds are not executed within the time set forth, as a portion of the liquidated damages for delay and additional work caused thereby (see Section 1.9).

We understand that the City of Bullhead City, Arizona reserves the right to reject any and/or all bids or any part thereof or to waive any informalities in any bid, deemed by them to be for the best interests of the City of Bullhead City, Arizona.

Dated this _____ day of _____, 2026.

Respectfully Submitted By: _____ Title: _____

Name of Firm: _____

Address _____

Phone: _____ Fax: _____
Seal - If bid by a Corporation:

Arizona Contractor's License No.: _____ Type _____

ARTICLE 3 – BID SCHEDULE

PROJECT NO. 23-U-013

3.0 BID SCHEDULE

CONTRACT FOR: 7TH STREET SLIPLINING PROJECT

The undersigned bidder, having examined and determined the scope of the Contract Documents, hereby proposes to perform the work described therein for the following unit prices or lump sum amounts.

Note: Bids shall include sales tax and all other applicable taxes and fees. All bids shall be checked for errors. If errors are made, unit prices shall govern and corrections will be made according to the unit price and totals will be revised to reflect the corrections.

| Bid Item | Spec # | Quantity | Unit | Description | Unit Cost | Total Cost |
|-----------------|---------------|-----------------|-------------|--|------------------|-------------------|
| 1 | 10.02 | 1 | LS | Mobilization – Demobilization (no more than 3% of total bid), Bonds, and Insurance | | |
| 2 | 10.03 | 1 | LS | Traffic Control | | |
| 3 | 10.05 | 1 | FT | Bypass Pumping / Flow Control & Testing | | |
| 4 | 10.04 | 306 | FT | Pre-Cleaning | | |
| 5 | 10.04 | 1 | EA | Pre-Lining Video Inspection | | |
| 5 | 10.06 | 100 | FT | Sliplining MH-14174 to MH-14172 | | |
| 6 | 10.06 | 206 | FT | Sliplining MH-14172 to MH-14224 | | |
| 7 | 10.07 | 1 | EA | Rehabilitate MH-14174 | | |
| 8 | 10.07 | 1 | EA | Rehabilitate MH -14172 | | |
| 9 | 10.07 | 1 | EA | Rehabilitate MH -14224 | | |
| 10 | 10.07.9 | 3 | EA | Manhole Frame, Lid & Grade Ring Replacement | | |
| 11 | 10.06.3.2 | 306 | FT | Pressure Testing (Sleeves) | | |
| 12 | 10.07.8.7 | 3 | EA | Adhesion Testing (Manholes) | | |
| 13 | 10.07.8.6 | 3 | EA | Holiday Testing (Manholes) | | |
| 14 | 10.06.3.2 | 1 | EA | Video Inspection (Final) | | |
| 15 | ALL | 1 | LS | Owner Contingency | 10% | |

TOTAL PROJECT

Total Bid Amount (Items 1 through 15 above): _____ (In Words). (\$ _____ .00) Calendar Days Vendor requires to Complete Total Project: 180 Calendar days or less after Notice to Proceed. This Proposal is submitted by _____, a corporation or limited liability company organized under the laws of the State of _____, or a partnership consisting of _____ or individual trading as _____ and is the holder of Arizona Contractor's License No.\ _____: Bullhead City License No:\ _____ (*City License not required at time of Bid but must be obtained prior to issuance of Notice to Proceed.*)

Respectfully submitted,

Company Name

Signature of Authorized Person

Address

Printed Name

City

State

Zip

Title

Telephone

Telephone

Email

Email

Fax

Fax

ARTICLE 4 – BID BOND

PROJECT NO. 23-U-013

4.0 ARIZONA STATUTORY BID BOND

PURSUANT TO TITLES 28, 34 AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must not be less than 10% of the bid amount)

KNOW ALL MEN BY THESE PRESENTS:

That, _____ (hereinafter "Principal"), as Principal, and _____, (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____, with its principal offices in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto the City of Bullhead City, Arizona, (hereinafter "Obligee"), as Obligee, in the amount of Ten Percent (10%) of the amount of the bid of Principal, submitted by Principal to the Obligee for the work described below, for the payment of which sum, the Principal and Surety bind themselves, and their heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid of *(insert actual amount of bid or higher)* \$ _____ to furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of **Project No. 23-U-013** known as the **7TH STREET SLIPLINING PROJECT**

NOW, THEREFORE, if the Obligee shall accept the proposal of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of the proposal and give the bonds and certificates of insurance as specified in the standard specifications with good and sufficient surety for the faithful performance of the contract and for the prompt payment of labor and materials furnished in the prosecution of the contract, or in the event of the failure of the Principal to enter into the contract and give the bonds and certificates of insurance, if the Principal pays to the Obligee the difference not to exceed the penalty of the bond between the amount specified in the proposal and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by the proposal then this obligation is void. Otherwise it remains in full force and effect provided, however, that this bond is executed pursuant to the provisions of Section §34-201, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of that section to the extent as if it were copied at length herein.

Witness our hands this _____ day of _____, 20____.

PRINCIPAL

SEAL

By: _____

SURETY

SEAL

By: _____

Attorney-in-Fact

Its: _____
Agency of Record

Agency Address

ARTICLE 5 – BIDDER'S STATEMENT OF QUALIFICATIONS PROJECT NO. 23-U-013

5.0 BIDDER'S STATEMENT OF QUALIFICATIONS

The Undersigned certifies the truth and correctness of all statements and of all answers to questions made hereinafter.

SUBMITTED TO: City of Bullhead City
Utilities Department
Attention Jacklyn Renfroe
Administrative Analyst
2355 Trane Road
Bullhead City, AZ 86442-5966

SUBMITTED BY: NAME: _____ Corporation
 LLC Partnership
 Individual Joint Venture
 Other

ADDRESS: _____

PRINCIPAL OFFICE: _____

(NOTE: Attach separate sheets as required)

How many years has your organization been in business as a Contractor? _____

How many years has your organization been in business under its present business name? _____

If a Corporation or LLC, answer the following:

Date of Incorporation: _____
Fed. Tax I.D. #: _____
State of Incorporation/Organization: _____
President: _____
Vice President(s): _____

Secretary: _____
Treasurer: _____
Members: _____
Managers: _____

If a Partnership, answer the following:

Date of organization: _____
Type of Partnership: _____
(General/Limited/Assoc.)

Name and Address of all partners.

If other than a Corporation, LLC or Partnership, describe Organization and name Principals:

What percent of the work do you normally perform with your own forces? _____ List trades:

Have you ever failed to complete any work awarded to you? If so, indicate when, where and why:

Have you had any OSHA violations within the last 10 years by or against your organization or its officers?
_____ if yes, please provide details _____

Has any Officer or Partner of your Organization ever been an Officer or Partner of another Organization that failed to complete a construction contract? _____ If so, state circumstances:

List major construction projects your Organization has under contract on this date:

| Project Name | Name, Address & Telephone Number of Owner | Engineer | Contract Amount | Contract Date | Percent Complete | Scheduled Completion |
|--------------|---|----------|-----------------|---------------|------------------|----------------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

List similar construction projects your Organization has completed in the past five years:

| Project Name | Owner | Engineer | Contract Amount | Date Awarded | Date Completed | Percent with Own Forces |
|--------------|-------|----------|-----------------|--------------|----------------|-------------------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

List the construction experience of the principal individuals in your Organization:

| Individual's Name | Construction Experience – Years | Within Your Organization | | |
|-------------------|---------------------------------|--------------------------------------|------------------------------|---------------------------------------|
| | | Present Position & Years' Experience | Dollar Volume Responsibility | Previous Position & Years' Experience |
| | | | | |
| | | | | |
| | | | | |

List states and categories in which your Organization is legally qualified to do business:

Bank References:

Trade References:

Name of Bonding and Insurance Companies and Name and Address of Agents: _____

State maximum bonding capacity: _____

Is there any pending litigation by or against your organization, its principals or officers? _____ if yes, please provide details

Are there any judgments that have been entered by a court of competent jurisdiction against your organization, its principals or officers during the last three years? If yes, please provide details. _____

List of subcontractors. In accordance with Article 1 of the Invitation to Bid & Bid Documents, the following is a breakdown of subcontractors anticipated to be used for completing this project and their approximate percentage of work to be performed. The Contractor is not required to submit with its bid a complete list of all subcontractors contemplated to be utilized on the project, and failure to submit a complete list shall not render a bid incomplete or unresponsive. A complete list of all subcontractors proposed on the project is not considered a material part of the bid submittal. Refer to Section 8.74 of the General Conditions for additional information.

The bidder certifies that all subcontractors listed are eligible to perform Work on public works projects pursuant to A.R.S. § 34-241.

Total % of all subcontractor's work on project _____

Total % for Contractor _____

Dated at _____ this _____ day of _____, 2026

Name of Organization: _____

By: _____ Title: _____

5.1 AFFIDAVIT

**AFFIDAVIT OF CONTRACTOR
CERTIFYING THAT THERE WAS NO
COLLUSION IN BIDDING FOR
CONTRACT**

STATE OF _____)
COUNTY OF _____) ss

(NAME OF INDIVIDUAL)

BEING DULY SWORN, DEPOSES AND SAYS:

THAT HE/SHE IS _____
OF _____ (TITLE)

(NAME OF BUSINESS)

THAT PURSUANT TO SECTION §34-253 OF THE ARIZONA REVISED STATUTES, HE/SHE CERTIFIES AS FOLLOWS:

THAT NEITHER HE/SHE NOR ANYONE ASSOCIATED WITH SAID

(NAME OF BUSINESS)

HAS DIRECTLY, OR INDIRECTLY, ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THIS PROJECT.

By: _____
NAME

TITLE

NAME OF BUSINESS

NAME OF BUSINESS

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____, 2026

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC: _____

6.0 AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 2026, by and between the CITY OF BULLHEAD CITY, an Arizona municipal corporation ("Owner"), and _____, an _____ organized under the laws of the State of _____ (herein after designated the "Contractor").

RECITALS

WHEREAS, the Owner has developed conceptual plans for and desires to construct the 7TH STREET SLIPLINING PROJECT; and

WHEREAS, Contractor represents that it possesses the experience, competence, equipment and financing to properly perform such work, and has formally proposed to do so, and to furnish all necessary labor, materials, and equipment and services therefore in accordance with said plans, and subject to the terms and conditions hereof.

AGREEMENT

NOW, THEREFORE, in consideration of these premises and the mutual covenants herein set forth, it is hereby agreed as follows:

1. The Contractor will commence and complete in its entirety the construction of the 7TH STREET SLIPLINING PROJECT project, all as attached and outlined in the Contract Documents.
2. The Contractor will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the project described herein.
3. The Contractor will commence the work required by the contract documents within ten calendar days after the date of the Notice To Proceed and will complete the same as follows:

All work shall be completed within 180 Calendar days or less after Notice to Proceed.

The period for completion may be extended by a properly executed Change Order approved by the City.

4. Liquidated Damages: Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the project is not completed within the time specified in Section 3 above, plus any extensions thereof allowed in accordance with the General Conditions. This sum is fixed and agreed upon between the parties because the actual loss to the City and to the public caused by delay in completion will be impractical and extremely difficult to ascertain and determine. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual losses or damages (including special, indirect, consequential, incidental and any other losses or damages) suffered by Owner if a complete acceptable Project is not delivered on time.

Accordingly, and instead of requiring proof of such losses or damages related to delay, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay to the Owner sums as defined in the Schedule of Liquidated Damages as provided in Section 1.15 per calendar day that expires after the time specified in Section 3 for delivery of acceptable bid items, and as provided in Section 8.62 of the General Conditions.

5. The Contractor agrees to perform all of the work described in the contract documents and comply with the terms therein for the sum of \$_____ as shown in the bid schedule.
6. The term "Contract Documents" means the attached Final Contract, pages _____ and includes the following:

- a. Advertisement for Bids
- b. Bid Schedule
- c. Bid Bond
- d. Agreement
- e. Bidder's Statement of Qualifications
- f. Non-Collusion Affidavit
- g. Payment Bond
- h. Performance Bond
- i. Notice of Award
- j. Notice to Proceed
- k. Certificate of Completion
- l. Unconditional Waiver & Lien Release
- m. General Conditions
- n. Special Provisions
- o. Technical Specifications/General Provisions
- p. Aerial and Project Depictions
- q. Change Order(s)
- r. Addenda: _____

7. The Owner will pay Contractor in the manner and at such times as set forth in the General Conditions such amounts as required by the contract documents.

8. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assignees.

PROJECT NO. 23-U-013

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in three copies, each of which shall be deemed an original on the date approved by Council written below.

THE CITY OF BULLHEAD CITY

COMPANY NAME

By: _____ Date _____
Toby Cotter, City Manager Name, Title _____ Date _____

ATTEST

By: _____
Debie Ogden, City Clerk (SEAL)

APPROVED AS TO FORM

By: _____ Date _____
Garnet Emery, City Attorney

Mail or email all invoices to:

City of Bullhead City
Jacklyn Renfroe
Utilities Department
2355 Trane Road
Bullhead City, AZ 86442-5966
jrenfroe@bullheadcityaz.gov

APPROVAL OF DEPARTMENT DIRECTOR

By: _____ Date _____
Mark Clark
Utilities Director

APPROVED BY COUNCIL _____, 2026

6.1 ARIZONA STATUTORY PERFORMANCE BOND

PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT: _____
(hereinafter "Principal"), as Principal, and _____
(hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____
with its principal office in the City of _____, holding a certificate of authority to transact
surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as
Surety, are held and firmly bound unto City of Bullhead City, Arizona (hereinafter "Obligee") in the amount of
_____ (Dollars) (\$_____), for the payment whereof,
Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns,
jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____ day of
_____, 2026, to furnish all of the material, supplies, tools, equipment, labor and other services
necessary for the construction and completion of 7TH STREET SLIPLINING PROJECT 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 THE OBLIGATION IS SUCH, that if the Principal faithfully
performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of the contract
during the original term of the contract and any extension of the contract, with or without notice of the Surety,
and during the life of any guarantee required under the contract, and also performs and fulfills all of the
undertakings, covenants, terms, conditions and agreements of all duly authorized modifications of the
contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, the
above obligation is void. Otherwise it remains in full force and effect.

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

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that
may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 2026.

PRINCIPAL

SEAL

BY: _____

AGENCY OF RECORD

AGENCY ADDRESS

SURETY

SEAL

BY: _____

6.2 ARIZONA STATUTORY PAYMENT BOND

PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT: _____ (hereinafter "Principal"), as Principal, and _____ (hereinafter Surety), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto the City of Bullhead City, Arizona (hereinafter "Obligee") in the amount of (Dollars) \$ _____, for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____ day of _____, 20____, to furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the 7TH STREET SLIPLINING PROJECT 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 THE OBLIGATION IS SUCH, that if the Principal promptly pays all monies due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in the contract, this obligation is void. Otherwise it remains in full force and effect.

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

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 2026.

PRINCIPAL

SEAL

BY: _____

AGENCY OF RECORD

AGENCY ADDRESS

SURETY

SEAL

BY: _____

ARTICLE 7 – NOTICES & LIEN RELEASES

PROJECT NO. 23-U-013

7.0 NOTICE OF AWARD

Date: _____
To: _____

PROJECT DESCRIPTION: 7TH STREET SLIPLINING PROJECT, Project No. 23-U-013

The Owner has considered the bid submitted by you, dated _____, in response to its Advertisement for bids and Invitation to Bid for the above described work.

You are hereby notified that your bid has been accepted for items in the amount of \$_____.

You are required by the Invitation to Bid to execute the Agreement and furnish the required Contractor's Performance Bond, Payment Bond, and Certificates of General Liability & Property Insurance, Automobile, and Workmen's Compensation Insurance within ten calendar days from the date of this notice. You are also required to furnish proof of a current City of Bullhead City Business License.

If you fail to execute the Agreement and to furnish the bonds, insurance certificates and executed Agreement within ten calendar days from the date of this Notice, the Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your bid as abandoned and as a forfeiture of your bid bond. The Owner will be entitled to all other rights as may be granted by law.

You are required to return all documents and an acknowledged copy of this NOTICE OF AWARD to the owner at:

City of Bullhead City
Utilities Department
Attention Jackie Renfroe
Administrative Analyst
2355 Trane Road
Bullhead City, AZ 86442-5966

By: _____
Project Manager

Dated this _____ day of _____, 2026

Acceptance of Notice: (The Contractor shall return a signed copy of this notice to the owner.)

Receipt of this NOTICE OF AWARD is hereby acknowledged by:

CONTRACTOR _____ Dated this _____ day of _____, 2026

Print Name: _____

Title: _____

7.1 NOTICE TO PROCEED

Date: _____

TO: _____

RE: CITY OF BULLHEAD CITY BID for the 7TH STREET SLIPLINING PROJECT, Project No. **23-U-013**

You are hereby notified to commence work on the project in accordance with the Agreement dated _____, 2026, within ten calendar days of the date of this Notice to Proceed, which is the effective date of the notice for the project, and you are to complete the work within _____ calendar days or less after Notice to Proceed. The date for completion of the work is therefore _____, 2026.

OWNER: City of Bullhead City

By: _____
Project Manager

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged

This, the _____ day of _____, 2026

Contractor: _____

Signature: _____

Print Name: _____

Title: _____

Note: The Contractor shall return a signed copy of this Notice to the Owner at:

City of Bullhead City
Utilities Department
Attention Jackie Renfroe
Administrative Analyst
2355 Trane Road
Bullhead City, AZ 86442-5966

7.2 CERTIFICATE OF COMPLETION

I hereby state that all goods and/or services required by:

**CITY OF BULLHEAD CITY
for the
7TH STREET SLIPLINING PROJECT**

project has been delivered in substantial conformance with the Contract, all activities required by the Contractor under the Contract have been completed and that all required unconditional lien releases have been submitted as of _____.

Date

CITY OF BULLHEAD CITY

By: _____
Project Manager Signature

Printed Name: _____

Title: _____

ACCEPTANCE OF NOTICE

(NOTE: The Contractor shall return a signed copy of this Notice to the Owner)

Receipt of the above **CERTIFICATE OF COMPLETION** is hereby acknowledged

This, the _____ day of _____, 2026

Contractor: _____

Signature: _____

Print Name: _____

Title: _____

7.3 UNCONDITIONAL WAIVER AND LIEN RELEASE

Project Name: 7TH STREET SLIPLINING PROJECT

Location: _____

Contractor: _____

Owner: City of Bullhead City, an Arizona municipal corporation

The undersigned has been paid in full for all labor, services and equipment or material furnished pursuant to the project above and does hereby unconditionally waive and release any right to mechanic's lien, any state, federal, municipal or private bond rights, and any claim for payment rights for persons in the undersigned's position, except for disputed claims for extra work in the amount of \$_____.

The undersigned warrants that the provider for whom the undersigned has the authority to bind, has already paid or will use the monies received from final payment to promptly pay in full all laborers, subcontractors, materialmen and suppliers for all work, materials, equipment or services provided for or to the above-referenced project.

(Company name)

Date

(Print name)

Title

(Signature)

NOTICE

This document waives rights unconditionally and states that you have been paid for giving up those rights. This document is enforceable against you if you sign it, even if you have not been paid. If you have not been paid, use a conditional release form.

ARTICLE 8 – GENERAL CONDITIONS

PROJECT NO. 23-U-013

8.0 **General Conditions** This section of the Contract Documents is pre-printed. Any modifications to the following articles, as may be required for this project, are made in the Special Provisions.

8.1 **Definitions** Wherever in the Contract Documents the following terms are used, the intent and meaning shall be interpreted as follows:

8.2 **Addenda** Written or graphic instruments issued prior to the opening of bids, which modify or interpret the Contract Documents, drawings and specifications, by additions, deletions, clarifications or corrections.

8.3 **As Approved** The words "as approved", unless otherwise qualified, shall be understood to be followed by the words "by the Owner".

8.4 **As Shown, and as Indicated** The words "as shown" and "as indicated" shall be understood to be followed by the words "on the drawings" or "in the specifications".

8.5 **Award** The acceptance, by the Owner, of the successful bidder's proposal.

8.6 **Bid** The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the work to be performed.

8.7 **Bidder** Any individual, firm partnership or corporation, or combination thereof submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

8.8 **Bonds** Bid, Performance, and Payment Bonds and other instruments of security, furnished by the Contractor and his surety in accordance with the Contract Documents.

8.9 **Calendar Day** Every day shown on the calendar, measured from midnight to the next midnight.

8.10 **Change Order** A written order to the Contractor, signed by the Owner, covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for the work affected by such changes.

8.11 **Contract** The "Contract" is the written agreement covering the performance of the work and the furnishing of labor, materials, incidental services, tools, and equipment in the construction of the work. It includes supplemental agreements amending or extending the work contemplated in the manner hereinafter described and which may be required to complete the work in a substantial and acceptable manner to the Owner. The Contract may include change orders.

8.12 **Contract Documents** The "Contract Documents" consist of the bidding requirements, forms, conditions of the Contract including General and/or Supplemental General Conditions, Special Provisions, the technical specifications, and the drawings, including all Addenda and modifications thereafter incorporated into the documents before their execution and including all other requirements incorporated by specific reference thereto.

8.13 **Contract Price** The total monies payable by Owner to the Contractor under the terms and conditions of the Contract Documents.

8.14 **Contract Time** The number of calendar days stated in the Contract Documents for the completion of the work or the stated completion date.

8.15 **Contractor** The "Contractor" is the individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted for and the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the work.

8.16 **Days** Unless otherwise specifically stated, the term "days" will be understood to mean calendar days.

8.17 **Drawings** The term "drawings", also described as "plans", refers to the official drawings, profiles, cross sections, elevations, details, and other working drawings, and supplementary drawings, or reproductions thereof, which show the locations, character, dimensions, and details of the work to be performed. Drawings may either be bound in the same book as the balance of the Contract Documents or bound in separate sets, and are a part of the Contract Documents, regardless of the method of binding.

8.18 **Engineer** The Engineer, individual partnership, firm, or corporation duly authorized by the Owner to be responsible for the engineering of the work and acting directly or through an authorized representative.

8.19 **Field Order and Change Orders** A field order is a written order issued by the Engineer to the Contractor during construction, which interprets either the technical specifications and/or drawings for the work to be performed by Contractor, including all addenda and modifications, which may be incorporated into the technical specifications and/or the drawings before the Bid Opening Date. A change order is a written order effecting a change in the work which involves: 1) any adjustment in the contract price; 2) any change in the plans, specifications and/or drawings for performance of the work by the Contractor; or 3) any extension of the contract time. Field orders, which only involve an interpretation of the plans, drawings and/or technical specifications contained within the Contract Documents, may be issued by the Engineer to the Contractor during construction. All change orders must be approved, in advance, by the Owner. Contractor agrees and acknowledges that Contractor shall not be entitled to any payment for work performed in reliance upon or as a result of a change order unless the Owner has approved the change order in advance of the work performed by the Contractor.

8.20 **Final Acceptance** Upon due notice from the Contractor of presumptive completion of the entire project, the Owner will make an inspection. If all construction provided for and contemplated by the Contract is found completed to his satisfaction, that inspection shall constitute the final inspection and the Owner will make the final acceptance. The Contractor will be notified in writing of this acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Owner will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the Owner will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of the final inspection.

8.21 **Inspector** An authorized representative of the Owner or Engineer assigned to make all necessary inspections and/or tests of the work performed or being performed, or of the materials furnished or being furnished by the contractor.

8.22 **Immigration Reform And Control Act** The Contractor shall comply with the Immigration Reform and Control Act of 1986 (IRCA). Contractor understands and acknowledges the applicability of the IRCA to Contractor. Contractor agrees to comply with the IRCA in performance of any resultant contract and to permit City inspection of its personnel records to verify such compliance. Contractor represents by signing this Contract that they are in compliance with IRCA and that they will remain in compliance throughout the performance of this Contract.

Compliance with Legal Worker and Immigration Laws. The Contractor warrants that it and any subcontractors it may use in performance of this contract are in compliance with state law (see A.R.S. § 23-214.A) and all Federal Immigration laws and regulations (see Immigration and Control Act of 1986 as amended) that relate to its employees and employees of its subcontractors. The Contractor acknowledges that pursuant to A.R.S. § 41-4401 a breach of this warranty is a material breach of this Contract subject to penalties up to and including termination of this contract, and that the City retains

the legal right to inspect the papers of any contractor or subcontractor employee who works on this Contract to ensure compliance with this warranty. The Contractor understands that it may be selected for random verification by the City as required under A.R.S. 41-4101(B) to ensure compliance with A.R.S. 41-4401(A) and will promptly respond to any requests for information from the City with regard to its verification process.

- 8.23 Israeli Boycott Contractor certifies under A.R.S. § 35-393.01 et seq., that it does not participate in, and agrees not to participate in during the term of this Agreement, a boycott of Israel.
- 8.24 Uyghurs Prohibition. During the term of the agreement offeror certifies, that pursuant to A.R.S. § 35-394, that it, nor any of its contractors, will not use the goods or services produced by the forced labor ethnic Uyghurs in the people's Republic of China.
- 8.25 Methodology and Quality of Workmanship The manner and sequence of construction, which is considered to be the acceptable standard for the trade and/or profession performing the work. The Contractor's performance and completeness of the work shall be in accordance with the Contract Documents.
- 8.26 Notice The term "notice" or the requirement to notify, as used in the Contract Documents or applicable State or Federal statutes, shall signify a written communication delivered in person or by certified or registered mail to the individual, or to a member of the firm, or to an officer of the corporation for whom it is intended. Certified or registered mail shall be addressed to the last business address known to him who gives the notice.
- 8.27 Notice of Award The written notice of the acceptance of the bid from the Owner to the successful bidder.
- 8.28 Notice to Proceed Written communication issued by the Owner to the Contractor authorizing him to proceed with the work and establishing the date of commencement of the work. Contractor acknowledges, understands and agrees that Owner shall not be liable to compensate Contractor for any work initiated by the Contractor prior to the issuance of a Notice to Proceed by the Owner.
- 8.29 Or Equal The term "or equal" shall be understood to indicate that the "equal" product is the same or better than the product names in function, performance, reliability, quality, and general configuration. Determination of equality in reference to the project design requirements will be made by the Owner.
- 8.30 Owner The "Owner" is the City of Bullhead City.
- 8.31 Payment Bond The approved form of security furnished by the Contractor and his surety as a guaranty that he will pay in full all bills and accounts for materials and labor used in the construction of work.
- 8.32 Performance Bond The approved form of security furnished by the Contractor and his surety as a guarantee that the Contractor will complete the work in accordance with the terms of the contract and guarantee the work for a period of one year after acceptance of the work by Owner.
- 8.33 Plans The word "plans" shall have the same meaning as "drawings" (see Section 8.17).
- 8.34 Project The undertaking to be performed as provided in the Contract Documents (see Section 8.12).
- 8.35 Proposal The offer of the bidder for the work when made out and submitted on the prescribed proposal form, properly signed and guaranteed.
- 8.36 Proposal Guarantee The cash, or cashier's check or certified check, or bidder's bond accompanying the proposal submitted by the bidder, as a guarantee that the bidder will enter into a contract with the Owner for the construction or performance of the work, if it is awarded to him, and will provide the contract bonds and insurance required of him.

8.37 **Shop Drawings** All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a subcontractor, manufacturer, supplier or distributor, which illustrate how specific portions of the work shall be fabricated or installed.

8.38 **Specifications** The directions, provisions and requirements herein contained pertaining to the method and manner of performing the work or to the quantities and qualities of the materials to be furnished under the Contract, together with all other directions, provisions and requirements herein contained, plus such amendments, deletions from or additions thereto which may be provided for by supplemental agreement or change orders.

8.39 **Subcontractor** A subcontractor is a person or entity that has a direct or indirect contract with a Contractor to perform any of the work at the site. For convenience, the term subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender but includes the plural and feminine gender and includes a subcontractor or an authorized representative thereof. The term subcontractor does not include any separate contractor or his subcontractors.

8.40 **Substantial Completion** "Substantial Completion" shall be that degree of completion of the project or a defined portion of the project, sufficient to provide the Owner, at his discretion, the full-time use of the project or defined portion of the project for the purposes for which it was intended. "Substantial Completion" shall not be considered as final acceptance.

8.41 **Supplemental General Conditions** Modifications to General Conditions required by a Federal Agency for participation in the project and approved by the agency for participation in the project and approved by the agency in writing prior to inclusion in the Contract Documents and such requirements that may be imposed by applicable state laws. The term also includes modifications or additions to the General Conditions required by the Owner or Engineer.

8.42 **Supplier** Any person or organization that supplies materials or equipment for the work, including that fabricated to a special design, but who does not perform labor at the site.

8.43 **Surety** The corporation, partnership, or individual, other than the Contractor, executing payment, or performance bonds, which are furnished to the Owner by the Contractor.

8.44 **Work** The word "work" within these Contract Documents shall include all material, labor, tools, utilities, and all appliances, machinery, transportation, and appurtenances necessary to perform and complete the Contract, and such additional items not specifically indicated or described which can be reasonably inferred as belonging to the item described or indicated and as required by good practice to provide a complete and satisfactory system or structure. As used herein, "provide" shall be understood to mean, "provide complete in-place", that is, "furnish and install".

8.45 **Working Day** A working day shall be any day, other than a legal holiday, Saturday or Sunday, on which the normal working forces of the Contractor may proceed with regular work.

8.46 **Written Notice** Any notice to any party to the agreement relative to any part of this agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his given address, or delivered in person to said party or his authorized representative for the work.

8.47 **Notice to Proceed** After the Owner has issued the Notice of Award; the Contractor shall provide the performance bond, the payment bond, the certificate of insurance, the work schedule, the monthly cash flow, and a signed agreement within ten calendar days. The Owner's attorney will review each document and, if they are found to be acceptable, the Owner will sign and execute the agreement. Within a period of 120 Calendar Days after executing the agreement, the Owner will issue the Notice to Proceed. Within ten calendar days of the effective date of the Notice To Proceed, the work shall commence. The Contractor shall not commence any work until such time that the Notice To Proceed

has been issued. Contractor shall not be entitled to any compensation for any work from Owner until such time as Owner has issued a Notice To Proceed to Contractor.

8.48 **Additional Instructions and Detail Drawings** The Engineer may furnish additional instructions to the Contractor by means of drawings or otherwise, during the progress of the work as necessary to make clear or to define in greater detail the intent of the specifications and contract drawings.

The additional drawings and instruction thus supplied will become a part of the Contract Documents. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions.

8.49 **Schedules, Reports and Records** The Contractor shall submit to the Owner payrolls, reports, estimates, records and other data where applicable as are required by the Contract Documents for the work to be performed.

The Contractor, after the contract award and prior to the Pre-Construction Conference, shall prepare for submittal to the Engineer for review, a detailed progress schedule. The progress schedule shall be brought up to date and submitted to the Engineer prior to each progress payment request and at such other time intervals as the Engineer may request.

8.50 **Progress Schedule** The schedule shall be a time-scaled critical path progress schedule showing in detail the proposed sequence of activity. The critical path analysis shall consist of a graphic network diagram and shall clearly show start and completion dates and percentage of work completed.

The Contractor shall also forward to the Engineer, prior to each progress payment request, an itemized report of the delivery status of major and critical items of purchased equipment and material, including shop drawings and the status of shop and field fabricated work. These progress reports shall indicate the date of the purchase order, the current percentage of completion, estimated delivery, and cause of delay, if any.

If the completion of any part of the work or the delivery of materials is behind the approved schedule, the Contractor shall submit in writing a plan acceptable to the Engineer for bringing the work up to schedule.

The Owner shall have the right to withhold progress payments for the work if the Contractor fails to update and submit the progress schedule and reports as specified, and the withholding shall not constitute grounds for additional claims by the Contractor against the Owner.

The Contractor shall submit an estimated monthly cash flow, based upon the progress schedule with the bonds, schedules, and certificate of insurance.

8.51 **Drawings and Specifications** The intent of the drawings and specifications is that the Contractor shall furnish all labor, materials, tools, equipment, utilities, and transportation necessary for the proper execution of the work in accordance with the Contract Documents and all incidental work necessary to complete the project in an acceptable quality and manner, ready for use, occupancy or operation by the Owner.

In case of conflict between the drawings and specifications, the specifications shall govern. Figure dimensions on drawings shall govern over scale dimensions, and detailed drawings shall govern over general drawings.

Any discrepancies found between the drawings and specifications and site conditions or any inconsistencies or ambiguities in the drawings or specifications shall be immediately reported verbally and within 24 hours of a discovery, in writing to the Engineer, who shall promptly facilitate the correction of the inconsistencies or ambiguities. Work done by the Contractor after discovering discrepancies, inconsistencies or ambiguities shall be done at the Contractor's risk, and the Contractor shall assume full responsibility therefore and shall bear all costs attributable thereto, if not acceptable to the Owner.

8.52 Shop Drawings The Contractor shall provide seven copies of the shop drawings as specified or as may be necessary for the prosecution of the work as required by the Contract Documents. All drawings and schedules shall be submitted sufficiently in advance to allow the Engineer not less than 20 regular working calendar days for checking the submittal. The Engineer's approval of any shop drawings shall not release the Contractor from responsibility for deviations from the Contract Documents.

When submitted for the Engineer's review, shop drawings shall bear the Contractor's certification by means of a signed stamp, that he has reviewed, checked and approved the shop drawings and that they are in conformance with the requirements of the Contract Documents. Shop drawings, which, in the opinion of the Engineer, are incomplete or unchecked by the Contractor, will be returned to the Contractor for resubmission in the proper form.

If shop drawings or submittals are rejected by the Engineer, all costs incurred by the Engineer and/or the Owner for reviewing the re-submittals shall be charged to the Contractor, and the Owner has the right to deduct those costs from any monies owed the Contractor by the Owner.

When shop drawings have been reviewed by the Engineer, two sets of submittals will be returned to the Contractor, appropriately stamped. If major changes or corrections are necessary, the shop drawing may be rejected and one set will be returned to the Contractor with the changes or corrections indicated, and the Contractor shall correct and resubmit the shop drawings. No changes shall be made by the Contractor to resubmitted shop drawings other than those changes indicated by the Engineer, unless the changes are clearly described in a letter accompanying the resubmitted shop drawings.

The review of such shop drawings and catalog cuts by the Engineer shall not relieve the Contractor from responsibility for corrections of dimensions, fabrication details, and space requirements, or for deviations from the contract drawings or specifications, unless the Contractor has called attention to the deviations in writing by a letter accompanying the shop drawings and the Engineer approves the change or deviation in writing at the time of submission; nor shall review by the Engineer relieve the Contractor from the responsibility for errors in the shop drawings. When the Contractor does call deviations to the attention of the Engineer, the Contractor shall state in his letter whether or not the deviations involve any deduction or extra cost adjustment.

Portions of the work requiring a shop drawing or sample submission shall not begin until the shop drawing or 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.

8.53 Record Drawings During construction, the Contractor shall keep an accurate record of the following:

- A. Deviations between the work as shown on the plans and the work as actually installed.
- B. The specific locations of piping, valves, electric conduits, ductwork, equipment, and other such work which was not located on the plans. The record drawings shall show distances to these locations from known points on the plans.
- C. Equipment schedules indicating manufacturer's names and model numbers.

When all revisions showing work as installed are made, the corrected set of plans shall be delivered to the Engineer before the final pay request is processed. These plans shall be clearly marked "Record Drawings" and shall be signed and dated by the Contractor. By submittal of these Record Drawings to the Engineer, the Contractor is certifying that the work performed was done in accordance with the drawings and is an accurate representation of the improvements completed. The Contractor shall employ the services of an Arizona

Registered Land Surveyor (RLS) to certify on the Record Drawings any approved changes to the locations of facilities that were installed.

Nothing contained in this section shall be construed as authorizing any deviation in the work as shown on the contract drawings, plans and /or specifications without a written change order approved by Owner.

8.54 **Materials, Services and Facilities** It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

The Contractor shall furnish the Owner a list of materials and the source of supply of each of the materials on the list. The source of supply of each of the materials shall be approved by the Owner before the delivery of materials is started. Only materials conforming to these specifications and approved by the Owner shall be used in the work. All materials proposed for use may be inspected or tested at any time during their preparation and use. After trial, if it is found that sources of supply, which have been approved, do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved material from other approved sources. No material, which, after approval, has in any way become unfit for use shall be used in the work.

The Contractor warrants to the Owner and Engineer that the materials and equipment furnished under the contract will be new and of a quality equal to that specified or approved and, that all work will be of good quality, free from faults and defects and in conformance with the Contract Documents. Mechanical and electrical equipment shall be the products of manufacturers of established good reputations and regularly engaged in the fabrication of that equipment. Unless otherwise noted, any equipment offered shall be current models, which have been in successful regular operation under comparable conditions for a period of at least two years. This time requirement, however, does not apply to minor details or to thoroughly demonstrated improvements in design or in material of construction. Work shall be done and completed in a thorough and workmanlike manner and if required by Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment used.

All materials which the Engineer or his authorized inspector has determined do not conform to the requirements of the plans and specifications will be rejected. They shall be removed immediately from the vicinity of the work by the Contractor at his own expense, unless otherwise permitted by the Engineer. No rejected material, the defects of which have been subsequently corrected, shall be used in the work, unless approval in writing has been given by the Engineer. Upon failure of the Contractor to comply promptly with any order of the Engineer made under the provisions in this section, the Engineer shall have authority to cause the removal and replacement of rejected material and to deduct the cost thereof from any monies due or to become due the Contractor.

If any part or portions of the work done or material furnished under this contract shall prove defective or nonconforming with the drawings and specifications, and if the imperfection in the same shall not be of sufficient magnitude or importance as to make the work dangerous or unsuitable, or if the removal of the work will create conditions which are dangerous or undesirable, the Engineer shall have the right and authority to retain such work but shall make deductions in the final payment therefore as may be just and reasonable. Adjustment shall be effected whether or not final payment has been made.

Materials and equipment shall be so stored (at the Contractor's expense) as to insure the preservation of their quality and fitness for the work. Stored materials and equipment to be incorporated in the work shall be located so as to facilitate prompt inspection.

Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

Materials, supplies or equipment, to be incorporated into the work shall not be purchased by the Contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

8.55 **Inspections and Testing** All material and equipment, used in the construction of the project, shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the Contract Documents.

Additional inspections are required for all building-related activities, and must be scheduled and coordinated through the Owner's Building Division utilizing an automated inspection request system. To schedule an inspection on an active permit please call the Owner's inspection request line at (928) 763-0172 a minimum of 24 business hours in advance. The Contractor is responsible for scheduling and coordinating all inspections with the Owner's project manager, staff and other agencies.

The Owner shall provide all inspection and testing services not required by the Contract Documents.

The Contractor shall provide at his expense the testing and inspection services required by the Contract Documents.

If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any work to specifically be inspected, tested, or approved by someone other than the Contractor, the Contractor will give the Engineer timely notice of readiness, the minimum of which shall be 48 hours. The Contractor will then furnish the Engineer the required certificates of inspection, testing or approval.

Inspections, tests or approvals by the Engineer or others shall not relieve the Contractor from his obligations to perform the work in accordance with the requirements of the Contract Documents.

The Engineer and his representative will at all times have access to the work. In addition, authorized representatives and agents of any participating Federal or State agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The Contractor will provide proper facilities for access and observation of the work and also for any inspection, or testing thereof.

If any work is covered contrary to the written instructions of the Engineer or prior to inspection, it must, if requested by the Engineer, be uncovered for his observation and replaced at the Contractor's expense.

If the Engineer considers it necessary or advisable that work that has already been approved be inspected or tested by the Engineer or others, the Contractor, at the Engineer's request, will uncover, expose or otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that the work is defective, the Contractor will bear all the expenses of the uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, the work is not found to be defective, the Contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order shall be issued.

8.56 **Substitutions** Whenever a material, article or piece of equipment is identified on the drawings or specifications by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and

function for those referred to in the Contract Documents by reference to brand name or catalogue number, and if, in the opinion of the Engineer, the material, article, or piece of equipment is of equal substance and function to that specified, the Engineer may approve its substitution and use by the Contractor. Any cost differential shall be deductible from the contract price and the Contract Documents shall be appropriately modified by change order. The Contractor warrants that if substitutes are approved, no major changes in the function or general design of the project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the contract price or contract time. Any substitutions not properly approved and authorized by the Engineer may be considered defective and the Engineer may require the Contractor to remove the substituted material, article or piece of equipment. In such an event, the Contractor shall bear any and all costs associated with the removal of the substituted item(s), including, but not limited to, all engineering, inspection, testing or surveying costs incurred by the Owner.

The term "or equal" shall be understood to indicate that the "equal" product is the same or better than the product named in function, performance, reliability, quality, and general configuration. Determination of equality in reference to the project design requirements will be made by the Owner. "Equal" products shall not be purchased or installed by the Contractor without the Owner's written approval. Contractor shall have seven calendar days after award of the contract for submission of data substantiating a request for substitution of an "or equal" item.

Regarding the supplying of equipment, products or materials not specifically identified by reference to brand name or catalogue number in the Contract Documents, this section supersedes any pre-approval language that may exist in any other portion of the Contract Documents. There is no pre-approval process available prior to bid opening for this project, and the Contractor is advised to submit its bid based on the specified equipment, products and materials. As stipulated in this Section 8.55, the Contractor shall have seven calendar days after award of the contract for submission of data substantiating a request for substitution of an "or equal" item.

8.57 Patents The Contractor shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and indemnify and hold the Owner harmless from loss on account thereof, except that the Owner shall be responsible for any loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for the loss unless he promptly gives that information to the Engineer.

8.58 Surveys, Permits, Regulations The Owner shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the work together with a suitable number of benchmarks adjacent to the work as shown in the Contract Documents. The Contractor shall satisfy himself as to the accuracy of all measurements before constructing any permanent structure and shall not take advantage of any errors, which may have been made in laying out the work. From the information provided by the Owner, unless otherwise specified in the Contract Documents, the Contractor shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pipe locations and other working points, lines, elevations and cut sheets.

Stakes and markings as the Engineer may set for either his own or the Contractors guidance, shall be scrupulously preserved by the Contractor. In the event the Contractor, or his employees, destroy or otherwise remove or obliterate stakes or markings, an amount equal to the cost of replacing the same may be deducted from subsequent estimates due the Contractor at the discretion of the Owner.

Permits and licenses of a temporary nature necessary for the prosecution of the work shall be secured and paid for by the Contractor unless otherwise stated in the supplemental general conditions easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor perceives that the Contract Documents are at variance therewith, he shall

promptly notify the Engineer in writing, and any necessary changes shall be adjusted as provided in Section 8.61, "CHANGES IN THE WORK". If the Contractor performs and works knowing it to be contrary to any laws, ordinances, rules and regulations, without notice to the Engineer, he shall assume full responsibility therefore and shall bear all costs attributable thereto.

The Contractor shall sign for and obtain Building and/or Right of Way permits issued by the Owner prior to commencing work. These permits will be no cost to the Contractor, and the Owner will assist the Contractor with completing the applications and obtaining the permit(s). The Contractor shall comply with all requirements of these permits, including the use of the Owner's automated inspection request system for building-related inspections. To schedule an inspection on an active permit please call the Owner's inspection request line at (928) 763-0172 a minimum of 24 business hours in advance. The Contractor is responsible for scheduling and coordinating all inspections with the Owner's project manager, staff and other agencies.

8.59 **Protection of Work, Property and Persons and Damages** The Contractor shall have sole responsibility for initiating, maintaining and supervising all safety precautions and programs in connection with the work. He shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to, all employees on the work and other persons who may be affected thereby, all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and other items not designated for removal, relocation or replacement in the course of construction.

The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He shall erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. He shall notify owners of adjacent utilities when prosecution of the work may affect them. The Contractor shall remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the Contract Documents or to the acts or omissions of the Owner or the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor.

In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Engineer or Owner, shall act to prevent threatened damage, injury or loss. He shall give the Engineer prompt written notice of any significant changes in the work or deviations from the Contract Documents caused thereby, and a change order shall thereupon be negotiated and issued covering the changes and deviations involved, as provided in Section 8.61, Changes in the Work.

The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents and the safety of all those at the site. The person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and the Engineer. The Engineer will not be responsible for safety precautions and programs in connection with the work or for the Contractor's failure to properly perform his responsibilities with respect to initiating, maintaining and supervising all safety precautions and programs. The Contractor is required to provide a copy of its written safety programs to the Owner for review by the Risk Management Division prior to commencing work.

All costs and charges incurred by Owner, together with the cost of completing the work under the contract, will be deducted from any monies due or which may become due to the Contractor if the expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of the excess.

8.60 **Public Safety** Contractor shall furnish, at his own expense, and without any additional cost to the Owner, such flagmen and guards as are reasonable necessary to give adequate warning to the public

of any dangerous conditions which may be encountered by motorists and/or pedestrians, and the Contractor shall furnish, erect and maintain such fences, barricades, lights, signs and other traffic control devices as are necessary to prevent accidents and avoid damage or injury to the public which may be required by the most recent edition of the *Maricopa Association of Governments (MAG) Standards for Public Works Construction*, the text of which is incorporated herein by reference and made a part of the Contract Documents.

If the Contractor appears to be neglectful or negligent in furnishing warning and protective measures as above provided, the Engineer may direct attention to the existence of a hazard and the necessary warning and protective measures shall be furnished and installed by the Contractor at his own expense without cost to the Owner. If the Engineer points out the inadequacy of warning and protective measures, that action on the part of the Engineer shall not relieve the Contractor from responsibility for public safety or abrogate his obligation to furnish and pay for these devices.

If the Contractor is neglectful in furnishing and/or maintaining warning and protective facilities as required herein, the Owner may furnish and/or maintain those facilities and charge Contractor therefore by deducting the cost thereof from periodic progress payments due the Contractor as costs are incurred by Owner.

No material or equipment shall be stored where it will interfere with the free and safe passage of public traffic, and at the end of each day's work and at other times when construction operations are suspended for any reason, the Contractor shall remove all equipment and other obstructions from that portion of the right-of-way open for use by public traffic.

8.61 **Supervision By Contractor** The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor shall employ and maintain on the work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site, and who shall have been approved by the Engineer, which approval shall not be unreasonably withheld. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to and by the supervisor shall be as binding as if given to and by the Contractor. The Contractor shall be responsible to the Owner for the acts and omissions of the employees, subcontractors, and the agents and employees, and other persons performing any other work under the contract with the Contractor.

8.62 **Changes in the Work** The Owner may at any time, as the need arises, order changes within the scope of the work without invalidating the agreement. If changes increase or decrease the amounts due to Contractor under the Contract Documents, or results in changes in the time required for performance of the work, the adjustment shall be authorized by a written change order approved by the Owner.

The Owner may, at any time, by issuing a change order, make changes in the plans, specifications or other details of the work. Contractor shall proceed with the performance of any changes in the work so ordered by the Owner, unless the Contractor believes that the change order entitles him to a change in the contract price or time, or both, in which event he shall give the Engineer written notice thereof within seven calendar days after the receipt of the ordered change. The Contractor shall justify the basis for the change in contract price or time through written documentation submitted to Engineer within 14 calendar days after Contractor's receipt of the change order. Contractor shall not execute any changes in the work until and unless Contractor has received an executed change order approved by the Owner.

If the Contractor wishes to make a claim for an increase in the contract price, he shall give the Engineer written notice thereof within 14 calendar days after the occurrence of the event-giving rise to the claim. This notice shall be given by the Contractor before proceeding to execute the work, except in an emergency endangering life or property, in which case Contractor shall proceed in accordance with the provisions of the contract. No claim shall be valid, unless made by Contractor in

accordance with the provisions of the contract. Any change in the contract price resulting from a claim shall be authorized in a written change order approved by Owner.

The value of any work covered by a change order shall be determined by one or more of the following methods in the order of precedence listed below:

- A. Unit prices previously approved.
- B. An agreed lump sum.
- C. Cost plus percentage.

8.63 Time for Completion and Liquidated Damages The date of beginning and the time for completion of the work are essential conditions of the Contract Documents and the work embraced shall be commenced on a date specified in the Notice To Proceed.

The Contractor shall proceed with the work at a rate of progress to insure full completion within the contract time. It is expressly understood and agreed, by and between the Contractor and the Owner, that the contract time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

The Contractor shall only work an eight hour day during normal regular hours, which will consist of Monday through Friday, 6:00 a.m. to 6:00 p.m., and do not include local municipal holidays. If the Contractor desires to carry on work more than eight hours each day, or work at night or outside the normal regular hours, the Contractor shall give timely notice (72 hours) to the Engineer and receive the Owner's written approval to allow satisfactory arrangements to be made for inspecting the work in progress.

If prosecution of the work is discontinued for any reason, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations. The Contractor shall be responsible for any extra compensation due or costs incurred as a result of Contractor's desire to carry out work beyond an eight hour day, or at night or outside normal regular hours, including but not limited to, any additional costs or compensation due the Engineer and Owner or its employees or agents as a result of having to be present at the site. The costs or extra compensation necessitated by the Contractor's work beyond an eight hour day, or at night or outside normal regular business hours may be deducted or withheld from progress payment or any other payments due to Contractor.

If for any reason a suspension of the work occurs, the Contractor, at its own expense, shall do all the work necessary to provide a safe, smooth and unobstructed passageway through construction for use by public traffic or to provide for the proper and efficient operation of sewer, drainage and other facilities within the site of the work, during the period of such suspension. In the event that the Contractor fails to perform the work specified in this section, the Owner will perform the work and the cost thereof will be deducted from periodic progress payments due the Contractor.

During inclement weather and other conditions, the Contractor shall pursue only those portions of the work as shall not be damaged thereby. No portions of the work whose satisfactory quality or efficiency will be affected by an unfavorable condition shall be constructed while these conditions remain, unless by special means or precautions, approved by the Engineer, the Contractor is able to overcome them.

Delays in delivery of equipment or material purchased by the Contractor or its subcontractor, including engineer-selected equipment, shall not be considered as a just cause for delay as this is not beyond the control of the Contractor. The Contractor shall be fully responsible for the timely ordering, scheduling, expediting, delivery, and installation of all equipment and materials.

In case of failure on the part of the Contractor to complete his contract within the time provided in the contract, or such written extension thereof as may be agreed upon by Owner, the contract may be terminated by written notice given by the Engineer as specified in Section 8.65.

In the event the contract is terminated, the Owner shall have the right to take over the work and to proceed until it is completed, either by performing the work itself directly or by contracting it out to some other person or persons, and in that event the Owner may take possession of and utilize, in completing the work, all materials, appliances and plant as may be on the site of the work and necessary for its completion. Nothing herein contained shall be deemed to limit the right of the Owner in the event of any breach of Contract by the Contractor; but all rights herein given to the Owner are and shall be deemed to be additional to any other rights or remedies which the Owner shall have under any provision of law, including both liquidated damages pursuant to Section 1.15 for the delay in final completion and actual damages for breach and ultimate completion separate and distinct from damages attributable to delay.

In the event the Contractor is not terminated, but fails to complete the work, or any part thereof, in the time agreed upon in the contract or within any extra time as may have been allowed for delays by extensions granted as provided in the contract, the Contractor shall reimburse the Owner for the additional expense and damage for each calendar day that the contract remains uncompleted after the contract completion date in the amounts stipulated in Section 1.15. The stipulated amounts are hereby agreed upon as liquidated damages for the loss to the Owner. It is expressly understood and agreed that this amount is not to be considered in the nature of a penalty, but as liquidated damages, which have accrued against the Contractor. The Owner shall have the right to deduct damages from any amount due, or that may become due the Contractor, or the amount of damages shall be due and collectible from the Contractor or its Surety.

The Contractor shall not be charged with liquidated damages or any excess costs when the delay in completion of the work is due to one or more of the following: acts of God; acts of the Owner; acts of another Contractor in the performance of a separate contract with the Owner; fire, flood, epidemics, or quarantine restrictions; strikes or freight embargoes; and, extraordinary weather conditions. Written Notice of a delay must be submitted to the Engineer for approval within three calendar days of the occurrence. In the event notice is not given as provided, liquidated damages may be assessed.

8.64 **Correction of Work** The Contractor shall promptly correct all work rejected by the Engineer as defective or as failing to conform to the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. Contractor shall bear all costs of correcting such rejected work, including compensation for the Engineer's additional services made necessary thereby. Contractor shall also bear the costs of making good all work of the Owner or separate Contractor destroyed or damaged by such correction or removal.

All removal and replacement work shall be done at the Contractor's expense. If the Contractor does not take action to remove rejected work within ten calendar days after receipt of Written Notice, the Owner may remove the work and store the materials at the expense of the Contractor, including compensation for the Engineer's additional services made necessary thereby.

8.65 **Subsurface Conditions** The Contractor shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the Owner by Written Notice of:

- Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or
- Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.

Unless indicated elsewhere in the Contract Documents a geotechnical exploration was not conducted for this project, and the Contractor shall be responsible for its own investigations and research to confirm the conditions of the project. If no geotechnical exploration was conducted, however, there may be risk of perched pockets of groundwater during trench excavations. If encountered, the Contractor shall immediately formalize a dewatering plan for Owner review and approval.

The Owner shall promptly investigate any physical conditions identified by the Contractor, and if he finds that conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the work, an equitable adjustment shall be made and the Contract Documents shall be modified by a change order. Any claim of the Contractor for adjustment hereunder shall not be allowed unless he has given the required Written Notice; provided that the Owner may, if he determines the facts so justify, consider and adjust any claims asserted before the date of final payment.

8.66 Suspension of Work, Termination and Delay The Owner may suspend the work or any portion thereof for a period of not more than 120 Calendar Days or for further time as agreed upon by the Contractor. Any suspension shall be initiated by the Owner. Written Notice documenting the suspension shall be delivered to the Contractor. The Contractor shall resume work upon receiving another Written Notice, from the Owner, to do so. The second notice shall have the Engineer's seal affixed. The Contractor may negotiate an increase in the total contract price or an extension of the contract time, or both, directly attributable to any suspension.

In addition to any other reasons for termination provided in the contract, the Contractor shall be considered in default of his contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons if the Contractor:

- A. Fails to begin the work under the contract within the time specified in the "Notice To Proceed," or
- B. Fails to perform the work or fails to provide sufficient workers, equipment or materials to assure completion of work in accordance with the terms of the contract, or
- C. Performs the work unsuitably or neglects or refuses to remove materials or to perform new work as may be rejected as unacceptable and unsuitable, or
- D. Discontinues the prosecution of the work, or
- E. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- F. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- G. Allows any final judgment to stand against him unsatisfied for a period of ten calendar days, or
- H. Makes an assignment for the benefit of creditors, or acceptable manner, or
- I. Is otherwise in breach of the contract and has failed to remedy the breach within ten calendar days of written notice of the existence of breach, or
- J. Fails to provide safe conditions for his workers and/or the general public, or
- K. Fails to pay his subcontractors in accordance with Section 8.67 Payments to Contractor.

If the Owner considers the Contractor in default of the contract for any reason hereinbefore, he shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or Surety, within a period of ten calendar days after notice, does not proceed in accordance therewith, then the Owner shall have, upon written notification of the facts of the delay or neglect, the power and authority without violating the contract, to take the prosecution of the work

out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of the contract according to the terms and provisions thereof, or use any other methods as in the opinion of the Owner will be required for the completion of the contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may come due the Contractor. If expense exceeds the sum which would have been payable under the contract, then the Contractor and the Surety shall pay to the Owner the amount of the excess

Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of monies due Contractor by Owner will not release Contractor from liability.

Upon seven calendar days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, elect to terminate the Agreement. In that case, Contractor shall be paid (without duplication of any items):

- A. for completed and acceptable work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on the work;
- B. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead on those expenses;
- C. for reasonable costs incurred in settlement of terminated contracts with subcontractors, Suppliers and others; and
- D. for reasonable expenses directly attributable to termination. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

If the work is stopped under an order of any court or other public authority for a period of more than 120 Calendar Days , through no act or fault of the Contractor or of anyone employed by him, or if the Owner fails to pay the Contractor within 45 calendar days after the time specified in the Payments To Contractor under Section 8.67, then the Contractor may, upon 15 calendar days Written Notice to the Owner, stop work until payment of the amount owing has been received.

The Owner may terminate the Contract or a portion thereof if conditions encountered during the progress of the work make it impossible or impracticable to proceed with the work or a local or national emergency exists.

When contracts, or any portion thereof, are terminated before completion of all work in the Contract, adjustments in the amount bid for the pay items will be made on the actual quantity of work performed and accepted, or as mutually agreed for pay items of work partially completed or not started. No claim for loss of anticipated profits will be considered.

Termination of the Contract or any portion thereof shall not relieve the Contractor of his responsibilities for the completed work nor the surety of its obligation for and concerning any just claims arising out of the work performed.

8.67 Issuance of Notice of Completion and Final Acceptance By Owner Upon completion of the project, a final inspection shall be requested by the Contractor, in writing, and the Owner will make an inspection within seven calendar days. If all construction provided for and contemplated by the

contract is found completed to his satisfaction, that inspection shall constitute the final inspection and the Owner will make the final acceptance and issue a Notice Of Completion to the Contractor.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Owner will give the Contractor the necessary instructions for correction and the Contractor shall immediately comply with and execute all instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In that event, the Owner will make the final acceptance and issue a Notice Of Completion to the Contractor.

8.68 Payments to Contractor In addition to any documents required by the Engineer, at the time a partial pay estimate is submitted, the Contractor shall, at least ten calendar days before each progress payment falls due (but not more often than once a month), submit to the Engineer a partial payment estimate filled out and signed by the Contractor covering the work performed during the period covered by the partial payment estimate and supported by data as the Engineer may reasonably require. All partial and final pay estimates submitted by the Contractor must be on a form that substantially conforms to the Owner's Standard Application & Certificate for Payment template, a copy of which is available from the Owner. If payment is requested on the basis of materials and equipment not incorporated in the work, title to materials and equipment shall vest in the Owner, and Contractor shall supply, at the time of submission of payment estimate, supporting documents satisfactory to the Owner, to establish and protect Owner's interest in the materials and equipment, and Contractor shall maintain appropriate insurance on the materials and equipment until actual possession by the Owner of the materials and equipment occurs. The Engineer will, within seven calendar days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the Owner, or return the partial payment estimate to the Contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the partial payment estimate. The Owner will, within 14 calendar days of presentation to him of an approved partial payment estimate, pay the Contractor a progress payment on the basis of the approved partial payment estimate. All payments by the Owner must be mailed to the Contractor via standard United States Parcel Post service and postmarked within 14 calendar days of presentation to the Owner of an approved partial payment estimate. If the Contractor desires an alternative payment method it will be the sole responsibility, and expense, of the Contractor to contact the Owner's Finance Department directly and request an alternative method, provided, however, that the Finance Department is under no obligation to agree to an alternative method unless it determines, at its sole discretion, that the request is reasonable and acceptable to the Finance Department. The Owner shall retain ten percent of the amount of each payment until final completion and acceptance of all work covered by the Contract Documents. When the contract is 50 percent completed, one-half of the amount retained shall be paid to the Contractor provided the Contractor makes a written request for the payment and the Contractor is making satisfactory progress on the Contract and there is no specific cause or claim requiring a greater amount to be retained. After the Contract is 50 percent completed, no more than five per cent of the amount of any subsequent progress payments made under the contract may be retained providing the Contractor is making satisfactory progress on the project, except that if at any time the Owner determines satisfactory progress is not being made, ten percent retention shall be reinstated for all progress payments made under the Contract subsequent to the determination.

In lieu of ten percent retention provided for in this Section 8.67 of Article 8, the Owner shall, at the Contractor's option, accept as a substitute an assignment of any of the following:

- A. Time certificates of deposit of banks licensed by the State of Arizona; or
- B. Securities of or guaranteed by the United States of America; or
- C. Securities of the State of Arizona, or any county, municipality or school district thereof; or
- D. Shares of savings and loan institutions authorized to transact business in the State of Arizona.

Assigned instruments shall have a face value in an amount equal to ten percent of the progress payment for which instruments are tendered and shall be retained by the Owner as a guarantee for complete performance of the Contract.

If the Owner accepts substitute security as provided herein for the ten percent retention, the Contractor shall be entitled to all interest or income earned by the security, and all security in lieu of retention shall be returned to the Contractor within 120 Calendar Days after final completion and acceptance of all material, equipment and work covered by the Contract if the Contractor has furnished the Owner satisfactory receipts for all labor and material billed and unconditional, final waivers of liens from any and all persons holding claims against the work.

In no event shall the Owner accept a time certificate of deposit of a bank or shares of a savings and loan institution in lieu of the retention specified in this Section 8.67 of Article 8 unless accompanied by a signed and acknowledged waiver of the bank or savings and loan institution of any right or power to set off against either the Owner or the Contractor in relationship to the certificates or shares assigned.

The Contractor shall promptly pay each subcontractor, upon receipt of payment from the Owner out of the amount paid to the Contractor on account of the subcontractor's work, the amount to which the subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of subcontractors' work. The Contractor shall, by an appropriate agreement with each subcontractor, require each subcontractor to make payments to his sub-subcontractors in similar manner.

Prior to Substantial Completion, the Owner, with the approval of the Engineer and with the concurrence of the Contractor, may use any completed or substantially completed portions of the work. Use shall not constitute an acceptance of the completed or substantially completed portions of the work.

The Owner shall have the right to enter the premises for the purpose of doing work not covered by the Contract Documents. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the work, or the restoration of any damaged work except as may be caused by agents or employees of the Owner.

The Contractor shall indemnify and save the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the work. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the Contractor fails to do so the Owner may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, his Surety, or any third party. In paying any unpaid bills of the Contractor, any payment made by the Owner shall be considered as a payment made under the Contract Documents by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any payments made in good faith.

If any payment to Contractor is delayed after the date due, interest shall be paid at the rate of one percent per month or fraction of a month on any unpaid balance as may be due. If the Owner fails to make payment 120 Calendar Days after final completion and acceptance, including any retained amounts (subject to the presentation of the waivers and releases as required by Section 8.68 below), in addition to other remedies available to the Contractor, interest shall be paid at the rate of one per cent per month or fraction of the month on the unpaid balance as may be due, except for that amount

necessary to pay the expenses the Owner reasonably expects to incur in order to pay or discharge the expense determined by the Engineer or Owner in the finding justifying the retention or delay.

The Owner may require the Contractor to furnish partial releases or liens executed by all persons, firms and corporations who have furnished labor services or materials incorporated into the Work during the period of time for which the progress payment is due, releasing lien rights as these persons, firms or corporations may have for that period. If any of the laborers, subcontractors, or material men shall serve upon the Owner a "Notice to Owner", or shall otherwise put the Owner on notice that they are owed any unpaid money by the Contractor, the Owner shall have the right to pay these persons directly, and the Owner shall receive a credit therefore upon the Contract Sum.

8.69 Acceptance of Final Payment and Release Upon completion of the project, a Final Inspection shall be requested by the Contractor, in writing. Following the Owner's acceptance of the work, the Owner will issue a Notice of Completion to the Contractor and Engineer shall issue a certificate attached to the final payment request certifying that the work has been accepted under the conditions of the Contract Documents. Release of retained amounts may not be delayed without a specific written finding by the Engineer or Owner of the reasons justifying the delay in payment. No later than 120 Calendar Days after the issuing of the Notice of Completion, and subject to the Contractor's presentation of the necessary number of the Unconditional Waiver and Lien Release (see Section 7.3) from all subcontractors, the Owner will pay to the Contractor the entire sum so found to be due after deducting there from all previous payments and all amounts retained under the provisions of the Contract. All previous prior partial estimates and payments shall be subject to correction in the final estimate and payment.

The acceptance by the Contractor of final payment shall be and shall operate as an unconditional release by the Contractor of the Owner for any claims and all liabilities which may be asserted by the Contractor against the Owner for every alleged act and neglect of the Owner, as well as the Owner's agents and employees, relating to or arising out of the work. Any payment by Owner, however, final or otherwise, shall not release the Contractor or the Contractor's agents or employees, or the Contractor's sureties, from any obligations it may have under the Contract Documents or the performance and payment bonds.

8.70 Insurance The Contractor shall purchase and maintain insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's execution of the work, whether execution be by himself or by any subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- A. Claims under workmen's compensation, disability benefit and other similar employee benefit acts;
- B. Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;
- C. Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;
- D. Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person; and
- E. Claims for damages because of injury to or destruction of tangible property, including loss of use resulting there from.

Certificates of Insurance acceptable to the Owner, along with endorsements (excepting Workers Compensation) naming the Engineer, the Owner and The City of Bullhead City as additional insured parties, shall be filed with the Owner prior to commencement of the work. These documents shall contain a provision that coverages afforded under the policies will not be canceled, reduced,

discontinued, or otherwise materially altered during the period of performance without 30 calendar days prior Written Notice has been given to the Owner.

The Contractor shall procure and maintain, at his own expense, during the contract time, liability insurance with an Insurance Carrier with an A.M. Best rating of no less than "A" and as hereinafter specified:

- A. Contractor's General Commercial Liability and Property Damage Insurance including vehicle coverage issued to the Contractor and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the Contract Documents, whether the operations be by himself or by any subcontractor under him, or anyone directly or indirectly employed by the Contractor or by a Subcontractor under him. Insurance shall be written with a limit of liability to include primary and excess coverage in an amount not less than \$2,000,000 for all damages arising out of bodily injury, including death, at any time resulting there from, sustained by any one person in any one accident; and a limit of liability of not less than \$1,000,000 aggregate for any damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$500,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$500,000 aggregate for any such damage sustained by two or more persons in any one accident.
- B. The Contractor shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the project to the full insurable value thereof for the benefit of the Owner, the Contractor, and Subcontractors as their interest may appear. This provision shall in no way release the Contractor or Contractor's Surety from obligations under the Contract Documents to fully complete the project.
- C. The Contractor shall procure and maintain, at his own expense, during the Contract time, in accordance with the provisions of the laws of the state in which the work is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the project and in case any work is sublet, the Contractor shall require subcontractor to similarly provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless the employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this Contract at the site of the project is not protected under Workmen's Compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.
- D. The Contractor shall secure All Risk type Builder's Risk Insurance for work to be performed. Unless specifically authorized by the Owner, the amount of such insurance shall not be less than the contract price totaled in the bid. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the contract time, and until the work is accepted by the Owner.

8.71 Contract Security The Contractor shall within ten calendar days after the receipt of the Notice Of Award furnish the Owner with a Performance Bond and a Payment Bond in sums equal to the amount of the Contract price, conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract Documents, and upon the prompt payment by the Contractor to all persons supplying labor and materials in the prosecution of the work provided by the Contract Documents. Bonds shall be executed by the Contractor and a corporate bonding company licensed to transact business in the State of Arizona and the company issuing bonds shall possess, at a minimum, a "A" rating based upon the most recent issue of the *Bests Insurance Guide*. The expense of these bonds shall be borne by the Contractor. If at any time a surety on any bond is declared a bankrupt or loses its right to do business in the state in which the work is to be performed or is removed from the list of Surety Companies accepted on Federal Bonds,

Contractor shall within ten calendar days after notice from the Owner to do so, substitute an acceptable bond (or bonds) in the form and sum and signed by other surety or sureties as may be satisfactory to the Owner. The premiums on bonds shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to the Owner.

8.72 Assignments Neither the Contractor nor the Owner shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of his right, title or interest therein, or his obligations there under, without written consent of the other party. Nor shall the Contractor assign any monies due or to become due to him hereunder without the previous written consent of the Owner.

The Owner and Contractor each bind himself, his partners, successors and assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of the other party in respect to all covenants, agreements and obligations contained in the Contract Documents.

8.73 Indemnification To the fullest extent permitted by law, The Contractor shall indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to: attorney's fees arising out of or resulting from the performance of the work, provided that any claims, damage, loss or expense: (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting there from; and (2) to the extent it is caused by any negligent act or omission of the Contractor, his subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable. This obligation shall not be construed to negate, abridge or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any party or person described herein.

In any and all claims against the Owner or the Engineer, or any of their agents or employees, by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation of benefits payable by or for the Contractor or any subcontractor under workmen's compensation acts, disability benefit acts or other employee benefits acts.

The obligation of the Contractor under this section shall not extend to the liability of the Engineer, his agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications.

8.74 Separate Contracts The Owner reserves the right to let other contracts in connection with this project. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with their requirements. If the proper execution or results of any part of the Contractor's work depends upon the work of any other contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results.

The Owner may perform additional work related to the project by himself, or he may let other contracts containing provisions similar to these. The Contractor shall afford the other Contractors who are parties to such contracts (or the Owner, if he is performing the additional work himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of work, and shall properly connect and coordinate his work with theirs.

If the performance of additional work by other contractors or the Owner is not noted in the Contract Documents prior to the execution of the contract, written notice thereof shall be given to the Contractor prior to starting any additional work. If the Contractor believes that the performance of additional work by the Owner or others involves him in additional expense or entitles him to an extension of the contract time, he may make a claim therefore as provided in Sections 8.61 and 8.62.

8.75 Subcontracting The Contractor may utilize the services of specialty subcontractors on those parts of the work which come under normal contracting practices or are typically performed by specialty subcontractors, provided the Contractor, as soon as practical after the award of the contract, shall furnish to the Owner and the Engineer in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the work, together with their Arizona Contractors License Numbers and other pertinent information. This information is to be submitted to Owner on a form provided by Owner. The list of subcontractors and suppliers shall be submitted prior to the effective date of the Notice to Proceed. The Engineer will promptly reply to the Contractor in writing stating whether or not the Owner or the Engineer, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner or Engineer to promptly reply shall constitute notice of no reasonable objection. The Contractor shall not contract with any such proposed person or entity to whom the Owner or Engineer has made reasonable objection and the Contractor shall not be required to contract with anyone to whom he has a reasonable objection. If the Owner or Engineer has a reasonable objection to any proposed person or entity, the Contractor shall submit a substitute to whom the Owner or the Engineer has no reasonable objection. The Contractor shall make no substitution for any subcontractor, person or entity previously selected if the Owner or Engineer makes reasonable objection to the substitution

The Contractor shall not award work to subcontractors, in excess of 49 percent of the Contract Price, without prior written approval of the Owner.

The Contractor shall be fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

The Contractor shall not employ any subcontractors that are not properly licensed with Owner and the State of Arizona. Changes of subcontractors listed with the proposal shall be made only with the approval of the Owner.

Nothing contained in these Contract Documents shall be construed as creating any contractual relationship between any subcontractor and the Owner; the Contractor shall be as fully responsible to the Owner for the acts and omissions of subcontractors, and of persons employed by them, as he is for the acts and omissions of persons directly employed by him.

The Contractor shall, without additional expense to the Owner, utilize the services of specialty Subcontractors on those parts of the work which are specified or required by State or local laws to be performed by specialty subcontractors.

The Contractor shall be responsible for the coordination of all trades, subcontractors, material and people engaged upon this work. The Owner will not undertake to settle any differences between the Contractor and his subcontractors or between subcontractors.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the Contract Documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.

Nothing contained in this Contract shall create any contractual relation between any subcontractor and the Owner.

8.76 Engineer's Authority The Engineer shall act as the Owner's representative during the construction period. He shall decide questions, which may arise as to quality and acceptability of materials furnished and work performed. He shall interpret the intent of the Contract Documents in a fair and unbiased manner. The Engineer will make periodic visits to the site and determine if the work is proceeding in accordance with the Contract Documents.

The Contractor will be held strictly to the intent of the Contract Documents in regard to the quality of materials, workmanship and execution of the work. Inspections may be made at the factory or fabrication plant of the source of material supply.

The Engineer shall not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety precautions and programs in connection with the work and he will not be responsible for the Contractor's failure to carry out the work in accordance with the Contract Documents. The Engineer shall not be responsible or have control or charge over the acts or omissions of the subcontractors, or any of their agents or employees, or any other person performing any of the work.

The Engineer shall promptly make decisions relative to interpretation of the Contract Documents.

The Engineer will have the authority to reject work, which does not conform to the Contract Documents. Whenever, in his opinion, he considers it necessary or advisable for the implementation of the intent of the Contract Documents, he will have authority to require special inspection or testing of the work in accordance with the other terms of this Contract and whether or not the work be then fabricated, installed or completed.

8.77 Land and Rights-of-Way Prior to issuance of Notice To Proceed, the Owner shall obtain all land and rights-of-way necessary for carrying out and for the completion of the work to be performed pursuant to the Contract Documents, unless otherwise mutually agreed.

The Owner shall provide to the Contractor information, which delineates and describes the lands owned and rights-of-way acquired.

The Contractor shall provide at his own expense and without liability to the Owner any additional land and access thereto that the Contractor may desire for temporary construction facilities, or for storage of materials.

8.78 Guarantee Except as otherwise specified, all work shall be guaranteed by the Contractor, including the work performed by his subcontractors, against defects resulting from the use of inferior materials, equipment, or workmanship for a period of one year from the date the Notice of Completion is issued by the Owner, or within a longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents.

If, within any guarantee period, repairs or changes are required in connection with guaranteed work, which, in the opinion of the Owner, is rendered necessary as the result of the use of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the Contract, the Contractor shall, promptly upon receipt of notice from the Owner, and without expense: (1) place in satisfactory condition in every particular all guaranteed work, correcting all defects therein; (2) make good all damage to the building, site or work, or equipment or contents thereof, which in the opinion of the Owner, is the result of the use of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the contract; and (3) make good any work or material, or the equipment and contents of the building, site or work disturbed in fulfilling any guarantee. If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the Owner may have the defects corrected and the Contractor and his surety shall be liable for all expense incurred. The performance bond shall remain in full force and effect through the guarantee period.

A. **GUARANTEE**

The Contractor agrees to execute a written guarantee to the Owner, in substantially the following form:

GUARANTEE FOR _____

We hereby guarantee that the improvement which we have installed, including the work of our subcontractors, for the Owner of project, specifically described as:

7TH STREET SLIPLINING PROJECT Project No. 23-U-013

has been done in accordance with the contract drawings and specifications.

We agree to repair and replace any or all work included in said improvement, together with any other adjacent work which may be displaced or damaged by so doing, that may prove to be defective in its workmanship or material within a period of one year from date of acceptance of the above mentioned improvement by the Engineer on behalf of the Owner, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with the above mentioned conditions within a reasonable period of time (as determined by the Owner) after being notified in writing by the Owner, we do hereby authorize the Owner to proceed to have the defects repaired and made good at our expense, and we will honor and pay the costs and charges therefore upon demand.

Signed _____
(Contractor)

Local Representative to be contacted for service:

Name: _____

Address: _____

Phone No. _____ Fax _____

The guarantee form(s) shall be completed and returned with the acknowledgment of the Certificate of Completion.

The failure of the Contractor to execute, the guarantee shall not affect the right of the Owner to rely on and enforce the guarantee and the obligations respectively assumed by the Contractor under Section 8.77 hereof.

8.79 Arbitration If both parties mutually agree, all claims, disputes and other matters in question arising out of, or relating to, the Contract Documents or the breach thereof, except for claims which have been waived by the making and acceptance of final payment as provided by Section 8.66, may be decided by arbitration in accordance with the American Arbitration Association or any other similar body. The foregoing agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law (§12-1501 et. seq.) of the State of Arizona. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

Notice of the demand for arbitration shall be filed in writing with the other party to the Contract Documents and with the American Arbitration Association and a copy shall be filed with the Engineer. The party filing for arbitration may select which arbitration service to use. Demand for arbitration shall in no event be made on any claim, dispute or other matter in question which would be barred by the applicable statute of limitations.

The Contractor shall carry on the work and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

The provisions of the Contract pertaining to arbitration are not binding upon Engineer, and Engineer cannot be compelled to participate against his will in an arbitration arising out of a dispute over the Contract or Contract Documents unless Engineer so consents in writing to be a party to the arbitration.

In the event either Contractor or Owner refuse to consent to arbitration of a claim, dispute, or any other matter in question arising out of, or relating to the Contract Documents or the breach thereof, then either party of the Contract may initiate a lawsuit against the other to resolve any claims, disputes and/or other matters in question arising out of or in any way related to the Contract Documents or the alleged breach thereof. The parties agree that any lawsuit filed by either party to the contract against the other shall be filed in the Mohave County Superior Court, State of Arizona.

8.80 **Taxes and Charges** The Contractor shall pay all State and local sales and use taxes on items, and in a manner as required by the laws and statutes of the State of Arizona and its political subdivisions. The Contractor shall withhold and pay any and all withholding taxes, whether State or Federal, and pay all Social Security charges, State Unemployment Compensation charges, industrial insurance, workers compensation charges, and pay or cause to be withheld, as the case may be, any and all taxes, charges, or fees, or sums whatsoever, which are now or may hereafter, be required to be paid or withheld under any laws.

8.81 **Miscellaneous Conditions** In the event that either party to the Contract is required to institute arbitration or litigation to enforce its rights under the terms of the Contract, then the prevailing party in the arbitration or litigation shall be entitled to recover all costs and attorney's fees incurred.

In the event that any provision contained in the contract is found to be contrary to the applicable law, then it shall be severed and the remaining provisions of the contract shall remain in full force and effect.

The Contract shall be governed by the law of the State of Arizona.

8.82 **Conflicts within the Plans or Specifications** In the event that a conflict is discovered between sections of the Specifications or between the Plans and the Specifications, the following list of priority shall be used to resolve the conflict:

- A. Executed Change Orders
- B. Addenda
- C. Contract
- D. Special Provisions
- E. General Conditions
- F. Invitation to Bid & Bid Documents
- G. Supplemental Specifications
- H. Technical Specifications
- I. Plans
- J. Referenced Standard Specifications or other Documents

8.83 **Nondiscrimination** The Contractor, with regard to the work performed pursuant to this Contract, shall not discriminate on the grounds of race, color, sex, religion, creed, age, physical or mental disability, or national origin or ancestry in any contracts with the public and in the selection and retention of employees or subcontractors, nor in the procurement of materials and leases of equipment.

8.84 **Integration** This Contract represents the entire agreement between the parties hereto and supersedes any and all prior negotiations or representations, either written or oral.

Amendments or modifications to the contract shall be in writing, signed by both parties, or by Change Orders.

The Contract Documents shall not be construed to create any contractual relationship of any kind between the Engineer and the Contractor, but the Engineer shall be entitled to performance of obligations intended for his benefit, and to the enforcement thereof.

Nothing contained in the Contract Documents shall create any contractual relationship between the Owner or the Engineer and any subcontractor or sub-subcontractor.

8.85 Hazard Communication Program All contractors working on Owner projects shall submit a copy of their hazard communication plan to the Fire Prevention Office and the Owner's Risk Management Division prior to commencement of work on any project. This will ensure that other individuals on the job site are not unknowingly exposed to a hazardous substance or chemical.

The Fire Prevention Office shall be provided a list of the hazardous substances and the material safety data sheets that are applicable to the work areas of those contract employees.

All contract labor within Owner facilities will be treated the same as regular employees with regard to this hazard communication standard.

9.0 Special Provisions

9.1 **Scope** These Special Provisions supplement and modify the General Conditions, Special Provisions, Technical Specifications, Supplemental Specifications and Construction Drawings (Plans). All requirements and provisions of the General Conditions, Special Provisions, Technical Specifications, Supplemental Specifications and Plans apply except where modified by these Special Provisions.

9.2 **Project Description** The Project involves the installation of one new production well for the Bullhead City public water supply system.

9.3 **Definitions Of Terms** Wherever in these documents the word "Owner" appears, it shall be understood to mean the City of Bullhead City, Arizona. Wherever in these documents the word "Contractor" appears, it shall be understood to mean the party or parties contracting with the Owner to perform the work. Wherever in these documents the word "Engineer" appears, it shall be understood to mean the Engineer as defined in Section 8.18, General Conditions.

9.4 **Preconstruction Conference** Within ten calendar days after the Contract has been awarded, but before the start of construction, the Engineer will schedule a conference to be held at the site of the project for the purpose of discussing matters as project supervision, onsite inspections, progress schedules and reports, payrolls, payments to Contractors, equal employment opportunity, contract change orders, insurance, safety, and any other items pertinent to the project. The Contractor shall arrange to have all supervisory personnel connected with the project on hand to meet with the representatives of the Owner and the Engineer.

9.5 **Compliance With Laws And Labor Material Requirements** The Contractor shall conduct the work in compliance with all existing state and national laws and county and municipal ordinance and regulations limiting or controlling the work in any manner. Particular attention is called to the following State of Arizona laws:

- A. Employment of aliens on Public Works prohibited, Arizona Revised Statute § 34-301 and Residence requirements for employees, Arizona Revised Statute § 34-302.
- B. Workman's Compensation Insurance. All personnel working on the project shall be covered by Workmen's Compensation Insurance as provided or approved by the Arizona Industrial Commission in accordance with Arizona Revised Statute § 23-901 et. seq.

9.6 **Copies Of Documents** The Owner will furnish to the Contractor up to two copies of the Contract Documents in hard copy (paper) format as are reasonably necessary for the execution of the work. Additional copies will be furnished, upon request, for the cost of reproduction.

9.7 **Drawings Of Record** Two additional sets of Contract Documents will be provided to the Contractor at no charge for the purpose of showing the work as actually installed. These Contract Documents are to be kept at the job site, maintained in good condition, and marked daily by the Contractor as the work proceeds. The Contract Documents shall be kept available for inspection by the Owner at all times, and shall be kept up to date.

9.8 **Contract Time** The contract time for this project is 180 Calendar days or less after Notice to Proceed.

9.9 **Surveys** The Contractor shall layout the work, in accordance with the drawings, shall establish all necessary lines, etc., required to complete the work in accordance with the Contract Documents. The Contractor shall employ an experienced and competent Arizona Registered Land Surveyor (R.L.S.) satisfactory to the Owner to layout the work and to verify lines and elevations as the work progresses. Surveying shall be considered incidental to the various Contract bid items and no additional compensation will be made for this work.

9.10 Weather Conditions In the event of temporary suspension of work, or during inclement weather, or whenever the Owner shall direct, the Contractor will and also cause his subcontractors to protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Owner, any work or materials is damaged or injured by reason of failure on the part of the Contractor or any of his subcontractors to protect his work, the materials shall be removed and replaced at the expense of the Contractor.

9.11 Submittals Prior to construction and as soon as possible, the Contractor shall supply all submittals required by the Technical Specifications or as requested by the Owner.

9.12 Inspection Of The Work The Owner intends to assign an inspector for the project. The inspector will be available for a 40 hour period during the week from Monday through Friday during the period of the Contract. If the Contractor elects to work outside the 40 hour week that occurs between Monday through Friday, such as Saturday, Sunday or legal holidays, in accordance with Section 8.62 of the General Conditions, the Contractor will be responsible for all inspection, engineering, and testing costs incurred during that period. For any inspection work performed on Saturday, Sunday, or local municipal holidays, the minimum chargeable time shall be four hours. The Owner reserves the right to deduct these additional inspection, engineering, and testing costs directly from the Contractor's payments.

Additional inspections are required for all building-related activities, and must be scheduled and coordinated through Owner's Building Division utilizing an automated inspection request system. To schedule an inspection on an active permit please call the Owner's inspection request line at (928) 763-0172 a minimum of 24 business hours in advance. The Contractor is responsible for scheduling and coordinating all inspections with the Owner's project manager, staff and other agencies.

9.13 Water, Power, And Sanitation

A. WATER Water is available from the water utility companies located in the City of Bullhead City at a cost to be determined by the appropriate company and payable by the Contractor. The Contractor shall make all arrangements to obtain a hydrant meter, from the appropriate utility company, for the purpose of metering the use of water on the project. The Contractor shall adhere to all conditions stated in the Meter Application, including payment of a deposit for the meter, return of the meter to the water utility company each month during the project for reading, and notification to the water utility company prior to any change in the location of the hydrant meter. The maximum water to be drawn off a hydrant at any time will be determined by the water utility company. Water shall only be drawn off hydrants approved by the appropriate water utility company or their authorized representative.

B. POWER All power for lighting, operation of Contractor's plant or equipment or for any other use as may be required for proper completion of the work to be performed under the provisions of these Contract Documents, shall be provided by the Contractor at his sole cost and expense.

C. SANITATION Contractor is responsible for acquiring and maintaining all restroom facilities in accordance with all applicable Federal, State, and Local laws.

9.14 Burning Of Vegetation No burning of vegetation will be allowed.

9.15 Materials Testing

A. CONSTRUCTION TESTING The materials and workmanship provided during construction will be tested on a regular basis by the Engineer, provided, however that the Contractor shall provide all sampling and testing required to confirm that the products and materials to be provided meet the contract requirements, prior to start of construction. The Engineer shall not provide any sampling or testing prior to start of construction to determine the acceptability of the products and materials to be provided by the Contractor. It shall be the responsibility

of the Contractor, at no additional cost, to provide material samples for testing at the Owner's request. The Contractor shall include with its submittals copies of all test results confirming the acceptability of the products and materials to be utilized on the project.

The Contractor shall be responsible for charges resulting from failed tests; costs for retesting shall be based upon hourly and/or individual test rates. In the event any portion of the project is rejected because of substandard work, all materials testing, engineering, and inspection costs associated with corrective measures shall be chargeable to the Contractor at the current respective rates.

The Contractor shall provide all sampling and testing necessary for its performance of the work before and during construction to insure its compliance with the Contract Documents, and any testing shall be considered incidental to the various Contract bid items and no additional compensation will be made, and no testing provided by the Owner shall relieve the Contractor from its quality control/quality assurance obligations. The Owner shall not be responsible for providing any sampling and testing before or during construction to assure the quality of the Contractor's work and materials; the Owner's only responsibility is to provide the acceptance testing the Engineer deems necessary to insure that the finished work products meet the contract requirements.

B. PRELIMINARY MATERIALS TESTING All preliminary materials testing and mix design testing required by the specifications to ensure materials and mix designs are suitable for project use will be the responsibility of the Contractor at no additional cost to the Owner.

9.16 Cleanup And Pollution Control

A. GENERAL The Contractor shall be responsible for the removal of all debris, litter and waste from the job site(s) and/or equipment maintenance area and the restoration of any and all areas affected, directly or indirectly by the construction, transportation of equipment or materials and/or by the acts of neglect or omission by his employees. All trucks carrying debris, dirt or aggregate base course shall be covered to prevent airborne pollutant (dust).

All debris, litter, etc., shall be disposed of in accordance with prevailing ordinance or law. Open burning of trash, debris, etc., will not be permitted.

Clean-up operations shall be on a daily basis. All pavement, concrete, brush, rocks, excess materials, etc. accumulated or removed during the course of construction must be disposed of in those areas designated by the Engineer or his authorized representative, including but not limited to the Mohave County Landfill. All costs for disposal, including gate or tipping fees, etc. are the responsibility of the Contractor. This material must be disposed of within ten calendar days of time of removal. If the areas in question are not cleaned up to the satisfaction of the Engineer, progress payments will be withheld until clean-up is completed and approved by the Engineer.

B. TEMPORARY FACILITIES The Contractor shall provide temporary mailboxes and traffic control signs where necessary until completion of backfilling and clean-up.

C. SOLID WASTES All solid wastes shall be removed and disposed of in accordance with prevailing ordinance or law. Clean-up shall be completed on a daily basis. All costs for disposal shall be the responsibility of the Contractor, and shall be considered incidental to the costs of the various bid items.

All spilled paving and concrete material shall be removed and disposed of prior to final acceptance and payment.

D. MAINTENANCE AREAS Maintenance areas shall be kept clean during construction and shall be free of litter at all times. All empty containers, debris, waste, etc., shall be removed

and disposed of prior to final acceptance. Upon inspection by the Engineer, the Contractor may be required to dress the surface of the ground, dependent upon the extent of spillage of petroleum products on the surface. If so directed, the dressing shall consist of scarifying the surface to a depth of six (6) inches and moving and compacting the soil in such a way as to blend the spill areas into clean soil and restore the surface by partial compaction.

E. POLLUTION The Contractor shall be held responsible for acts leading to pollution of water, air or land by any means.

Open burning of trash, debris, etc., will not be permitted anywhere in the City limits.

The discharge of any pollutants upon the surface of the ground, or into any stream, ravine, wash or body of water which may result in pollution of the public water supply, or of groundwater contributory thereto, will not be permitted.

Violation of these conditions will be cause for the termination of work, and possible legal action.

F. REMOVAL AND REPLACEMENT OF SIGNS, MAILBOXES, ETC It is the responsibility of the Contractor to remove all poles, etc. which are located within the construction area and replace them at the time of backfilling and clean-up in the locations determined by the Engineer. In the case of landscaping or other private items located in the construction area, the Contractor shall hand-deliver a written notice to all business, residences and public facilities in that area stating his intentions to perform work and shall do so at least five calendar days prior to work commencing. If, at the time of construction these items are still in the construction area, the Contractor is to remove and dispose of them properly. All signs and mailboxes shall be permanently installed within 48 hours of construction of sidewalk.

G. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT

The Contractor shall assume all responsibility for complying with the requirements of the NPDES Phase II Construction Program and must submit an AZPDES permit to ADEQ that meets all the requirements of a General Permit for Discharge from Construction Activities to Waters of the United States and all ADEQ requirements.

At the time of the preconstruction conference, the Contractor shall submit, for the Engineer's approval, a program which includes all the measures, which the Contractor proposes to take for the construction of permanent erosion control work specified in the contract and all the temporary control measures to prevent erosion and pollution of streams, lakes and reservoirs.

Permanent erosion control work and pollution prevention measures shall be performed at the earliest practicable time consistent with good construction practices. Temporary work and measures are not meant to be performed in lieu of permanent work specified in the Contract.

Construction of drainage facilities as well as the performance of other contract work, which will contribute to the control of erosion and sedimentation, shall be carried out in conjunction with earthwork operations or as soon thereafter as possible.

Except for that approved in writing by the Engineer, the Contractor shall perform no clearing and grubbing or earthwork until the Contractor's program has been approved.

If in the opinion of the Engineer, clearing and grubbing, excavation, or other construction operations are likely to create an erosion problem because of the exposure of erodible earth material, the Engineer may limit the surface area to be disturbed until satisfactory control measures have been accomplished. Unless otherwise permitted by the Engineer, the

Contractor shall not expose an area of erodible earth material greater than 217,800 square feet at any one location.

The Engineer may order the Contractor to provide immediate measures to control erosion and prevent pollution. Measures may involve the construction of temporary berms, dikes, dams, sediment basins and slope drains; the use of temporary mulches, mats and seeds and the use of other devices, methods, items, etc., as necessary.

At any time the Contractor proposes to change its schedule of operations, the Contractor shall review and update its erosion and pollution control program and submit it to the Engineer for approval.

The Contractor shall not be entitled to additional compensation or an extension of contract time for any delays to the work because of the Contractor's failure to submit an acceptable erosion and pollution control program.

Permanent erosion control and pollution prevention work specified in the Contract, which is to be accomplished under any of the various Contract items will be paid for by the bid item and considered incidental to that work. Any additional work required by the Owner will be paid for by the Force Account set up for this work.

The cost of any erosion control and pollution prevention work which may be proposed by the Contractor in his/her program, in addition to that specified in the contract, will be considered as included in the prices bid for contract items. There is no separate payment for this item.

Temporary erosion control and pollution prevention work necessary for the Contractor to complete the various contract bid items shall be considered incidental to the bid items and the Contractor shall not be entitled to any additional compensation or an extension of contract time for any delays to the work to perform the temporary work.

9.17 Dust Control It shall be the Contractor's responsibility to provide adequate water for dust control. It is imperative that the air quality standards are maintained. In addition, dust could be quite hazardous in the everyday operations. It shall be the Contractor's responsibility to ensure that all regulations for air quality and safety are met.

9.18 Supervisory Personnel It is the intent of these specifications to provide a completed project that will in every way reflect the work of competent journeyman mechanics in the various trades represented. The Contractor shall ensure that each portion of the work is supervised by a qualified person, well versed in the operation of the various tools required for the trade, the method in which the work is to be done, and knowledge of the general requirements of the construction work. All work is to be done in accordance with the latest methods devised for such work and consistent with acceptable national industry standards to ensure the highest quality product.

9.19 Safety Requirements The Contractor shall comply with all pertinent provisions of the Department of Labor "Safety and Health Regulations for Construction" (29 CFR Part 1518, 36 CFR 7340), with additions or modifications thereto, in effect during construction of this project.

THE FOLLOWING MEASURES OR PROVISIONS ARE TO BE ADHERED TO AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT:

- A. All heavy construction machinery to include trenching machines, bulldozers, backhoes, etc., must be equipped with a roll bar meeting the requirements of the above regulation.
- B. Safety helmets will be worn by all personnel working at the site. In addition, all spectators will be required to wear safety helmets in construction zone.
- C. Steel toe safety shoes or boots will be worn by all personnel working at the site.

D. Shoring of trenches and/or excavations per the Department of Labor/OSHA requirements.

9.20 **Preservation Of Bench Marks And Monuments** The Contractor shall exercise caution to ensure that permanent bench marks, survey monuments, established property corners, survey lines, and points are not damaged or disturbed by this work. If any survey monuments, property corners, survey lines or points are damaged or disturbed, the Contractor's representative shall immediately notify the inspector. All survey monumentation damaged or disturbed by this work shall be replaced by an Arizona Registered Land Surveyor (R.L.S.) after completion of the pavement removal and replacement operations and installation of underground facilities. A record of all monuments that have been disturbed and replaced must be recorded with the Mohave County Recorder's office and copy submitted to the Owner's Engineering Division. All costs incurred to re-establish and record points shall be the responsibility of the Contractor.

9.21 **Disposal Of Excess Material** Excess soil and unsuitable materials shall be removed from the site by the Contractor at his own expense and disposed of in accordance with the Contract Documents.

9.22 **Reference Standard Specifications** Where standard specifications or testing methods have been referred to, such as ASTM or AASHTO, the intent is to refer to the latest applicable issue or revision of such specifications or testing methods. The following abbreviations are used in these specifications.

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|--------|---|
| AWWA | American Waterworks Association |
| AASHTO | American Association of State Highway and Transportation Officials |
| ACI | American Concrete Institute |
| AI | Asphalt Institute |
| AISI | American Iron and Steel Institute |
| ANSI | American National Standards Institute (formerly the USA Standards Institute) |
| ASTM | American Society for Testing and Materials |
| NSF | National Sanitation Foundation |
| SPWC. | Standard Specifications for Public Works Construction. (Wherever written herein shall mean "Maricopa Association of Governments, Arizona Specification for Public Works Construction".) |
| APWA | American Public Works Association |

The governing specifications for this project shall be the Maricopa Association of Governments (MAG) UNIFORM STANDARD SPECIFICATIONS for PUBLIC WORKS CONSTRUCTION, 1998 Arizona including revisions through 2007, MAG UNIFORM STANDARD DETAILS for PUBLIC WORKS CONSTRUCTION, 1998 Arizona including revisions through 2008, the Manual of Uniform Traffic Control Devices (MUTCD) 2003, ADOT Traffic Control Manual for Hwy Construction (Supplement) 1996, UNLESS OTHERWISE NOTED HEREIN. Reference: ARIZONA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS for ROAD AND BRIDGE CONSTRUCTION 2008.

9.23 **Codes, Ordinances And Local Specifications** All work under this project shall be performed in strict accordance with these specifications and the Standard Specifications for Public Works Construction (SPWC). Where any conflict occurs between these plans and specifications and the local codes and ordinances in effect at the time, applicable codes and ordinances shall take precedence over these plans and specifications only if these plans and specifications are inferior as to materials and workmanship called for by the codes and ordinances.

9.24 **Interfering Structures And Utilities** The Contractor shall notify Arizona Blue Stake (1-800-782-5348) at least three working calendar days prior to any excavations.

The Contractor shall exercise all possible caution to prevent damage to existing structures and utilities, whether above ground or underground. The Contractor shall notify all utility offices concerned at least 72 hours in advance of construction operations in which a utility's facilities may be involved.

Any structure or utility damage caused by the work shall be repaired or replaced in a condition equal to or better than the condition prior to the damage. Repair or replacement shall be accomplished at the Contractor's expense without additional compensation from the Owner.

If interfering structures or installations such as, but not limited to, vaults, manholes, valves, utility poles, guy wires, or anchors are encountered, the Contractor shall notify the Engineer and contact the appropriate utility or structure owner at least seven calendar days in advance of construction to arrange for protection or relocation of the structure.

The Contractor shall remove, protect and/or replace all existing structures, utilities or other improvements and similar items within the proposed improvements at his own expense without additional compensation from the Owner unless specifically provided for as a pay item of work by the specifications or as otherwise provided for in the Plans. Replacement shall be in a manner and in a condition at least equivalent to, or better than, the original condition.

If the Contractor encounters existing facilities which will prevent the construction of any facility and which are not properly shown on the Plans, he shall notify the Owner before continuing with the construction in order that the Owner may make any field revisions as necessary to avoid conflict with the existing structure. The cost of waiting or "down" time during field revision shall be borne by the Contractor without additional cost to the Owner. If the Contractor fails to notify the Owner when an existing structure is encountered, but proceeds with the construction despite this interference, he does so at his own risk. In particular, when the location of the new construction will prohibit the restoration of existing structures to their original condition; the Contractor shall notify the Engineer and contact the utility or structure owner so a field relocation may be made if possible to avoid the conflict.

In the event of interruption to any utility service as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority. He shall cooperate with the said authority in restoration of service as promptly as possible and shall bear all costs of repair. In no case shall interruption of any utility service be allowed to exist outside working hours unless prior approval of the Owner is received.

Neither the Owner nor its officers or agents shall be responsible for damages to the Contractor as a result of the locations of the water and sewer lines or utilities being other than those shown on the Plans or for the existence of water, sewer lines or utilities not shown on the Plans.

9.25 Air Quality – Operating Permits The Contractor may be required to obtain registration certificates and/or operating permits for sources of air pollution.

The Owner will not require an Air Quality Permit for this project. The Contractor will be responsible for obtaining any State or Federal permits associated with its construction activities on the project.

Information concerning these certificates and permits may be obtained from:

The Office of Air Quality
Arizona Department of Environmental Quality
P.O. Box 600
Phoenix, AZ 85001-0600
(602) 207-2300

9.26 Adjust Utilities To Finished Grade All manhole rims, valve boxes, meter boxes, utility vaults, etc., are to be set to finished grade. The Contractor shall adjust sewer and water facilities to finished grade in accordance with the specifications. Unless otherwise indicated on the drawings, the adjustment of all utilities shall be considered incidental to other items and the Contractor shall not be entitled to any additional compensation or an extension of contract time for any delays to the work to perform the

work. It shall be the responsibility of the Contractor to coordinate with the various private utility companies so that they can adjust their facilities to finished grade at an appropriate time.

9.27 Safety, Health And Sanitation Provisions The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements and regulations of the Arizona State Department of Health.

The Contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions, on his own responsibility or as the Owner may determine, reasonably necessary to protect the life and health of employees on the job, the safety of the public and to protect property in connection with the performance of the work covered by the contract.

Precaution shall be exercised by the Contractor at all times for the protection of persons (including employees) and property. The Contractor shall comply with the provisions of all applicable laws, pertaining to such protection including all Federal and State occupational safety and health acts, and standards and regulations promulgated there under.

9.28 Public Safety And Traffic Control Every attempt shall be made to provide public safety during the construction of the project. Traffic control shall be performed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (M.U.T.C.D.), published by the Federal Highway Administration (FHWA).

During all construction operations, the Contractor shall construct and maintain facilities as may be required to provide access for all property owners to their property. No person shall be cut off from access to his residence or place of business for a period exceeding two hours, unless the Contractor has made a special arrangement with the affected persons. It shall be the Contractor's responsibility to notify all adjacent property owners of the construction activity and the schedule of those activities prior to any work being performed.

The Contractor shall submit for approval a traffic control and barricade plan within ten calendar days of receipt of Notification of Award of Contract. There shall be no deviations from the approved barricade plan unless a revised barricade plan is submitted and approved. The Contractor shall issue a news release once a week for duration of the project. The release will be published in Sunday's newspaper and shall indicate the area in that the Contractor will be performing work for that week.

Businesses must be notified 48 hours prior to any restrictions on normal parking areas used by their employees or patrons.

The Contractor shall contact, cooperate with, and give notice to each resident, homeowner, business or school that will be affected by any part of the construction process, particularly concerning temporary interruptions to vehicular access.

Written notice of the approximate schedule and explanation of work shall be given to each resident, homeowner, business or school at least five calendar days prior to commencement of work in the area. Verbal door-to-door communication shall be made at least 24 hours prior to construction to remind all affected parties of the construction to take place.

The Owner shall receive a copy of all notifications to residents. In the event of complaints by residents, the Owner may require the Contractor to provide documentation (i.e. check list) showing the date & time of the verbal door-to-door communication.

In addition, the Contractor is responsible to answer and resolve any conflicts that may arise between a homeowner or business owner and himself during the construction process.

The Contractor shall provide and station competent flaggers whose sole purpose shall be to direct the movement of public traffic through or around the work. Proper advanced warning signs shall be in place when flaggers are working and removed when work requiring flaggers is completed. Flaggers

must be used to assist trucks for safe ingress and egress whenever truck movements may interfere with safe passage through the work zone.

All traffic control devices that are not in use or will not be used for a period greater than 72 hours or that are determined by the Engineer to be unnecessary, confusing, or causing an unsafe condition, shall be removed by the Contractor from the public right-of-way immediately upon notification by the Engineer.

Every attempt shall be made to provide public safety during the construction of the project. Traffic control shall be performed in accordance with Section 401 of the most current version of the Maricopa Association of Governments (MAG) Uniform Standard Specifications for Public Works Construction and these Contract Documents. No person shall be cut off from access to his residence or place of business for a period exceeding six hours, unless the Contractor has made a special arrangement with the affected persons. In addition, no work will be scheduled which will interrupt regular trash pickup to either residential or commercial properties. It will be the Contractor's responsibility to coordinate his activities with the local trash haulers.

No streets, avenues, boulevards or cul-de-sacs will be closed to traffic unless prior arrangements have been made and approval has been obtained from the Engineer.

9.29 Temporary Facilities On Site

- A. General Not all of the temporary facilities on site referred to in this subsection are anticipated for this project. Contractor is responsible for identifying to the Owner the temporary facilities required on site. Except as otherwise provided, the Owner shall bear no costs of temporary facilities and their removal.
- B. Temporary Utility Services The Contractor shall provide temporary electric power as necessary for the execution of the Work, including that required by all subcontractors. He shall make the necessary arrangements with Owner, shall bear all costs for these temporary services and shall furnish and install all necessary transformers, metering facilities and distribution centers from branch circuits as he may require.

The Contractor shall provide lighting and outlets in temporary structures throughout the project as may be required for safety, proper performance and inspection of the work. If operations are performed during hours of darkness, or if natural lighting is deemed insufficient by Owner, the Contractor shall provide adequate floodlights, clusters and spot illumination. The use of permanently installed lighting fixtures, lamps and tubes for work will not be permitted except by special permission of Owner. The Contractor shall make arrangements with subcontractors for electrical services and lighting as may be necessary in the performance of their work.

Temporary water service lines, if required, shall be installed and removed by the Contractor, who shall pay all charges for use of the water, making the connections, running the temporary lines, removing the temporary lines at the completion of the work and disconnecting the services. All relocations required to clear the work of others shall be performed by the Contractor when requested by the Owner.

- C. Temporary Structures Prior to starting Work, the Contractor shall, as directed by Owner, provide and maintain suitable temporary office facilities for the duration of the project as required for the Contractor's project administration; and all necessary sheds and facilities for the proper storage of tools, materials and equipment employed in the performance of the work.
- D. Toilet Facilities The Contractor shall provide and maintain temporary toilet facilities for the duration of operations, which shall be maintained in a clean and sanitary condition acceptable to Owner and in full compliance with applicable regulations of any public authority.

- E. Telephones The Contractor shall provide, maintain and pay for telephone services for the duration of the work as required for the Contractor's operation.
- F. Fence and Barricades The Contractor shall provide protective fences and barricades as he may deem necessary for public safety and to protect his storage areas and the work in place. The location and appearance of all fences shall be subject to the approval of the Owner.
- G. Contractor Parking The Contractor shall not park his equipment, nor allow his personnel to park, in any area except those specifically designated by the Owner.
- H. Temporary Living Quarters Temporary living quarters shall not be allowed on the job site or on publicly owned properties. There will be strict adherence to Owner's Zoning Code for the area in question.
- I. Removal of Temporary Construction The Contractor shall remove temporary office facilities, toilets, storage sheds and other temporary construction from the site as soon as, in Owner's opinion, the progress of Work permits. He shall recondition and restore those portions of the site occupied by the same to a condition equal to or better than it was prior to construction.

9.30 Access To Washes

- A. The Contractor shall have access to the washes via public streets and/or private easements only. For the purposes of this subsection, "private easement" means an agreement by and between the Contractor and a property owner, in writing authorizing the Contractor to travel across the property owner's real property in order to have ingress or egress to a wash or portion thereof. Access agreements, if any, shall be filed with the Owner's Public Works Director before the Contractor may exercise the rights there under granted. Access to any wash or portion thereof by any means not in compliance with the terms of this subsection shall be deemed a trespass and a breach of the terms of the Contract.
- B. Violations of the provisions of subsection (A) hereof, shall entitle the Owner to deduct the sum of One Thousand Dollars (\$1,000.00) from the monies due to Contractor as and for liquidated damages for each violation. For the purposes of this subsection, each entry by a vehicle upon land for which Contractor has not received permission to enter shall be deemed a separate violation of subsection (A) hereof.

9.31 Coordination And Cooperation With Utility Companies And Other Trades

- A. Coordination/Interruption The Contractor is responsible to coordinate work with all utility companies and other trades, on or affecting the job, for an efficient and effective execution of the complete project. The Contractor shall carefully examine all work that may conflict, and plan removal and/or installation details in advance of the construction to avoid any conflict. Failure on the Contractor's part to coordinate with any and all utilities, public or private, shall preclude the Owner's consideration for additional time or cost.
- B. Permission Required Utility mains and utility service to buildings shall not be cut off or otherwise interrupted without the Contractor obtaining permission from the Owner in each and every instance.
- C. Scheduling of Interruptions Where utilities serve facilities or buildings in use, interruptions in service shall be scheduled during the hours when the facility is not in operation. Any overtime costs occasioned thereby shall be regarded as incidental to, and included within, the contract sum.

D. General Requirements Prior to interrupting any utility service, the Contractor shall ascertain that he has the proper materials, together with adequate workmen and equipment, to complete the work with a minimum of delay.

9.32 Review Of Project Site The Contractor shall be responsible for reviewing the entire extent of the proposed project, and assuring a full understanding of the existing conditions of the sites. No allowances will be made after bidding for conditions at the site, and the Contractor shall be responsible for furnishing all labor and materials necessary to carry out the provisions of the Contract.

9.33 Owner Contingency

PART 1 - GENERAL

1.1 - Description of Work

The work to be performed in accordance with this article includes additional work that is outside the general scope of the proposed project. The work to be performed shall be specifically requested in writing by the Owner or the Engineer and the work shall not be performed until authorized by the Owner in writing, in accordance with subsection 3.2 of this Section 9.33. As the project is completed, it is anticipated that the Owner may request additional work to be performed that currently is not a part of this contract and it is the intent that the requested work shall be performed in accordance with this article.

PART 2 - MATERIALS

2.1 - General

Any materials utilized under this article shall conform specifically with the appropriate Materials section of these specifications unless the Owner specifically requests in writing a deviation from the specifications. If the materials are not covered by an appropriate specification of this document, then the Owner will provide a written specification for the materials requested

PART 3 - EXECUTION

3.1 - Workmanship

Furnish all materials, equipment and labor required to complete the work. All workmanship shall meet or exceed the appropriate specifications included in this document or any supplemental specifications that may be provided. Perform work in accordance with the contract plans or in accordance with any supplemental plans that may be provided by the Owner.

3.2 – Written authorization required before commencing work

No work to be paid for under this Owner Contingency article shall be performed until the Contractor has formally provided in writing to the Owner the appropriate documentation to confirm the cost, quality, quantity and any such changes in contract time as may be warranted by the additional work, and the owner has issued approval in writing to perform the work and the cost that will be paid for the work. The Owner shall have no responsibility to pay for any work performed by the Contractor under this article that has not received prior written authorization from the Owner.

PART 4 - MEASUREMENT AND PAYMENT

4.1 - Measurement

The method of measurement shall be in accordance with the appropriate specification or as included in specific written instructions from the Owner or the Engineer.

4.2 - Payment

Payment for work performed under this article shall be made for those items specifically requested in writing by the Owner. The value of any work performed in this article shall be determined by one or more of the following methods in the order of precedence listed below.

- A. Unit prices previously approved.
- B. An agreed lump sum.
- C. The actual cost for labor, materials, supplies, equipment and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon but not to exceed 15 percent of the actual cost of the work to cover the cost of general overhead and profit.

The amount specified for Owner Contingency in the Bid Documents is an estimate that is provided so each potential bidder has an equal opportunity in the bidding. The amount does not in any way represent what work may be requested or the quantity or value of the work. The Contractor shall only be compensated for the actual work requested and performed. A final Change Order will be issued to reflect the amount of work actually completed to adjust the final contract amount.

Payment for any additional work authorized by the Owner under this article shall be made under the bid item "Owner Contingency", and shall be assigned an alphabetical sub-item number, in ascending order, and indicated as such on the authorizing paperwork noted in sub-section 3.2 of this Section 9.33. All subsequent Progress Payment Applications shall include each authorized Owner Contingency sub-item, and the remaining funds in the Owner Contingency main bid item (i.e. the difference between the original Owner Contingency in the project less all Owner Contingency sub-items authorized by the Owner) shall be indicated in the Progress Payment Application under the original bid item number for Owner Contingency. At no time shall the sum of the Owner Contingency remaining funds and all authorized sub-items exceed the total cost of the original Owner Contingency main bid item indicated in the Bid Schedule (Article 3).

10.0 TECHNICAL SPECIFICATIONS

The Technical Specifications issued for this project titled "7TH STREET SLIPLINING PROJECT" are incorporated herein by this reference and are an integral part of the Contract Documents for this project.

10.01 SCOPE

This project consists of sliplining two sections of 24-inch sanitary sewer main, and the rehabilitation of three (3) 60-inch manholes near the intersection of Highway 95 and 7th Street in Bullhead City, Az. This sewer main carries approximately 0.46 million gallons per day (MGD) with a peak wet weather flow of 0.91 MGD. Bypass pumping or other approved methods of flow control are required throughout the duration of this project. In preparation for sliplining the pipelines; heavy cleaning consisting of jet rodding, descaling, bucket cleaning and / or other methods may be required.

10.02 MOBILIZATION & DEMOBILIZATION**10.02.1 Description of Work**

The work to be performed in accordance with this section consists of preparatory work and operations, including but not limited to, the movement of personnel, equipment, supplies and incidentals to the project site and the establishment of all offices, buildings and other facilities necessary for work on the project.

10.02.2 Execution

For the purposes of this Section, the construction specifications shall be ADOT "Standard Specifications for Road and Bridge Construction", 2008 edition. Section 901 "Mobilization" is included in its entirety, unless modified herein.

10.02.3 Measurement and Payment

Payment for mobilization, measured as provided above, will be made at the contract lump sum price, which shall be full compensation for supplying and furnishing all materials, facilities and services and performing all the work involved as specified herein.

10.03 Traffic Control**10.03.1 Description of Work**

Traffic control shall consist of supplying and placing all traffic control devices. All traffic control devices, the application of traffic control measures, and traffic regulation in these specifications are not intended to delete any requirements by ADOT, Bullhead City, the "Manual on Uniform Traffic Control Devices" or any supplements to the MAG "Uniform Standard Specifications". These specifications incorporate, supplement and modify the requirements of Article 9.28 of this document. Access to private property shall be maintained at all times and may be restricted to local traffic only. Traffic control plans shall be approved by the City of Bullhead City prior to implementation.

The Contractor shall submit a detailed, phased traffic control plan at the beginning of the project for the entire duration of the work. Prior to commencing construction on each phase of the work, the Contractor shall submit an updated traffic control plan for that phase.

Two-way traffic shall be maintained at all times, provided, however, that one way traffic with flaggers may be allowed during working hours, in accordance with these specifications.

10.03.2 Execution

For the purposes of this Section, the construction specifications shall be Maricopa Association of Governments (MAG) "Uniform Standard Specifications and Details for Public Works Construction", 2011 edition. Section 401 "Traffic Control" is included in its entirety.

10.03.3 Measurement and Payment

Measurement of Traffic Control Devices for payment will be one lump sum. No separate measurements will be made for this item.

10.04 Precleaning and CCTV Inspection

10.04.1 Description

The existing pipelines shall be cleaned and inspected via CCTV by the selected contractor prior to sliplining to provide an unobstructed path to pull the slipliner through the host pipes. Caution should be taken to not cause further damage to the host pipes and to avoid potential collapse.

10.04.2 Execution

Scale shall be removed in the designated sections where corrosion has been identified by CCTV and is scheduled for sliplining. Special attention should be used during the cleaning operations to ensure near complete removal of tuberculation from host pipe. Cleaning operations should be monitored by CCTV. Scale removal procedures may include but are not limited to the use of mechanical equipment such as rodding machines, bucket machines and winches using root cutters, scrapers, "porcupines", and equipment such as high velocity jet cleaners using chain and / or milling cutters. CCTV inspection of the host pipe shall be done to verify the cleanliness and condition of the host pipe prior to slipliner installation.

10.04.3 Measurement and Payment

Precleaning, tuberculation removal and CCTV inspection will be paid in one lump sum. No separate measurements will be made for this item.

10.05 Sanitary Sewer Bypass Pumping

10.05.1 Description

The contractor shall be responsible for all required bypass pumping and/or any other approved flow control methods as part of this project. An engineer certified bypass pumping /flow control plan must be submitted to and approved by the Bullhead City Utilities Department prior to initiating any sewer flow control operations. If bypass pumping is used as the primary means flow control, or setup as part of a contingency plan, pumps must be in place and operational, pumping from MH-13705 and discharging to MH-14171 prior to beginning any work that may affect the sewer flow or the integrity of the sewer main. Refer to Exhibit A to this section for manhole locations. This 24-inch pipeline maintains an average flow of 0.46 MGD with a peak measured wet weather flow of 0.91 MGD.

10.05.2 Execution

The Contractor is to furnish all labor, materials, equipment, supervision, testing, and tools necessary for the installation and completion of the sanitary sewer bypass pumping operations. This shall include but not be limited to plugs, pumps, fittings, piping, valves, and spill containment. All work must be in accordance with the Project Drawings and in compliance with Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, 2025 Revisions, and the standards and procedures of Bullhead City Utilities Department. The bypass pumping / flow control plan shall be prepared, stamped and signed by a Professional Engineer in the state of Arizona.

Pumping redundancy is required if bypass pumping is selected as the primary means of flow control. This shall consist of a minimum of two (2) bypass pumps, each pump must be capable of handling the estimated peak flow of 0.91 MGD. It is recommended that the contractor has spare lengths of bypass piping on-site in case the bypass piping is damaged, or leaks occur during pumping operations.

10.05.3 Testing

The contractor shall hydrostatically test the entire bypass pumping system with potable water prior to pumping sewage per MAG Standard Section 611.2.2. No lay flat hose shall be allowed. All pipes must be rigid.

A 24-inch SDR-35 PVC sleeve has been installed under Highway 95 approximately 285-feet south of MH-13705. The invert depth of the sleeve at both ends is approximately 14 feet deep. Both ends of the sleeve are capped with gasketed push on SDR-35 caps. This sleeve is currently the only available means of conveying bypass flows under Hwy 95 and shall be used if bypass pumping is deemed to be required during this project. If bypass pumping is utilized during this project, the discharge piping will cross three driveways. Water bridges or other means of maintaining business access will be required at each of these locations. The location of the sleeve is shown on Exhibit A.

A designated pump watch shall be required throughout the duration of all bypass pumping operations. This requires constant monitoring of pump operations and sewage levels in the upstream manholes. The city will allow the upstream manhole to surcharge a maximum of 10 feet or 50% of the depth measured from rim to invert, whichever is less. In any case the surcharge head pressure cannot exceed the maximum head pressure allowed by the plug manufacturer.

Operation, maintenance and refueling of the bypass pumps is solely the contractor's responsibility. It is the contractor's responsibility to immediately remediate any leakage, spill, or sanitary sewer overflow (SSO) due to damage or failure of the bypass pumping system. Any such case shall be reported to the City's project manager immediately upon discovery of such incident.

10.05.4 Measurement and Payment

Testing of the bypass pumping system is considered incidental as part of this project and will be paid as one lump sum. No separate measurements will be made for this item.

10.06 Sliplining

10.06.1

The section of pipeline from MH-14174 to MH-14172 is approximately 100 feet in total length and consists of 24-inch PVC starting at MH-14174 flowing south for approximately 66 feet. At this point the PVC transitions to Ductile Iron Pipe (DIP) continuing south for approximately 33 feet ending at MH-14172.

The section of pipeline from MH-14172 to MH-14224 is approximately 206 feet in total length and consists of 24-inch DIP starting at MH-14172 flowing west for approximately 131 feet. At this point the DIP transitions to 24-inch PVC continuing west for approximately 73 feet ending at MH-14224.

Two (2) 4-inch PVC sewer laterals are noted on Exhibit A. The sewer lateral flowing from 998 Hwy 95 connects to MH-14174 and must remain active throughout the duration of this project. The sewer lateral from 1001 Hwy 95 connects to the main 24-inch mainline approximately 48-feet east of MH-14224. This sewer lateral is not currently connected to any structures and shall be abandoned in place.

10.06.2 Execution

All 24-inch sewer mains included in this project shall be sliplined using fusible 20-inch SDR11 HDPE. All materials must conform with Section 738 of the Maricopa Association of Governments 2025 Standards and Specifications. After cleaning, the HDPE shall be pulled/pushed through each 24-inch host pipe and shall be secured and sealed with a watertight connection at each end to prevent movement and the potential for exfiltration at each manhole. All manholes altered or removed during this project shall be reconstructed and rehabilitated per section 12 of this contract

10.06.3 Testing

10.06.3.1 Once in place, the new HDPE sewer main shall be pressure tested per MAG Standard 611.

10.06.3.2 Video Inspection

Video inspection of the newly installed HDPE slipliner is required as part of this project. The video inspection must conform to NASSCO Standard PACP 7.0.4 or newer. The video inspection must be completed during live flow or post-flushing to aid in identifying high points or sags in the HDPE liner.

Photos of the deteriorated sections of DIP are provided in Exhibit B and video inspection footage will be provided upon request. Requests must be emailed to Ryan Farnell, Utilities Construction Manager at rfarnell@bullheadcityaz.gov and Jackie Renfroe, Utilities Administrative Analyst at jrenfroe@bullheadcityaz.gov during the Q & A timeline as stated in this IFB.

10.06.4 Measurement and Payment

Payment for CCTV inspection will be paid in one lump sum upon a completed and passing video inspection. No separate measurements will be made for this item.

10.07 Manhole Rehabilitation

10.07.1 Description

All three (3) manholes included in this project shall be fully rehabilitated. Rehabilitation shall be completed using polymer concrete slipliners as manufactured by Olson Polymer Company (OPS), Armorock, or approved equal. Benches and channels shall be rebuilt and finished with GeoKrete Geopolymer as manufactured by the Quadex Division of the Vortex Companies or approved equal. The selected coating shall be fully structural, rated at 9,000 PSI or greater, and shall be anti-corrosive. If the PH is below 1 as measured at the concrete substrate after pressure washing operations are complete and before any rehabilitation materials are applied an approved epoxy coating shall also be applied to further extend the life of the manhole. Any alteration to the existing

manholes for the sliplining process must be repaired to full structural strength prior to application of any rehabilitation materials. The rehabilitation materials must be applied in one uniform application from the top of the cone to the bottom of the channel.

MH-14174 is a 60-inch concrete manhole measuring approximately 16.69 feet from rim to invert. There is one 24-inch inlet from the north, one 4-inch lateral from the east measuring approximately 4 feet from the rim to the invert and one 24-inch outlet to the south.

MH-14172 is a 60-inch concrete manhole measuring approximately 17.14 feet from rim to invert. There is one 24-inch inlet from the north, one 18-inch inlet from the east measuring 11.09 feet from rim to invert and one outlet to the west.

MH-14224 is a 60-inch concrete manhole measuring approximately 10.68 feet from rim to invert. There is one 24-inch inlet from the east, one 8-inch inlet from the south measuring 9.76 feet from rim to invert and one 24-inch outlet to the west.

All following requirements under coatings including adhesion testing and holiday testing only pertain to the bench and channel of each manhole.

10.07.2 MANHOLE REHABILITATION - GENERAL

10.07.2.1. MILESTONES:

At each manhole, the City Inspector shall inspect and accept the work completed to-date at the completion of each of the milestones listed below before the Contractor shall commence work on the next milestone:

- a. Completion of the cleaning and surface preparation activities required by these provisions.
- b. Completion of all void-filling activities and underlayment application, prior to surface coating application, with the associated adhesion testing of the underlayment layer.
- c. Completion of the surface coating installation prior to testing.
- d. Adhesion/bond testing of the finished coating system as required by these provisions.
- e. Holiday testing of the final surface coating as required by these provisions. holiday testing will only be required if an epoxy coating is applied over the Geokrete Geopolymer coating.
- f. Final clean-up and inspection.

10.07.3 MEASUREMENT AND PAYMENT:

After each manhole has been rehabilitated (including all testing and cleanup), the City Inspector will confirm completion of all work. Payment shall be by each manhole completely rehabilitated with passing test results and shall be full payment for all work necessary for a complete project in accordance with these specifications.

10.07.4 WARRANTY:

The Contractor shall provide a written (but not bonded) warranty to cover workmanship and materials for each manhole coated with an approved corrosion protective coating for a period of not less than five (5) years from the date of final acceptance of the project. The warranty(s) shall be delivered to the City Inspector prior to and as a condition of final acceptance and final payment for this project.

By executing this contract, the Contractor certifies and agrees that any testing performed by the City during construction (e.g., spark testing, adhesion testing and/or other testing) shall not in any way modify the warranty, nor relieve the Contractor for responding to defects during the warranty period.

10.07.5 HAZARDOUS LOCATIONS:

Sewer manholes shall be considered hazardous locations, in that they are permit required confined spaces and may have explosive and/or asphyxiating concentrations of methane gas, hydrogen sulfide gas, and/or other gases or vapors. All work shall be conducted in a safe and cautious manner consistent with the potentially hazardous conditions. The Contractor shall be responsible to comply with all local, state, and federal laws and regulations that govern work in such environments.

In work operations in hazardous locations, spark-proof tools and explosion-proof temporary lighting shall be used. Electric power tools, open flame heaters, electric welding equipment, or other devices or methods that might conceivably cause ignition or explosion shall not be used without a hot work permit.

The work shall include sampling the atmosphere for hazardous gases and vapors. If the atmosphere proves unsafe, the Contractor shall provide a safe working atmosphere at no additional cost to the City of Bullhead City. The atmosphere shall be continually monitored during the work period.

The Contractor shall have a written policy and an active program for Confined Space Entry that complies with federal, state, and local laws and regulations. The Contractor shall submit their policy and program, as a required shop drawing submittal.

The City Inspector may need to enter manholes under the Contractor's safety program to perform observations and/or testing. The Contractor shall provide the necessary safety equipment, monitoring and safe working atmosphere to allow the City Inspector to safely enter the manhole, at no additional cost to the City of Bullhead City. The City Inspector will provide the Contractor with evidence of current Confined Space training.

The Contractor is responsible for safety of the job site, including the responsibility to enforce and enact the provisions of the Contractor's Confined Space Entry program and the responsibilities to monitor the atmosphere within the structures and provide a safe working atmosphere and environment. These safety measures shall be at no additional cost to the City of Bullhead City. The City of Bullhead City shall not be responsible for safety or for safety monitoring of the job site.

10.07.6 Maintain and Protect Existing Sewer Flows

The Contractor shall be aware that the existing manholes included in this project are active, functioning manholes. The Contractor shall be required to maintain existing sewer flows. In some cases, the City of Bullhead City may (at the City's sole discretion) be able to divert a portion of the sewer flow away from a manhole. Through the City Inspector, the Contractor shall maintain daily contact with the City of Bullhead City's Wastewater Collections staff to allow the City to coordinate these diversions if any. All requests should be made through the City's inspector or project manager.

The Contractor shall cover open sewers within the manholes to prevent foreign material from entering the existing sewers at no additional cost to the City of Bullhead City.

10.07.7 REBUILD MANHOLE BENCH AND CHANNEL:

For all of the manholes included in this project, the benches and channels (which in many cases were constructed of unprotected concrete or of concrete coated with coal tar epoxy) are severely deteriorated. In several cases, the benches and significant portions of the manhole bottom and flow channel are essentially gone. In many cases, the earth/dirt behind the bench and channel may be exposed at locations within the manhole or the Contractor may expose dirt at the bench level (or below) during manhole cleaning and preparation activities. It is a project requirement to rebuild all concrete benches and channels to their original profile (with the top of bench matching the top of pipe invert elevation for the

outfall pipe, at a minimum) per MAG Standard Detail 420. This shall include a requirement to rebuild the manhole bottom (as necessary, without disturbing the risers) and flow channel surfaces. The newly reconstructed bench, channel and other re-built surfaces shall then be protected with a corrosion protective coating per these Technical Specifications/General Provisions.

The benches and channels may be re-built with Class A Concrete but the corrosion protective coating applied over the concrete shall include both the underlayment and surface coating layers listed in the Technical Specifications/General Provisions. Alternatively, the benches and channels may be re-built entirely out of one of the approved underlayment layers with the approved surface coating applied over the underlayment.

Cleaning and preparation of the manhole prior to rebuilding the benches and channels shall be in accordance with the Technical Specifications/General Provisions, as shall the corrosion protective coating applied thereon. **All benches and channels in this project must be finished with the approved coating.**

In order to reconstruct the benches and channels, **the Contractor will be required to provide dry working conditions in all manhole benches and invert areas to allow the concrete and other materials to set properly.** The City anticipates that flows can be handled through the use of flow-through tubes (Stemar Inc. or approved equal) without aboveground bypass pumping, however ultimately the Contractor shall be responsible to provide sufficient flow through capacity to ensure that no overflows occur or other problems arise from their work. Surcharging upstream of the subject manhole shall not exceed one half of the vertical distance from the manhole invert to the ground surface or ten feet, whichever is less. In addition, the surcharging pressure shall not exceed the design capacity of the plug associated with the flow-through tube. Surcharging in the nearest upstream manhole shall be continuously monitored whenever the flow-through tube is in place. The Contractor shall also note that many of the manholes have several pipes flowing into the manhole with one pipe leaving the manhole. All flows entering the manhole will have to be handled. This may necessitate the fabrication of specialty wye, tee, or similar fittings for the flow-through tubes, which shall be provided at no additional cost to the City of Bullhead City.

For the flow-through tube, the Contractor shall submit manufacturer's literature, illustrations, specifications, engineering data (including information about materials of construction, dimensions, hose sizes, plug sizes, inflation pressures, plug blowout pressures, weight, performance data, maximum surcharging depth and pressure, etc.), mounting information, methods of securing bypass equipment, and design calculations for upstream surcharging resulting from the design flow rate. An engineer registered to practice such discipline within the State of Arizona shall stamp the calculations. Bypass piping system shall have a minimum internal diameter of 15-inch for all sewer lines 21-inch or larger and a minimum internal diameter of 8-inch for sewer lines 18-inch and smaller, but in any event shall be sized to carry the required flow. Provide all anchor bolts, supports, stabilizing bars, angles or rods, fasteners, and other accessories required for installation of the equipment. All accessories shall be Type 316 stainless steel. All tubes shall be flexible plastic piping suitable for wastewater service.

If the Contractor chooses to do nighttime work to minimize sewer flows, said nighttime work shall be at no additional cost to the City of Bullhead City, and shall be in accordance with Article 8.61, provided, however, that the City may reject requests for night work in residential or commercial areas if deemed in the best interests of the residents, businesses and/or the travelling public. The City of Bullhead City shall have the sole discretion in determining whether to allow night work or not and there shall be no additional compensation owed to the Contractor if the City decides to reject a request for night work. The Contractor may propose other means to remove the flow from the active concrete work area (e.g., watertight formwork or aboveground bypass pumping) in lieu of the flow-through tubes. However, aboveground bypass pumping will not be allowed without special permission from the City Engineer and only then with the requirement that all suction and discharge pipes that cross or are located in traffic lanes that will carry traffic during construction are buried below the ground surface with temporary pavement patches over them, later to be removed and the pavement permanently patched. Additional cost for above ground bypass pumping will also not be approved.

Do not allow flow over the concrete or corrosion protective coating until it is adequately cured. The corrosion protective coating shall be applied to all reconstructed portions of the manhole and be allowed to adequately cure per manufacturer's recommendations before flow is allowed over those surfaces.

All manhole bench and channel reconstruction work shall be done in accordance with MAG Standard Detail 420 with smooth flow transitions and curves directing flow to the outlet pipe.

Measurement and payment shall be considered incidental to the cost to rehabilitate the manhole, and no additional measurement or payment shall be made. The work shall consist of cleaning, removing and disposing of deteriorated concrete, removing flow from the work area through the use of flow-through tubes or other approved method, work to re-construct the bench (including the manhole bottom and flow channels), and corrosion protective coating of the re-constructed surfaces.

10.07.8 PROTECTIVE COATING SYSTEMS

10.07.8.1 GENERAL:

In this specification, the words "coating" (or "coatings") and "lining" (or "linings") are used interchangeably. Similarly, "to coat" is used interchangeably with "to line" (or other variations of these words).

In this specification, unless otherwise specifically noted, the word "manhole" shall mean "sewer structure" and shall encompass sewer manholes, sewage lift station wet wells, sewer diversion structures, sewer junction structures, and other sewer structures. It also encompasses sewer pipes (or portions thereof) that are located within the sewer structure but does not include sewer pipes (or portions thereof) that are located outside of the limits of the structure.

In this specification, "existing manholes" shall mean those manholes that are (or were) not constructed as part of this project work.

"Rehabilitating" existing manholes and "applying corrosion protective coating" to those manholes shall include the following activities:

- Cleaning the manhole, removing corroded/deteriorated materials from the manhole, and otherwise preparing the manhole for one of the approved coating systems.
- Applying one of the approved coating systems, as specified herein.
- Testing the finished surface coating, as required herein.
- Other related activities, as noted herein.

Where required by the approved plans, existing manholes shall be rehabilitated and an approved, or equal, corrosion protective coating applied to their interior surfaces, as specified herein.

The approved coating system (as specified herein) shall be applied to all exposed brick, concrete, grout, mortar, and cementitious surfaces within the manhole, including unlined concrete pipes within the manhole, bench-to-pipe transitions, bench, risers, cones, adjusting rings, channels, etc. Coating of the metallic manhole frame and cover shall not be required.

10.07.8.2 APPROVED CORROSION PROTECTIVE COATING SYSTEMS FOR EXISTING MANHOLES:

The approved corrosion protective coating systems for application to existing manholes shall be as listed below. Each of the approved coating systems has an underlayment material and a surface coating material.

- GeoKrete Geopolymer as manufactured by the Quadex Division of the Vortex Companies, or approved equal

The underlayment material and the surface coating material installed in any one manhole shall be from the same coating system.

Sprayable or trowelable formulations of the products listed above are acceptable. If "sprayable", the product shall be applied by an airless sprayer or spin-caster. In addition, if applied by airless sprayer or spin-caster, the final underlayment layer and the final surface coating layer shall both be trowel finished before setting. The Contractor shall not re-use or apply rebounded, spilled or over-sprayed material.

No substitutions outside of the foregoing list of products and manufacturers are permitted. All coating systems shall be applied in accordance with these provisions.

10.07.8.3 COATING APPLICATORS:

The contractor or subcontractor performing the work covered by this specification (also referred to herein as "the coating applicator") shall have a minimum of three (3) years' experience performing sewer manhole rehabilitation and corrosion protective coating work on existing manholes and shall have completed a minimum of five (5) such projects within the last five years, using the products of one or more of the approved manufacturers listed in this specification. The coating applicator shall document said project experience on the "Bidder's Statement of Qualifications" form (Article 5) included in the contract documents. The coating applicator shall report with an attachment to this form any failures that occurred on any of the listed projects within five (5) years after final acceptance. The coating applicator shall also report any remedial action taken to address said failures and the final resolution. The coating applicator may attach additional sheets as necessary. An unacceptable performance history (i.e., having less than three years' experience, having fewer than five completed projects within the last five years, and/or having failures within five years after final acceptance on any of the listed projects that have not been corrected by remedial action), as judged solely by the City of Bullhead City, may serve as the basis of rejection of the coating applicator. The coating applicator shall also submit a certification letter from the manufacturer of the product (i.e., one of the approved products listed in this specification) that the applicator intends to install in the manholes. The certification letter shall state that the coating applicator has been trained and is certified and approved by the manufacturer to apply the manufacturer's coating in sewer manholes. This certification letter shall be included with the Contractor's bid.

10.07.8.3 COATING/LINING SYSTEM APPLICATION

Cleaning and Preparation Activities:

- a. Unless otherwise noted in the specs, for existing manholes lined with an existing PVC liner (e.g., T-lock liner), the Contractor shall remove the existing PVC liner prior to other cleaning activities. If the "tees" (i.e., the portion of the PVC liner that is embedded in the concrete) are not "strongly embedded" in the concrete, the Contractor shall entirely remove the tees from the concrete and shall remove both the PVC liner sheet and the tees from the manhole. For the purposes of making this determination, "strongly embedded" shall be defined as embedded within the concrete well enough that when the PVC liner is cut into strips (i.e., by cutting the PVC liner parallel to the tees at a point midway between each line of tees) and a pulling force of 100 pounds is applied to each strip incrementally along the length of each strip to pull said tees from the concrete, said force is insufficient to remove the embedded tees from the concrete. Tees that remain firmly embedded in the concrete after doing so are judged to be "strongly embedded". If the tees on the back of the PVC liner are strongly embedded in the concrete, the Contractor may cut the PVC liner sheet loose from the tees and leave the tees embedded in the concrete. In such cases, the Contractor may cut the tees off flush with the surface of the concrete. When the manhole is fully prepared and ready for the coating system (i.e., after blasting and other surface preparation activities are completed), no portion of the tees shall protrude above the surface of the concrete. By way of additional explanation: Using the criterion given in this paragraph, the Contractor may be able to leave the tees in place in one portion of a manhole (where the tees are strongly embedded) and

yet be required to remove them from another portion of the same manhole (where they are not strongly embedded). Notwithstanding the foregoing text, the Contractor may at his own discretion remove even strongly embedded tees from the concrete, provided such is done at no additional cost to the City.

- i. Unless otherwise noted, existing or new PVC liners on pipelines connecting to or passing through the manhole shall be left intact and in-place.
- ii. Unless otherwise noted, for existing manholes lined or coated with a previously applied cured-in-place corrosion protective coating, the Contractor shall entirely remove the existing liner/coating (including any underlayment layers) prior to performing other cleaning activities.
- iii. Unless otherwise noted, for existing manholes that have existing manhole steps installed in them, the Contractor shall remove said steps from the manhole. If the manhole steps are "strongly embedded" in the concrete (for manhole steps, this is defined as a pulling force of 100 pounds per step being insufficient to dislodge them from the concrete), the Contractor may cut them off flush with the surface of the surrounding manhole and leave the embedded portion in place in the concrete. When the manhole is fully prepared and ready for the coating system, any portion of the steps that remain embedded in the concrete shall not protrude above the surface of the concrete.
- iv. Prior to application of the approved coating, all portions of the manhole to be coated shall be cleaned of all dust, loose particles, corroded or damaged materials, oils, grease, curing compounds, chemical contaminants, and previously applied paints, and insecticide coatings. The Contractor shall clean the manhole by abrasive blasting, followed by water blasting. Both abrasive blasting and water blasting shall be required. Abrasive blasting may be either wet or dry. Abrasive blasting equipment shall be rated for a minimum of 90 psi. Water blasting shall be performed with water blasting equipment capable of a minimum of 5,000 psi at 4 GPM. The Contractor shall remove all sand or other abrasive material and debris from the manhole with an industrial vacuum cleaner or other means approved by the City Inspector.
- v. Other manhole cleaning methods may be used **in addition to** abrasive blasting and water blasting, as necessary to properly clean and prepare the manhole, but **shall not be used as a substitute for** abrasive blasting and water blasting. Subject to City Inspector approval, other methods that may be used in addition to abrasive blasting and water blasting (but not as a substitute for them) are high pressure water jetting, shotblasting, grinding, mechanical removal methods, chemical cleaning, detergent cleaning, hot water blasting and acid etching. If chemical cleaning or acid etching are used, the substrate shall be neutralized and washed of residue. The Contractor shall use whatever methods are required to properly clean and prepare the manhole for the coating system.
- vi. The Contractor shall be aware that manhole cleaning and preparation activities (e.g., water blasting and abrasive blasting) may cause damage to certain materials and finishes. The Contractor shall be solely responsible to protect portions of the manhole (including appurtenances and attachments) that are not slated for such cleaning and preparation activities from damage and shall be responsible to repair any damage caused by his activities at no additional cost to the City. Included in this requirement is the requirement to protect portions of the manhole to which the Contractor has applied the corrosion protective coating from any subsequent blasting activities.
- vii. The City Inspector shall approve all chemicals used for this project prior to their use. Chemical use shall conform to local, state and federal laws and regulations.

- viii. For existing manholes, a manhole suitably prepared for coating shall have all loose, soft, discolored or otherwise deteriorated material removed from the manhole and the surface of the manhole shall have a texture at least as rough as course (60 grit) sandpaper. The City Inspector may use one or more of the following observations/tests to determine whether the manhole has been properly cleaned and prepared:
 - a. Visual appearance of the manhole – The prepared substrate shall have the appearance of sound concrete (or brick and/or mortar), free from discolored, white, chalky and cracked areas.
- ix. Aural observations – When struck with a metal hammer or tool, the prepared substrate shall exhibit the characteristic sound of solid, competent concrete (or brick).
- x. Mechanical abrasion tests – The substrate should be competent enough such that it cannot be scraped off with the claw of a hammer or similar metal tool.
- xi. pH testing – The City Inspector shall use wetted litmus paper applied to the surface of the substrate to ensure that the pH of the substrate is 7 or higher. This test will be considered obligatory.
- xii. Phenolphthalein testing – The City Inspector shall apply a few drops of phenolphthalein to the surface of the concrete, which if the concrete is competent should yield a purple color.

- b. The City Inspector is not obligated to use all of the above tests but may do so at the City's sole discretion. Often visual, mechanical and/or aural observations and tests alone will be adequate, but the pH and/or phenolphthalein tests may be used if there is still some uncertainty.
- c. If after cleaning, an existing manhole does not meet these requirements, the City Inspector shall have authority to require additional cleaning effort and/or increased blasting pressure as required to adequately prepare the manhole. If necessary, the City Inspector may also require acid etching of the concrete surface to create the desired texture. After acid etching is completed, a pH test will be employed to ensure no residual contaminates remain within the substrate. For existing manholes, the City Inspector may also require mechanical removal of deteriorated concrete or other substrate materials. These additional steps and effort shall be at no additional cost to the City of Bullhead City.
- d. The Contractor shall remove loose material from the manhole. The Contractor shall take all necessary precautions to prevent debris from damaging the manhole and/or entering the sewer.
- e. Any visible water infiltration or seepage through seams in the existing manhole walls shall be eliminated at no additional cost to the City of Bullhead City, using a material approved by the City and compatible with the underlayment material. A letter from the underlayment material manufacturer and finish surface coating material manufacturer stating that the material used to stop the infiltration is compatible with and will adhere to their product is required before any such material can be used.
- f. After the manhole is properly cleaned and prepared, the Contractor shall drill a hole no larger than 1/2-inch in diameter that penetrates a minimum of 2-inches into the concrete (or other manhole wall surface type). The Contractor shall then install a 3/8-inch diameter stainless steel expansion bolt into the hole. The bolt shall penetrate a minimum of 2-inches into the manhole wall but shall be long enough that a minimum of 1-inch length (but no more than 2-inches length) of the bolt will be exposed after the finished manhole coating system is

installed. The hex-head end of the bolt shall be the exposed end. Unless otherwise directed by the City Inspector, the bolt shall be installed on the manhole riser section at a location approximately 12-inches below the point where the manhole cone and manhole riser meet. The City Inspector will direct the Contractor where to install the bolt around the circumferential perimeter of the manhole. The various layers of the coating system shall be installed securely up to and around the base of the bolt to seal the bolt penetration off as a pathway for corrosion. This bolt will be used during the spark testing of the manhole discussed later in this specification to provide grounding for said spark testing.

- g. The time between manhole cleaning and preparation activities and application of the first coating layer shall not exceed 2 hours without repeating water rinsing.
- h. The contractor shall properly dispose of all debris resulting from the manhole cleaning and preparation activities at no additional cost to the City of Bullhead City. Said disposal shall be in accordance with all local, state and federal laws and regulations and shall not involve disposal within the sewer system.

10.07.8.4 Underlayment Material Application:

- a. Prior to any surface coating work in existing manholes, the Contractor shall fill all voids (including any "ruts" left by the removal of PVC liner tees) and restore the manhole and bench surface to an even and uniform surface profile using one of the underlayment materials listed in "APPROVED CORROSION PROTECTIVE COATING SYSTEMS FOR EXISTING MANHOLES" herein.
- b. The underlayment shall be installed over a clean surface prepared in accordance with the requirements of this specification. The Contractor shall employ whatever means necessary (e.g., humidity control, temperature control, additional blasting, mechanical surface preparation, etc.) to ensure proper curing of the underlayment layer, strong adherence of the underlayment layer to the prepared manhole surface, and strong adherence to any layer installed over the underlayment layer.
- c. After installation, the underlayment shall be free of trowel marks and irregularities.
- d. The underlayment shall be applied throughout the entire manhole at a minimum $\frac{1}{2}$ -inch total cured thickness.
- e. This paragraph shall apply only to those manholes where an adhesion test (or tests) has been requested by the City. (Refer to the section herein titled "ADHESION/BOND TESTING"): For such manholes, after the underlayment layer has cured for a minimum of 4 hours but before the surface coating has been applied over the underlayment layer, the Contractor shall test the underlayment layer for proper adhesion to the underlying substrate in accordance with the section herein titled, "ADHESION/BOND TESTING". Only if the underlayment layer in a manhole passes the adhesion test(s) in that manhole shall the Contractor progress to the next step of surface coating application. If the underlayment layer does not pass the adhesion test (or tests), the Contractor shall perform the remedial and re-testing steps discussed in the "ADHESION/BOND TESTING" section at no additional cost to the City before progressing to the next step of surface coating application.

10.07.8.5 Surface Coating Application:

- a. After the manhole has been adequately prepared and the underlayment cured, apply the approved surface coating.
- b. The approved surface coating shall be mixed in a clean, dry mixing container.

- c. The Contractor shall employ whatever means necessary (e.g., humidity control, temperature control, additional blasting, mechanical surface preparation, etc.) to ensure strong adherence of the surface coating layer(s) to any underlying and overlying layers and proper curing of the surface coating layer(s). If the surface coating is applied in two or more layers, the time between applications of the various layers shall be controlled to ensure proper bond between layers.
- d. For all coatings, trowel marks and other surface irregularities shall be removed by using a short nap mohair paint roller. The short nap mohair shall be dampened with water. Excess water shall be shaken off prior to use.
- e. The surface coating shall be carefully butted against and then feathered over (2-inches minimum) any PVC liners that exist on pipes passing through or connecting to the manholes to create a continuous corrosion barrier.
- f. The required total cured thickness for the surface coating layer (not including the thicknesses of any underlayment or priming layers) for all coating systems shall be 1/8-inch.
- g. Compound that has begun to set shall not be recovered by adding additional liquid but shall be discarded.
- h. Do not allow flowing water, chemicals or other liquids on the approved, applied coating for a minimum of 4 hours after installation.

10.07.8.6 ADHESION/BOND TESTING:

Adhesion testing will be performed at two different stages of the work: 1) Adhesion of the underlayment layer to the underlying substrate shall be tested before the surface coating layer(s) are applied. 2) Later, after the surface coating layer(s) have been applied, the adhesion of all applied layers in the coating system to one another and to the underlying substrate shall be tested. The adhesion/bond testing is in addition to the spark testing discussed elsewhere in these provisions:

1. The following minimum number of adhesion tests shall be required: In the case of manholes, there shall be a minimum of one (1) underlayment adhesion test and one (1) finished coating system adhesion test for every three (3) manholes. (Take the number of manholes included in the project, divide by four, and if the result is not a whole number, then round up to the next whole number.)
2. The manholes to be subjected to adhesion testing and the specific test locations within each manhole shall be selected by the City Inspector. The City Inspector shall be present to observe all adhesion testing.
3. The need to repeat an adhesion test due to an error in the performance of the adhesion testing (e.g., a dolly coming off prematurely) or due to a failure in the coating system before the required full test pressure is applied (i.e., a "not pass" test result) shall not count as an additional test for the purposes of determining compliance with the minimum number of tests required per Item No. 1, but shall rather be denominated a "repeat test". Repeat tests shall be non-pay items.
4. Adhesion testing of the underlayment layer shall conform to the following: After the underlayment layer has cured for a minimum of 4 hours but before the surface coating has been applied over the underlayment layer, the Contractor shall test the underlayment layer for proper adhesion to the underlying substrate. The Contractor will perform the adhesion testing in-place and in accordance with ASTM Standard D-4541 and the requirements as dictated in the remainder of this section.
5. Adhesion testing of the finished coating system shall conform to the following: After the approved coating has been applied to all specified surfaces and has adequately cured (as

determined by the manufacturer, but no more than 4 days), the Contractor shall test the finished coating system for adequate adhesion between the underlying substrate and the coating system and between the various layers of the coating system. Said test shall be performed in-place and in accordance with ASTM Standard D-4541 and the requirements as dictated in the remainder of this section.

The remaining paragraphs of this section apply to both the adhesion testing of the underlayment layer and the adhesion testing of the finished coating system:

6. The Contractor shall perform the adhesion testing discussed in this section using a DeFelsko Posi-test Pull-off Adhesion Tester Model AT-C or City of Bullhead City Approved Equal provided by the Contractor. The Contractor shall be responsible to purchase and provide enough 50 mm diameter dollies (as sold by DeFelsko, one dolly for each adhesion test, not re-usable) and adhesive for the dollies to perform all the required tests. The Contractor shall also provide the equipment and tools to core drill around the test location, as discussed later in this section. The contractor shall provide proof that the adhesion tester has been calibrated within the last 6 months.
7. The Contractor shall first glue the test dolly to the surface of the manhole at the test location selected by the City Inspector. The Contractor may lightly sand the coating surface with sandpaper at the test location to improve dolly adhesion. After the adhesive has set, the Contractor shall test the dolly for adhesion to the surface of the manhole by pulling on it by hand. If the dolly comes off, the Contractor shall re-adhere the dolly, using a different glue if necessary. After the dolly is properly set, the Contractor shall then core drill the manhole surface (using a circle-cutting "hole saw" type drill bit that leaves the center of the drill area intact) around the perimeter of the dolly. The drill bit shall penetrate through the layers to be tested but shall not penetrate more than 1/8-inch into the underlying substrate. The diameter of the drilled circle shall match (1/8-inch +/-) the diameter of the test dolly.
8. The adhesion testing machine shall then be attached to the dolly and each test location shall be tested to a minimum pulling stress of 80 psi (defined herein as the pulling force divided by the test sample cross-sectional area perpendicular to the applied force). At 80 psi, the gauge on the DeFelsko adhesion testing machine will read 500 psi, which when corrected for the diameter of the dolly equates to 80 psi.
9. If delamination or any other failure occurs between or within any of the coating system layers and/or the underlying concrete substrate prior to the application of the full, sustained (for 30 seconds minimum) test pulling pressure of 80 psi, the test shall be classified as "not pass". However, if the dolly comes off the surface of the coating and no other delamination or failure occurs between or within any of the coating system layers and/or the underlying concrete substrate, the test will not be classified as a "failure" or "not pass", but the test shall be repeated at no additional cost to the City.

The test can be discontinued if the testing pressure reaches a sustained (for 30 seconds minimum) 80 psi (i.e., 500 psi on the machine's gauge) and no delamination or other failure has occurred within or between any of the coating system layers and/or the underlying concrete substrate, which test would be judged a "pass". If delamination or other failure occurs but only when the sustained, applied pulling pressure is in excess of 80 psi (i.e., 500 psi on the machine's gauge), the test shall also be judged to be a "pass". To avoid damaging the test equipment, do not continue the test beyond 160 psi (i.e., 1000 psi on the machine's gauge).

10. For tests that are classified as "not pass", the City Inspector may require additional testing and/or remedial action. Remedial action may include removing the entire coating system (or whatever components of it have been installed in the manhole to that point) from the entire manhole, re-cleaning of the manhole, re-application of the coating system to all required

surfaces and re-testing. Said retesting and remedial action shall be at no additional cost to the City of Bullhead City.

11. After the adhesion tests have been performed, the Contractor shall mechanically grind down the test locations to the underlying substrate and re-apply the underlayment and/or coating system (whatever has been installed up to that point in the manhole) in accordance with these provisions to patch the area. Said repair work shall be at no additional cost to the City of Bullhead City. The Contractor shall not use acetone, MEK or other chemicals to dissolve the underlayment or coating system as a substitute for mechanical grinding down of the test area.

10.07.8.7 SPARK TESTING:

Spark testing shall only be required as part of this project if an epoxy coating is applied

- Whereas adhesion testing is required at two stages of the project work in each manhole, spark testing is required only on the fully installed coating system. Spark testing will be required on all manholes which receive an underlayment and surface coating systems for the barrels, cones, grade rings and benches (spark testing will not be required on manholes which receive resin aggregate inserts, even though the benches will be rehabilitated).
- After the approved coating has been applied to all specified surfaces, the Contractor shall spark test the coated surfaces in accordance with ASTM D-4787. The Contractor shall provide all equipment and materials necessary to perform said testing, which equipment and materials shall remain the property of the Contractor.
- Testing shall be performed with a wire brush-type test wand (the squeegee-type is not acceptable) with a minimum test voltage of 100 volts per mil (where 1 mil = 1/1000-inch) of finished surface coat thickness. For example, a minimum of 12,500 volts shall be used for a surface coat thickness of 1/8-inch (125 mils). The Contractor will use the stainless-steel bolt installed during the cleaning and surface preparation activities as a grounding rod for the spark testing equipment. (Refer to the section herein titled, "Cleaning and Preparation Activities" for discussion of installation of the stainless-steel bolt in the manhole wall.)
- As a test of the proper functioning of the spark testing equipment, the City may require the Contractor to drill a hole through the coating system into the underlying concrete substrate and to demonstrate to the City Inspector that the spark testing equipment can "find" the hole. The Contractor shall then patch and repair the hole at no additional cost to the City of Bullhead City. At the City Inspector's discretion, one such quality control test may be required for each manhole. Unless otherwise determined by the City Inspector, any adjustments to the spark testing methodology (e.g., adjusting the grounding method, increasing the test voltage, etc.) required to "find" the known holiday (hole) shall remain in effect for the remainder of the spark testing of that manhole.
- The entire surface of the manhole shall then be spark tested. Any imperfections found in the coating system shall be ground down and refilled. Use of a chemical solvent such as acetone or MEK in lieu of mechanical grinding down the area shall not be permitted. Repaired areas shall be re-tested. Said testing, repairs and re-testing shall continue until all portions of the manhole pass the spark test as specified herein.
- The Contractor shall perform repairs and re-testing at no additional cost to the City. The City Inspector shall observe and approve of all testing and retesting. In addition,

the Contractor shall provide certification for each manhole stating that the coating is free of holes or other imperfections.

10.07.8.8 CLEAN-UP:

Any spilled or over-sprayed material must be cleaned up prior to curing. After curing has occurred, clean-up may be accomplished by chipping or blasting. All discarded materials shall be disposed of properly. Clean-up and disposal of discarded material shall be at no additional cost to the City.

10.07.8.9 MATERIALS:

Materials shall be delivered to the site in factory sealed and labeled containers. Date of manufacture shall appear on each container. Materials shall be handled and stored according to the strictest requirements of the manufacturer and in accordance with all local, state and federal laws and regulations.

10.07.9 MANHOLE FRAME AND COVER AND ADJUSTING RINGS REPLACEMENT:

10.07.9.1 Manhole Frames and Covers

If indicated in these Technical Specifications/General Provisions, the manhole frames and covers shall be replaced. The Contractor shall perform said work in accordance with MAG Standard Details 420, 422, and 424. The frames and covers shall be 30" EJ COM3200 composite manhole frames and coves as provided by the Bullhead City Utilities Department. The frames and covers will be provided at no additional cost to the contractor.

10.07.9.2 Adjusting Rings.

The adjusting rings on these manholes shall be replaced as part of this project. The adjusting rings shall be Pro-Ring Grade Rings, as manufactured by Cretex Specialty Products. The installation of the grade rings shall be installed per the manufacturer's specifications.

10.07.9.3 Measurement and Payment

Measurement and payment shall be considered incidental to the cost to rehabilitate the manhole, and no additional measurement or payment shall be made. The work shall consist of providing all materials and labor including removal and disposal of existing frames lids and grade rings; installing new adjusting rings, frames and covers; pavement sawcut and removal and replacement; existing concrete collar demolition and disposal; installing new concrete collar, and grade ring replacement/adjustment. If the manhole is located in or near an existing curb, gutter and/or sidewalk, the removal, disposal and replacement of the sidewalk and/or curb and gutter shall be considered incidental to the rehabilitation of the manhole, and no additional payment shall be made for this work.

The Contractor shall use manhole debris shields or other approved method to prevent debris from entering the sewer flow at no additional cost to the City.

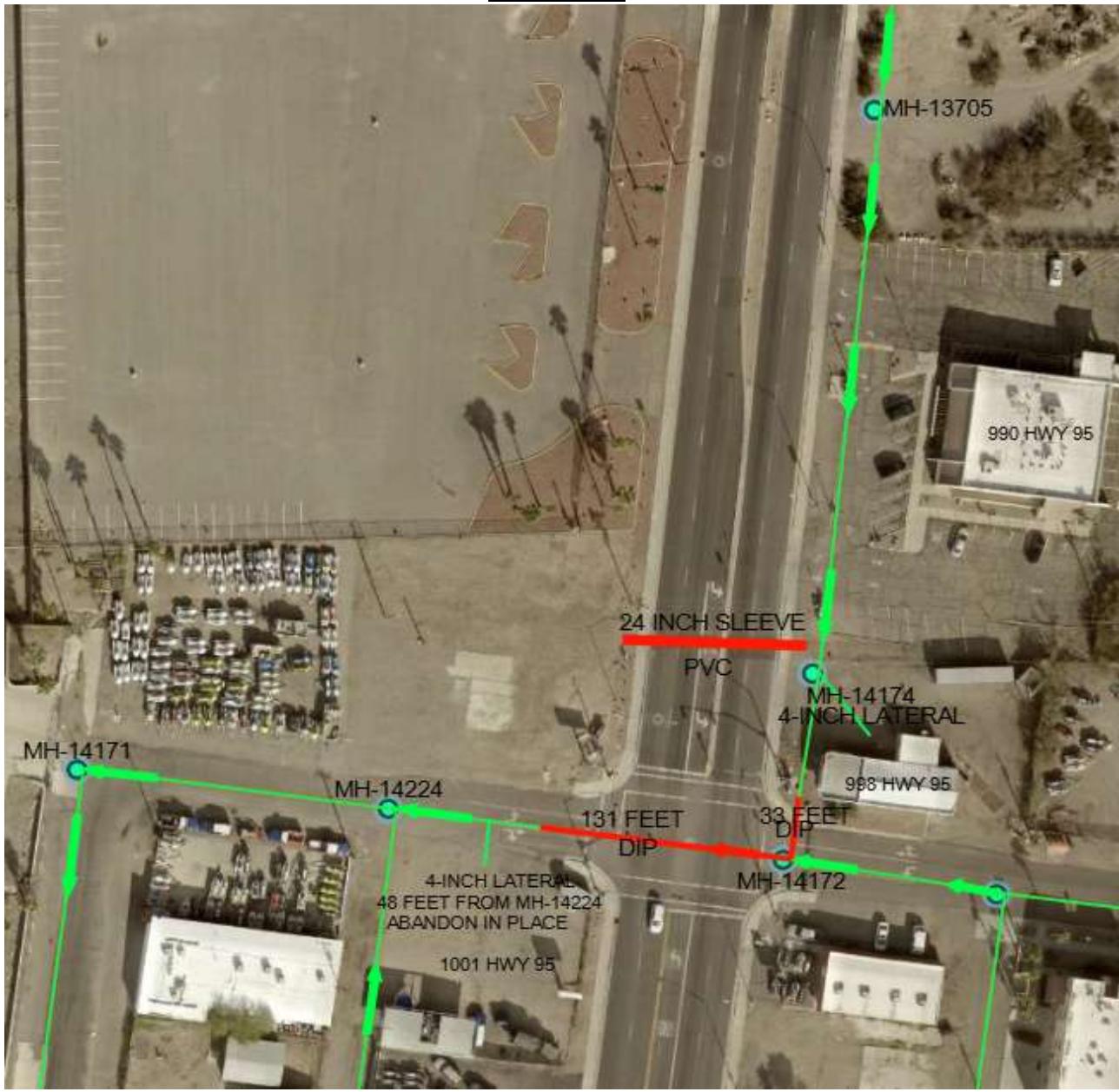
Exhibit A

Exhibit B-1

MH-14224 to MH-14172



Exhibit B-2

MH-14172 to MH-14224

