

**CITY OF PHOENIX, ARIZONA
OFFICE OF THE CITY ENGINEER
DESIGN AND CONSTRUCTION PROCUREMENT**



PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

**STATE ROUTE 85 LANDFILL MONITORING WELL
PW16810007**

**PROCUREPHX PRODUCT CATEGORY CODE 912000000
RFx 6000001515**

AGREEMENT XXXXXX



A handwritten signature in blue ink, which appears to read "Barbara A. Sylvester". The signature is written in a cursive style and is positioned below the professional engineer seal.

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PROJECT NO.: PW16810007

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A handwritten signature in blue ink, appearing to read "Barbara A. Sylvester", written over the bottom portion of the professional seal.

CALL FOR BIDS

**CITY OF PHOENIX
STATE ROUTE 85 MONITORING WELL
DESIGN-BID-BUILD**

PROJECT NO. PW16810007

**PROCUREPHX PRODUCT CATEGORY CODE 912000000
RFx 6000001515**

**BIDS WILL BE DUE: TUESDAY, MARCH 26, 2024, AT 2:00 P.M.
SUBMITTED INTO THE DESIGN AND CONSTRUCTION PROCUREMENT BID BOX
LOCATED ON THE 1ST FLOOR LOBBY OF THE PHOENIX CITY HALL BUILDING,
200 W. WASHINGTON STREET, PHOENIX, ARIZONA, 85003**

**BIDS WILL BE READ: TUESDAY, MARCH 26, 2024, AT 2:00 P.M.
ON 5TH FLOOR, ROOM 5 WEST
PHOENIX CITY HALL
200 W. WASHINGTON STREET
PHOENIX, AZ 85003-1611
*All times are local Phoenix time**

AND

**VIA TEAMS VIDEO / PHONE ACCESS
*All times are local Phoenix time**

SCOPE OF WORK

The City of Phoenix is seeking a qualified contractor to provide construction services for the project listed below. The Public Works Department's Solid Waste Division is seeking bids to install a replacement monitoring well at the State Route 85 Landfill. The proposed well location and estimated construction details are shown in the Technical Specifications. Potential bidders must review the Technical Specifications which define the required contract deliverables.

PRE-BID MEETING

A pre-bid meeting will be held on Tuesday, March 12, 2024, at 9:00 a.m., at the State Route 85 Landfill, located at 28361 W. Patterson Road, Buckeye, AZ Conference Room SR85 LF in the Administration Building. A site visit will follow the Pre-bid Meeting. At this meeting, staff will discuss the scope of work, general contract issues and respond to questions from the attendees. As City staff will not be available to respond to individual inquiries regarding the project scope outside of this pre-bid meeting, it is strongly recommended that interested firms send a representative to the pre-bid meeting.

REQUEST FOR BID PACKET

On Thursday, February 29, 2024, the bid packet may be downloaded from the City of Phoenix's eProcurement site at:

<https://eprocurement.phoenix.gov/irj/portal>

(OR)

the City of Phoenix's "Solicitations" web page as. The web address is:

<https://solicitations.phoenix.gov>

Firms receiving a copy of the bid packet through any other means are strongly encouraged to download the bid packet from the City webpage.

Firms must be registered in eProcurement <https://www.phoenix.gov/finance/vendorsreg> as a vendor.

Bid Opening Teams Meeting Instructions:

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 265 013 248 822

Passcode: AauCsT

GENERAL INFORMATION

The City reserves the right to award the contract to the lowest responsible responsive bidder or all bids will be rejected, as soon as practicable after the date of opening bids.

The City of Phoenix will provide reasonable accommodations for alternate formats of the bid packet by calling Heather Roye at (602) 261-8894 or calling TTY 711. Requests will only be honored if made within the first week of the advertising period. Please allow a minimum of seven calendar days for production.

Questions pertaining to process or contract issues should be directed to Heather Roye at (602) 261-8894 or heather.roye@phoenix.gov.

Jeffrey Barton
City Manager

Eric J. Froberg, PE
City Engineer

Published: Arizona Business Gazette

Date: February 29, 2024

Date: March 7, 2024

INFORMATION FOR BIDDERS

1. **102 BIDDING REQUIREMENTS AND CONDITIONS**, Add the following to **MAG and COP Supplement to MAG Section 102 BIDDING REQUIREMENTS AND CONDITIONS**:

INFORMATION FOR BIDDERS

A. **QUESTIONS ON PLANS AND SPECIFICATIONS**

Neither the Engineer nor the City of Phoenix will be held responsible for any oral instructions. Any changes to the plans and specifications will be in the form of an addendum. All Addenda will be posted online within the project folder at the following website:

<https://solicitations.phoenix.gov>

OR

<https://eprocurement.phoenix.gov/irj/portal>

For additional information prior to submitting your bid, contact:

Plans, Technical/Special Provisions, Proposal or Specifications:

NAME: Heather Roye, Design and Construction Procurement
ADDRESS: 200 W. Washington Street, 5th Floor, Phoenix, AZ 85003-1611
PHONE: (602) 261-8894 E-MAIL: heather.roye@phoenix.gov

SBE Utilization contact:

Equal Opportunity Department: (602) 262-6790

All questions regarding the plans and specifications must be received (in writing) at a minimum seven calendar days prior to bid opening. Questions received after that time may not be given any consideration.

B. **REQUEST FOR SUBSTITUTIONS**

Paragraph A, B, and C of MAG Section 106.4 are deleted and the following paragraphs substituted:

1. The Engineer will consider written request(s), by a prime bidder only, for substitution(s) which is/are considered equivalent to the item(s) specified in the Contract documents. The written request will be considered only if it is received at least twelve calendar days prior to the established bid date. Notification of acceptable substitutions will be made by addendum issued no fewer than seven calendar days prior to the established bid date. (A.R.S. 34-104)
2. The prime bidder, at his own expense, will furnish the necessary data of substitution and validate that the physical, chemical, and operational qualities of each substitute item is such that this item will fulfill the originally specified required function.
3. The substitution, if approved, will be authorized by a written addendum to the Contract documents and will be made available to all bidders. The bid date and the scheduled completion time will not be affected by any circumstances developing from this substitution.

4. The request will be submitted to Design and Construction Procurement, Attention Heather Roye, 5th Floor, Phoenix City Hall, 200 W. Washington Street, Phoenix, Arizona 85003-1611 or via email to heather.roye@phoenix.gov.

C. **BID BOND**

Bidders must submit a properly completed proposal guarantee in the form of certified check, cashier's check, or surety bond provided, for an amount not less than 10 percent of the total amount bid included in the proposal as a guarantee that the contractor will enter into a contract to perform the proposal in accordance with the plans and specifications. Surety bonds submitted for this project will be provided by a company which has been rated "A- or better for the prior four quarters" by the A.M. Best Company. ***A bid will be deemed non-responsive if not accompanied by this guarantee.***

The surety bond will be executed solely by 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. The surety bond will not be executed by an individual surety or sureties even if the requirements of Section 7-101 are satisfied. The certified check, cashier's check, or surety bond will be returned to the contractors whose proposals are not accepted, and to the successful contractor upon the execution of a satisfactory bond and contract.

When providing a Surety Bond, ***failure to provide an "A- or better for the prior four quarters" bond will result in bid rejection.***

D. **LIST OF MAJOR SUBCONTRACTORS AND SUPPLIERS & LIST OF ALL SUBCONTRACTORS AND SUPPLIERS**

A bid will be deemed non-responsive if not accompanied by a properly completed and signed L.O.S.-1 "List of Major Subcontractors and Suppliers" form.

To assist in eliminating the practice of bid shopping on City construction projects, the Bidder shall list all Major Subcontractors and Suppliers to whom the Bidder intends to contract with that are equal to or greater than 5% of the base bid. The list of Major Subcontractors and Suppliers will be provided on the L.O.S.-1 "List of Major Subcontractors" form. Failure to properly complete and sign this form will result in bid rejection. This form is due with the bid.

If substantial evidence exists that bid shopping occurred on this project, the Bidder will be ineligible to bid on City or City-affiliated construction projects for a period of one year.

The list of All Subcontractors and Suppliers shall be provided on the L.O.S.-2 "List of All Subcontractors and Suppliers" form. This form is due three calendar days after bid opening by 5:00 p.m. All bidders will be required to submit the L.O.S.-1 form. The three lowest bidders will be required to submit the L.O.S.-2 form. If the L.O.S.-2 form is not submitted by the post-bid deadline, the Bidder will still be required to submit the document prior to award. If the Bidder fails to submit the required L.O.S.-2 form by the post-bid deadline, the Bidder's bid bond may be placed in jeopardy because the City may make a claim against the Bidder's bid bond for the cost difference between the lowest responsive and responsible Bidder's bid and the next lowest bid (and any additional costs involved in awarding the contract to the next lowest responsive and responsible bidder).

E. **BID SUBMITTAL**

The properly completed bid documents along with the ten percent bid guarantee will be submitted in a sealed envelope. The outside of the envelope will be marked as follows:

Bid of (Firm's Name, Address and Phone Number)
For: State Route 85 Landfill Water Wells
City of Phoenix Project Number: PW16810007-3

Sealed bids will be submitted to the bid box located on the first floor of the Phoenix City Hall Building, 200 W. Washington Street, Phoenix, Arizona, 85003 prior to the time and date specified for bid opening.

F. **BID WITHDRAWALS**

MAG Section 102-10, Withdrawal or Revision of Proposal, is hereby deleted and the following paragraph is submitted:

"No bidder may withdraw or revise a proposal after it has been deposited with the City except as provided in Phoenix City Code Chapter 2, Section 190.2. Proposals, read or unread, will not be returned to the bidders until after determination of award has been made.

G. **ADDENDA**

Acknowledge all addenda; a bid will be deemed non-responsive if all issued addenda for this project are not acknowledged in writing on Page P. -1.

The City of Phoenix will not be responsible for any oral responses or instructions made by any employees or officers of the City of Phoenix regarding bidding instructions, plans, drawings, specifications or contract documents. A verbal reply to an inquiry does not constitute a modification of the Invitation for Bid. Any changes to the plans, drawings and specifications will be in the form of an addendum.

It will be the responsibility of the prospective bidder to determine, prior to the submittal of its bid, if any addenda to the project have been issued by the Design and Construction Procurement. All addenda issued will be acknowledged by the bidder on Page P-1. All addenda (if any) will be available online within each project's folder at the following website:

<https://eprocurement.phoenix.gov/irj/portal>

OR

<https://solicitations.phoenix.gov>

The contractors are responsible for ensuring they have all addenda for all projects they are submitting on. Prospective bidders are strongly encouraged to check the Solicitations website in order to ascertain if any addenda have been issued for the project.

H. **BID SUBMITTAL CHECKLIST**

All firms must be registered in the City's Vendor Management System prior to submitting a bid. For new firms – the City will send an email to your firm with a vendor number within two days of submitting the request. The vendor number needs to be included on the cover of the bid proposal package/envelope. Information on how to register with the City is available at:

<https://www.phoenix.gov/finance/vendorsreg>

BID SUBMITTAL CHECKLIST

This checklist is provided to remind bidders of several of the required elements of the bid

packages. It is not intended to be a comprehensive list of all the contract documents. Bidders are encouraged to review all of the Bid Instructions to determine compliance therein.

- Acknowledge all addenda? (Page P-1)
- Completed all of the Bid Proposal forms? (Pages P-1 and P.S.-1)
- Included your Bid Bond (rated A- or better for the prior four quarters) or Guarantee Cashier's Check? (Page S.B.-1)
- Completed List of Major Subcontractors and Suppliers form? (Page L.O.S.-1)
- Completed Letter of Intent to Perform as Subcontractor/Supplier (L.O.I-1)

PLEASE DO NOT SUBMIT THE ENTIRE SPECIFICATION BOOK WHEN SUBMITTING YOUR BID. INCLUDE ONLY THE REQUIRED BIDDING DOCUMENTS.

POST-BID SUBMITTAL CHECKLIST

The three lowest bidders must submit completed contracts documents listed below, no later than three calendar days after bid opening by 5:00 p.m. The documents must be submitted to Design and Construction Procurement, 5th Floor, or can be sent by email to heather.roye@phoenix.gov.

- Completed List of All Subcontractors and Suppliers form (L.O.S.-2)
- Bidders Disclosure Statement? (Pages B.D.S.-1 to 4)
- Submit Affidavit of Identity (if you are a sole proprietor) (Page A.O.I.-1)

PRIOR TO CONTRACT EXECUTION

- Contractor must provide proof of license required to perform the work.
- Verification of Experience Modification Rate (EMR) – the awarded company will be required to provide an EMR verification letter from the insurance company prior to contract execution.

I. PERMITS

CITY RESPONSIBILITY – The City will be responsible for City of Phoenix review and permit(s) fees for building and demolition permits. The City will also pay review fees for grading and drainage, water, sewer, and landscaping. The City will also pay for utility design fees for permanent services.

CONTRACTOR RESPONSIBILITY – The Contractor will be responsible for all other permits and review fees not specifically listed above. The Contractor is responsible for the cost of water meters, water and sewer taps, fire lines and taps, and all water bills on the project meters until the project is accepted. Arrangements for construction water are the Contractor's responsibility.

The Contractor may elect to use a City fire hydrant for its source of construction water only if an existing water service connection is unavailable or inadequate. The Contractor will be required to comply with Phoenix City Code Section 37-13A.

The Contractor is specifically reminded of the need to obtain the necessary environmental permits or file the necessary environmental notices. Copies of these permits and notices must be provided to the City's Project Manager prior to starting the permitted activity. In the case of Fire Department permits, a copy of the application for permit will also be provided to the Project Manager. This provision does not constitute an assumption by the City of an obligation of any kind for violation of said permit or notice requirements.

J. CANCELLATION OF CONTRACT FOR CONFLICT OF INTEREST

All parties hereto acknowledge that this Agreement is subject to cancellation by the City of Phoenix pursuant to the provisions of Section 38-511, Arizona Revised Statutes.

K. CONTRACTOR'S LICENSE AND PRIVILEGE LICENSE AND CERTIFICATIONS

Prior to bidding on this project, the bidder must possess the correct license to perform the work described in the plans and specifications. Prior to award of the contract, the successful bidder must provide to the Contract Procurement Section its Contractor's License Classification and number, its City of Phoenix Privilege License number and Federal Tax Identification number.

Bidder will submit the Bidder's Disclosure Statement as set forth in Pages B.D.S. - 1 to B.D.S. - 4 within three calendar days of bid opening by 5:00 p.m.

Unless provided otherwise in this solicitation, Bidder will be deemed non-responsive and the bid rejected if Bidder fails to possess the proper Contractor's and Business Licenses at the time of bid or fails to submit a substantially completed Bidder's Disclosure Statement as specified above.

L. TAX LIABILITIES; DISCLOSURE OF CONVICTIONS AND BREACH(S) OF CONTRACT

On or before the award of the contract for this project, the successful bidder will: (i) file all applicable tax returns and will make payment for all applicable State of Arizona and Maricopa County Transaction Taxes (ARS Sec. 41-1305) and City of Phoenix Privilege License Taxes (Phoenix City Code Sec.14-415); (ii) disclose any civil fines, penalties or any criminal convictions, other than for traffic related offenses, for violation of federal, state, county or city laws, rules or regulations including, but not limited to, environmental, OSHA, or labor compliance laws (collectively "Laws") by Bidder, Bidder's directors, managing members, responsible corporate officers or party who will be responsible for overseeing and administering this project (collectively "Bidder"); and (iii) disclose any material breach(s) of an agreement with the City of Phoenix, any termination for cause or any litigation involving the City of Phoenix occurring within the past three calendar years. Unless provided otherwise in this solicitation, the successful bidder will be deemed non-responsive and the bid rejected for any of the following: (i) Bidder's civil or criminal conviction, other than for traffic related offenses, for a violation of Laws within the past three calendar years; (ii) liability or culpability resulting in payment of fines or penalties in the cumulative total amount of \$100,000 or greater for a violation of "Laws" within the past three calendar years; (iii) material breach of a City of Phoenix agreement, termination for cause or litigation with the City of Phoenix within the past three calendar years; and (iv) Bidder's failure to disclose the information as required by this provision. Further, after award of contract, in addition to any other remedy, Bidder's failure to remit proper taxes to the City of Phoenix may result in the City withholding payment pursuant to Phoenix City Charter Chapter XVIII, Section 14 until all delinquent taxes, interest, and penalties have been paid.

State and Local Transaction Privilege Taxes:

In accordance with applicable state and local law, transaction privilege taxes may be applicable to this transaction. The state and local transaction privilege (sales) tax burden is on the person who is conducting business in Arizona and the City of Phoenix. The legal liability to remit the tax is on the person conducting business in Arizona. Any failure by the Contractor to collect applicable taxes from the City will not relieve the Contractor from its obligation to remit taxes.

It is the responsibility of the Contractor to determine any applicable taxes. The City will review the price or offer submitted and will not deduct, add or alter pricing based on taxes.

If you have questions regarding tax liability, seek advice from a tax professional prior to submitting a bid. Once the bid is submitted, the Offer is valid for the time specified in this Solicitation, regardless of mistake or omission of tax liability.

If the City finds over payment of a project due to tax consideration that was not due, the Contractor will be liable to the City for that amount, and by contracting with the City agrees to remit any overpayments back to the City for miscalculations on taxes included in a bid price.

For purposes of A.R.S. 42-5075(P), this contract is subject to A.R.S. Title 34.

Tax Indemnification:

Contractor will, and require the same of all subcontractors, pay all federal, state and local taxes applicable to its operation and any persons employed by the Contractor. Contractor will, and require the same of all subcontractors, hold the City harmless from any responsibility for taxes, damages and interest, if applicable, contributions required under federal, and/or state and local laws and regulations and any other costs including transaction privilege taxes, unemployment compensation insurance, Social Security and Worker's Compensation.

Tax Responsibility Qualification:

Contractor may be required to establish, to the satisfaction of City, that all fees and taxes due to the City or the State of Arizona for any License or Transaction Privilege taxes, Use Taxes or similar excise taxes, are currently paid (except for matters under legal protest).

Contractor agrees to a waiver of the confidentiality provisions contained in the City Finance Code and any similar confidentiality provisions contained in Arizona statutes relative to State Transaction Privilege Taxes or Use Taxes.

Contractor agrees to provide written authorization to the City Finance Department and to the Arizona State Department of Revenue to release tax information relative to Arizona Transaction Privilege Taxes or Arizona Use Taxes to assist the Department in evaluating Contractor's qualifications for and compliance with contract for duration of the term of contract.

M. STANDARD SPECIFICATIONS AND DETAILS

Except as otherwise required in these specifications, bid preparation and construction of this project will be in accordance with all applicable Maricopa Association of Governments' (MAG) Uniform Standard Specifications and Uniform Standard Details, latest revision, and the City of Phoenix Supplements to the MAG Uniform Standard Specifications and Details, latest revision.

N. PRECEDENCE OF CONTRACT DOCUMENTS

In case of a discrepancy or conflict, the precedence of contract documents is as follows:

1. Change Orders or Supplemental Agreements
2. Addenda
3. Contract Specifications/Special Provisions/Technical Provisions
4. The Plans
5. COP Supplement to MAG Standard Specifications and Details, latest revision
6. MAG Standard Specifications and Details, latest revision

The precedence of any Addenda falls within the category of which it represents.

O. CONFIDENTIALITY OF PLANS & SPECIFICATIONS

Any plans generated for this project must include the following statement in the Title Block on every page: "Per City of Phoenix City Code Chapter 2, Section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of Contractor's contract with the City of Phoenix."

P. AUDIT AND RECORDS

Records of the Contractor's direct personnel payroll, bond expenses, and reimbursable expenses pertaining to this Project, and records of accounts between the City and Contractor will be kept on the basis of generally accepted accounting principles and must be made available to the City and its auditors for up to five years following Final Acceptance of the Project.

The City, its authorized representative, and/or any federal agency, reserves the right to audit the Contractor's records to verify the accuracy and appropriateness of all cost and pricing data, including data used to negotiate the Contract and any change orders.

The City reserves the right to decrease Contract price and/or payments made on this Contract and/or request reimbursement from the Contractor following final contract payment on this Contract if, upon audit of the Contractor's records, the audit discloses the Contractor has provided false, misleading, or inaccurate cost and pricing data.

The Contractor will include a similar provision in all of its Agreements with subcontractors and suppliers providing services or supplying materials under the Contract Documents to ensure that the City, its authorized representative, and/or the appropriate federal agency has access to the Subcontractor's and Supplier's records to verify the accuracy of all cost and pricing data.

The City reserves the right to decrease the Contract price and/or payments made on this Contract and/or request reimbursement from the Contractor following final contract payment on this Contract if the above provision is not included in the Subcontractor's and Supplier's contracts, and one or more Subcontractors or Suppliers refuse to allow the City to audit their records to verify the accuracy and appropriateness of cost and pricing data.

If, following an audit of this Contract, the audit discloses the Contractor has provided false, misleading or inaccurate cost and pricing data, and the cost discrepancies exceed 1% of the total Contract billings, the Contractor will be liable for reimbursement of the reasonable, actual cost of the audit.

Q. IMMIGRATION REFORM AND CONTROL ACT

Compliance with Federal Laws Required. Contractor understands and acknowledges the applicability of the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act to it. Contractor agrees to comply with these Federal Laws in performing under this

Agreement and to permit City inspection of its personnel records to verify such compliance.

R. LEGAL WORKER REQUIREMENTS

The City of Phoenix is prohibited by A.R.S. § 41-4401 from awarding a contract to any contractor who fails, or whose subcontractors fail, to comply with A.R.S. § 23-214(A). Therefore, Contractor agrees that:

1. Contractor and each subcontractor it uses warrants their compliance with all federal immigration laws and regulations that relate to their employees and their compliance with § 23-214, subsection A.
2. A breach of a warranty under paragraph 1 will be deemed a material breach of the contract that is subject to penalties up to and including termination of the contract.
3. The City of Phoenix retains the legal right to inspect the papers of any Contractor or subcontractor employee who works on the contract to ensure that the Contractor or subcontractor is complying with the warranty under paragraph 1.

S. CONTRACTOR AND SUBCONTRACTOR WORKER BACKGROUND SCREENING

Contractor agrees that all Contractor's and subcontractors' workers (collectively "Contract Worker(s)") pursuant to this Agreement will be subject to background and security checks and screening (collectively "Background Screening") at Contractor's sole cost and expense, unless otherwise provided for in the scope of work. Contractor's background screening will comply with all applicable laws, rules and regulations. Contractor further agrees that the background screening is necessary to preserve and protect the public health, safety and welfare. The City requires a completed Contract Worker Badge/Key/Intrusion Detection Responsibilities Agreement for each Contract Worker who requires a badge or key.

Background Screening Risk Level: The City has established two levels of risk: Standard and Maximum risk. The current risk level and background screening required is **STANDARD RISK LEVEL**. If the scope of work changes, the City may amend the level of risk, which could require the Contractor to incur additional contract costs to obtain background screens or badges.

Terms of This Section Applicable to all Contractor's Contracts and Subcontracts: Contractor will include Contract Worker background screening in all contracts and subcontracts for services furnished under this agreement.

Materiality of Background Screening Requirements; Indemnity: The background screening requirements are material to City's entry into this agreement and any breach of these provisions will be deemed a material breach of this contract. In addition to the indemnity provisions set forth in this agreement, Contractor will defend, indemnify and hold harmless the City for all claims arising out of this background screening section including, but not limited to, the disqualifications of a Contract Worker by Contractor. The background screening requirements are the minimum requirements for the Agreement. The City in no way warrants that these minimum requirements are sufficient to protect Contractor from any liabilities that may arise out of the Contractor's services under this Agreement or Contractor's failure to comply with this section. Therefore, Contractor and its Contract Workers will take any reasonable, prudent and necessary measures to preserve and protect public health, safety and welfare when providing services under this Agreement.

Continuing Duty; Audit: Contractor's obligations and requirements will continue throughout the entire term of this Agreement. Contractor will maintain all records and documents related to all background screenings and the City reserves the right to audit Contractor's records.

Contractor's Default; Liquidated Damages; Reservation of Remedies for Material Breach: If Contractor is required to access any City facilities without an escort, City badging is required. Contractor's default under this section will include, but is not limited to, the following:

- Contract Worker gains access to a City facility(s) without the proper badge or key;
- Contract Worker uses a badge or key of another to gain access to a City facility;
- Contract Worker commences services under this agreement without the proper badge, key or background screening;
- Contract Worker or Contractor submits false information or negligently submits wrong information to the City to obtain a badge, key or applicable background screening; or
- Contractor fails to collect and timely return Contract Worker's badge or key upon termination of Contract Worker's employment, reassignment of Contract Worker to another City facility or upon the expiration, cancellation or termination of this Agreement.
- Contractor acknowledges and agrees that the access control, badge and key requirements in this section are necessary to preserve and protect the public health, safety and welfare. Accordingly, Contractor agrees to properly cure any default under this section within three business days (excluding weekends and City holidays) from the date notice of default is sent by the City. The parties agree that Contractor's failure to properly cure any default under this section will constitute a breach of this section. In addition to any other remedy available to the City at law or in equity, the Contractor will be liable for and pay to the City the sum of \$1,000.00 for each breach by Contractor in this section. The parties further agree that the sum fixed above is reasonable and approximates the actual or anticipated loss to the City at the time and making of this agreement if Contractor breaches this section. Further, the parties expressly acknowledge and agree to the fixed sum set forth above because of the difficulty of proving the City's actual damages if Contractor breaches this section. The parties further agree that three breaches by Contractor in this section arising out of any default within a consecutive period of three months or three breaches by Contractor in this section arising out of the same default within a period of 12 consecutive months will constitute a material breach of this agreement by Contractor and the City expressly reserves all of its rights, remedies and interests under this agreement, at law and in equity including, but not limited to, termination of this agreement.

Employee Identification and Access: Contract Workers are forbidden access to designated restricted areas. Access to each building will be as directed by the authorized Phoenix authorized representative. Contract Workers are not authorized access other than during scheduled hours. Access to the building will be directed by the City's authorized representative.

Only authorized Contract Workers are allowed on the premises of the City facilities/buildings. Contract Workers are not to be accompanied in the work area by acquaintances, family members, assistants or any other person unless said person is an authorized Contract Worker.

Unless otherwise provided for in the scope of work:

- Contract Workers must **always** have city issued badges and some form of verifiable company identification (badge, uniform, employee id).
- Contractor will supply a list of the names and titles of all employees requiring access to the buildings. It is the Contractor's responsibility to provide updates and changes of personnel as necessary.

Key Access Procedures: If the Contractor Worker's services require keyed access to enter a City facility(ies), a separate key issue/return form must be completed and submitted by the

Contractor for each key issued. Contractor must submit the completed key issue/return form to the appropriate badging office.

Stolen or Lost Badges or Keys: Contractor must immediately report lost or stolen badges or keys to the City's appropriate badging office. If the badge/key was stolen, Contract Worker's must report the theft to their local police department. Prior to issuance of a new badge or key, a new badge application or key issue form must be completed, submittal of a police department report for stolen badges, and applicable payment of the fee(s) listed herein.

Return of Badge or Key: All badges and keys are the property of the City and must be returned to the City at the badging office within one business day (excluding weekends and City holidays) of when the Contract Worker's access to a City facility is no longer required to furnish the services under this agreement. Contractor will collect a Contract Worker's badge and key(s) upon the termination of the Contract Worker's employment; when the Contractor Worker's services are no longer required at a City facility(s); or upon termination, cancellation or expiration of this agreement.

Badge and Key Fees: The following constitute the badge and key fees under this agreement. The City reserves the right to amend these fees upon a 30-day prior written notice to Contractor.

Replacement Badge Fee:	\$55.00 per badge
Lost/Stolen Badge Fee:	\$55.00 per badge
Replacement Key Fee:	\$55.00 per key
Replacement Locks:	\$55.00 per lock

BACKGROUND SCREENING – STANDARD RISK:

The current risk level and background screening required is **STANDARD RISK**.

A standard risk background screening will be performed when the Contract Worker's work assignment will:

- require a badge or key for access to City facilities; or
- allow any access to sensitive, confidential records, personal identifying information or restricted City information; or
- allow unescorted access to City facilities during normal and non-business hours.

Requirements: The background screening for this standard risk level will include a background check for real identity/legal name and will include felony and misdemeanor records from any county in the United States, the state of Arizona, plus any other jurisdiction where the Contractor Worker has lived at any time in the preceding seven years from the Contract Worker's proposed date of hire.

Contractor Certification; City Approval of Background Screening: Unless otherwise provided for in the Scope, Contractor will be responsible for:

- determining whether Contract Worker(s) are disqualified from performing work for the City for standard risk level background checks; and,
- for reviewing the results of the background check every five years; and,
- to engage in whatever due diligence is necessary to make the decision on whether to disqualify a Contract Worker; and,
- Submitting the list of qualified Contract Workers to the contracting department.
- For sole proprietors, the Contractor must comply with the background check for himself and any business partners, or members or employees who will assist on the contract and for whom the requirements of the Agreement apply.
- By executing this agreement, Contractor certifies and warrants that Contractor has read the background screening requirements and criteria in this section, and that all background screening information furnished to the City is accurate and current. Also, by

executing this agreement, Contractor further certifies and warrants that Contractor has satisfied all background screening requirements for the standard risk background screening, and verified legal worker status, as required.

The background checks will be conducted prior to any employee entering to work and will be based upon information provided to the Police Department including, but not limited to: name, address, date and place of birth, social security number, INS number if applicable, and a copy of a valid photo identification. The information will be provided to the Public Works Department at least five business days (excluding weekends and holidays) in advance of the need for access. The form will be provided by Public Works Department. A designated Public Works representative will conduct the security check.

The City may, at any time, in its sole discretion, refuse to allow an employee access to an area for any of the following reasons, but not limited to:

- Conviction of a felony.
- Conviction of a misdemeanor (not including traffic or parking violation).
- Any outstanding warrants (including traffic and parking violations).
- A person currently on parole or probation.
- A person currently involved in an investigation.

CONFIDENTIALITY AND DATA SECURITY: All data, regardless of form, including originals, images and reproductions, prepared by, obtained by, or transmitted to Contractor in connection with this Agreement is confidential, proprietary information owned by the City, unless otherwise agreed upon within this Agreement. Except as specifically provided in this Agreement, the Contractor shall not disclose data generated in the performance of the service to any third person without the prior written consent of the City Manager or his/her designee.

Contractor agrees to abide by all current applicable legal and industry data security and privacy requirements and to notify the City immediately if the scope of work changes or personal identifying information or information subject to Payment Card Industry Standards becomes part of the Agreement.

Contractor agrees to comply with all City information security and technology policies, standards, and procedures when accessing City networks and computerized systems whether onsite or remotely.

A violation of this Section may result in immediate termination of this Agreement without notice. The obligations of Contractor under this Section shall survive the termination of this Agreement.

SECURITY INQUIRIES: Contractor acknowledges that all of the employees that it provides pursuant to this Contract shall, at Contractor's expense, be subject to background and security checks and screening at the request of the City. Contractor shall perform all such security inquiries and shall make the results available to the City for all employees considered for performing work (including supervision and oversight) under this Contract. City may make further security inquiries. Whether or not further security inquiries are made by the City, City may, at its sole, absolute and unfettered discretion, accept or reject any or all the employees proposed by the Contractor for performing work under this Contract. Employees rejected by the City for performing services under this Contract may still be engaged by Contractor for other work not involving the City. An employee rejected for work under this Contract shall not be proposed to perform work under other City contracts or engagements without the City's prior approval.

The City, in its sole discretion, reserves the right, but not the obligation to:

- require an employee/prospective employee of the Contractor to provide fingerprints and execute such other documentation as may be necessary to obtain criminal justice information pursuant to A.R.S. 41-1750 (G) (4);
- act on newly acquired information whether or not such information should have been previously discovered;
- unilaterally change its standards and criteria relative to the acceptability of Contractor's employees and/or prospective employees; and
- object, at any time and for any reason, to an employee of Contractor performing work (including supervision and oversight) under this Agreement. Contractor will bear the costs of all inquiries requested by the City.

T. LAWFUL PRESENCE REQUIREMENT

Pursuant to A.R.S. §§ 1-501 and 1-502, the City of Phoenix is prohibited from awarding a contract to any natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming that the identification provided is genuine. This requirement will be imposed at the time of contract award. This requirement does not apply to business organizations such as corporations, partnerships or limited liability companies.

U. LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)

If practical, the contractor will provide an easily accessible area to serve the construction site that is dedicated to the separation, collection and storage of materials for recycling including (at a minimum) paper, glass, plastics, metals, and designate an area specifically for construction and demolition waste recycling. The contractor must provide documentation that the materials have been taken to a Maricopa County approved recycling facility.

V. CITY OF PHOENIX EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENT

1. In order to do business with the City, Contractor must comply with Phoenix City Code, 1969, Chapter 18, Article V, as amended, Equal Employment Opportunity Requirements. Contractor will direct any questions in regard to these requirements to the Equal Opportunity Department, (602) 262-6790.
2. Any Contractor in performing under this contract will not discriminate against any worker, employee or applicant, or any member of the public, because of race, color, religion, sex, national origin, age, or disability nor otherwise commit an unfair employment practice. The Contractor will ensure that applicants are employed, and employees are dealt with during employment without regard to their race, color, religion, sex, national origin, age, or disability and will adhere to a policy to pay equal compensation to men and women who perform jobs that require substantially equal skill, effort, and responsibility, and that are performed within the same establishment under similar working conditions. Such action will include but not be limited to the following: Employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training; including apprenticeship. The Contractor further agrees that this clause will be incorporated in all subcontracts with all labor organizations furnishing skilled, unskilled and union labor, or who may perform any such labor or services in connection with this contract.

If the Contractor employs more than thirty-five employees, the following language will apply as the last paragraph to the clause above:

The Contractor further agrees not to discriminate against any worker, employee or

applicant, or any member of the public, because of sexual orientation or gender identity or expression and will ensure that applicants are employed, and employees are dealt with during employment without regard to their sexual orientation or gender identity or expression.

3. *Documentation.* Contractor may be required to provide additional documentation to the Equal Opportunity Department affirming that a nondiscriminatory policy is being utilized.
4. *Monitoring.* The Equal Opportunity Department will monitor the employment policies and practices of suppliers and lessees subject to this article as deemed necessary. The Equal Opportunity Department is authorized to conduct on-site compliance reviews of selected firms, which may include an audit of personnel and payroll records, if necessary.

W. PROTEST PROCEDURES

Any bidder who has any objections to the awarding of a contract to any bidder by the City of Phoenix, pursuant to competitive bidding procedures, will comply with Phoenix City Code Chapter 2, Section 188." A copy of the Protest Policy is also available online at:

<https://www.phoenix.gov/streets/procurement-opportunities>

X. DATA CONFIDENTIALITY

As used in the Contract, "data" means all information, whether written or verbal, including plans, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to the Contractor or its subcontractors in the performance of this Contract.

The parties agree that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to the Contractor or its subcontractors in connection with the Contractor's or its subcontractor's performance of this Contract is confidential and proprietary information belonging to the City.

Except as specifically provided in this Contract, the Contractor or its subcontractors will not divulge data to any third party without prior written consent of the City. The Contractor or its subcontractors will not use the data for any purposes except to perform the services required under this Contract. These prohibitions will not apply to the following data provided the Contractor or its subcontractors have first given the required notice to the City:

- A. Data which was known to the Contractor or its subcontractors prior to its performance under this Contract unless such data was acquired in connection with work performed for the City;
- B. Data which was acquired by the Contractor or its subcontractors in its performance under this Contract and which was disclosed to the Contractor or its subcontractors by a third party, who to the best of the Contractor's or its subcontractor's knowledge and belief, had the legal right to make such disclosure and the Contractor or its subcontractors are not otherwise required to hold such data in confidence; or
- C. Data which is required to be disclosed by virtue of law, regulation, or court order, to which the Contractor or its subcontractors are subject.

In the event the Contractor or its subcontractors are required or requested to disclose data to a third party, or any other information to which the Contractor or its subcontractors became privy as a result of any other contract with the City, the Contractor will first notify the City as set forth in this section of the request or demand for the data. The Contractor or its subcontractors will give the City sufficient facts so that the City can be given an opportunity to

first give its consent or take such action that the City may deem appropriate to protect such data or other information from disclosure.

The Contractor, unless prohibited by law, within ten calendar days after completion of services for a third party on real or personal property owned or leased by the City, the Contractor or its subcontractors will promptly deliver, as set forth in this section, a copy of all data to the City. All data will continue to be subject to the confidentiality agreements of this Contract.

The Contractor or its subcontractors assume all liability for maintaining the confidentiality of the data in its possession and agrees to compensate the City if any of the provisions of this section are violated by the Contractor, its employees, agents or subcontractors. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this section will be deemed to cause irreparable harm that justifies injunctive relief in court. Contractor agrees that the requirements of this Section will be incorporated into all subcontracts entered into by Contractor. A violation of this Section may result in immediate termination of this Contract without notice.

Personal Identifying Information-Data Security

Personal identifying information, financial account information, or restricted City information, whether electronic format or hard copy, must be secured and protected at all times. At a minimum, Contractor must encrypt and/or password protects electronic files. This includes data saved to laptop computers, computerized devices or removable storage devices.

When personal identifying information, financial account information, or restricted City information, regardless of its format, is no longer necessary, the information must be redacted or destroyed through appropriate and secure methods that ensure the information cannot be viewed, accessed, or reconstructed.

In the event that data collected or obtained by Contractor or its subcontractors in connection with this Contract is believed to have been compromised, Contractor or its subcontractors will immediately notify the Project Manager and City Engineer. Contractor agrees to reimburse the City for any costs incurred by the City to investigate potential breaches of this data and, where applicable, the cost of notifying individuals who may be impacted by the breach.

Contractor agrees that the requirements of this Section will be incorporated into all subcontracts entered into by Contractor. It is further agreed that a violation of this Section will be deemed to cause irreparable harm that justifies injunctive relief in court. A violation of this Section may result in immediate termination of this Contract without notice.

The obligations of Contractor or its subcontractors under this Section will survive the termination of this Contract.

Y. PROJECT MANAGEMENT INFORMATION SYSTEM

1. The Consultant is required to maintain all Project records in electronic format. The City provides an Application Service Provider (ASP) web-based project management database which the Consultant shall utilize in the fulfillment of the Contract requirements.
2. The Consultant shall use this ASP to process all documents related to the Work, including, but not limited to: requests for interpretation/information, change orders, design meeting minutes and submittals.
3. The Consultant shall process all Project information in electronic digital format. To fulfill

this requirement, the Consultant shall provide all necessary equipment to perform the functions necessary to generate, convert, store, maintain, connect to the web-based ASP and transfer electronic data.

4. The Consultant shall provide a computerized networked office platform with broadband internet connectivity. Either wired or wireless is acceptable. This platform shall function well in a web-based environment utilizing an internet browser compatible with the City's ASP system.
5. Training will be provided through the City. Contact information will be provided to the firms under contract, to establish the set up with a log-in and password.

Z. PROJECT STAFFING

Key Personnel: Before starting work, Contractor must submit detailed résumés of key personnel involved in that work for City's approval (which City will not unreasonably withhold). If Contractor later desires to change key personnel involved in that work, Contractor must submit detailed résumés of the new personnel for City's approval (which City will not unreasonably withhold).

Qualified Staff: Contractor must maintain an adequate and competent staff of qualified persons—as City may determine in its sole discretion—during performance of this Master Agreement. If City in its sole discretion determines that any of Contractor's staff is objectionable, Contractor must take prompt corrective action or replace that staff with new personnel, subject to City's approval.

Third-Party Employment Brokers: Contractor and Subcontractors will not utilize a third-party labor broker for any construction worker under this Agreement. The Contractor and Subcontractors must be the employers of record for its construction staff under this Agreement.

AA. NO ISRAEL BOYCOTT

If this Contract is valued at \$100,000 or more and requires Contractor (a company engaging in for-profit activity and having ten or more full-time employees) to acquire or dispose of services, supplies, information technology, or construction, then Contractor must certify and agree that it does not and will not boycott goods or services from Israel, pursuant to Title 35, Chapter 2, Article 9 of the Arizona Revised Statutes. Provided that these statutory requirements are applicable, Contractor by entering this Contract now certifies that it is not currently engaged in, and agrees for the duration of the Contract to not engage in, a boycott of goods or services from Israel.

BB. NO FORCED LABOR OF ETHNIC UYGHURS

If this Contract requires Contractor (a company engaging in for-profit activity and having ten or more full-time employees) to acquire or dispose of services, supplies, information technology, goods, or construction, then pursuant to Title 35, Chapter 2, Article 10 of the Arizona Revised Statutes Contractor must certify and agree that it and any contractors, subcontractors, or suppliers it utilizes do not and will not use the forced labor of ethnic Uyghurs in the People's Republic of China or any goods or services produced by such forced labor. Provided these statutory requirements are applicable, Contractor, by entering this Contract, now certifies it is not currently engaged in, and agrees for the duration of the Contract to not engage in, (a) the use of forced labor of ethnic Uyghurs in the People's Republic of China; (b) the use of any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or (c) the use of any contractors,

subcontractors, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

CC. COMPLIANCE WITH LAWS

Contractor must comply with all existing and subsequently enacted federal, state and local laws, ordinances and codes, all applicable ADA requirements, regulations that are, or become applicable to this Agreement, and be in general conformance with PROWAG guidance. If a subsequently enacted law imposes substantial additional costs on Contractor, a request for an amendment may be submitted pursuant to this Agreement. Contractor is also required to certify its compliance with all applicable laws and Contractor must pass along these requirements to its Subcontractors. If any of Contractor's certifications is found to be false, the City may terminate this Agreement or impose other remedies due to the false certification.

SUPPLEMENTARY CONDITIONS

1. 103 AWARD AND EXECUTION OF CONTRACT, Add the following to Subsection 103.3 AWARD OF CONTRACT:

Contract award will be made to a responsive and responsible bidder based on the low total base bid or on the low combination of the total base bid and any selected alternate(s), whichever is in the best interest of the City. If unit pricing is required in the proposal, the extensions and additions will be verified to assure correctness. Award will be based on the revised total if any errors are found. Additionally, the Contractor will meet the minimum SBE subcontracting goal set for this contract or have been granted a full or partial waiver of the goal. The City expressly reserves the right to cancel this agreement without recourse or prejudice to Contractor until all parties have executed the agreement in full.

Any bidder that currently contracts with the City must be in good standing for its proposal to be considered responsive. For the purpose of this Invitation to Bid, good standing means compliance with all contractual provisions, including payment of financial obligations.

2. 103 AWARD AND EXECUTION OF CONTRACT, Add the following to Subsection 103.5, REQUIREMENT OF CONTRACT BONDS:

A. PERFORMANCE BOND AND LABOR AND MATERIAL BOND

Prior to the execution of a contract, the successful bidder must provide a performance bond and a labor and material bond, each in an amount equal to the full amount of the contract. Each such bond will be executed by 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. A copy of the Certificate of Authority will accompany the bonds. The Certificate will have been issued or updated within two years prior to the execution of the Contract. The bonds will be made payable and acceptable to the City of Phoenix. The bonds will be written or countersigned by an authorized representative of the surety who is either a resident of the State of Arizona or whose principal office is maintained in this state, as required by law, and the bonds will have attached thereto a certified copy of Power of Attorney of the signing official. If one Power of Attorney is submitted, it will be for twice the total contract amount. If two Powers of Attorney are submitted, each will be for the total contract amount. Personal or individual bonds are not acceptable. Failure to comply with these provisions will be cause for rejection of the bidder's proposal.

B. BONDING COMPANIES

All bonds submitted for this project will be provided by a company which has been rated "A- or better for the prior four quarters" by the A. M. Best Company. **Failure to provide an "A- or better for the prior four quarters" bond will result in bid rejection.**

3. 103 AWARD AND EXECUTION OF CONTRACT, Delete Subsection 103.6, CONTRACTOR'S INSURANCE in its entirety and substitute the following:

103.6.1 General:

Contractor and subcontractors must procure insurance against claims that may arise from or relate to performance of the work hereunder by Contractor and its agents, representatives, employees and subconsultants. Contractor and subcontractors must maintain that insurance until all of their obligations have been discharged, including any warranty periods under this Contract.

The City in no way warrants that the limits stated in this section are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this Contract by the Contractor, its agents, representatives, employees, or subcontractors and Contractor may purchase additional insurance as they determine necessary.

SCOPE AND LIMITS OF INSURANCE - Contractor must provide coverage with limits of liability not less than those stated below. An excess liability policy or umbrella liability policy may be used to meet the liability limits provided that (1) the coverage is written on a “following form” basis, and (2) all terms under each line of coverage below are met.

Commercial General Liability – Occurrence Form

General Aggregate	\$2,000,000
Products – Completed Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000

- The policy must name the City of Phoenix as an additional insured with respect to liability for bodily injury, property damage and personal and advertising injury with respect to premises, ongoing operations, products and completed operations, and liability assumed under an insured contract arising out of the activities performed by, or on behalf of the Contractor, related to this Contract.
- Coverage must include XCU coverage.
- There shall be no endorsement or modification which limits the scope of coverage or the policy limits available to the City of Phoenix as an additional insured.
- City of Phoenix is an additional insured to the full limits of liability purchased by the Contractor.
- The Contractor’s insurance coverage must be primary and non-contributory with respect to any insurance or self-insurance carried by the City.
- Contractor’s policies must be endorsed to provide an extension of the completed operations coverage for a period of nine years.

Automobile Liability

Bodily injury and property damage coverage for any owned, hired, and non-owned vehicles used in the performance of this Contract.

Combined Single Limit (CSL)	\$1,000,000
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- The policy must be endorsed to include The City of Phoenix as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor, related to this contract.
- City of Phoenix is an additional insured to the full limits of liability purchased by the Contractor.
- The Contractor’s insurance coverage must be primary and non-contributory with respect to any insurance or self-insurance carried by the City.

Worker's Compensation and Employers' Liability

Workers' Compensation	Statutory
Employers' Liability	
Each Accident	\$100,000
Disease – Each Employee	\$100,000
Disease – Policy Limit	\$500,000

- Policy must contain a waiver of subrogation against the City of Phoenix.
- This requirement does not apply when a contractor or subcontractor is exempt under A.R.S. §23-902(E), **AND** when such contractor or subcontractor executes the appropriate sole proprietor waiver form.

ADDITIONAL INSURANCE REQUIREMENTS:

A. NOTICE OF CANCELLATION

For each insurance policy required by the insurance provisions of this Contract, the Contractor must provide to the City, within five business days of receipt, a notice if a policy is suspended, voided or cancelled for any reason. Such notice must be mailed, emailed, or hand delivered to **Design and Construction Procurement, 200 W. Washington Street, 5th Floor, 85003**.

B. ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers duly licensed or authorized to do business in the state of Arizona and with an "A.M. Best" rating of not less than "B+VI." The City in no way warrants that the required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

C. VERIFICATION OF COVERAGE

Contractor must furnish the City with certificates of insurance (ACORD form or equivalent approved by the City) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and any required endorsements are to be received and approved by the City before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of contract.

All certificates required by this Contract must be sent directly to Design and Construction Procurement via email at **str.title34.procure@phoenix.gov**. **The City project number, contract number and project description must be noted on the certificate of insurance.** The City reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time. **DO NOT SEND CERTIFICATES OF INSURANCE TO THE CITY'S RISK MANAGEMENT DIVISION.**

D. SUBCONTRACTORS

Contractor's certificates shall include all subcontractors as additional insureds under its policies **OR**

Contractor shall be responsible for ensuring and verifying that all subcontractors have valid and collectable insurance. At any time throughout the life of the contract, the City of Phoenix reserves the right to require proof from the Contractor that its subcontractors have insurance coverage. All subcontractors providing services included under this Contract's Scope of Services are subject to the insurance coverages identified above and must include the City of Phoenix as an additional insured. In certain circumstances, the Contractor may, on behalf of its subcontractors, waive a specific type of coverage or limit of liability where appropriate to the type of work being performed under the subcontract. Contractor assumes liability for all subcontractors with respect to this Contract.

E. APPROVAL

Any modification or variation from the insurance coverages and conditions in this Contract must be documented by an executed contract amendment.

103.6.2 Defense and Indemnification

To the maximum extent allowed by law, including Title 34 A.R.S., Contractor ("Indemnitor") agrees to defend, indemnify, and hold harmless the City of Phoenix and its officers, officials (elected or appointed), agents and employees (and any jurisdiction or agency issuing permits for any work included in the project, and its officers, agents and employees) ("Indemnitee") from any and all claims, actions, liabilities, damages, losses or expenses, (including but not limited to court costs, attorney fees, expert fees, and costs of claim processing, investigation and litigation) of any nature or kind whatsoever ("Losses") caused or alleged to be caused, in whole or in part, by the wrongful, negligent or willful acts, or errors or omissions of Indemnitor or any of its owners, officers, directors, members, managers, agents, employees, or subcontractors (Indemnitor's Agents") arising out of or in connection with this Contract. This defense and indemnity obligation includes holding Indemnitee harmless for any Losses or other amount arising out of or recovered under any state's workers' compensation law or arising out of the failure of Indemnitor or Indemnitor's Agents to conform to any federal, state or local law, statute, ordinance, rule, regulation, or court decree. Indemnitor's duty to defend Indemnitee accrues immediately at the time a claim is threatened or a claim is made against Indemnitee, whichever is first. Indemnitor's duty to defend exists regardless of whether Indemnitor is ultimately found liable. Indemnitor must indemnify Indemnitee from and against any and all Losses, except where it is proven that those Losses are solely as a result of Indemnitee's own negligent or willful acts or omissions. Indemnitor is responsible for primary loss investigation, defense and judgment costs where this indemnification applies. In consideration of the City's award of this Contract, Indemnitor agrees to waive all rights of subrogation against Indemnitee for losses arising from or related to any work performed by Indemnitor or Indemnitor's Agents for the City of Phoenix under this Contract. The obligations of Indemnitor under this provision survive the termination or expiration of this Contract.

4. **104 SCOPE OF WORK**, Add the following to **Subsection 104.1.2 MAINTENANCE OF TRAFFIC:**

ADA AND ANSI ACCESS OF PREMISES DURING CONSTRUCTION

Contractor will maintain existing ADA and ANSI accessibility requirements during construction activities in an occupied building or facility. ADA and ANSI accessibility requirements will include, but not be limited to, parking, building access, entrances, exits, restrooms, areas of refuge, and emergency exit paths of travel. Contractor will be responsible for the coordination of all work to minimize disruption to building occupants and facilities.

5. **104 SCOPE OF WORK**, Add the following to **Subsection 104.1.4 CLEANUP AND DUST CONTROL:**

The Contractor will use a power pick-up broom as part of the dust control effort. No separate measurement or

payment will be made for cleanup or dust control, or for providing a power pick-up broom on the job.

6. **105 CONTROL OF WORK**, Add the following to **Subsection 105.1, AUTHORITY OF THE ENGINEER**:

A. CONTRACT ADMINISTRATION

The definition of "Engineer" will read as follows:

"Engineer": All references to "Engineer" in these contracts bid documents, including the MAG Specifications, will mean City Engineer.

B. PRECONSTRUCTION CONFERENCE

After completion of the contract documents, to include bonds, insurance and signatures and prior to the commencement of any work on the project, Brown & Caldwell will schedule a Pre-Construction Conference. This will be held at SR-85 Landfill located at 28361 W. Patterson Road, Buckeye, AZ 85326

Construction administration will be provided by Brown & Caldwell, Design and Construction Management.

The purpose of this conference is to establish a working relationship between the Contractor, utility firms and various City agencies. The agenda will include critical elements of the work schedule, submittal schedule, cost breakdown of major lump sum items, payment application and processing, coordination with the involved utility firms, emergency telephone numbers for all representatives involved in the course of construction and establishment of the notice to proceed date. The Contractor will also provide copies of all purchase orders and/or contracts with SBE subcontractors and suppliers used to meet the subcontract goals programmed for this project.

Minimum attendance by the Contractor will be a responsible company/corporate official, who is authorized to execute and sign documents on behalf of the firm, the job superintendent and the Contractor's safety officer.

C. AUTHORIZATION OF THE ENGINEER

The City may, at its discretion and without cause, order the Contractor in writing to stop and suspend work. Immediately after receiving such notice, the Contractor will discontinue advancing the work specified under this Agreement.

Such suspension will not exceed one hundred and eighty (180) consecutive days during the duration of the project.

The Contractor may seek an adjustment of the contract price and time, if the cost or time to perform the work has been adversely impacted by any suspension or stoppage of work by the City.

7. **105 CONTROL OF WORK**, Add the following to **Subsection 105.7 COOPERATION BETWEEN CONTRACTORS**

Other Contractors are expected to be working in or near the area of this contract. The Landfill Cell 2 will be under construction while this project is being constructed. The Contractor will conduct his work as specified in MAG Section 105.7.

8. **105 CONTROL OF WORK**, Add the following to **Subsection 105.15 ACCEPTANCE, paragraph (B) Final Acceptance:**

A. SUBSTANTIAL COMPLETION

The work may be judged substantially complete when all construction, including all applicable ADA requirements, has been completed with the possible exception of final inspection punch list work. The purpose of granting or acknowledging substantial completion is to stop contract time. This is particularly important to the Contractor if contract time is exhausted or nearly so and/or punch list work is anticipated to extend beyond the allotted time. Granting of substantial completion will eliminate the possibility of incurring liquidated damages or additional liquidated damages beyond the substantial completion date, whichever case may apply.

In the event that the Engineer grants substantial completion, the Contractor will have thirty (30) days thereafter to complete punch list work, unless additional time is granted--in writing--by the Engineer. In no case will a Contractor be granted more than thirty (30) days to complete punch list work, unless there are extenuating circumstances such as delay in shipment of a specialized piece of equipment, labor strike, or other circumstances beyond the Contractor's control which would necessitate a further time extension.

B. PENALTY FOR FAILURE TO COMPLETE PUNCH LIST WORK WITHIN SPECIFIED TIME

In the event the Contractor fails to complete the punch list work within thirty (30) days following the contract completion date, or in the case of specialized situations within the additional time allotted by the Engineer, the Contractor may be declared in default, and the Engineer may order the work completed by others.

In the event of default, as described herein, the Engineer will withhold from the Contractor's final payment, an amount equal to at least twice the estimated cost of the remaining work. In addition, the Engineer will withhold the retention deducted from contract progress payments until all punch list work has been satisfactorily completed, whereupon twice the amount of the actual cost of completing the work will be deducted from the Contractor's final payment and the remaining funds, if any, including the contract retention, will be released in accordance with the conditions set forth in contract retention.

C. CONTRACT RETENTION

This project will not be considered complete until all work has been completed, including punch list work. Under no circumstances will a Contractor receive any portion of the legally retained progress payments until the City has granted a final acceptance and/or acknowledged substantial completion. The following conditions will apply to each case:

1. Substantial Completion: The Engineer may reduce outstanding contract retention to not less than one (1) percent of the total contract amount, upon granting substantial completion, if the value of the punch list work is estimated to be less than one (1) percent of the total contract.
2. Project Acceptance: Project acceptance implies that all punch list work is done and the improvements have been accepted by the City. Under these conditions, the retention will be fully released to the Contractor subject only to the signing of the standard claims affidavit and hold harmless clause required for all contracts.
3. Final Release of Contract Retention and/or Release of More Than Ninety (90) Percent of the

Contract Funds: Prior to final payment and release of monies retained and/or in the case of substantial completion where the Contractor has requested a reduction in contract retention, the Contractor will be required to sign a claims affidavit agreeing to hold the City harmless from any and all claims arising out of the contract.

9. **107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC**, Add the following to **Subsection 107.1, LAWS TO BE OBSERVED, paragraph (C)**:

While every effort has been made to Blue Stake all known utilities, and to research and show on the plans, all existing underground utilities based on the best available information, it will be the Contractor's responsibility to locate and pothole all existing utilities sufficiently in advance of anticipated new underground construction to identify any potential conflicts and allow reasonable time for the Engineer to determine solutions. Any claims for additional compensation or work required due to the Contractor's non-compliance with this provision will not be considered for payment by the City.

10. **107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC**, Add the following new paragraphs to **Subsection 107.1, LAWS TO BE OBSERVED**:

(G) FAIR TREATMENT OF WORKERS

The Contractor will keep fully informed of all Federal and State laws, County and City ordinances, regulations, codes and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any way affect the conduct of the work. He will at all times observe and comply with all such laws, ordinances, regulations, codes, orders and decrees; this includes, but is not limited to laws and regulations ensuring fair and equal treatment for all employees and against unfair employment practices, including OSHA and the Fair Labor Standards Act (FLSA). The Contractor will protect and indemnify the Contracting Agency and its representatives against any claim or liability arising from or based on the violation of such, whether by himself or his employees.

(H) DESERT TORTOISE MITIGATION

As stated in the Arizona Interagency Desert Tortoise Team (AIDTT) Management Plan (1996), if a desert tortoise is found in a project area, activities should be modified to avoid injuring or harming it. If activities cannot be modified, tortoises in harm's way should be moved in accordance with Arizona Game and Fish Department's "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects", revised October 23, 2007 (or the latest revision), included in these contract provisions. Taking, possession, or harassment of a desert tortoise is prohibited by State law, unless specifically authorized by Arizona Game and Fish Department.

(I) BURROWING OWLS MITIGATION – MIGRATORY BIRD TREATY ACT OF 1918

While no burrowing owls have been seen at the project site, small animal burrows likely used by rodents and cottontail rabbits are present. In the event that burrowing owls are found on the site, the project will comply with the Migratory Bird Treaty Act of 1918 and relocate the birds prior to grading. A contact for relocation of burrowing owls is Bob Fox or Greg Clark of Wild at Heart, 31840 North 45th Street, Cave Creek, AZ 85331, 480-595-5047.

11. **107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC**, Add the following to **Subsection 107.2, PERMITS**:

A. **STORM WATER POLLUTION PREVENTION PLAN AND AZPDES PERMIT**

Any project that disturbs one acre or more of the ground surface requires the Contractor to obtain an AZPDES permit and prepare a SWPPP. This project does not require an AZPDES permit and SWPPP.

B. DUST PERMIT

Any project that disturbs more than 1/10 acre of soil requires an earthmoving permit from Maricopa County. Information and forms can be found at:

www.maricopa.gov/ag/divisions/permit_engineering/applications/Default.aspx

To facilitate and encourage strict compliance with the Maricopa County Air Pollution Control Regulations pertaining to fugitive dust control, the Contractor will submit the following documentation to the Engineer at the Pre-Construction meeting prior to conducting any earth moving or dust generating activities under the Contract.

- a. Copy of a valid Maricopa County Earth Moving (Dust Control) Permit applicable to the work or services under the Contract.
- b. Copy of the Dust Control Plan applicable to the work or services under the Contract.
- c. Documentation that all of the Contractor's on-site project managers have received the Comprehensive or Basic dust control training as required by Maricopa County Rule 310 based on project disturbed acres.

For construction sites where 5-acres or more are disturbed, the Contractor will designate and identify to the City an individual who has completed the dust control training as required for the site Dust Control Coordinator. The Dust Control Coordinator will be present on-site all times that earth moving or dust generating activities are occurring and until all ground surfaces at the site have been stabilized.

For construction sites less than 1-acre, the Contractor will designate an individual who has completed Basic Training to be on site at all times that earth moving or dust generating activities are occurring.

The Contractor will notify the Engineer within twenty-four (24) hours of any inspection, Notice of Violation, or other contact by the Maricopa County Air Quality Department with it or any of its subcontractors regarding the work or services under the Contract. A copy of any written communications, notices or citations issued to Contractor or any of its subcontractors regarding the work or services under the Contract will likewise be transmitted to the Engineer within twenty-four (24) hours.

The Contractor will prevent any dust nuisance due to construction operations in accordance with MAG Specifications, Section 104.1.3, Cleanup and Dust Control. The Contractor will use a power pick-up broom as part of the dust control effort. No separate measurement or payment will be made for cleanup or dust control, or for providing a power pick-up broom on the job.

The Contractor agrees to indemnify and reimburse the City for any fine, penalty, fee or monetary sanction imposed on the City by Maricopa County arising out of or caused by the performance of work or services under the Contract. The Contractor will remit payment of the reimbursable sum to the City within thirty (30) days of being presented with a demand for payment from the City.

12. 107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC, Add the following to Subsection 107.11,

CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES:

A. UNDERGROUND FACILITIES

The Contractor will make whatever investigation it deems necessary to verify the location of underground utility facilities. If such facilities are not in the location shown in the drawings, then (regardless of whether this is discovered prior to or during construction) the contractor's remedies, if any, pursuant to Art. 6.3, Chapter 2, Title 40, A.R.S. (A.R.S. 40-360.21 through 40-360.32, "Underground Facilities"), will be the contractor's sole remedy for extra work, delays and disruption of the job, or any other claim based on the location of utility facilities. Locations of utility facilities shown on drawings furnished by the City are to be regarded as preliminary information only, subject to further investigation by the contractor. The City does not warrant the accuracy of these locations, and the contractor, by entering into this contract, expressly waives and disclaims any claim or action against the City under any theory for damages resulting from location of utility facilities.

The Contractor will be responsible for obtaining all Blue Stake utility location information, and for performing all requirements as prescribed in A.R.S. 40-360.21 through .29, for all underground facilities, including those that have been installed on the current project, until the project is accepted by the City.

At least two (2) working days prior to commencing any excavation, the Contractor will call the BLUE STAKE CENTER, between the hours of 7:00 a.m. and 4:30 p.m., Monday through Friday for information relative to the location of buried utilities. The number to be called is as follows:

Maricopa County (602) 263-1100

B. UTILITY-RELATED CONSTRUCTION DELAY DAMAGES CLAIM PROCEDURES

The following procedure is intended to provide a fair and impartial process for the settlement of construction delay claims associated with unknown or improperly located utility facilities.

The Contractor will immediately notify, in writing, the Project Engineer of any potential utility-related delay claim.

The Contractor will immediately notify the appropriate liaison of the affected utility verbally, followed by a written notification.

The Contractor will coordinate an investigation of the situation with the affected utility and the City's Utility Coordinator. After resolution, the Contractor will provide written notification of the settlement of the claim to all affected parties. If the affected utility makes a decision to handle negotiations for a claim, their personnel will be responsible for monitoring the project and all negotiations with the Contractor regarding the claim.

The Contractor will determine to document requirements of the affected utility for their acceptance of responsibility for the claims. The Contractor will provide four (4) copies of the required documentation to the utility involved and two (2) copies of this documentation to the Project Engineer. The Contractor will obtain written confirmation from the utility company involved of their documentation requirements.

13. 108 COMMENCEMENT, PROSECUTION AND PROGRESS Add the following to Subsection 108.2, SUBLETTING OF CONTRACT:

(F) PROMPT PAYMENT

1. **Contractor Payment to Subcontractor or Supplier**

Contractor will pay its subcontractors or suppliers within seven (7) calendar days of receipt of each progress payment from the City. The Contractor will pay for the amount of work performed or materials supplied by each subcontractor or supplier as accepted and approved by the City with each progress payment. In addition, any reduction of retention by the City to the Contractor will result in a corresponding reduction to subcontractors or suppliers who have performed satisfactory work. Contractor will pay subcontractors or suppliers the reduced retention within fourteen (14) days of the payment of the reduction of the retention to the Contractor. No Contract between Contractor and its subcontractors and suppliers may materially alter the rights of any subcontractor or supplier to receive prompt payment and retention reduction as provided herein. If the Contractor fails to make payments in accordance with these provisions, the City may take any one or more of the following actions and Contractor agrees that the City may take such actions: (1) to hold the Contractor in default under this agreement; (2) withhold future payments including retention until proper payment has been made to subcontractors or suppliers in accordance with these provisions; (3) reject all future bids from the Contractor for a period not to exceed one year from substantial completion date of this project; or (4) terminate agreement.

2. **Alternative Dispute Resolution Between Contractor and Subcontractor or Supplier**

If Contractor's payment to a subcontractor or supplier is in dispute, Contractor and subcontractor or supplier agree to submit the dispute to any one of the following dispute resolution processes within fourteen (14) calendar days from the date that any party involved gives written notice to the other party(ies): (1) binding arbitration; (2) a form of alternative dispute resolution (ADR) agreeable to all parties; or (3) a City of Phoenix facilitated mediation. When disputed claim is resolved through ADR or otherwise, the Contractor and subcontractor or supplier agree to implement the resolution within seven (7) calendar days from the resolution date.

3. **Inspection and Audit**

Contractor, its subcontractors and suppliers will comply with A.R.S. 35-214 and the City will have all rights and remedies to inspect and audit the records and files of Contractor, subcontractor or supplier, as afforded the State of Arizona in accordance with the provisions of A.R.S. Section 35-214.

4. **Non-Waiver**

Should the City fail or delay in exercising or enforcing any right, power, privilege, or remedy under this Section, such failure or delay will not be deemed a waiver, release, or modification of the requirements of this Section or of any of the terms or provisions thereof.

5. **Inclusion of provisions in Subcontracts**

Contractor will include these prompt payment provisions in every subcontract, including procurement of materials and leases of equipment for this Agreement.

6. **No Third Party Benefits or Rights**

Nothing contained in this Agreement is intended to benefit or confer any rights on any person or entity not a party to this Agreement, and no such person or entity, including but not limited to other Contractors, subcontractors or suppliers, may assert any claim, cause of action, or remedy against the City hereunder.

14. **108 COMMENCEMENT, PROSECUTION AND PROGRESS, FORFEITURE AND DEFAULT OF CONTRACT:** Add the following to **Subsection 108.10,**

City's Right to Perform and Terminate for Cause

If the City provides the Contractor with a written order to provide adequate maintenance of traffic, adequate cleanup, adequate dust control or to correct deficiencies or damage resulting from abnormal weather conditions, and the Contractor fails to comply in a time frame specified, the City may have work accomplished by other sources at the Contractor's expense.

If Contractor persistently fails to (i) provide a sufficient number of skilled workers, (ii) supply the materials required by the Contract Documents, (iii) comply with applicable Legal Requirements, (iv) timely pay, without cause, Sub-consultants and/or Subcontractors, (v) prosecute the Contract Services with promptness and diligence to ensure that the Contract Services are completed by the Contract Time, as such times may be adjusted, or (vi) perform material obligations under the Contract Documents, then the City, in addition to any other rights and remedies provided in the Contract Documents or by law, will have the rights set forth below.

Upon the occurrence of an event set forth above, City may provide written notice to Contractor that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within seven (7) days of Contractor's receipt of such notice.

If Contractor fails to cure, or reasonably commence to cure, such problem, then City may give a second written notice to Contractor of its intent to terminate within an additional seven (7) day period.

If Contractor, within such second seven (7) day period, fails to cure, or reasonably commence to cure, such problem, then the City may declare the Agreement terminated for default by providing written notice to Contractor of such declaration.

Upon declaring the Agreement terminated pursuant to the above, City may enter upon the premises and take possession, for the purpose of completing the Work, of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been purchased or provided for the performance of the Work, all of which Contractor hereby transfers, assigns and sets over to City for such purpose, and to employ any person or persons to complete the Work and provide all of the required labor, services, materials, equipment and other items.

In the event of such termination, Contractor will not be entitled to receive any further payments under the Contract Documents until the Work will be finally completed in accordance with the Contract Documents. At such time, the Contractor will only be entitled to be paid for Work performed and accepted by the City prior to its default.

If City's cost and expense of completing the Work exceeds the unpaid balance of the Contract Price, then Contractor will be obligated to pay the difference to City. Such costs and expense will include not only the cost of completing the Work, but also losses, damages, costs and expense, including attorneys' fees and expenses, incurred by the City in connection with the re-procurement and defense of claims arising from Contractor's default.

15. **108 COMMENCEMENT, PROSECUTION AND PROGRESS, TERMINATION OF CONTRACT:** Add the following to **Subsection 108.11,**

TERMINATION FOR CONVENIENCE

The Owner for its own convenience has the right for any reason and at any time to terminate the contract and require the Contractor to cease work hereunder. Such termination will be effective at the time and in the manner specified in the notification to the Contractor of the termination. Such termination will be without prejudice to any claims which the Owner may have against the Contractor. In the event of a termination for convenience, the Contractor will be paid only the direct value of its completed work and materials supplied as of the date of termination, and Contractor will not be entitled to anticipated profit or anticipated overhead or any other claimed damages from the Owner, Architect or the Engineer.

If the City is found to have improperly terminated the Agreement for cause or default, the termination will be converted to a termination for convenience in accordance with the provisions of this Agreement.

CANCELLATION OF CONTRACT FOR CONFLICT OF INTEREST

All parties hereto acknowledge that this agreement is subject to cancellation by the City of Phoenix pursuant to the provisions of Section 38-511, Arizona Revised Statutes.

16. **109 MEASUREMENTS AND PAYMENTS**, Add the following to **Subsection 109.4.3, DUE TO EXTRA WORK**:

ALLOWANCE FOR EXTRA WORK

Contract allowance items are provided for the purpose of encumbering funds to cover the costs of possible change order work. The amount of the allowance item is determined by the Engineer and is not subject to individual bid pricing. All bidders will incorporate the amount pre-entered in the bid proposal and will reflect the same in the total amount bid for this project.

This allowance item provides an estimated funding to cover unforeseen changes that may be encountered and corresponding extra work needed to complete the contract per plan. Unforeseen extra work, if any, will be as approved by the Engineer; for example, extension of unit bid prices, negotiated price or time and material, in accordance with MAG Specification Section 109.4 and 109.5.

It will be understood that this allowance item is an estimate only and is based on change order history of similar projects. It will not be utilized without an approved contract change order. It is further understood that authorized extra work, if any, may be less than the allowance item.

17. **109 MEASUREMENTS AND PAYMENTS**, Add the following to **Subsection 109.4 COMPENSATION FOR ALTERATION OF WORK**:

109.4.7 CHANGE ORDERS

Owner reserves the right to decrease adjustments made in any change order if, upon audit of Contractor's records, the audit discloses contractor provided false or inaccurate cost and pricing data in negotiating the change order. In enforcing this provision, the parties will follow the procedure provided in the Federal Acquisition Regulation (FAR) clause 52.214-27, found in 48 CFR Part 52.

18. **109 MEASUREMENTS AND PAYMENTS**, Delete Table 109-1 in **Subsection 109.9, DOLLAR VALUE OF MAJOR ITEM**, and substitute the following:

<u>CONTRACT AMOUNT</u>	<u>MAJOR ITEM IS DEFINED AS ANY ITEM EQUAL TO OR GREATER THAN THE FOLLOWING</u>
Up to \$1 million	\$15,000 or 3%, whichever is greater

<u>CONTRACT AMOUNT</u>	<u>MAJOR ITEM IS DEFINED AS ANY ITEM EQUAL TO OR GREATER THAN THE FOLLOWING</u>
\$1 million to \$3 million	3% of the original contract amount to a maximum of \$75,000.00
\$3 million to \$5 million	2.5% of the original contract amount to a maximum of \$90,000.00
Over \$5 million	1.5% of the original contract amount to a maximum of \$125,000.00

CONTINGENCY ITEMS

Contingency items which fall under the definition of a major item are subject to negotiation if decreased by more than twenty (20) percent.

Contingency items will not increase more than twenty (20) percent without being subject to renegotiation, regardless of the percentage of that item relative to the total contract amount.

19. **109 MEASUREMENTS AND PAYMENTS Subsection 109.7, PAYMENT FOR BOND ISSUE AND BUDGET PROJECTS**, Delete the first three paragraphs in their entirety and replace with the following **Subsection 109.7, PAYMENT FOR BOND ISSUE AND BUDGET PROJECTS**:

A. PARTIAL PAYMENTS

The contracting agency will make a partial payment to the Contractor on the basis of an approved estimate prepared by the Engineer or the Contractor for work completed and accepted through the preceding month. The notice to proceed date, which is designated for the specific project involved, will be used as the closing date of each partial pay period. Payment will be made no later than fourteen (14) days after the work is certified and approved. City will review payment requests and make recommendation of approval or denial within seven calendar days.

B. PAYMENT RETENTION

At the start of construction, ten percent of all pay requests will be retained by the City to guarantee complete performance of the contract. When the work is fifty percent complete, this amount may be reduced to five percent providing that construction progress and quality of work is acceptable to the City. Any funds which are withheld from the contractor will be paid no later than sixty days after completion of the contract and settlement of all claims.

In lieu of retention, the contractor may provide as a substitute, an assignment of money market accounts, demand deposit accounts, or time certificates of deposit (CDs) from a bank licensed by Arizona, securities guaranteed by the United States, securities of the United States, the State of Arizona, Arizona counties, Arizona municipalities, Arizona school districts, or shares of savings and loan institutions authorized to transact business in Arizona. These securities are referred to as "Qualified Securities."

Qualified Securities deposited in lieu of retention must be deposited into a separate account with a bank having a branch located in the City of Phoenix and be assigned exclusively for the benefit of the City of

Phoenix pursuant to the City's form of escrow and/or deposit agreement.

Escrow Agreement and Deposit Agreement forms may be obtained from the Contract Specialist assigned to the project.



Credit: AGFD



City of Phoenix
STREET TRANSPORTATION DEPARTMENT

Sonoran Desert Tortoise

(Gopherus morafkai)

The purpose of this flyer is to provide City of Phoenix employees and contractors working on City projects with basic knowledge to reduce the risk of impacting Sonoran Desert tortoise.

Legal Status:

The Sonoran Desert tortoise is a Tier 1A Species of Greatest Conservation Need in the State of Arizona, as defined by the Arizona Game and Fish Department (AGFD) and is a Candidate Species under the Endangered Species Act.

Species Description:

- Length: 8-15 inches
- Bottom shell yellowish and not hinged
- Hind limbs stocky and elephantine
- High-domed, brownish shell with a pattern and prominent growth lines
- Flattened forelimbs for digging, covered with conical scales

Where are they found?

- Rocky, steep slopes and lower mountain slopes
- Native desert scrubland
- Between 904 and 4,198 feet in elevation
- Washes and valley bottoms may be used in dispersal

Where are they active?

- Sonoran Desert tortoise spend the bulk of time in burrows, which provide protection from heat and cold
- Emerge from burrows on rocky slopes, deserts scrub or grassland to feed, bask and breed, mostly during the monsoon season

How to avoid impacting Sonoran Desert tortoise:

- Scan ahead as you work
- ***If Sonoran Desert tortoise observed, STOP WORK, call the contact below and allow the tortoise to leave under its own power***
- Do NOT pick up or handle the Sonoran Desert tortoise unless the tortoise is in imminent danger. Improper handling can result in tortoise death. If a tortoise must be moved, strictly adhere to the following AGFD guidelines (rev. 9/22/2014): <https://s3.amazonaws.com/azgfd-portal-wordpress/PortallImages/files/wildlife/2014%20Tortoise%20handling%20guidelines.pdf>.
- When working in Sonoran Desert tortoise habitat, check for tortoises under parked vehicles before driving

Questions? Concerns? Think your project will impact Sonoran Desert tortoise? Contact the City of Phoenix Street Transportation Department, Environmental Services:

Andrea Love 602-495-6718 or via e-mail at <andrea.love@phoenix.gov>

Greta Halle 602-534-6030 or via e-mail at <greta.halle@phoenix.gov>



City of Phoenix
STREET TRANSPORTATION DEPARTMENT

Western Burrowing Owl

(Athene cunicularia)

The purpose of this flyer is to provide City of Phoenix employees and contractors working on City projects with basic knowledge to reduce the risk of impacting western burrowing owls.

Legal Status:

The western burrowing owl is protected under the Migratory Bird Treaty Act of 1918, as amended. All migratory birds and their parts (including eggs, feathers, and nests) are fully protected. They are also protected under Arizona State Law, Title 17-101, Title 17-235, and Title 17-236.

Species Description:

- Small, ground-dwelling owl (mass of approx. 5 oz.)
- Length: 7.6-9.9 inches, with long legs
- Wingspan: approx. 23 inches
- Round head, lacks ear tufts
- Distinct oval facial ruff, framed by a broad, puffy white eyebrow
- Bright yellow iris

Where are they found?

- Dry, open, short grass, treeless plains
- Human dominated landscapes such as:
 - Golf courses, airports
 - Agricultural fields, vacant lots
- Depends on other animals to construct burrows

Identifying an active burrow

- Western burrowing owls use burrows constructed by ground squirrels, badgers, coyotes, tortoises, etc., or may use pipes, culverts, and ditches.
- They may “decorate” the entrance to a burrow with cow, horse, or dog manure, feathers, vegetation, and trash items
- An active burrow may (not always) have owl excrement (“whitewash”) and/or pellets near the entrance

How to avoid impacting western burrowing owls:

- Scan ahead as you work
- ***If western burrowing owls or potentially active burrows observed, STOP WORK and MOVE at least 100 feet away from the owl or occupied burrow before resuming work***
 - Do not harass or “shoo” the owl away
- If the project cannot avoid or stay outside 100 feet of the owl or active burrow, call contact listed below

Questions? Need to work within 100 feet of a western burrowing owl or active burrow? Contact a City of Phoenix Street Transportation Department Environmental Quality Specialist:

Andrea Love 602-495-6718 or via e-mail at <andrea.love@phoenix.gov>

Greta Halle 602-534-6030 or via e-mail at <greta.halle@phoenix.gov>

Sources: Arizona Department of Transportation Environmental Planning Group Western Burrowing Owl Awareness Flyer
Arizona Game and Fish Department Animal Abstract: Western Burrowing Owl. Heritage Data Management System

Updated November 18, 2019



Credit: DesertUSA.com/animals/cliff-swallow.html



City of Phoenix
STREET TRANSPORTATION DEPARTMENT

Migratory Bird Treaty Act

(Applies to many birds in Phoenix)

The purpose of this flyer is to provide City of Phoenix employees and contractors with basic knowledge to reduce the risk of impacting species protected by the Migratory Bird Treaty Act.

Migratory Bird Treaty Act (MBTA)

Under the Migratory Bird Treaty Act of 1918, as amended, listed birds and their parts (including eggs, feathers, and nests) are fully protected. They are also protected under Arizona State Law, Title 17-101, Title 17-235, and Title 17-236. The MBTA states that it is illegal to:

- Pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg of any such bird.
 - 'Take' is defined as to "pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect."

More information regarding the MBTA can be found at:

- <http://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>
- <https://www.fws.gov/laws/lawsdigest/migtrea.html>

Where/When are they active?

- The nests of birds protected by the MBTA can be found in many places, including trees, shrubs, cacti, cattails, on the ground, in holes in the ground and on man-made structures including culverts, bridges, buildings, etc.
- The breeding cycle of most birds in Phoenix occurs between February 1 and August 31, although there are a few species that may nest outside that period. Some birds may be present year-round and others migrate, often during the late summer/early autumn period.

How to avoid impacting birds protected by the MBTA:

- If your project might impact active bird nests/burrows, work with one of the contacts below during the design process to make appropriate arrangements before the project activity begins. Necessary actions may include active nest surveys, seasonal restrictions, or obtaining a project-specific relocation permit from the U.S. Fish and Wildlife Service.
- When actively working, be aware of your surroundings. If you see a nest that appears active (chirping, aggressive or distracting adult bird behavior, eggs present, etc.) **STOP WORK** within 30 feet of the area and call one of the contacts below.

Questions? Work may impact birds protected by the MBTA? Contact a City of Phoenix Street Transportation Department Environmental Quality Specialist:

Andrea Love 602-495-6718 or via e-mail at <andrea.love@phoenix.gov>

Greta Halle 602-534-6030 or via e-mail at <greta.halle@phoenix.gov>

Updated November 18, 2019

BID PROPOSAL
CITY OF PHOENIX, ARIZONA
OFFICE OF THE CITY ENGINEER
STATE ROUTE 85 LANDFILL MONITORING WELL DBB
PW16810007
BOND ISSUE OR BUDGET PROJECT

PROPOSAL to the City Engineer of the City of Phoenix.

In compliance with the Advertisement for Bids, by the City Engineer, the undersigned bidder:

(Print or Type Contractor Name)

Having examined the contract documents, site of work and being familiar with the conditions to be met, hereby submits the following proposal for furnishing the material, equipment, labor and everything necessary for the completion of the work listed and agrees to execute the contract documents and furnish the required bonds and certificates of insurance for the completion of said work, at the locations and for the prices set forth on the inside pages of this form.

Understands that construction of this project will be in accordance with all applicable Maricopa Association of Governments' (MAG) Uniform Standard Specifications and Uniform Standard Details, latest revision and the City of Phoenix Supplements, latest revision to the MAG Uniform Standard Specifications and Details, except as otherwise required by the project plans and specifications.

No proposal may be withdrawn for a period of 50 days after opening without consent of the Contracting Agency through the body or agent duly authorized to accept or reject the proposal except in the case of federally-assisted projects.

Understands that his proposal will be submitted with a proposal guarantee of certified check, cashier's check or surety bond for an amount not less than ten (10) percent of the amount bid, as referenced in the Call for Bids.

Agrees that upon receipt of Notice of Award, from the City of Phoenix, he will execute the contract documents within 10 calendar days.

Work will be completed within 90 calendar days, beginning with the day following the starting date specified in the Notice to Proceed. The time allowed for completion of the work includes lead time for obtaining the necessary materials and/or equipment and approvals.

The bidder will acknowledge all addenda in writing. By writing the addendum number(s) below, the bidder agrees that this proposal is computed with consideration of the specification book(s) plus any addenda.

<u>ADDENDUM NO.</u>	<u>DATE</u>	<u>ADDENDUM NO.</u>	<u>DATE</u>
_____	_____	_____	_____
_____	_____	_____	_____

**CITY OF PHOENIX
BID PROPOSAL**

PROJECT NO. PW16810007

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
1	Drill Rig - Mobilization and Demobilization	LS	1		
2	Surface Casing - Materials and Installation	LS	1		
3	Borehole Drilling - Drill 9.625-inch Borehole	LF	805		
4	Well Construction - PVC Sch-80 Well Casing (5-inch diameter)	LF	436		
5	Well Construction - PVC Sch-80 Well Screen (5-inch diameter)	LF	365		
6	Well Construction - Filter Pack, Fine Sand, Bentonite Seal, Grout	LF	805		
7	Well Construction - Labor	LF	805		
8	Surface Completion - Lockbox (2-foot by 3-foot 2-foot tall locking) and Concrete Pad (4-foot by 6-foot by 6-inches thick)	EA	1		
9	Surface Completion - Protective Bollards (5-foot tall, 4-inch diameter filled with concrete)	EA	4		
10	Pump Rig - Mobilization and Demobilization	LS	1		
11	Pump Rig - Well Development (swab, bail, and pumping)	HR	50		
12	Pump Rig - Furnish, Install Pump and 1-inch Sounding Tube	LS	1		
13	Drill Rig - Hourly Contingency Rate	HR	1		
14	Pump Rig - Hourly Contingency Rate	HR	1		
BASE BID (ITEMS 1 THROUGH 14 - INCLUSIVE)					
_____ & _____/100 DOLLARS					
WRITTEN WORDS					

Prepared By:

Signature

Name

Position/Title

Firm Name

PROPOSAL SUBMITTAL

PROJECT TITLE: STATE ROUTE 85
LANDFILL MONITORING WELL DBB
PROJECT NO.: PW16810007

THIS PROPOSAL IS SUBMITTED BY _____

a corporation organized under the laws of the State of _____

a partnership consisting of _____

a joint venture consisting of _____

or individual trading as _____

of the City of _____

FIRM _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

PHONE _____ VENDOR NO. _____

BY _____

Officer and Title (signature)

Officer and Title (print or type)

Date

WITNESS: If Contractor is an individual
(signature)

ATTEST: If Contractor is Corporation or Partnership
(signature and title)

SURETY BOND

City of Phoenix Project No.: PW16810007

That we, _____, as Principal, (hereinafter called the Principal) and the _____, a corporation duly organized under the laws of the State of _____, as Surety, (hereinafter called the Surety) are held and firmly bound unto the City of Phoenix as Obligee, in the sum of ten (10) percent of the total amount of the bid of Principal, submitted by him to the City of Phoenix for the work described below, for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents and in conformance with A.R.S. #34-201.

WHEREAS, the said Principal is herewith submitting its proposal for State Route 85 Landfill Monitoring Wells DBB _____

NOW, THEREFORE, if the City of Phoenix will accept the proposal of the Principal and the Principal will enter into a contract with the City of Phoenix in accordance with the terms of such proposal and give such Bonds and Certificates of Insurance as specified in the Standard Specifications with good and sufficient Surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter into such contract and give such Bonds and Certificates of Insurance, if the Principal will pay to the City of Phoenix 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 will be null and void, otherwise to remain in full force and effect.

Signed and sealed this _____ day of _____ A.D., 2024

Principal

Title

Mailing Address

Surety

WITNESS:

A.M. BEST RATING:

CITY OF PHOENIX
LIST OF MAJOR SUBCONTRACTORS AND SUPPLIERS

PROJECT NO.: PW16810007

PROJECT TITLE: STATE ROUTE 85 LANDFILL MONITORING WELL DBB

DESCRIPTION OF WORK OR MATERIALS (CONTRACTOR TO ENTER TRADE/SUPPLIER AREAS)	SELF-PERFORMED BY PRIME CONTRACTOR	SUBCONTRACTOR/SUPPLIER COMPANY NAME (IF NOT SELF-PERFORMED)	CONTACT PERSON	PHONE NUMBER	DOLLAR VALUE OF WORK OR MATERIALS IN BID
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				

I hereby certify by signing below that the above listed companies will be utilized to perform work on this project for an **equal to or greater than 5% of the base bid**. These companies will not be removed or replaced without prior written approval by the City of Phoenix Project Manager. The City requires that ALL vendors providing work equal to or greater than 5% of the base bid are listed or you will be disqualified. If you are self-performing work, you must still list any suppliers for materials or list any subcontractors with whom you will directly contract.

COMPANY NAME _____ SIGNATURE _____

NAME & TITLE _____ PHONE NUMBER _____ DATE _____

EMAIL ADDRESS _____

CITY OF PHOENIX

LIST OF ALL SUBCONTRACTORS AND SUPPLIERS

PROJECT NO.: PW16810007

PROJECT TITLE: STATE ROUTE 85 LANDFILL MONITORING WELL DBB

DESCRIPTION OF WORK OR MATERIALS (CONTRACTOR TO ENTER TRADE/SUPPLIER AREAS)	SELF-PERFORMED BY PRIME CONTRACTOR	SUBCONTRACTOR/SUPPLIER COMPANY NAME (IF NOT SELF-PERFORMED)	CONTACT PERSON	PHONE NUMBER	DOLLAR VALUE OF WORK OR MATERIALS IN BID
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				
	<input type="checkbox"/> YES <input type="checkbox"/> NO				

I hereby certify by signing below that the above listed companies will be utilized to perform work on this project. These companies will not be removed or replaced on the project without prior written approval by the City of Phoenix Project Manager. The City requires that ALL vendors providing work are listed or you will be disqualified. If you are self-performing work, you must still list any suppliers for materials or list any subcontractors with whom you will directly contract.

COMPANY NAME _____ SIGNATURE _____

NAME & TITLE _____ PHONE NUMBER _____ DATE _____

EMAIL ADDRESS _____

BIDDER'S DISCLOSURE STATEMENT

Authorized Contact for this Disclosure Statement

Name: _____

Title: _____

E-mail: _____

Phone number: _____

List any EIN, DBA, trade name, or other identity used in the last five years, the state or country where filed, and the status (active or inactive): (if applicable): _____

Business Characteristics

Business entity type – Please check appropriate box and provide additional information:

- | | | |
|--------------------------|-------------------------------|------------------------------------|
| <input type="checkbox"/> | Corporation | Date of incorporation: _____ |
| <input type="checkbox"/> | Limited Liability Company | Date organized: _____ |
| <input type="checkbox"/> | Limited Liability Partnership | Date of registration: _____ |
| <input type="checkbox"/> | Limited Partnership | Date established: _____ |
| <input type="checkbox"/> | General Partnership | Date established: _____ |
| <input type="checkbox"/> | Sole Proprietor | How many years in business?: _____ |
| <input type="checkbox"/> | Other (explain) | Date Established: _____ |

Was the business entity formed in the State of Arizona? Yes _____ No _____

If no, indicate jurisdiction where Business Entity was formed: _____

Business License Number and Classification: _____

Business Transaction Privilege License Number: _____

Special Use or other zoning permits required for Bidder's operation and performance of the services under this Agreement:

Is the Business Entity currently registered to do business in Arizona with the Arizona Corporation Commission? Yes_____ No_____ Not required _____ (if sole proprietor or general partnership)

Does the Business Entity have a City of Phoenix business privilege license? Yes_____ No_____ If "no" explain and provide detail such as "not required" or "application in progress" or other reason.

Is the Business Entity publicly traded? Yes_____ No_____

Is the responding Business Entity a Joint Venture? Note: If the Submitting Business entity is a Joint Venture, also submit a questionnaire for each Business Entity comprising the Joint Venture. Yes_____ No_____

Is the Business Entity's Principal Place of Business/Executive office in Phoenix? If "no" does the Business Entity maintain an office in Phoenix? Yes_____ No_____

Provide the address and phone number for the Phoenix office. _____

Is the business certified by Phoenix as a Small Business Enterprise? Yes_____ No_____

Identify Business Entity Officials and principal Owners:

Name(s) _____ Title _____ Percentage ownership ____%(Enter 0% if not applicable).

Name(s) _____ Title _____ Percentage ownership ____%(Enter 0% if not applicable).

Name(s) _____ Title _____ Percentage ownership ____%(Enter 0% if not applicable).

Name(s) _____ Title _____ Percentage ownership ____%(Enter 0% if not applicable).

Affiliates and Joint Venture Relationships

Does the Business entity have any Affiliates? Yes_____ No_____ Attach additional pages if necessary.

Affiliate name: _____

Affiliate EIN (if available):_____.

Affiliate's primary Business Activity:_____

Explain relationship with Affiliate and indicate percent ownership, if applicable. _____

Are there any Business Entity Officials or Principal Owners that the Business Entity has in common with this Affiliate? _____

Individual's name:_____

Position/Title with Affiliate:_____

Has the Business Entity participated in any joint Ventures within the past three years? Yes_____ No_____ (Attach additional pages if necessary)

Joint Venture Name:_____

Joint venture EIN (if applicable):_____

Identify parties to the Joint Venture:_____

Contract History

Has the Business Entity held any contracts with the city of Phoenix in the last three (3) years? Yes_____ No_____ If “yes” attach a list.

Integrity – Contract Bidding

Within the past three (3) years, has the Business Entity or any Affiliate been suspended or debarred from any government contracting process or been disqualified on any government procurement? Yes_____ No_____

Been subject to a denial or revocation of a government prequalification? Yes_____ No_____

Been denied a contract award or had a bid rejected based upon a finding of a non-responsibility by a government entity? Yes_____ No_____

Agreed to a voluntary exclusion from bidding/contracting with a government entity? Yes_____ No_____

Initiated a request to withdraw a bid submitted to a government entity or made any claim of an error on a bid submitted to a government entity? Yes_____ No_____

Initiated a request to withdraw a bid submitted to a government entity or made any claim of an error on a bid submitted to a government entity? Yes_____ No_____

For each “Yes” answer above, provide an explanation of the issues.

Integrity – Contract Award

Within the past three (3) years has the Business Entity or any Affiliate been suspended, cancelled, or terminated for cause on any government contract? Yes_____ No_____

Been subject to an administrative proceeding or civil action seeking specific performance or restitution in connection with any government contract? Yes_____ No_____

For each “yes” answer, provide an explanation. (Attach explanation on a separate sheet of paper).

Certifications/Licenses

Within the past three (3) years, has the Business Entity or Affiliate had a revocation, suspension, or disbarment of any business or professional permit and/or license? Yes_____ No_____

If “yes” provide an explanation of the issue(s), the Business Entity involved, the relationship to the submitting Business Entity, relevant dates, the government entity involved, and any remedial or corrective action(s) taken and the current status of the issues.

Legal Proceedings

Within the past three (3) years, has the Business Entity of any Affiliate:

Been the subject of an investigation, whether open or closed, by any government entity for a civil or criminal violation? Yes_____ No_____

Been the subject of an indictment, grant of immunity, judgment or conviction, (including entering into a plea bargain for conduct constituting a crime)? Yes_____ No_____

Received any OSHA citation and Notification of Penalty containing a violation classified as serious or willful? Yes_____ No_____

Had a government entity find a willful prevailing wage or supplemental payment violation? Yes_____ No_____

Been involved in litigation as either a plaintiff or a defendant involving a copyright or patent infringement violation or an anti-trust violation? Yes_____ No_____

Other than previously disclosed, for the past three (3) years:

(i) Been subject to the imposition of a fine or penalty in excess of \$1000 imposed by any government as a result of the issuance of citation, summons or notice of violation, or pursuant to any administrative, regulatory, or judicial determination? Yes_____ No_____

(ii) Been charged or convicted of a criminal offense pursuant to any administrative and/or regulatory action taken by any government entity? Yes_____ No_____

If “yes” provide an explanation of the issue(s), the Business Entity involved, the relationship to the submitting Business Entity, relevant dates, the government entity involved, and any remedial or corrective action(s) taken and the current status of the issues.

Leadership Integrity

If the Business Entity is a joint Venture Entity, answer “N/A – Not Applicable” to questions below:

Within the past three (3) years has any individual previously identified, or any other Business Entity Leader not previously identified, or any individual having the authority to sign, execute, or approve bids, proposals, contracts or supporting documentation with the City of Phoenix been subject to:

A sanction imposed relative to any business or professional permit and/or license? Yes_____ No_____

An investigation, whether open or closed, by any government entity for a civil or criminal violation for any business related conduct? Yes_____ No_____

DLB/dlb/828671V3



City of Phoenix
AFFIDAVIT OF IDENTITY

Your completion of this form is required by Arizona state law. A.R.S. §§ 1-501 and -50 only if you are a sole proprietor.

I, _____ (print full name exactly as on document), hereby affirm, upon penalty of perjury, that I presented the document marked below to the City of Phoenix, that I am lawfully present in the United States, and that I am the person stated on the document. (select one category only)

[] Arizona driver license issued after 1996. Print first four numbers/letters from license: [][][][]

[] Arizona non-operating identification license. Print first four numbers/letters: [][][][]

[] Birth certificate or delayed birth certificate issued in any state, territory or possession of the U.S. Year of birth: _____; Place of birth: _____

[] United States Certificate of Birth Abroad. Year of birth: _____; Place of birth: _____

[] United States Passport. Print first four numbers/letters on Passport: [][][][]

[] Foreign Passport with United States Visa. Print first four numbers/letters on Passport: [][][][] Print first four numbers/letters on Visa: [][][][]

[] I-94 Form with a photograph. Print first four numbers on I-94: [][][][]

[] USCIS Employment Authorization Document (EAD). Print first four numbers/letters on EAD: [][][][] or Perm. Resident Card (acceptable alternative): [][][][]

[] Refugee Travel Document. Date of issuance: _____; Refugee country: _____

[] U.S. Certificate of Naturalization. Print first four digits of CIS Reg. No.: [][][][]

[] U.S. Certificate of Citizenship. Date of issuance: _____; Place of issuance: _____

[] Tribal Certificate of Indian Blood. Date of issuance: _____; Name of tribe: _____

[] Tribal or Bureau of Indian Affairs Affidavit of Birth. Year of birth: _____; Place of birth: _____

Signed: _____ Dated: _____

Technical Specifications for Drilling and Installation of SR-85 Landfill Monitoring Well MW-6R

Prepared for:

City of Phoenix
Public Works Department
Solid Waste Management Division
3060 South 27th Avenue
Phoenix, AZ 85009

January 31, 2024



2 N. Central Ave. Suite 1600
Phoenix, AZ 85004

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Table 1 Schedule A-Bid Table

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Appendix A Sand Cement Mix Design Example

List of Acronyms

ADWR	Arizona Department of Water Resources
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
bgs	below ground surface
gpm	gallons per minute
I.D.	inside diameter
lb/cf	pounds per cubic foot
lb/gal	pounds per gallon
LCS	low-carbon steel
O.D.	outside diameter
OSHA	Occupational Safety and Health Administration
psi	pounds per square inch

Section 1

General

1.1 Location of Work

- A. The work to be accomplished under the following specifications consists of the drilling, installation, and equipping for one groundwater monitoring well. The Monitoring Well No. 6 Replacement (MW-6R) will be located within the SR-85 landfill at 28633 W Patterson Road, Buckeye, AZ (Figure 1).
- B. The legal location of MW-6R is the SE 1/4 (10-acre) of the SW 1/4 (40-acre) of the SW 1/4 (160-acre) of Section 15, Township 3 South, Range 4 West of the Gila and Salt River Baseline and Meridian [also designated C(3-4)15ccd].

1.2 Scope of Work

- A. The work includes the furnishing of all materials, labor, equipment, transportation, and services for drilling, constructing, and equipping a monitor well.
- B. The installation of MW-6R consists of the CONTRACTOR drilling a borehole to the specified depth using the mud rotary drilling method and collecting cutting samples from the borehole as specified.
- C. The preliminary well design for MW-6R is presented on Figure 2. The DESIGN PROFESSIONAL reserves the right to drill beyond the depths specified, or to stop at lesser depths, depending on subsurface conditions.
- D. It is the responsibility of the CONTRACTOR to familiarize itself with the drilling conditions that may be encountered at the site, both surface and subsurface, prior to the bid submittal. It is the responsibility of the bidder to examine the drilling areas and site access in order to become acquainted with local conditions.
- E. The CONTRACTOR will be responsible for any equipment losses as no protection will be provided by the client.
- F. The landfill is open daylight hours Monday through Saturday, but the site will be made available for work 24/7 as needed.
- G. No allowance will be made after the bid has been accepted for any errors or omissions made by the CONTRACTOR.
- H. The CONTRACTOR will install the well pursuant to the final well design, which will be developed by the DESIGN PROFESSIONAL and approved by the City of Phoenix Solid Waste Diversion and Disposal Department (SOLID WASTE DEPARTMENT).
- I. The CONTRACTOR will equip the well with a submersible pump capable of producing 10 gallons per minute (gpm).

1.3 Definitions

Throughout this specification, the term “SOLID WASTE DEPARTMENT” shall be understood to represent the City of Phoenix, and the term “DESIGN PROFESSIONAL” shall be understood to

represent Brown and Caldwell. The CONTRACTOR shall be the person, firm, or corporation with whom the SOLID WASTE DEPARTMENT will execute an agreement setting forth the terms and conditions for the work to be performed, as specified herein. The term "SUBCONTRACTOR" will apply to any person, firm, or corporation with whom the CONTRACTOR executes a secondary agreement for a portion of the Scope of Work.

1.4 Performance of Work

1.4.1 Contractor's Qualifications

- A. The CONTRACTOR shall have no less than 5 years of local (within the Basin and Range geologic province of Arizona) experience using mud rotary drilling.
- B. The CONTRACTOR shall hold: (1) a valid Arizona Department of Water Resources (ADWR) Well Driller's License in the mud rotary category; and (2) all other licenses required by federal, state, county, or municipal rules and regulations. SUBCONTRACTORS may also hold a valid Arizona Well Driller's License in addition to that of the CONTRACTOR, but not in lieu of the CONTRACTOR'S ADWR Well Driller's License. In addition, the CONTRACTOR shall be named as "Principal" on the Performance Bond and Payment Bond. The CONTRACTOR shall provide a copy of their Arizona Well Driller's License and a copy of their Arizona Registrar of Contractor License with the bid submittal.
- C. Operations
 - All operations shall be performed under the direct and personal supervision of an Arizona-licensed well driller.
 - The CONTRACTOR shall employ only competent employees for the execution of work. The CONTRACTOR work crew shall include no less than three workers at all times when drill pipe is being installed or removed (i.e., at all times while the CONTRACTOR work crew is tripping or running pipe or making connections). In addition, the CONTRACTOR shall maintain no less than three workers on site throughout the well installation operations [including installation of the well casing, well screen, filter pack sand, and cement seal(s)].
 - The CONTRACTOR shall assign a foreman (tool pusher) to oversee all work required by this specification. The foreman must be approved by the DESIGN PROFESSIONAL. After selection, the CONTRACTOR foreman shall provide to the DESIGN PROFESSIONAL a written certification that he has read and fully understands this technical specification prior to mobilization to the well site.
 - The CONTRACTOR shall construct MW-6R in accordance with the Rules and Regulations of the ADWR, Article 8, Well Construction and Licensing of Well Drillers, as amended 2001.
 - Rejection of any materials, work, or equipment by the DESIGN PROFESSIONAL shall be at the CONTRACTOR'S expense, and at no cost to the SOLID WASTE DEPARTMENT. Replacement materials, work, or equipment that is in accordance with these specifications and approved by the DESIGN PROFESSIONAL will be paid for by the SOLID WASTE DEPARTMENT in accordance with the Bid Schedule.

1.4.2 Contractor Responsibilities

- A. Should a well be lost due to any negligent action on the part of the CONTRACTOR (as determined by the DESIGN PROFESSIONAL), the well shall be abandoned at no cost to the SOLID WASTE DEPARTMENT, in accordance with ADWR Article 8, Rule R12-15-816, and a replacement well shall be constructed in the immediate area. The DESIGN PROFESSIONAL will select the replacement well location. The replacement well shall be completed in accordance with all the



terms and conditions stated herein. The CONTRACTOR shall credit the SOLID WASTE DEPARTMENT for any and all costs associated with the lost well, and this credit shall be applied against any additional CONTRACTOR charges associated with the drilling and completion of the replacement well.

- B. If the loss of the well was not due to any negligent action of the CONTRACTOR, the DESIGN PROFESSIONAL may designate a replacement well location and the SOLID WASTE DEPARTMENT shall provide reimbursement for the replacement well on the basis of the unit costs presented in the CONTRACTOR'S Schedule A (Table 1).
- C. If a work delay, deficiency of work performance and/or a material's deficiency is caused by the CONTRACTOR failing to comply with any item of these specifications, the CONTRACTOR shall bear the burden of additional expenses, including any additional DESIGN PROFESSIONAL charges assessed to the SOLID WASTE DEPARTMENT as a direct result of the delay or deficiency. This includes delays due to equipment failure, if the DESIGN PROFESSIONAL determines that the equipment failure could have been prevented through proper maintenance.
- D. The DESIGN PROFESSIONAL may, at its discretion, reject CONTRACTOR work that does not meet these specifications or tolerances thereof, as determined by the DESIGN PROFESSIONAL. Any additional standby time or other costs incurred by the CONTRACTOR as a result of the rejection of any specified work provided by the CONTRACTOR or its SUBCONTRACTORS shall not be compensated by the SOLID WASTE DEPARTMENT and shall be the sole responsibility of the CONTRACTOR.

1.5 Confidentiality

- A. The CONTRACTOR shall not disclose any information relating to this project or the well sites to anyone other than the SOLID WASTE DEPARTMENT, or DESIGN PROFESSIONAL without written permission from the SOLID WASTE DEPARTMENT, except as may be required by law. At all times during the performance of the CONTRACTOR'S services, the CONTRACTOR and its employees, SUBCONTRACTORS, and agents shall treat the work conducted by the CONTRACTOR and its SUBCONTRACTORS and the results thereof as confidential and proprietary to the SOLID WASTE DEPARTMENT.
- B. Any questions regarding the purpose or Scope of Work that are directed to the CONTRACTOR from individuals or entities other than representatives of the SOLID WASTE DEPARTMENT, or DESIGN PROFESSIONAL while work is being conducted for this project, should be directed to the DESIGN PROFESSIONAL or SOLID WASTE DEPARTMENT.

1.6 Methods of Drilling

The borehole shall be drilled using the mud rotary drilling method. The CONTRACTOR shall transport drilling make-up water from a source approved by the DESIGN PROFESSIONAL, and the CONTRACTOR shall provide the necessary pump(s) and all other equipment required for its drilling operations. The CONTRACTOR is responsible for designing and controlling a drilling program that conforms to this specification.

1.7 Site Safety Plan

The CONTRACTOR is responsible for assuring that the CONTRACTOR personnel at the drilling site meet the requirements of site safety in accordance with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health (OSHA) Act of

1970 (PL 91-595) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54), as amended.



Section 2

Protection of Site

- A. The CONTRACTOR shall coordinate work area preparations with the facility prior to mobilization. The local area consists of relatively flat terrain with sparse vegetation. The CONTRACTOR shall take all necessary precautions to preserve the well site, as nearly as practical, in its present condition. The CONTRACTOR shall be responsible for replacing any damaged items. The CONTRACTOR shall provide an adequate roll-off bin or other waste container to contain all debris and trash collected at the site. All litter and debris will be cleaned up daily and placed in the roll-off bin for off-site disposal.
- B. The CONTRACTOR is responsible for the location and clearance of all underground utilities using Arizona Blue Stake, a private utility location service or both. The CONTRACTOR shall be responsible for any damage resulting from its failure to identify and avoid underground utilities.
- C. At the time of mobilization, the CONTRACTOR shall propose a site layout for the location of equipment, materials, and spoils to the SOLID WASTE DEPARTMENT for approval. Water delivery methods, supply lines and water and soil disposal methods shall be defined.
- D. A plastic tarp and berm shall be placed beneath the drilling rig and kept in good repair during mobilization. The tarp and berm will remain beneath the rig until demobilization, to protect the site against oil or hydraulic fluid spills or leaks. A plastic tarp and berm shall also be placed beneath other stationary equipment such as air compressors and fuel tanks. Compressed air introduced into the well during drilling, sampling, or well development must be treated by passage through a carbon or coalescing filter to remove organic contaminants (e.g., compressor lubrication oil).
- E. Access roads to and from the site are paved, and the site itself has dirt roadways. The CONTRACTOR is responsible for applying water for dust control in the work areas and access roads as required to meet state, county, or local dust control ordinances, or as requested by the DESIGN PROFESSIONAL or SOLID WASTE DEPARTMENT. The CONTRACTOR shall be required to obtain a separate Maricopa Dust Control permit and meet the requirements for dust control, including permitting, at its own cost.
- F. Drill cuttings shall be spread evenly in a thin layer at the well site, such that they do not pose a threat to the existing vegetation or drainage.
- G. Drilling fluids from the mud tanks and discharge water generated during the swab and bail development must be removed from the site and disposed of properly. Disposal costs associated with these fluids will be the responsibility of the CONTRACTOR and should be included in the mobilization tasks. Discharge water generated during development may be routed to land surface outside of roadways away from the stormwater channel. The discharge design shall be proposed by the CONTRACTOR and approved by the SOLID WASTE DEPARTMENT, or DESIGN PROFESSIONAL, prior to implementation. For bidding purposes, the CONTRACTOR should plan to discharge all fluids to a SOLID WASTE DEPARTMENT-specified location no more than 200 feet from the well site.
- H. After completion of work, the CONTRACTOR shall remove all debris, oil-stained dirt, waste, trash and unused materials or supplies and shall obliterate all temporary construction facilities such as temporary work areas, temporary structures, stockpiles of excess or waste materials and shall

restore the site, as nearly as possible, to its original condition. The DESIGN PROFESSIONAL must approve cuttings disposal and site cleanup.



Section 3

Utilities

3.1 Water

Water for the drilling of MW-6R will be the responsibility of the CONTRACTOR. The DESIGN PROFESSIONAL and SOLID WASTE DEPARTMENT will provide reasonable assistance to the CONTRACTOR to locate the nearest available water source, which is presumed to be from the existing construction pond located north of the well site. The CONTRACTOR must provide a pump and transport truck to deliver water to the well site. The SOLID WASTE DEPARTMENT will provide the water from the onsite source at no cost, but the CONTRACTOR will be responsible for all piping, connections, ancillary equipment, and labor required to convey the water to the well site for use. The CONTRACTOR will be responsible for obtaining an adequate flow rate of construction water for all operations under this specification. The CONTRACTOR will be responsible for all costs associated transporting water to the well site.

3.2 Electricity

The CONTRACTOR shall provide, at its own expense, all electrical power required for its operations under the contract.

3.3 Restroom Facilities

The CONTRACTOR shall provide, at its own cost, a portable restroom facility at the well site during all operations of this project. The restroom shall be adequately maintained and shall be made available to the DESIGN PROFESSIONAL and SOLID WASTE DEPARTMENT personnel for reasonable use, at no cost.

3.4 Site Lighting

The CONTRACTOR shall be responsible for providing all necessary lighting for night work if the CONTRACTOR will be working outside of daylight hours. This shall include illuminating the drilling work area, the sampling work area, and any normal foot-travel paths used by personnel during the execution of their tasks. Lighting shall be positioned such that all lighting is directed toward the work area and not toward the adjacent surroundings that may disturb the nearby highway or neighboring areas.

Section 4

Equipment

- A. The CONTRACTOR shall furnish and maintain in safe and efficient working condition all equipment necessary to perform the specified work, including a drilling rig capable of performing the specified operations to the specified depths; pumping, testing, sampling equipment; and auxiliary equipment as specified or required to complete the described tasks.
- B. The CONTRACTOR shall submit a statement with its bid indicating the drilling equipment to be used. The drilling rig used for the installation of MW-6R shall have a mast capacity no less than 1-1/2 times the string weight of the well casing and screen, and the well shall be installed without the use of a float plate. All equipment requirements in this Section shall be provided at the CONTRACTOR'S expense.
- C. The equipment supplied by the CONTRACTOR shall include, but is not limited to:
- A wire line depth indicator capable of measuring depths equal to the total depth of the borehole and equipped with a counter device which provides for a depth measurement accuracy of ± 1 foot. Prior to the start of work on this project, the accuracy of the wire line depth indicator must be verified to the approval of the DESIGN PROFESSIONAL, using a graduated tape measure;
 - Specified devices for measurement of drilling mud viscosity and weight;
 - An operating and accurate gauge that indicates the hook load (weight) of the drill string;
 - A first aid kit;
 - A fully recharged and operable type ABC dry chemical fire extinguisher (minimum 25 pounds); and
 - An operable mobile telephone located at the well site. The rig mobile phone will be made available to the DESIGN PROFESSIONAL and SOLID WASTE DEPARTMENT personnel for reasonable use, at no charge.
- D. The CONTRACTOR shall also maintain at each well site, or have the ability to rapidly fabricate, commonly used fishing tools (such as overshots, wall hooks, junk baskets, etc.) in the event that lost tools in the borehole require fishing operations.
- E. The drilling rigs, pumping equipment and auxiliary equipment used for this project shall be well maintained, and shall meet the standards of OSHA. All high-pressure hoses shall be equipped with a safety chain to protect site personnel in the event of hose failure.
- F. Prior to bringing any equipment to the site, the CONTRACTOR shall decontaminate the drill rig and downhole tools by steam cleaning to remove any latent drilling chemicals, muds, contaminants, or non-native vegetation or seed. All necessary steam cleaning will be conducted at the CONTRACTOR'S expense.

Section 5

Reports, Logs, and Records

5.1 General

The CONTRACTOR shall keep an accurate and legible daily log and record of all drilling, testing, and construction activities, describing all geologic material encountered during drilling, the depths at which changes in formation occur, and all difficulties or unusual conditions encountered. The log and record shall also show the method of completing the well, including the lengths of the well casing and well screen installed and the volume of all annular fill and seal materials. The forms for penetration rate log, the daily driller's report, and the drilling fluid control log must be approved by the DESIGN PROFESSIONAL.

5.2 Daily Driller's Report

During the drilling of the borehole, a detailed driller's report shall be maintained at the well site and provided daily to the DESIGN PROFESSIONAL. The daily driller's report shall be recorded on forms approved by the DESIGN PROFESSIONAL. The DESIGN PROFESSIONAL must also approve the daily driller's report forms. The report shall give a complete description of all formations encountered; number of feet drilled; number of hours on the job; shutdown due to breakdown; any occurrence of lost circulation conditions or hard drilling conditions (in accordance with Sections 5.5 and 5.6 of this specification); drilling fluid additives used; length and type of casing set; volumes of annular materials installed, and such other pertinent data as may be requested by the DESIGN PROFESSIONAL. CONTRACTOR personnel will submit the report to the DESIGN PROFESSIONAL daily.

5.3 Driller's Log

After completion of borehole drilling, the CONTRACTOR shall prepare a detailed driller's log in compliance with the requirements of ADWR. The log shall include the reference point for all depth measurements, a generalized description of each formation encountered, the depth at which each formation is encountered, and the thickness of each formation. The lithologic log prepared by the DESIGN PROFESSIONAL will be made available to the CONTRACTOR to assist in the preparation of the driller's log. A copy of the driller's log shall be furnished to the DESIGN PROFESSIONAL upon completion of drilling, prior to acceptance of the well.

5.4 Drilling Fluid Record

During borehole drilling, a log of drilling fluid properties shall be maintained by the CONTRACTOR. The drilling fluid record shall be available for review by the DESIGN PROFESSIONAL throughout the course of drilling, and the log shall be delivered to the DESIGN PROFESSIONAL upon completion of well drilling.

5.5 Lost Circulation

A. "Lost Circulation Conditions" under this Section shall apply only when there is a loss of drilling fluid to the formation that exceeds the maximum available discharge rate of water into the borehole, to the extent that the fluid level in the annulus outside the drill pipe cannot be

maintained to a level above the base of the surface casing for at least 1 hour, due to no fault of the CONTRACTOR.

- B. During the drilling of the borehole, if there is no return of drilling fluid for a period of at least 1 continuous hour due in no fault to the CONTRACTOR, the CONTRACTOR shall immediately notify the DESIGN PROFESSIONAL of Lost Circulation Conditions. Upon notification, the DESIGN PROFESSIONAL will immediately document the times, quantities, and circumstances of Lost Circulation Conditions during each occurrence and notify the SOLID WASTE DEPARTMENT of the situation and potential costs to be incurred.
- C. If Lost Circulation Conditions are encountered due to hydrogeologic conditions, the SOLID WASTE DEPARTMENT will compensate the CONTRACTOR for the period of drilling under Lost Circulation Conditions. Compensation will occur at the CONTRACTOR'S "Rig Hourly Rate with Crew" indicated in Schedule A (Table 1), in lieu of footage compensation.
- D. Failure of the CONTRACTOR to promptly notify the DESIGN PROFESSIONAL of Lost Circulation Conditions will void the CONTRACTOR'S opportunity to implement this clause but will not affect the CONTRACTOR'S responsibility to maintain the integrity of the borehole, as required in Sections 1.4.2 and 6.2 of this specification.
- E. The SOLID WASTE DEPARTMENT will provide compensation at a rate of cost-plus ten percent markup to the CONTRACTOR for all drilling fluid materials and additives used during the period of Lost Circulation Conditions.
- F. If lost circulation is the result of the CONTRACTOR'S operations or activities (e.g., excessive fluid weight), all costs to regain circulation shall be borne by the CONTRACTOR. The SOLID WASTE DEPARTMENT shall not incur costs for drilling fluids or additives placed in the borehole during non-lost circulation conditions.
- G. The conditions of this Section shall apply from the beginning of the period of lost circulation and shall continue only until such time that the drilling fluid level can be maintained within the surface casing. After an initial Lost Circulation Conditions' event has occurred, should circulation be lost again, the conditions of this paragraph will go into effect immediately, and continue until such time as drilling fluid circulation is regained, as described in this paragraph.

5.6 Penetration Rate

- A. During drilling operations, if a formation is encountered that results in a penetration rate of 4 feet per hour or less for a period of at least two continuous hours, while at least 1,500 pounds per diameter inch is applied to the drill bit, then the SOLID WASTE DEPARTMENT will compensate the CONTRACTOR for the period of "Low Penetration Rate Conditions" at the CONTRACTOR'S hourly rate, in lieu of footage compensation.
- B. The CONTRACTOR is responsible to notify the DESIGN PROFESSIONAL immediately upon the occurrence of Low Penetration Rate Conditions, and to document the times, quantities, and circumstances of Low Penetration Rate Conditions during each occurrence. Failure of the CONTRACTOR to promptly notify the DESIGN PROFESSIONAL of Low Penetration Rate Conditions will void the CONTRACTOR'S opportunity to implement this clause.
- C. The DESIGN PROFESSIONAL will notify the SOLID WASTE DEPARTMENT immediately when Low Penetration Rate Conditions occur, so that the SOLID WASTE DEPARTMENT can assess potential costs to be incurred. Also, the SOLID WASTE DEPARTMENT will provide compensation at a rate of cost-plus ten percent markup to the CONTRACTOR for all drilling bits and other materials used during the hard rock drilling conditions. The CONTRACTOR will credit the prorated values of used drilling bits to the SOLID WASTE DEPARTMENT.

The conditions of this Section shall apply from the beginning of the time period of low penetration (less than 4 feet per hour) and shall continue only until such time as drilling is resumed at a rate of 4 feet per hour or greater. Upon invocation of this penetration rate clause, the CONTRACTOR, if requested, will trip the drill string out of the hole for inspection of the drill bit by the DESIGN PROFESSIONAL. The conditions of this Section shall apply only if the DESIGN PROFESSIONAL'S inspection of the drilling bit does not indicate excessive bit wear that would substantially decrease the penetration rate. In the event that the drill bit inspection indicates that this Section applies, the CONTRACTOR will be compensated at the "Rig Hourly Rate with Crew" identified in Schedule A (Table 1), for the time expended to inspect the drill bit. If the DESIGN PROFESSIONAL is not notified during the initial 2-hour period of low penetration, or if bit inspection reveals excessive wear or improper type, the provisions of this clause will not be invoked.

Section 6

Borehole Drilling

6.1 General Drilling Methods

The borehole shall be drilled using the mud rotary drilling method. The surface casing borehole may be drilled using rotary, solid-stem auger, or other viable method. The DESIGN PROFESSIONAL must approve the borehole drilling method to be used by the drilling CONTRACTOR. The CONTRACTOR shall be responsible for designing and controlling a drilling program that conforms to this specification.

6.1.1 Surface Casing

- A. The surface casing borehole shall be drilled with a minimum 16-inch diameter, to a depth of approximately 20 feet below ground surface (bgs) (Figure 2). The DESIGN PROFESSIONAL reserves the right to direct the drilling of the surface casing borehole to a greater depth depending on geologic formations and other subsurface conditions at the well site.
- B. The surface casing material shall be new low-carbon steel (LCS) and manufactured in accordance with ASTM Specification A53 Grade B steel. This casing shall have a minimum 12-inch outside diameter (O.D.) and have a minimum 0.250-inch wall thickness.

6.1.2 Surface Casing Cement Grout

- A. The surface casing cement grout shall be either a neat cement or a sand cement mix. The cement grout slurry shall consist of 5.2 to 6.0 gallons of water per 94-pound sack of Portland cement. The Portland cement shall conform to ASTM Standard C150, Type II. The cement grout shall have the slurry weight measured by the DESIGN PROFESSIONAL prior to installation as an indicator of the cement-water mix ratio.
- B. Neat cement grout shall weigh no more than 15.6 pounds per gallon (lb/gal).
- C. Sand-cement grout shall weigh no more than 17.0 lb/gal (approximately 127 pounds per cubic foot [lb/cf]). Sand as an additive shall not exceed 50 percent by volume of the cement. Accelerator additives, such as calcium chloride, shall not exceed 2 percent by weight of the cement. A sand cement mix design example is presented in Appendix B.
- D. Bentonite may be used as an additive and must be in powder form and shall not exceed 4 percent by volume of the cement, or cement and sand. Water added for bentonite shall not exceed 1.3 gallons per 1.88 pounds of bentonite (2 percent by weight in cement).
- E. Accelerator additives, such as calcium chloride, shall not exceed 2 percent by weight of the cement. The water source and specific constituents of the cement grout must be approved by the DESIGN PROFESSIONAL. If the cement grout is not mixed on site, the CONTRACTOR must provide the specific constituents of the cement grout to the DESIGN PROFESSIONAL prior to placement of the grout. The cement grout slurry shall be mixed thoroughly and must be free of lumps to the satisfaction of the DESIGN PROFESSIONAL. Cement grout that does not comply with this specification will be rejected.
- F. The cement grout slurry shall be placed in the annulus between the surface casing and borehole wall from the base of the surface casing to the ground surface. The CONTRACTOR shall

be responsible for maintaining an equalization of pressures inside and outside of the casing to the extent necessary to prevent collapse of the surface casing. The grout seal shall completely fill the annular space and form a continuous seal between the surface casing and the wall of the borehole. The grout shall be allowed to cure for a minimum of 12 hours prior to commencing borehole drilling.

6.2 Borehole Drilling

- A. A minimum 9.625-inch diameter borehole shall be drilled from the bottom of the surface casing (at 20 feet bgs) to the total depth of approximately 805 feet, as identified on Figure 2. The boring shall be drilled using the direct mud rotary or suitable equivalent drilling method. The CONTRACTOR shall be responsible for designing and controlling a drilling program that conforms to this specification. During the drilling of the borehole, the CONTRACTOR shall collect and preserve for the DESIGN PROFESSIONAL samples of the drilled cuttings at 10-foot intervals from the land surface to the total depth of the borehole. Each cutting sample shall be carefully collected from the discharge point or other approved location.
- B. The drilled cuttings samples shall be laid out in a sample storage area on a waterproof tarp or ground cloth, in descending order, for a visual record of the borehole stratigraphy. The storage area must allow samples to be maintained in sequence and unmixed until they have been examined and logged by the DESIGN PROFESSIONAL. After examination by the DESIGN PROFESSIONAL, the drilled cuttings shall be spread evenly at the site.

Section 7

Well Installation

7.1 General

The CONTRACTOR shall install and develop the well to the anticipated depth shown on Figure 2. The CONTRACTOR shall be responsible for designing and controlling a drilling program that conforms to this specification. Upon completion of the borehole drilling, the CONTRACTOR shall commence well installation operations as directed by the DESIGN PROFESSIONAL. The materials to be installed in the well are described below.

7.2 Materials

- A. The CONTRACTOR shall be responsible for the timely delivery of the well casing, well screen and other materials to the drilling site, as determined by the DESIGN PROFESSIONAL and as required to complete the well installation program. The well casing, screen, and annular materials must be approved by the DESIGN PROFESSIONAL prior to installation.
- B. The final length of the well casing and screen may be adjusted by the DESIGN PROFESSIONAL based on analyses of the borehole data.
- C. The DESIGN PROFESSIONAL may, at its discretion, reject any materials that do not meet these specifications, as determined by the DESIGN PROFESSIONAL. Any additional standby time or other costs incurred by the CONTRACTOR as a result of the rejection of any specified materials provided by the CONTRACTOR or its suppliers shall not be compensated by the SOLID WASTE DEPARTMENT and shall be the sole responsibility of the CONTRACTOR.

7.2.1 Well Casing

- A. The blank casing for the well shall be new manufactured schedule 80 poly-vinyl chloride (PVC). The well casing shall have a 5-inch nominal diameter and have a minimum 0.250-inch wall thickness. The total length of the blank well casing will be approximately 436 feet (Figure 2).
- B. The well screen for the monitor well shall be new manufactured schedule 80 PVC with factory installed 0.020-inch slots. The total length of the well screen shall be approximately 365 feet for MW-6R (Figure 2). Stainless steel centralizers will be installed every 50 feet within the screened casing interval. No centralizers will be required for the blank well casing.

7.2.2 Filter Pack

The filter pack shall be silica sand consisting of clean, well-rounded grains that are smooth and uniform. The filter pack will consist of 10-20 mesh grain size (or equivalent).

7.2.3 Fine Sand

A minimum 5-ft thick layer of fine sand shall be placed between the filter pack and the bentonite seal. The purpose of this interval is to prevent an excessive amount of overlying grout material from penetrating the gravel pack. The fine sand material shall be a uniformly graded silica sand with 100 percent by weight passing the No. 30 sieve, and less than 2 percent by weight passing the 200 sieve.

7.2.4 Bentonite Seal

The bentonite seal material shall consist of sodium bentonite pellets or bentonite chips. The bentonite seal material shall contain no hazardous material or gypsum.

7.2.5 Cement-Bentonite Grout Seal

The cement-bentonite grout seal material shall consist of a cement slurry containing 5.2 to 6.0 gallons of water per 94-pound sack of Portland cement. The Portland cement shall conform to ASTM Standard C150, Type II. The cement-bentonite grout slurry may contain up to 5-pounds of bentonite powder per each 94-pounds of cement. Accelerator additives shall not be used unless approved by the DESIGN PROFESSIONAL. The specific constituents of the cement grout must be approved by the DESIGN PROFESSIONAL. The cement grout slurry must be mixed thoroughly and be free of lumps, to the satisfaction of the DESIGN PROFESSIONAL. Cement grout that does not meet the requirements of this specification, or is not adequately mixed, will be rejected.

7.2.6 Surface Seal

The surface seal for the upper 20 feet of the well casing annulus shall be either a neat cement or a sand cement mix conforming to the specifications outlined in Section 6.1.2.

7.3 Casing Installation

During the installation of the well casing and screen, the boring shall be free from any obstructions detrimental to completing the casing and screen installation. The well screen shall be set centered in the hole using stainless-steel centralizers every 50-feet so as not to interfere in any way with the grout seal, filter pack, well installation, or maximum efficient operation of 4-inch diameter pumping equipment within the well casing or screen. Joints in the well casing and screen shall be threaded without the use of adhesives. The well casing and well screen shall be set by the CONTRACTOR at the depth intervals specified by the DESIGN PROFESSIONAL (Figure 2).

7.4 Annular Materials Installation

7.4.1 Filter Pack

- A. Filter pack sand, conforming to the specifications of Section 7.2.2, shall be placed from the bottom of the well, and shall completely fill the annulus from approximately 805 feet to 430 feet bgs for MW-6R (Figure 2). The filter pack must be installed by use of a tremie pipe. The level of the filter pack shall be measured periodically during placement with a wire line sounder, as required by the DESIGN PROFESSIONAL. Placement of the filter pack will be continuous, except when additional precautions are necessary to prevent bridging, or measurements of the filter pack level are being conducted.
- B. Once the filter pack has been installed to the desired depth, the well will be swabbed to ensure complete settling prior to installation of the bentonite seal. Depending on the degree of settlement, additional filter pack may be added. The quantity of filter pack material placed in the annulus shall not be less than that of the computed volume. Upon completion of the filter pack placement, excess filter pack material will be judged an indication of voids in the sand envelope, and corrective measures shall be undertaken at the CONTRACTOR'S expense. The specific method of filter pack placement and the filter pack material must be approved by the DESIGN PROFESSIONAL.

7.4.2 Fine Sand

A minimum 5-foot interval of fine sand complying with Section 7.2.3 shall be installed in the well annulus separating the top of the filter pack and the bentonite seal interval.

7.4.3 Bentonite Seal

Upon completion of the installation of fine sand, a 25-foot bentonite seal complying with Section 7.2.4 shall be installed in the well annulus immediately above the top of the fine sand interval (Figure 2). The bentonite seal shall be installed through a tremie pipe, as outlined above in Section 7.4.1 (above) to ensure proper placement.

7.4.4 Cement-Bentonite Grout Seal

- A. The well casing grout seal shall consist of a cement-bentonite grout slurry conforming to the specifications in Section 7.2.5. The cement grout shall be placed to completely fill the annular space between the well casing and the wall of the borehole, from the top of the bentonite seal at approximately 400 feet bgs, up to approximately 20 feet bgs (Figure 2).
- B. The cement-bentonite grout shall be placed by pumping through a tremie pipe. Prior to pumping, the cement grout shall be passed through a 1/2-inch slotted bar strainer to remove any unmixed lumps. During the cement-bentonite grout installation, the discharge end of the tremie pipe shall be continuously submerged in the grout until the zone to be grouted is completely filled. During cement grout installation operations, the CONTRACTOR is responsible to maintain slurry hydraulic pressures and pumping pressures that will not reach excessive levels and cause casing collapse.
- C. The well casing shall be hung in tension throughout the grouting operation, until the cement-bentonite grout has cured sufficiently. The grout seal shall be placed in lifts from the bottom to the top of the interval to be grouted to prevent damage to the casing from the heat of hydration. The minimum curing time for the cement-bentonite grout seal shall be 12 hours. The specific method of cement-bentonite grout installation must be approved by the DESIGN PROFESSIONAL.

7.4.5 Surface Seal

- A. The surface seal shall consist of a sand or neat cement grout installed between the well casing and the surface casing (surface casing seal) from the base of the surface casing (20-ft bgs) to the land surface (Figure 2).
- B. The cement grout may be placed by pumping through a tremie pipe or other means. Prior to installation, the cement grout shall be passed through a 1/2-inch slotted bar strainer to remove any unmixed lumps. The CONTRACTOR is responsible for preventing excessive differential pressures that may cause casing collapse during the grouting operations. The well casing shall be hung in tension throughout the initial grouting operation, until the cement grout has cured sufficiently. The minimum curing time for the cement grout seal shall be 8 hours, or the cement grout obtaining a compressive strength of 500 psi. The specific method of installation must be approved by the DESIGN PROFESSIONAL.

7.5 Surface Completion

- A. The CONTRACTOR shall complete the well with a casing stickup extending 1-foot above land surface. An above ground vault shall be placed to protect the well. The monument shall be 3 feet by 2 feet and 2 feet in height and include a lock.

- B. The CONTRACTOR shall set the surface casing stickup within a 4 foot by 6 foot by 6-inch thick cement grout pad. Four concrete-filled steel bollards shall be installed around the well pad and shall be cemented a minimum of 2 feet bgs and stick up four feet above ground.

7.6 Well Development

- A. Adequate development of the monitor well is critical for regulatory compliance considerations at this site. Well development shall be accomplished by swabbing and bailing the well before use of a decontaminated portable submersible pump.
- B. When the swabbing and bailing are complete to the satisfaction of the DESIGN PROFESSIONAL, a temporary test pump capable of pumping a minimum of 5 gpm shall be installed in the well to the bottom of the screened interval approximately 795 feet bgs. Well development is anticipated to include up to 24 hours of development time.
- C. The specific methods and equipment for well development must be approved by the DESIGN PROFESSIONAL. Upon completion of the development, the well must be able to produce water containing turbidity readings below 10 NTU.

7.7 Pump Installation

7.7.1 General

The CONTRACTOR shall supply and install an electrical stainless-steel pump.

7.7.2 Pump Equipment

- A. Pump shall be installed to approximately 600 feet bgs and capable of purging 10 gallons per minute with a static water level of 430 bgs. The well shall include a 1-inch PVC sounding tube set to the level of the pump.

Section 8

Visitation and Inspection

- A. The DESIGN PROFESSIONAL or SOLID WASTE DEPARTMENT representatives shall, at any reasonable time during the term of work, be entitled to review the CONTRACTOR'S facilities, its program operation, and the records that pertain to the program.
- B. The CONTRACTOR agrees that the DESIGN PROFESSIONAL, SOLID WASTE DEPARTMENT, or any of their duly authorized representatives, shall have access to the CONTRACTOR'S facilities and have the right to examine books, documents, and records of the CONTRACTOR involving transactions related to these specifications.
- C. The CONTRACTOR further agrees to include in all subcontracts hereunder, if any, a provision that the SUBCONTRACTOR agrees that the DESIGN PROFESSIONAL, SOLID WASTE DEPARTMENT or any of their duly authorized representatives, shall have access to the SUBCONTRACTOR'S facilities and have the right to examine any books, documents, and records of the SUBCONTRACTOR involving transactions related to the subcontract and these specifications.

Section 9

Measurement and Payment

9.1 General

Payment for the lengths, areas, volumes, weights, or times shall be compensation in full for the furnishing of all overhead, labor, materials, tools, equipment, and appurtenances necessary to complete the work in a satisfactory manner as specified with all connections, testing and related work completed. Each item, fixture, piece of equipment, etc., shall be complete with all necessary connections and appurtenances for the satisfactory use of and/or operation of said item. No additional payment will be made for work related to each item unless specifically noted or specified.

9.2 Basis of Measurement and Payment

Compensation for all work specified to be performed under this specification will be made under the payment items presented in this Section. The prices for the said payment items shall be full compensation for all costs in connection therewith. Principal features of the work to be included under the various payment items will be on a per linear foot, per cubic foot, per cubic yard, per each, hourly, or lump-sum basis, as designated. Measurement of completed work will be made in place, with no allowance for waste. Measurement of lengths, areas, volumes, weights, or time will be based on the dimensions indicated in this Section, unless altered by the DESIGN PROFESSIONAL to accommodate field conditions.

9.3 Payment Schedule Description

The payment schedule for well construction, development, and pump equipment of MW-6R is presented in Schedule A (Table 1). A detailed description of each item of the payment schedule is presented below.

9.3.1 Item 1 – Mobilization and Demobilization

Item 1 consists of assembling all drilling and support equipment at the job site, removing or transferring the equipment from the job site when the work is completed, and job-site cleanup. Payment will be made on a lump-sum basis. Up to 50 percent of the lump sum can be billed after mobilization to the site, with the remaining 50 percent billed after demobilization and approval of the job-site cleanup.

9.3.2 Item 2 - Surface Casing Installation

Item 2 consists of all labor, equipment, material costs associated with drilling the surface boring, and placement of the surface casing and surface grout seal in accordance with Sections 6.1.1 and 6.1.2. Payment will be made on a linear-foot basis.

9.3.3 Item 3 – Borehole Drilling

Item 3 consists of all labor, equipment, material costs associated with drilling one 9.625-inch diameter pilot hole in accordance with Section 6.2. Payment will be made on a linear-foot basis.

9.3.4 Item 4 – Casing and Screen Cost

Item 4 consists of the material cost of the well casing and screen in accordance with Section 7.2. Payment will be made on a linear-foot and per-each basis.

9.3.5 Item 5 – Casing and Screen Installation

Item 5 consists of all labor and equipment costs required for the installation of the casing and well screen in accordance with Section 7.3. Payment will be made on a linear-foot basis.

9.3.6 Item 6 – Annular Materials Installation

Item 6 consists of all labor, equipment, and material costs to furnish and install the filter pack, fine sand, bentonite seal, cement-bentonite grout, and surface seal in the well. The cement-bentonite grout and surface seal shall be installed in accordance with the requirements of Sections 7.4.4 and 7.4.5. The Item 6 annular material volumes as indicated in Schedule A (Table 1) are based on the calculated volume plus a 30 percent overage. Payment will be made on a cubic foot and cubic yard basis.

9.3.7 Item 7 – Well Development and Completion

Item 7 consists of all labor, equipment, and material costs associated with well development by swab/bail and pumping techniques as specified in Section 7.6. Payment will be made on an hourly and lump-sum basis.

9.3.8 Item 8 – Pump Installation

Item 8 consists of all permits, labor, equipment, and materials associated with the well testing requirements as described in Section 7.6. Payment will be made on a lump-sum and hourly basis.

9.3.9 Item 9 – Rig Hourly Rate (Allowance Item)

Item 9 consists of the cost of maintaining equipment and personnel if a work stoppage occurs at the well, which is not due to any fault of the CONTRACTOR or SUBCONTRACTORS. Payment for any standby time is subject to prior approval by the DESIGN PROFESSIONAL and SOLID WASTE DEPARTMENT. Payment will be made on an hourly basis.

Section 10

References

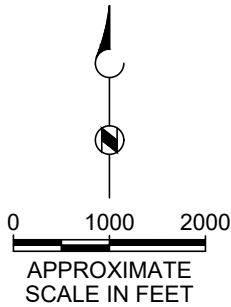
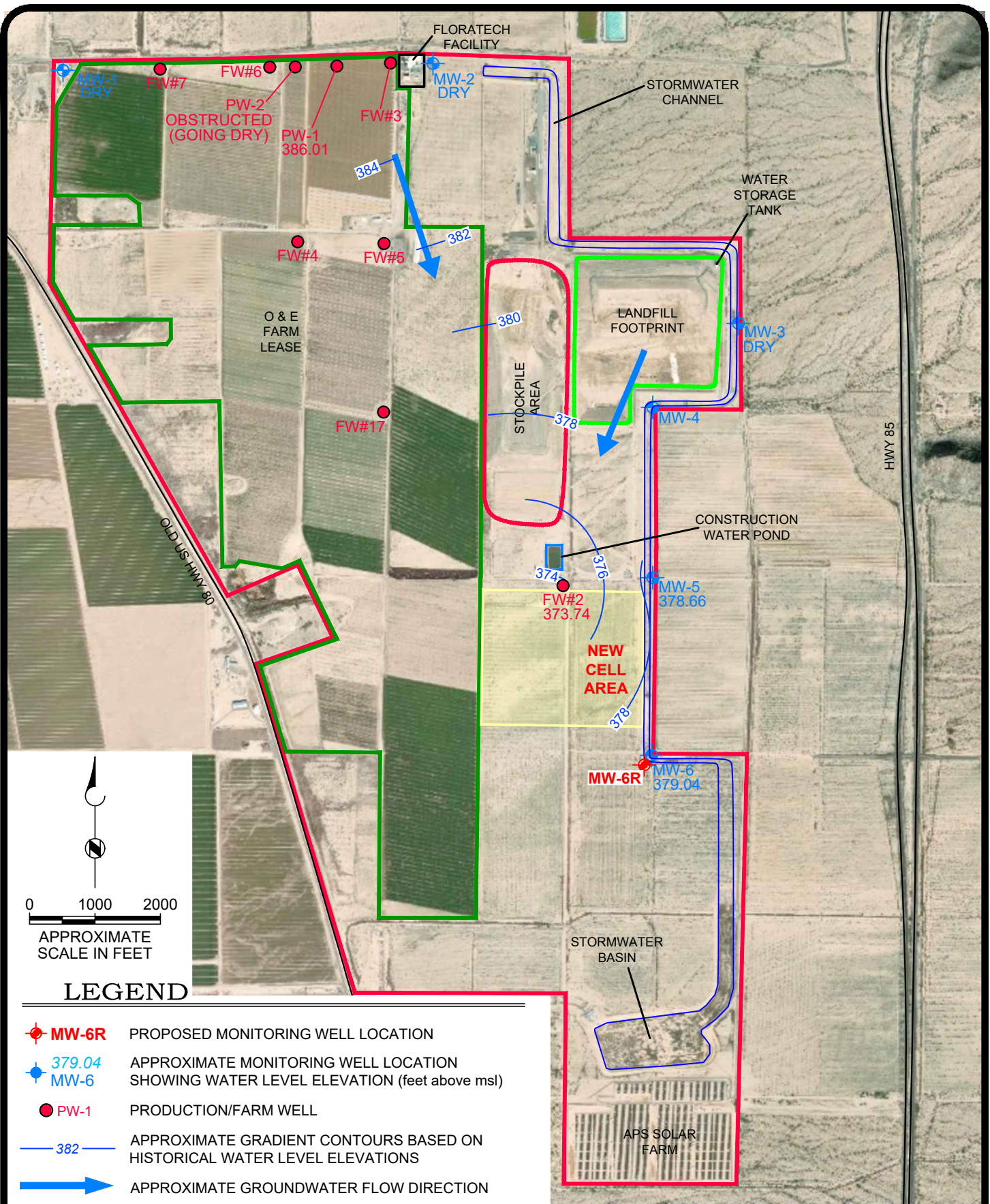
Arizona Department of Water Resources (ADWR), 2008. Statutes and Rules Governing Minimum Well Construction Standards and the Licensing of Well Drillers – Arizona Administrative Code (A.A.C.) Title 12, Chapter 15, Article 8.

ASTM C150 / C150M-16e1, Standard Specification for Portland Cement, ASTM International, West Conshohocken, PA, 2016, www.astm.org

Figures


C:\bcpcw\d3425451\Figure1_ProposedMonWellLoc_Jan2024.dwg

DATE: 1/30/24



LEGEND

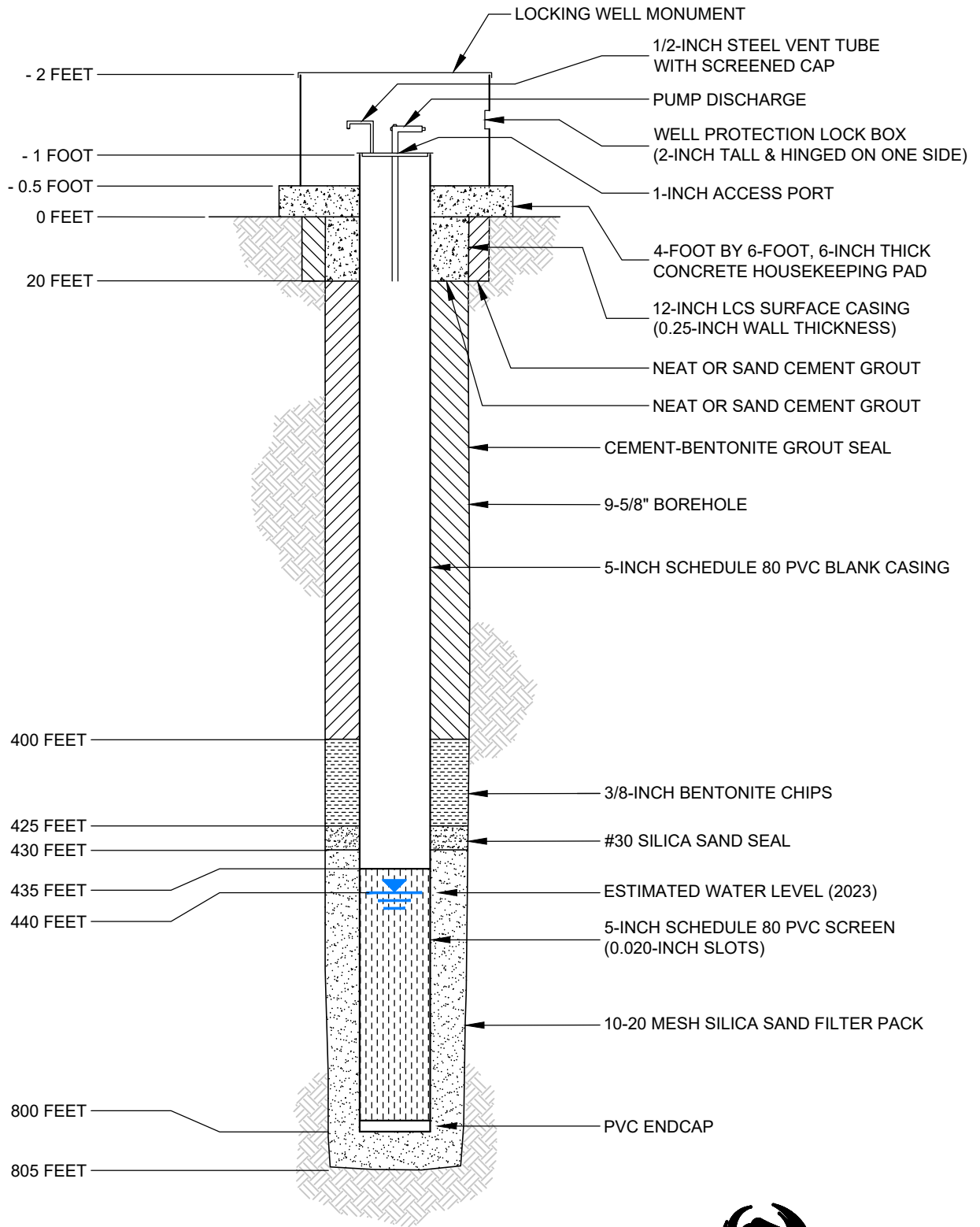
- **MW-6R** PROPOSED MONITORING WELL LOCATION
- **379.04** APPROXIMATE MONITORING WELL LOCATION SHOWING WATER LEVEL ELEVATION (feet above msl)
- **MW-6**
- **PW-1** PRODUCTION/FARM WELL
- **382** APPROXIMATE GRADIENT CONTOURS BASED ON HISTORICAL WATER LEVEL ELEVATIONS
- ➔ APPROXIMATE GROUNDWATER FLOW DIRECTION



CITY OF PHOENIX
 SOLID WASTE DISPOSAL
 MANAGEMENT DIVISION
 3060 S. 27TH AVENUE
 PHOENIX, ARIZONA 85009

DATE: 1/30/24
 DWN: RJ
 REV: BS
 APP: DS

FIGURE 1
 CITY OF PHOENIX
 SR 85 LANDFILL
 BUCKEYE, ARIZONA
**PROPOSED MONITORING
 WELL LOCATION**



NOT TO SCALE

NOTES:
 LCS = LOW CARBON STEEL
 ALL DIAMETERS ARE OUTSIDE DIAMETER



FIGURE 2
MW-6R
MONITOR WELL DESIGN
 CITY OF PHOENIX
 SR-85 LANDFILL



Appendix A: Cement Mix Design Example

SAND CEMENT MIX DESIGN EXAMPLE

1 sack of cement = 1 bulk ft³ *
 = 94 lbs.
 = 3.6 absolute gallons

*A sack of cement has a bulk volume of approximately 1 cubic foot, which is composed of 0.52 cubic feet of air and 0.48 cubic feet of solids (actual space occupied by the solids of one sack of cement when mixed with water to form a slurry).

Calculations are based on the specific gravity of cement equal to 3.15 gm/cm³ and the specific gravity of sand aggregate equal to 2.65 gm/cm³.

Conversion: (specific gravity) (62.4) = lb/ft³

Materials	Pounds of Material	Factor (Absolute ft ³ /lb)	Absolute Volume (ft ³)	Water Requirement (gallons)
Cement	94	.0051	0.48	6.0
Sand	80	.0060	0.48	
Water	50	.016	0.80	
TOTAL	224		1.76	6.0

Slurry Wt. = 224 lb/1.76 ft³ = 127 lb/ft³ (17 lb/gal)

Slurry Yield = 1.76 ft³/sack cement

Slurry Yield = 15.34 sack cement/yard³

For 1 yrd ³ :	Cement	1,447 lb	7.36 ft ³
	Sand	1,217 lb	7.36 ft ³
	Water	<u>766 lb</u>	<u>12.27 ft³</u>
		3,430 lb	27 ft ³