

The logo for Page, Arizona, features the word "page" in a green, textured, lowercase font.

A R I Z O N A
THE CENTER OF CANYON COUNTRY

**BID DOCUMENTS
FOR**

**WASTEWATER POND 2B
LINER REPLACEMENT
PAGE, ARIZONA**

BID # 23-03-WWTP

FOR

**City of Page dba
Page Utility Enterprises**

Table of Contents

	Page
NOTICE OF INVITATION FOR BID.....	3
DEFINITIONS.....	5
TECHNICAL SPECIFICATIONS	6
INSTRUCTIONS TO BIDDERS	40
GENERAL CONDITIONS	44
ARIZONA STATUTORY BID BOND.....	50
ARIZONA STATUTORY PAYMENT BOND	51
ARIZONA STATUTORY PERFORMANCE BOND.....	52
CONTRACT	53
CONTRACTOR’S REFERENCE PAGE	61
LIST OF SUBCONTRACTOR & MATERIAL VENDORS	64
STATEMENT OF BIDDER QUALIFICATION.....	65
BID FORM	67
NOTICE OF AWARD.....	68
NOTICE TO PROCEED	69
UNIT COST BID SHEET	Attached

**CITY OF PAGE, ARIZONA
WASTEWATER POND 2B
LINER REPLACEMENT**

Bid #23-03-WWTP

NOTICE OF INVITATION FOR BID

NOTICE IS HEREBY GIVEN that sealed bids will be received at the Page Utility Enterprises office located at 640 Haul Road, Page, Arizona, until **4:00 p.m., Tuesday, October 10, 2023**. At that time, bids will be publicly opened. Bidders are invited but not required to be present at the bid opening.

Bids must be in the actual possession of the Utilities General Manager on or prior to the exact time and date indicated above. Late bids shall not be considered and will be returned unopened. The prevailing clock shall be the Utility office clock.

Bids must be submitted on the forms furnished and in a sealed envelope. The Invitation for bid's project name and bidder's name and address should be clearly indicated on the outside of the envelope. Bids sent through Federal Express or other express mail agencies must have the bid documents sealed within an additional envelope inside the outer mailer.

Project Description: This project includes the installation of new 60 mil HDPE liner in a pond approximately 450,000 sq.ft. over top of an existing liner, new ballasts, reconstructing of pond slopes in wastewater treatment plant pond in Page, Arizona.

A site visit is highly recommended prior to bidding and can be scheduled by calling Matthew Wood at 928-645-2419.

Any questions should be addressed to Matthew Wood by calling 928-645-2419 or email to: mwood@pageutility.com.

Requests for specifications and bid documents shall be directed to: Matthew Wood, 928-645-2419, Page Utility Enterprises, 640 Haul Road, P.O. Box 1955, Page, AZ 86040 or may be obtained from website at www.pageutility.com/engineering.html.

All bids must be accompanied by a security consisting of a certified check, cashier's check, or Bid Bond for not less than ten percent (10%) of the total bid, payable to Page Utility Enterprises. PERSONAL OR INDIVIDUAL SURETY BONDS ARE NOT ACCEPTABLE.

The successful Bidder, simultaneously with the execution of the Contract, will be required to furnish a Payment Bond in the amount equal to one hundred percent (100%) of the Contract Price, a Performance Bond in an amount equal to one hundred percent (100%) of the Contract price, and a certificate of Insurance. Bids may not be withdrawn for a period of sixty (60) days after the bid opening.

Page Utility Enterprises reserves the right to reject any or all bids or parts thereto and to waive any informalities in the bids received.

Page 3 of 69

Disadvantaged business enterprises will be afforded a full opportunity to submit Bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin. The City of Page is an Equal Opportunity Employer. Persons with disabilities may contact the Human Resources Director at (928) 645-4231 regarding availability of information in alternative formats.

Published in the Lake Powell Chronicle.
See, publication dated September 13 & 20, 2023.

DEFINITIONS

Whenever in these Bid Documents, or in any document of instruction where these Bid Documents govern, the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

BID: The offer of the BIDDER for the work when properly made out on forms containing the Bid Form supplied by CITY and properly submitted signed and guaranteed.

BID DOCUMENTS: Consists of all CONTRACT DOCUMENTS and may be used interchangeably with said term.

BIDDER: Any individual, firm or corporation, qualified as herein provided, legally submitting a Bid for the work contemplated, acting directly or through an authorized representative.

CITY: The CITY of Page, an Arizona municipal corporation.

CONSTRUCTION DOCUMENTS: The drawings, technical plans and specifications/provisions, supplementary general and/or special conditions for THE WORK.

CONTRACT: The written agreement covering the performance of THE WORK and the furnishing of labor, equipment, and materials in the construction for THE WORK.

CONTRACT DOCUMENTS: Includes the Notice of Invitation for Bid, Definitions, Scope of Work and/or Plans, Drawings, and Technical Specifications/provisions, Instructions to Bidders, General Conditions, Special Conditions (if any), Arizona Statutory Bid Bond, Arizona Statutory Performance Bond, Arizona Statutory Payment Bond, Contract, Contractor's Reference List, List of Subcontractors & Material Vendors, Statement of Bidder Qualifications, Bid Forms, Notice of Award, and Notice to Proceed.

CONTRACTOR: The successful BIDDER selected by the Council that enters into the CONTRACT to perform THE WORK.

EXTRA WORK: Work, including materials, for which no price agreement is contained in the CONTRACT and which is deemed necessary for the proper completion of the work.

NOTICE OF AWARD: The official written notice from CITY to the BIDDER selected by CITY to perform THE WORK.

NOTICE TO PROCEED: The official written notice from CITY to CONTRACTOR to begin performance of THE WORK.

RESPONSIBLE BIDDER: A BIDDER determined by CITY:

- (A) To have the ability, capability, experience and skill to provide the goods and/or services in accordance with the bid specifications;
- (B) To have the ability to provide the goods and/or services promptly, or within the time specified, without delay or interference;
- (C) To have equipment, facilities and resources of such capacity and location to enable the BIDDER to provide the goods and/or services;
- (D) To be able to provide future maintenance, repair, parts and service for the use of the goods purchased, when applicable;
- (E) To have the quality and adaptability of the materials, supplies or services required or necessary to the particular use; and
- (F) To possess the financial resources to perform the CONTRACT.

RESPONSIVE BIDDER: A BIDDER determined by CITY to have submitted a bid that conforms in all material respects to the requirements of the BID DOCUMENTS.

SPECIAL CONDITIONS: Additional conditions to the General Conditions which are conditions or requirements peculiar to the project under consideration. In the event Special Conditions are in conflict with the General Conditions, the Special Conditions shall be controlling.

SURETY: The corporate body, who is primarily liable, that agrees to be responsible for the payment of all debts pertaining to the acceptable performance of the work for which the CONTRACTOR has contracted.

THE WORK: All of the work or services, including the labor and materials, specified in the CONTRACT DOCUMENTS.

PAGE UTILITIES ENTERPRISE

RE-LINING OF LAGOON 2B

TABLE OF CONTENTS

VOLUME 1 OF 2

DIVISION 01 - GENERAL REQUIREMENTS

SECTION NO.	TITLE
01110	SUMMARY OF WORK
01140	WORK RESTRICTIONS
01220	MEASUREMENT AND PAYMENT
01294	APPLICATIONS FOR PAYMENT
01330	SUBMITTAL PROCEDURES
01450	QUALITY CONTROL
01500	TEMPORARY FACILITIES AND CONTROLS

DIVISION 02 - SITE CONSTRUCTION

SECTION NO.	TITLE
02666	HIGH DENSITY POLYETHYLENE GEOMEMBRANE LINERS

END OF TABLE OF CONTENTS



Digitally signed by Robert F. Buss
Contact Info: Carollo Engineers, Inc.
Date: 2023.09.15 08:10:02-0700'

A handwritten signature in black ink that reads "Robert F. Buss".

SECTION 01110
SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Detailed description of the Work.

1.02 THE WORK

- A. The Work consists of:
 - 1. Relining of effluent storage Lagoons 2B with approximately 450,000 SF of new 60 mil HDPE lining, installed over the existing 40 mil reinforced Polypropylene (RPP) lagoon liner, excavation and backfilling of liner anchor trench for new liner (per Detail), connection of HDPE material to existing weir structure and other inlet/outlet structures located in Lagoon 2B, removal of existing sand liner bollards, cleaning of the lagoon bottom prior to installing the new HDPE liner, installation of new sand bollards per manufacturer's requirements, and disposal of excess excavated materials on the WWTP property at a location designated by the Owner.

1.03 LOCATION OF PROJECT

- A. The Work is located at the Page Utility Enterprise (PUE) Wastewater Treatment Plant - 1 Honey Draw, Page, Arizona, Coconino County 86040.

1.04 ACTIVITIES BY OTHERS

- A. Activities by others which may affect performance of work include:
 - 1. Owner will continue to operate the WWTP, therefore Contractor will schedule the Work with Owner to minimize mutual interference.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01140

WORK RESTRICTIONS

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: Requirements for sequencing and scheduling the Work affected by existing site and facility, work restrictions, and coordination between construction operations and plant operations.

1.02 SUBMITTALS

- A. Baseline Schedule with tasks.

1.03 GENERAL CONSTRAINTS ON WORK AND SCHEDULING OF WORK

- A. Plant access for Contractor will be provided at the front gate.
 - 1. The Wastewater Treatment Plant is the City of Page's only means of treating domestic and industrial wastewater prior to discharging for reuse. Impairing the operational capabilities of this treatment plant will result in serious environmental damage and monetary fines.
 - 2. Conduct Work in a manner that will not impair the operational capabilities of essential elements of the treatment process or reduce the capacity of the entire treatment plant below levels sufficient to treat the quality of raw wastewater to the water quality limitations specified in the discharge permit.

1.04 COMPLIANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

- A. The existing facility is operating under the terms of a National Pollutant Discharge Elimination System permit issued by the State of Arizona
 - 1. This permit specifies the water quality limits that the plant must meet prior to discharge of effluent.
 - 2. A copy of the existing permit is on file for review at the Owner's operation's building.
- B. Perform work in a manner that will not prevent the existing facility from achieving the finished water quality requirements established by regulations.
- C. Bear the cost of penalties imposed on the Owner for discharge violations caused by actions of the Contractor.
- D. Conduct the Work and provide temporary facilities required to keep the existing plant continuously operational.

1.05 UTILITIES

- A. Provide advance notice to and utilize services of Blue Stake for location and marking of underground utilities operated by utility agencies other than the Owner.
- B. Maintain electrical, telephone, water, gas, sanitary facilities, and other utilities within existing facilities in service. Provide temporary utilities when necessary.
- C. New yard utilities were designed using existing facility drawings.
 - 1. Field verification of utilities locations was not performed during design.
 - 2. Services crossed or located nearby by new yard utilities may require relocation and possible shutdowns.
 - 3. Pipe alignments as indicated on the Drawings.

1.06 WORK BY OTHERS

- A. Where proper execution of the Work depends upon work by others, inspect and promptly report discrepancies and defects.

1.07 WORK RESTRICTIONS

- A. Maximum plant flow work limitation:
 - 1. Activities that disrupt plant operations are prohibited, unless otherwise approved in writing by the Owner and Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01220

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Procedures for measurement and payment of Work under this Contract for lump sum items.

1.02 LUMP SUM ITEMS

- A. Item 1: Mobilization:
 - 1. Measurement:
 - 2. Limit amounts included under mobilization to the following items:
 - a. Moving on the site any equipment required for first month operations.
 - b. Installing temporary construction power, wiring, and lighting facilities.
 - c. Provide temporary facilities.
 - 1) Providing on-site sanitary facilities and potable water facilities as specified.
 - 2) Developing construction water supply.
 - d. Submit required insurance certificates and bonds.
 - e. Obtaining required permits, licenses, and fees.
 - f. Submit preliminary schedule of values of the Work.
 - g. Submit preliminary schedule and develop baseline schedule.
 - h. Post OSHA, Department of Labor, state, and other required notices.
 - i. Location and flagging of construction and clearing.
 - j. Submit Contractor's quality control plan for HDPE welding.
 - k. Have Contractor's project manager and/or general superintendent on job site full-time.
 - 3. Payment:
 - a. Furnish data and documentation to substantiate the amounts claimed under mobilization costs.
 - b. Payment for mobilization shall not be made until mobilization items listed above have been completed as specified.
 - c. Limit price for mobilization to no more than 3 percent of Contract Price.
 - d. Lump sum.

- B. Item 2: Installation of 60 mil HDPE liner:
 - 1. Measurement:
 - a. Includes all labor, material, and testing associated with installation of new 60 mil HDPE liner over the prepared surface of the existing RPP liner. This Payment Item also includes all labor and material associated with removing existing sand bollards and installing new HDPE sand bollards (or tubes), as required by geomembrane manufacturer. As a minimum, install the same number of new sand bollards as are removed.
 - 2. Payment:
 - a. Square Foot.

- C. Item 3: Installation of HDPE boot:
 - 1. Measurement:
 - a. Includes all labor and material associated with the preparation for, and connection to existing pipe with new HDPE boot.
 - 2. Payment:
 - a. Each.

- D. Item 4: Connection of HDPE liner to existing overflow weir box:
 - 1. Measurement:
 - a. Includes all labor and material associated with the removal of the existing steel bar fastener, removal of existing connection bolts and nuts, installation of new 316 SST bar fastener same size as existing bar and connecting new HDPE liner over the existing RPP liner and onto the concrete weir box.
 - 2. Payment:
 - a. Each.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01294

APPLICATIONS FOR PAYMENT

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: Procedures for preparation and submittal of Applications for Payment.

1.02 FORMAT

- A. Develop satisfactory spreadsheet-type form generated from Contractor's bid take off sheets.
- B. Submit payment requests using City approved form.
- C. Fill in information required on form.
- D. When Change Orders are executed, add Change Orders at end of listing of scheduled activities:
 - 1. Identify change order by number and description.
 - 2. Provide cost of change order in appropriate column.
- E. After completing, submit Application for Payment.
- F. Engineer will review application for accuracy. When accurate, Engineer will transmit application to Owner for processing of payment.
- G. Execute application with signature of responsible officer of Contractor.

1.03 SUBSTANTIATING DATA

- A. Provide Substantiating Data identifying:
 - 1. Project.
 - 2. Application number and date.
 - 3. Progress schedule.
 - 4. Stored products log.
 - 5. Submit "certified" payroll, if applicable.
 - 6. Record (as-built) documents.
 - 7. Applicable unconditional waiver and release on progress payment for previous payment made by Owner.

1.04 SUBMITTALS

- A. Submit 3 copies of Application for Payment and Substantiating Data with cover letter.
- B. Indicate total dollar amount of work planned for every month of the project. Equate sum of monthly amounts to Lump Sum Contract Price.

1.05 PAYMENT REQUESTS

- A. Payment period:
 - 1. Monthly Application for Payment period shall begin on the 1st day of each month, and end on the last day of each month.
 - 2. Submit Application for Payment to Engineer no later than the 5th day of each month for work completed the previous month.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01330
SUBMITTAL PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Requirements and procedures for Submittals to confirm compliance with Contract Documents.

1.02 GENERAL INSTRUCTIONS

- A. Contractor is responsible to determine and verify field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and check and coordinate each item with other applicable approved Shop Drawings and Contract Document requirements.
- B. Provide Submittals:
 - 1. That are specified or reasonably required for construction, operation, and maintenance of the Work.
 - 2. That demonstrate compliance with the Contract Documents.
- C. Must be clear and legible, and of sufficient size for presentation of information.
- D. Page size, other than drawings:
 - 1. Minimum: 8-1/2 inches by 11 inches.
 - 2. Maximum: 11 inches by 17 inches.
- E. Drawing sheet size:
 - 1. Maximum: 22 inches by 34 inches.
 - a. Minimum plan scale: 1/8 inch equals 1 foot-0 inch.
 - b. Minimum font size: 1/8-inch.
 - 2. 11-inch by 17-inch sheet:
 - a. Minimum plan scale: 1/8 inch equals 1 foot-0 inch.
 - b. Minimum font size: 1/8-inch.
- F. Provide Submittal information from only one manufacturer for a specified product.

1.03 SUBMITTAL ORGANIZATION

- A. Organize Submittals in exactly the same order as the items are referenced, listed, and/or organized in the Specification section.
- B. Contractor: Prepare Submittal information in sufficient detail to show compliance with specified requirements.
 - 1. Determine and verify quantities, field dimensions, product dimensions, specified design and performance criteria, materials, catalog numbers, and similar data.

2. Coordinate Submittal with other Submittals and with the requirements of the Contract Documents.
3. Check, verify, and revise Submittals as necessary to bring them into conformance with Contract Documents and actual field conditions.

1.04 SUBMITTAL PROCEDURE

- A. Engineer: Review Submittal and provide response:
 1. Review description:
 - a. Engineer will be entitled to rely upon the accuracy or completeness of designs, calculations, or certifications made by licensed professionals accompanying a particular Submittal whether or not a stamp or seal is required by Contract Documents or Laws and Regulations.
 - b. Engineer's review of Submittals shall not release the Contractor from Contractor's responsibility for performance of requirements of Contract Documents. Neither shall the Engineer's review release the Contractor from fulfilling purpose of installation nor from the Contractor's liability to replace defective work.
 - c. Engineer's review does not extend to:
 - 1) Accuracy of dimensions, quantities, or performance of equipment and systems designed by the Contractor.
 - 2) Contractor's means, methods, techniques, sequences, or procedures, except when specified, indicated on the Drawings, or required by Contract Documents.
 - 3) Safety precautions or programs related to safety which shall remain the sole responsibility of the Contractor.
 - d. Engineer can Approve or Not Approve any exception at their sole discretion.
 2. Review timeframe:
 - a. Except as may be provided in technical Specifications, a Submittal will be returned within 20 days.
 - b. When a Submittal cannot be returned within the specified period, Engineer will, within a reasonable time after receipt of the Submittal, give notice of the date by which that Submittal will be returned.
 3. Review response will be returned to the Contractor with one of the following dispositions:
 - a. Approved:
 - 1) No Exceptions:
 - a) There are no notations or comments on the Submittal and the Contractor may release the equipment for production.
 - 2) Make Corrections Noted - See Comments:
 - a) The Contractor may proceed with the Work, however, all notations and comments must be incorporated into the final product.
 - b) Resubmittal not required.
 - 3) Make Corrections Noted - Confirm:
 - a) The Contractor may proceed with the Work, however, all notations and comments must be incorporated into the final product.
 - b) Submit confirmation specifically addressing each notation or comment to the Engineer within 15 calendar days of the date of the Engineer's transmittal requiring the confirmation.

- b. Not Approved:
 - 1) Correct and Resubmit:
 - a) Contractor may not proceed with the Work described in the Submittal.
 - b) Contractor assumes responsibility for proceeding without approval.
 - c) Resubmittal of complete Submittal package is required within 30 calendar days of the date of the Engineer's Submittal review response.
 - 2) Rejected - See Remarks:
 - a) Contractor may not proceed with the Work described in the Submittal.
 - b) The Submittal does not meet the intent of the Contract Documents. Resubmittal of complete Submittal package is required with materials, equipment, methods, etc., that meet the requirements of the Contract Documents.

- B. Contractor: Prepare resubmittal, if applicable:
 - 1. Clearly identify each correction or change made.
 - 2. Include a response in writing to each of the Engineer's comments or questions for Submittal packages that are resubmitted in the order that the comments or questions were presented from the first and subsequent Submittals and numbered consistent with the Engineer's numbering.
 - a. Acceptable responses to Engineer's comments are listed below:
 - 1) "Incorporated" - Engineer's comment or change is accepted and appropriate changes are made.
 - 2) "Response" - Engineer's comment not incorporated. Explain why comment is not accepted or requested change is not made. Explain how requirement will be satisfied in lieu of comment or change requested by the Engineer.
 - b. Reviews and resubmittals:
 - 1) Contractor shall provide resubmittals which include responses to all Submittal review comments separately and at a level of detail commensurate with each comment.
 - 2) Contractor responses shall indicate how the Contractor resolved the issue pertaining to each review comment
 - a) Responses such as "acknowledged" or "noted" are not acceptable.
 - c. Any resubmittal that does not contain responses to the Engineer's previous comments shall be returned for revision and resubmittal. No further review by the Engineer will be performed until a response for previous comments has been received.
 - 3. Resubmittal timeframe:
 - a. Contractor shall provide resubmittal within 15 days.
 - b. When a resubmittal cannot be returned within the specified period, Contractor shall notify the Engineer in writing.

1.05 PRODUCT DATA

- A. Edit Submittals so that the Submittal specifically applies to only the product furnished.

1.06 SHOP DRAWINGS

- A. Contractor to field verify elevation, coordinates, and pipe material for pipe tie-in to pipeline or structure prior to the preparation of Shop Drawings.

1.07 SAMPLES

- A. Details:
 - 1. Submit labeled samples.
 - 2. Samples will not be returned.
 - 3. Provide number of sample Submittals as below:
 - a. Total: 3 minimum.
 - 1) Owner: 1.
 - 2) Engineer: 2.
 - 3) Contractor: None.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

ATTACHMENT A - CONTRACTOR SUBMITTAL TRANSMITTAL FORM

CONTRACTOR SUBMITTAL TRANSMITTAL FORM

Owner:	Click here to enter text.	Date:	MM/DD/YYYY
Contractor:	Click here to enter text.	Project No.:	XXXXX.XX
Project Name:	Click here to enter text.	Submittal Number:	000
Submittal Title:	Click here to enter text.		
To:	Click here to enter text.		
From:	Click here to enter text.	Click here to enter text.	
	Click here to enter text.	Click here to enter text.	

Specification No. and Subject of Submittal/Equipment Supplier			
Spec ##:	Spec ##.	Subject:	Click here to enter text.
Authored By:	Click here to enter text.	Date Submitted:	XX/XX/XXXX

Submittal Certification	
Check Either (A) or (B):	
<input type="checkbox"/>	(A) We have verified that the equipment or material contained in this Submittal meets all the requirements specified in the project manual or shown on the Contract Drawings with no exceptions.
<input type="checkbox"/>	(B) We have verified that the equipment or material contained in this Submittal meets all the requirements specified in the project manual or shown on the Contract Drawings, except for the deviations listed.
Certification Statement: By this Submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and I have checked and coordinated each item with other applicable approved Shop Drawings and all Contract requirements.	
General Contractor's Reviewer's Signature:	
Printed Name:	
In the event Contractor believes the Submittal response does or will cause a change to the requirements of the Contract, Contractor shall immediately give written notice stating that Contractor considers the response to be a Change Order.	
Firm:	Click here to enter text. Signature: _____ Date Returned: XX/XX/XXXX

PM/CM Office Use	
Date Received GC to PM/CM:	
Date Received PM/CM to Reviewer:	
Date Received Reviewer to PM/CM:	
Date Sent PM/CM to GC:	

SECTION 01450
QUALITY CONTROL

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Quality control and control of installation.
 - 2. Tolerances.
 - 3. References.
 - 4. Mock-up requirements.
 - 5. Authority and duties of Owner's representative or inspector.
 - 6. Sampling and testing.
 - 7. Testing and inspection services.
 - 8. Contractor's responsibilities.

1.02 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
- H. When specified, products will be tested and inspected either at point of origin or at Work site:
 - 1. Notify Engineer in writing well in advance of when products will be ready for testing and inspection at point of origin.
 - 2. Do not construe that satisfactory tests and inspections at point of origin is final acceptance of products. Satisfactory tests or inspections at point of origin do not preclude retesting or re-inspection at Work site.
- I. Do not ship products which require testing and inspection at point of origin prior to testing and inspection.

1.03 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When Manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.04 REFERENCES

- A. ASTM International (ASTM):
 - 1. E329 - Standard for Agencies Engaged in Construction Inspection, Testing or Special Inspection.
- B. National Institute of Standards and Technology (NIST).

1.05 PRODUCT REQUIREMENTS

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents, except where specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. When specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.

1.06 MOCK-UP REQUIREMENTS

- A. Tests will be performed under provisions identified in this Section and identified in respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be comparison standard for remaining Work.
- D. Where mock-up has been accepted by Engineer and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so by Engineer.

1.07 AUTHORITY AND DUTIES OF OWNER'S REPRESENTATIVE OR INSPECTOR

- A. Owner's Project Representative employed or retained by Owner is authorized to inspect the Work.
- B. Inspections may extend to entire or part of the Work and to preparation, fabrication, and manufacture of products for the Work.
- C. Deficiencies or defects in the Work which have been observed will be called to Contractor's attention.
- D. Inspector will not:
 - 1. Alter or waive provisions of Contract Documents.
 - 2. Inspect Contractor's means, methods, techniques, sequences, or procedures for construction.
 - 3. Accept portions of the Work, issue instructions contrary to intent of Contract Documents, or act as foreman for Contractor. Supervise, control, or direct Contractor's safety precautions or programs; or inspect for safety conditions on Work site, or of persons thereon, whether Contractor's employees or others.
- E. Inspector will:
 - 1. Conduct on-site observations of the Work in progress to assist Engineer in determining when the Work is, in general, proceeding in accordance with Contract Documents.
 - 2. Report to Engineer whenever Inspector believes that Work is faulty, defective, does not conform to Contract Documents, or has been damaged; or whenever there is defective material or equipment; or whenever Inspector believes the Work should be uncovered for observation or requires special procedures.

1.08 SAMPLING AND TESTING

- A. General:
 - 1. Prior to delivery and incorporation in the Work, submit listing of sources of materials, when specified in sections where materials are specified.
 - 2. When specified in sections where products are specified:
 - a. Submit sufficient quantities of representative samples of character and quality required of materials to be used in the Work for testing or examination.
 - b. Test materials in accordance with standards of national technical organizations.
- B. Sampling:
 - 1. Furnish specimens of materials when requested.
 - 2. Do not use materials which are required to be tested until testing indicates satisfactory compliance with specified requirements.
 - 3. Specimens of materials will be taken for testing whenever necessary to determine quality of material.
 - 4. Assist Engineer in preparation of test specimens at site of work, such as soil samples and concrete test cylinders.

1.09 TESTING AND INSPECTION SERVICES

- A. Contractor will employ and pay for specified services of an independent firm to perform Contractor quality control testing as required in the technical specifications for various work and materials.

1.10 CONTRACTOR'S RESPONSIBILITIES

- A. Submit product test reports electronically.
- B. Furnish incidental labor and facilities:
 - 1. To provide access to construction to be tested.
 - 2. To obtain and handle samples at Work site or at source of product to be tested.
 - 3. To facilitate inspections and tests.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Furnishing, maintaining, and removing construction facilities and temporary controls, including temporary utilities, construction aids, barriers and enclosures, security, access roads, temporary controls, project sign, field offices and sheds, and removal after construction.

1.02 REFERENCE

- A. American National Standards Institute (ANSI).
- B. Occupational Safety and Health Administration (OSHA).

1.03 SUBMITTALS

- A. Submit as specified in Section 01330 - Submittal Procedures.

1.04 TEMPORARY UTILITIES

- A. Temporary electrical power:
 - 1. Contractor to provide and maintain adequate jobsite power supply and distribution facilities conforming to applicable Laws and Regulations.
- B. Temporary electrical lighting:
 - 1. In work areas, provide temporary lighting sufficient to maintain lighting levels during working hours not less than lighting levels required by OSHA and state agency which administers OSHA regulations where Project is located.
 - 2. When available, permanent lighting facilities may be used in lieu of temporary facilities.
- C. Temporary heating, cooling, and ventilating:
 - 1. Heat and ventilate work areas to protect the Work from damage by freezing, high temperatures, weather, and to provide safe environment for workers.
- D. Temporary water:
 - 1. Pay for and construct facilities necessary to furnish potable water for human consumption and non-potable water for use during construction.
 - 2. Remove temporary piping and connections and restore affected portions of the facility to original condition before final acceptance.
 - 3. Pay for water used for construction prior to final acceptance.

- E. Temporary sanitary facilities:
 - 1. Provide suitable and adequate sanitary facilities that follow applicable Laws and Regulations.
 - 2. Existing facility use is not allowed.
 - 3. At completion of the Work, remove sanitary facilities and leave site in neat and sanitary condition.
- F. Temporary fire protection:
 - 1. Provide fire protection required to protect the Work and ancillary facilities.
- G. First aid: Post first aid facilities and information posters conforming to requirements of OSHA and other applicable Laws and Regulations in readily accessible locations.
- H. Utilities in existing facilities: As specified in Section 01140 - Work Restrictions.

1.05 CONSTRUCTION AIDS

- A. Provide railings, kick plates, enclosures, safety devices, and controls required by Laws and Regulations and as required for adequate protection of life and property.
- B. Use construction hoists, elevators, scaffolds, stages, shoring, and similar temporary facilities of ample size and capacity to adequately support and move loads.
- C. Accident prevention:
 - 1. Exercise precautions throughout construction for protection of persons and property.
 - 2. Observe safety provisions of applicable Laws and Regulations.
 - 3. Guard machinery and equipment and eliminate other hazards.
 - 4. Make reports required by authorities having jurisdiction, and permit safety inspections of the Work.
 - 5. Before commencing construction work, take necessary action to comply with provisions for safety and accident prevention.
- D. Barricades:
 - 1. Place barriers at ends of excavations and along excavations to warn pedestrian and vehicular traffic of excavations.
 - 2. Provide barriers with flashing lights after dark.
 - 3. Keep barriers in place until excavations are entirely backfilled and compacted.
 - 4. Barricade excavations to prevent persons from entering excavated areas in streets, roadways, parking lots, treatment plants, or other public or private areas.
- E. Warning devices and barricades: Adequately identify and guard hazardous areas and conditions by visual warning devices and, where necessary, physical barriers:
 - 1. Provide devices in accordance with minimum requirements of OSHA and State agency which administers OSHA regulations where Project is located.
- F. Hazards in protected areas: Mark or guard excavations in areas from which public is excluded, in manner appropriate for hazard.

- G. Protect existing structures, trees, shrubs, and other items to be preserved on Project site from injury, damage, or destruction by vehicles, equipment, worker or other agents with substantial barricades or other devices commensurate with hazards.

1.06 SECURITY

- A. Make adequate provision for protection of the work area against fire, theft, and vandalism, and for protection of public against exposure to injury.

1.07 ACCESS ROADS

- A. General:
 - 1. Build and maintain access roads to and on site of the Work to provide for delivery of material and for access to existing and operating plant facilities on site.
 - 2. Build and maintain dust free roads which are suitable for travel at 20 miles per hour.
- B. Off-site access roads:
 - 1. Build and maintain graded earth roads.
 - 2. Build roads only in public right-of-way or easements obtained by Owner.
 - 3. Obtain rights-of-way or easements when electing to build along other alignment.
- C. On-site access roads:
 - 1. Maintain access roads to storage areas and other areas to which frequent access is required.
 - 2. Maintain similar roads to existing facilities on site of the Work to provide access for maintenance and operation.
 - 3. Protect buried, vulnerable utilities under temporary roads with steel plates, wood planking, or bridges.
 - 4. Maintain on-site access roads free of mud.
 - 5. Provide controls to prevent vehicles leaving the site from tracking mud off the site onto the public right-of-way.

1.08 TEMPORARY CONTROLS

- A. Dust control:
 - 1. Prevent dust nuisance caused by operations, unpaved roads, excavation, backfilling, demolition, or other activities.
 - 2. Control dust by sprinkling with water, use of dust palliatives, modification of operations, or other means acceptable to agencies having jurisdiction.
- B. Noise control:
 - 1. Comply with noise and work hours regulations by local jurisdiction.
 - 2. In or near inhabited areas, particularly residential, perform operations in manner to minimize noise.
 - 3. In residential areas, take special measures to suppress noise during night hours.

- C. Mud control:
 - 1. Prevent mud nuisance caused by construction operations, unpaved roads, excavation, backfilling, demolition, or other activities.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 02666

HIGH DENSITY POLYETHYLENE GEOMEMBRANE LINERS

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: High Density Polyethylene geomembrane waterproofing liner.

1.02 REFERENCES

- A. ASTM International (ASTM):
1. D746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact.
 2. D792 - Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
 3. D1004 - Standard Test Method for Tear Resistance (Graves Tear) of Plastics Film and Sheeting.
 4. D1238 - Standard Test Method for Flow Rates of Thermoplastics by Extrusion Plastometer.
 5. D1505 - Standard Test Method for Density of Plastics by the Density-Gradient Technique.
 6. D1603 - Standard Test Method for Carbon Black in Olefin Plastics.
 7. D3895 - Standard Test Method for Oxidative Induction Time of Polyolefins by Differential Scanning Calorimetry.
 8. D4218 - Standard Test Method for Determination of Carbon Black Content in Polyethylene Compounds by the Muffle Furnace Technique.
 9. D4437 - Standard Practice for Non Destructive Testing (NDT) for Determining the Integrity of Seams Used in Joining Flexible Polymeric Sheet Geomembranes.
 10. D4833 - Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products.
 11. D5199 - Standard Test Method for Measuring the Nominal Thickness of Geosynthetics.
 12. D5397 - Standard Test Method for Evaluation of Stress Crack Resistance of Polyolefin Geomembranes Using Notched Constant Tensile Load Test.
 13. D5596 - Standard Test Method for Microscopic Evaluation of the Dispersion of Carbon Black in Polyolefin Geosynthetics.
 14. D5721 - Standard Practice for Air Oven Aging of Polyolefin Geomembranes.
 15. D5885 - Standard Test method for Oxidative Induction Time of Polyolefin Geosynthetics by High Pressure Differential Scanning Calorimetry.
 16. D6693 - Standard Test Method for Determining Tensile Properties of Nonreinforced Polyethylene and Nonreinforced Flexible Polypropylene Geomembranes.

1.03 DEFINITIONS

- A. Batch: Quantity of resin, usually 1 railcar, used in fabrication of high density polyethylene geomembrane rolls with number corresponding to resin batch.
- B. Bridging: Condition existing when geomembrane is not in contact with underlying material.
- C. Extrudate: High-density polyethylene material produced in form of rods used to extrusion weld panels of geomembrane together.
- D. Geomembrane: Very-low permeability synthetic flexible membrane liner barrier used to minimize fluid migration.
- E. Geomembrane Contractor: Entity responsible of manufacturing, shipping, field handling, transporting, storing, deploying, seaming, temporarily restraining against wind, and installing geomembrane.
- F. Geomembrane Subsurface: Material surface upon which geomembrane is placed.
- G. Quality Assurance Consultant or Testing Laboratory: Entity, independent from the Contractor, responsible for conducting laboratory tests on samples of geomembrane obtained at the site.
- H. Panel: Unit of geomembrane area, roll, or portion of roll that will be seamed on the site.
- I. Panel Layout Drawings: Drawings indicating panel numbers, field seams, and details.
- J. Subgrade: In situ material.

1.04 SUBMITTALS

- A. Product data: Include manufacturer's specifications, description of seaming by extrusion welding and hot wedge welding, descriptive drawings, product identification, supplier of polymer resin, and recommended method of material handling and storage prior to installation.
- B. Quality assurance program: Include polymer resin supplier, product identification, acceptance testing, production testing, installation testing, and documentation of changes, alterations, repairs, retests, and acceptance.
- C. Statement of resin and geomembrane production dates.
- D. Factory test results and material certification: Demonstrate conformance with Contract requirements and certify that material delivered is similar and of same formulation as that for which test results are submitted.

- E. Shop drawings: Include installation drawings, procedures, and schedule, geomembrane sheet layout with proposed sizes, number, position, and sequence of sheet placement, and location of field seams and intermediate and final anchor trenches.
- F. Factory visit information: Contact names, telephone numbers, addresses, and production schedule for possible visit by Engineer to manufacturing plant during manufacturer of sheets for the Project.
- G. Subsurface certification: Certify acceptance of subsurface.
- H. Welder certification: Certify availability of each welder's performance record including linear feet of welds completed, number of samples tested and weld test failure rate, and qualifications.
- I. Record drawings: Include identity and location of each repair, cap strip, penetration, boot, and sample taken from installed geomembrane for testing.
- J. Quality control record: Identify each test by date and sample, date of test, sample location, name of individual who performed test, and standard test method used.
- K. Weld test summary report: Show normal distribution of test results, and individual test results identifying high, low, and average of 5 coupon samples for each test.

1.05 QUALITY ASSURANCE

- A. Geomembrane contractor qualifications: Manufacturer and installer of geomembranes for minimum 20 projects similar in complexity and size as the Project, and minimum 20 million square feet of geomembrane; employer of the following personnel for the Project:
 - 1. Superintendent or foreman with minimum experience on 5 projects similar in complexity and size as the Project.
 - 2. Master welders with minimum of 10,000,000 square feet of geomembrane seaming experience with maximum 2 percent weld failure rate.
 - 3. Welders with minimum of 1,000,000 square feet of geomembrane seaming experience with maximum 2 percent weld failure rate.
- B. Engage and pay for services of Construction Quality Assurance Consultant or Testing Laboratory as specified in Section 01450 - Quality Control.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, unload, and store geomembrane with minimum handling.
- B. Protect materials from mud, soil, dirt, and debris.
- C. Store geomembrane directly on prepared level surface, maximum 3 rolls high.

PART 2 PRODUCTS

2.01 GEOMEMBRANE

- A. Manufacturers: One of the following or equal:
 - 1. AGRU America.
 - 2. GSE Environmental.

- B. Type: First quality unmodified high density polyethylene, designed and manufactured specifically for reservoir and pond lining containing the following:
 - 1. No plasticizers, fillers, chemical additives, reclaimed polymers, or extenders.
 - 2. Approximately 2 percent carbon black.
 - 3. Maximum 1.5 percent anti-oxidants and heat stabilizers.

- C. Thickness: 60 mils.

- D. Width: Minimum 22.5 feet with no factory seams.

- E. Roll identification: Unique number printed on label affixed to inside and outside of roll, and continuous name of manufacturer, thickness, material type, and date of manufacturer printed on membrane.

- F. Surface texture: Smooth or textured. Each lagoon.
 - 1. Smooth everywhere except in four (4) sections in locations directed by the Owner.
 - 2. Textured in the four (4) sections, measuring 22.5 feet in width and approximately 45 feet in length.

- G. Resin properties:
 - 1. Specific gravity of resin: Minimum 0.935 grams per cubic centimeter when tested in accordance with ASTM D1505: Method A or ASTM D792: Method B.
 - 2. Melt index of resin: Maximum 1.0 grams per 10 minutes when tested in accordance with ASTM D1238: Procedure B.

- H. Membrane properties: As specified in Attachment A - High Density Polyethylene Geomembrane Liner Properties.

2.02 RELATED MATERIALS

- A. Extrudate: Made from same resin as geomembrane, free of contamination by moisture or foreign matter, additives thoroughly dispersed.

- B. Cleaning solvents and adhesives: As recommended by geomembrane manufacturer.

2.03 EQUIPMENT

- A. Welding equipment: Equipped with gauges showing temperature at nozzle for extrusion welder, or at wedge for wedge welder.

- B. Field tensiometer: Build to ASTM specifications; accompanied by evidence of recent calibration; motor driven with jaws capable of traveling at 2 inches per minute; equipped with gauge that measures force in unit pounds exerted between jaws with digital readout.
- C. Punch press: Capable of cutting specimens in accordance with ASTM D4437.
- D. Vacuum box: With transparent viewing window on top and soft, closed-cell neoprene gasket attached to bottom; rigid housing equipped with bleed valve and vacuum gauge; separate vacuum source connected to vacuum box; capable of inducing and holding 5-pound per square inch vacuum.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas and conditions. Correct conditions detrimental to timely and proper installation of geomembrane.

3.02 PREPARATION

- A. Repair damage to geomembrane subsurface during geomembrane deployment or other activities prior to installation.
- B. Verify smooth subsurface without protrusions, sharp objects and deleterious materials. Round excavation and grade change edges to minimum 6-inch radius.
- C. Place geomembrane when air temperature is greater than 25 degrees Fahrenheit and increasing, and less than 100 degrees Fahrenheit, unless otherwise accepted by the Engineer.
- D. Provide certification that surface for liner placement is acceptable to installer.

3.03 DEPLOYMENT

- A. Assign each deployed panel with simple and logical identifying code consistent with panel layout drawing.
 - 1. Deploy no more panels than can be welded during same day.
 - 2. Do not leave temporary tack welded seams overnight.
 - 3. Shingle panels on slopes with upper panels overlapping lower panels.
- B. Orient panels perpendicular to line of slope crest, or down and not across slope. Locate seams parallel to crest or toe of slope for slopes greater than 10 horizontal to 1 vertical at least 6 feet away from crest or toe.
- C. Unroll geomembrane panels using methods that will not damage, stretch, or crimp geomembrane.
 - 1. Protect underlying subsurface from damage.
 - 2. Use ballast that will not damage geomembrane to prevent wind uplift.
 - 3. Minimize wrinkles.
 - 4. Remove folds.

- D. Do not engage in activities that may damage geomembrane.
 - 1. Wear shoes that will not damage geomembrane.
 - 2. Prohibit smoking while working on geomembrane.
- E. Prohibit vehicular traffic directly on geomembrane. Prevent equipment from damaging geomembrane by handling, trafficking, leakage of hydrocarbons, or other means. Do not use geomembrane surface as work area, for preparing patches, storing tools and supplies, or other uses. Spread out protective cover as work area when needed.
- F. Provide sufficient material to allow for geomembrane shrinkage and contraction to avoid bridging. Obtain Engineer's acceptance of methods used to determine amount of additional material.

3.04 SEAMING

- A. Use seam coding system that is compatible with panel coding system.
 - 1. Require master welders to supervise other welders during welding operations.
- B. Clean geomembrane surface of grease, moisture, dust, dirt, debris, or other foreign material with solvents or adhesives. Overlap panels by minimum 4 inches at welds. Weld seams to outside edge of panels placed under anchor berms or in anchor trenches.
- C. Cut fishmouths or wrinkles at seam overlaps to achieve flat overlap. Extrusion weld or patch cut fishmouths or wrinkles where overlap is more than 3 inches. With less than 3-inch overlaps, use oval or round patch that extends at least 6 inches beyond cut in every direction.
- D. Weld seams only when ambient temperature is between 35 and 110 degrees Fahrenheit as measured 6 inches above geomembrane surface unless otherwise accepted by the Engineer.
- E. Extrusion welding:
 - 1. Tack bond adjacent panels together using procedures that do not damage geomembrane, allow required tests to be performed, and are not detrimental to final seaming.
 - 2. Free welding apparatus of heat-degraded extrudate before welding.
 - 3. Abrade geomembrane surface no more than 1/4 inch beyond weld bead area with disc grinder, or equivalent, not more than 1/2 hour before extruding seam.
 - 4. Bevel top edges of 60-mil thick geomembrane or thicker at 45 degrees using hand held grinders.
 - 5. Grind ends of seams more than 5 minutes old when restarting weld.
 - 6. Do not grind more than 10 percent of liner thickness.
- F. Hot-wedge seaming:
 - 1. Use automated, vehicular-mounted welding apparatus, equipped with devices giving applicable temperatures and pressures.
 - 2. Grind edges of cross seams to smooth incline, top and bottom, prior to welding.

- G. Trial welds:
1. Perform on geomembrane to verify welding equipment operations and performance of seaming methods and conditions.
 2. Make minimum 2 trial welds per day or shift per welding apparatus.
 3. Make minimum trial welds prior to start of work and at mid shift.
 4. Make welds under same surface and environmental conditions as production welds.
- H. Trial weld testing:
1. Cut 4-foot long by 2-foot wide sample with seam centered lengthwise.
 2. Cut three 1-inch wide test strips from trial weld.
 3. Test each specimen in field for peel and shear.
 4. Retain remaining sample for future testing.
 5. For double-wedge welding, test both welds individually.

3.05 FIELD QUALITY CONTROL

- A. Conformance testing by testing laboratory:
1. Obtain one sample, 3-foot long by entire width of roll, excluding first 3 feet, per 100,000 square feet.
 2. Perform test to determine geomembrane density, thickness, tensile strength, carbon black content, and carbon black dispersion.
- B. Other testing by Contractor:
1. Non-destructively test field seams over full length using vacuum test unit, air pressure for double fusion seams only, or other methods acceptable to Engineer.
 2. Perform vacuum, air-pressure, spark testing as seaming progresses.
- C. Vacuum testing:
1. Use equipment consisting of 2 vacuum box assemblies with rigid housing, transparent viewing window, soft neoprene gasket attached to bottom, port hole or valve assembly, vacuum gauge, vacuum pump assembly with pressure control, rubber pressure and vacuum hose with fittings and connections, soapy solution and applicator.
 2. Brush soapy solution on geomembrane.
 3. Place vacuum box over wetted seam area.
 4. Ensure leak-tight seal.
 5. Apply vacuum of approximately 5 pounds per square inch.
 6. Examine geomembrane through viewing window for presence of soap bubbles for minimum 15 seconds.
 7. Mark areas where soap bubbles appear.
 8. Repair defective areas.
- D. Air pressure testing for double seams with enclosed space:
1. Use equipment consisting of manual or motor driven air pump with pressure gauge capable of generating and sustaining pressure over 25 pounds per square inch and mounted on cushion to protect geomembrane, rubber hose with fittings and connections, sharp hollow needle, or other Engineer-accepted pressure feed device, and pressure gauge with accuracy of 1 pound per square inch.

2. Seal both ends of seams to be tested.
 3. Insert needle or other pressure-feed device acceptable to Engineer into channels created by double-wedge welds.
 4. Energize air pump to minimum pressure of 25 pounds per square inch, close valve, and sustain pressure for minimum 5 minutes.
 5. When pressure loss exceeds 2 pounds per square inch or does not stabilize, locate and repair defective area.
 6. Puncture opposite end of seams to release air.
 7. When blockage is present, locate and test seam on both sides of blockage.
 8. Remove needle or other pressure-feed device acceptable to Engineer and seal penetration holes by extrusion welding.
- E. Spark testing:
1. Test extrusion welded seams that cannot be tested by vacuum box.
 2. Place 24-gauge copper wire 1/8 inch under top sheet overlap.
 3. Test with Holiday detector operating at 20,000 volts.
- F. Destructive test sampling:
1. Collect one 18- by 36-inch sample with seam centered lengthwise, per 500 feet of seam length where directed by testing laboratory.
 2. Testing laboratory will number each sample, mark sample number and location on panel layout drawing, and cut sample into 3 equal parts: 1 for Owner, 1 for Contractor, and 1 for testing laboratory testing.
 3. Immediately repair holes in geomembrane resulting from sampling.
 4. Vacuum test repaired area for continuity.
- G. Laboratory testing: Testing laboratory will:
1. Test seam welds from samples for peel adhesion and shear strength in accordance with ASTM D4437.
 2. Test minimum 5 coupons from each sample for each test method.
 3. Test adjacent coupons by different testing methods.
 4. Test both welds of double-wedge seam samples.
 5. Declare failure when welds exhibit film tearing bond type of separation before geomembrane or when shear strength and peel adhesion fails to withstand the following minimum stresses:

Test	Minimum Acceptable Stress (lbs/inch width)			
	40 mil	60 mil	80 mil	100 mil
Shear Strength	86	126	171	216
Peel Adhesion				
1. Wedge Weld	57	84	114	144
2. Extrusion Weld	48	70	95	120

6. Notify parties of Contract of testing results verbally within 24 hours and in writing within 7 days of receipt of samples.

- H. Repair defective seams uncovered by testing by one of the following methods:
 - 1. Reconstruct seams between 2 passed test locations.
 - 2. Trace welds to intermediate locations at least 10 feet or to where seams end, in both directions from failed test locations.
 - a. Check adjacent seams welded using same welding device when required to obtain additional samples.
 - b. Take bounding samples for testing.
 - c. When bounding samples pass, reconstruct seams between passed test locations.
 - d. When bounding samples fail, repeat process until additional bounding samples pass.
- I. Reconstruct seams by extrusion welding of previously wedge welded seams, cap stripping of seams, or replacing seams with new 1-foot-wide panels and welding in place, or other Engineer-accepted method.

3.06 REPAIR OF DEFECTS

- A. Examine geomembrane for defects, holes, blisters, undispersed raw materials, and signs of contamination by foreign matter.
 - 1. Clean geomembrane surfaces during examination.
 - 2. Repair and non-destructively test suspect locations.
 - 3. Do not cover geomembrane at locations that have been repaired until accepted by the Engineer.
- B. Remove and replace geomembrane that cannot be satisfactorily repaired with new.
- C. Repair portions of geomembrane exhibiting flaws, or failing testing by one of the following methods or Engineer-accepted method:
 - 1. Patching: For holes larger than 3/8-inch diameter, tears over 2 inches long, undispersed raw materials, and contamination by foreign matter.
 - 2. Abrading and re-welding: For small seam section less than 12 inches long.
 - 3. Spot welding: For small tears less than 2 inches long, pinholes, or other minor, localized flaws.
 - 4. Capping: For large lengths of failed seams.
 - 5. Replacement with new: For unsatisfactory materials.
- D. For extrusion welds only, repair geomembrane surfaces to be repaired within 1/2 hour of being abraded.
 - 1. Extend patches or caps at least 6 inches beyond edges of defects.
 - 2. Round corners of materials to be patched and patches to minimum 3-inch radius.
 - 3. Cut geomembrane below large caps to avoid water or gas collection between 2 sheets.
- E. Verify repairs by testing as determined by testing laboratory.

END OF SECTION

**ATTACHMENT A - HIGH DENSITY POLYETHYLENE GEOMEMBRANE
LINER PROPERTIES**

HIGH DENSITY POLYETHYLENE GEOMEMBRANE LINER PROPERTIES

Properties	Test Value								Testing Frequency (minimum)
	Test Method	30 mils	40 mils	50 mils	60 mils	80 mils	100 mils	120 mils	
Thickness (min. ave.)	ASTM D5199	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	10 times per roll
- lowest individual of 10 values		-10%	-10%	-10%	-10%	-10%	-10%	-10%	
Density mg/l (min.)	ASTM D1505 ASTM D792	0.935 g/cc	0.935 g/cc	0.935 g/cc	0.935 g/cc	0.935 g/cc	0.935 g/cc	0.935 g/cc	200,000 lb
Melt Flow Index (g/10min) maximum value	ASTM D1238	1.0	1.0	1.0	1.0	1.0	1.0	1.0	per each formulation
Low Temperature Brittleness (°F) ⁽⁹⁾	ASTM D746	-112	-112	-112	-112	-112	-112	-112	N/A
Tensile Properties ⁽¹⁾ (min. ave.) <input type="checkbox"/> yield strength <input type="checkbox"/> break strength <input type="checkbox"/> yield elongation <input type="checkbox"/> break elongation	ASTM D6693 Type IV	63 lb/in. 114 lb/in. 12% 700%	84 lb/in. 152 lb/in. 12% 700%	105 lb/in. 190 lb/in. 12% 700%	126 lb/in. 228 lb/in. 12% 700%	168 lb/in. 304 lb/in. 12% 700%	210 lb/in. 380 lb/in. 12% 700%	252 lb/in. 456 lb/in. 12% 700%	20,000 lb
Tear Resistance (min. ave.)	ASTM D1004	21 lb	28 lb	35 lb	42 lb	56 lb	70 lb	84 lb	45,000 lb
Puncture Resistance (min. ave.)	ASTM D4833	54 lb	72 lb	90 lb	108 lb	144 lb	180 lb	216 lb	45,000 lb
Stress Crack Resistance ⁽²⁾	ASTM D5397 (App.)	300 hr.	300 hr.	300 hr.	300 hr.	300 hr.	300 hr.	300 hr.	per GRI-GM10
Carbon Black Content (range)	ASTM D4218 ⁽³⁾	2.0-3.0%	2.0-3.0%	2.0-3.0%	2.0-3.0%	2.0-3.0%	2.0-3.0%	2.0-3.0%	20,000 lb
Carbon Black Dispersion	ASTM D5596	note (4)	note (4)	note (4)	note (4)	note (4)	note (4)	note (4)	45,000 lb
Oxidative Induction Time (OIT) (min. ave.) ⁽⁵⁾ Standard OIT — or — High Pressure OIT	ASTM D3895 ASTM D5885	100 min. 400 min.	100 min. 400 min.	100 min. 400 min.	100 min. 400 min.	100 min. 400 min.	100 min. 400 min.	100 min. 400 min.	200,000 lb

Properties	Test Value								Testing Frequency (minimum)
	Test Method	30 mils	40 mils	50 mils	60 mils	80 mils	100 mils	120 mils	
Oven Aging at 85°C ⁽⁵⁾⁽⁶⁾ Standard OIT (min. ave.) -% retained after 90 days — or — High Pressure OIT (min. ave.) -% retained after 90 days	ASTM D5721 ASTM D3895	55%	55%	55%	55%	55%	55%	55%	per each formulation
	ASTM D5885	80%	80%	80%	80%	80%	80%	80%	
UV Resistance ⁽⁷⁾ High Pressure OIT (min. ave.) -% retained after 1600 hrs ⁽⁸⁾	ASTM D5885	50%	50%	50%	50%	50%	50%	50%	per each formulation

Notes:

- (1) Machine direction (MD) and cross machine direction (XMD) average values should be on the basis of 5 test specimens each direction. Yield elongation is calculated using a gage length of 1.3 inches Break elongation is calculated using a gage length of 2.0 in.
- (2) The yield stress used to calculate the applied load for the SP-NCTL test should be the manufacturer's mean value via MQC testing.
- (3) Other methods such as ASTM D1603 (tube furnace) or D 6370 (TGA) are acceptable if an appropriate correlation to D4218 (muffle furnace) can be established.
- (4) Carbon black dispersion (only near spherical agglomerates) for 10 different views: 9 in Categories 1 or 2 and 1 in Category 3.
- (5) The manufacturer has the option to select either one of the OIT methods listed to evaluate the antioxidant content in the geomembrane.
- (6) It is also recommended to evaluate samples at 30 and 60 days to compare with the 90-day response.
- (7) The condition of the test should be 20 hr. UV cycle at 75°C followed by 4 hr. condensation at 60°C.
- (8) UV resistance is based on percent retained value regardless of the original HP-OIT value.
- (9) Certification only required.

INSTRUCTIONS TO BIDDERS

1. PREPARATION OF BID. All BIDs shall be on the forms provided in this Invitation for Bid package. It is the responsibility of all BIDDERS to examine the entire BID DOCUMENTS package and seek clarification of any requirement that may not be clear and to check all responses for accuracy before submitting a BID.

The Bid Form shall be submitted with an original ink signature by the person authorized to sign the BID. Erasures, interlineations, or other modifications in the BID shall be initialed in original ink by the authorized person signing the BID. PAGE UTILITY ENTERPRISES shall not reimburse the cost of developing, presenting, or submitting any response to this solicitation. BIDs submitted should be prepared simply and economically, providing adequate information in the straightforward and concise manner.

2. SUBMISSION OF BID. Submission of a BID shall be considered prima-facie evidence that the CONTRACTOR is familiar with and understands all the conditions under which the BID and subsequent CONTRACT is to be awarded, performed, and administered. The CONTRACTOR, if awarded the CONTRACT, shall not be allowed extra compensation by reason of any matter or thing which such CONTRACTOR might have more fully explored or been informed prior to submitting a BID. After the submission of the BID, no complaint or claim that there was any misunderstanding as to the conditions or nature of the work will be entertained.

Submission of additional terms, conditions, or agreements with the BID DOCUMENTS may result in rejection of the BID. BIDDER shall return all BID DOCUMENTS intact and completed as directed.

3. METHOD OF DELIVERY. There are five (5) methods by which BIDDERS can forward this bid package to PAGE UTILITY ENTERPRISES: Regular U.S. Postal Service (No delivery to Page Utility Enterprises Office-Use P.O. Box); U.S. Postal Express Mail (No delivery to Page Utility Enterprises Office-Use P.O. Box); Federal Express; United Parcel Service; hand delivery. Facsimile BIDs shall not be accepted.

The mailing address for Page Utility Enterprises is as follows:

Page Utility Enterprises
General Manager
P.O. Box 1955
Page, AZ 86040

The physical address for Page Utility Enterprises is as follows:

Page Utility Enterprises
General Manager
640 Haul Road
Page, AZ 86040

4. QUESTIONS, OMISSIONS, DISCREPANCIES, INTERPRETATIONS AND ADDENDA. All questions regarding discrepancies in or omissions from, the Scope of Work

and/or Plans, Drawings, and Technical Specifications, or other BID DOCUMENTS, or doubts as to their meaning should be submitted in writing to the Department Director specified in the Notice of Invitation for Bid.

No oral interpretations shall be made to any BIDDER as to the meaning of any of the BID DOCUMENTS, and PAGE UTILITY ENTERPRISES shall not be bound by any oral interpretation of the BID DOCUMENTS. Oral interpretations or clarifications will be without legal effect. PAGE UTILITY ENTERPRISES reserves the right to amend the BID DOCUMENTS at any time prior to the award.

Any amendment or addendum issued will be forwarded within 5 days to any known recipient of the original IFB. For purposes of receiving any addendum issued, it shall be the sole responsibility of each potential bidder to notify PAGE UTILITY ENTERPRISES that they have obtained a copy of the original IFB and intend to submit a BID and provide contact information for the receipt of amendments or addendum. PAGE UTILITY ENTERPRISES hereby reserves the right to extend the period of time in which to submit bids.

5. WITHDRAWAL OF BID. At any time prior to the specified Bid submission deadline, a BIDDER may withdraw or revise the BID. Any withdrawal or revision request must be received in writing prior to said deadline. All revisions must be submitted in the same form and manner as the original BID. No BIDDER may withdraw his BID for Sixty (60) days after the time established for receiving BIDs. The award of the CONTRACT to another party does not constitute a waiver of this condition.

6. LATE BIDS. Late BIDs shall not be considered. Page is considered a rural area by most express delivery carriers and thus, they do not guarantee priority or next day delivery. BIDDERS are encouraged to keep this in mind when arranging delivery of their BIDs and are advised herein that late BIDs shall be rejected and returned to the BIDDER regardless of reason for being late.

7. PRICES. In the event of discrepancy or conflict between the prices quoted in the BID in words and those quoted in figures, the words shall control. The price quoted shall be the total cost Page Utility Enterprises will pay for the project, including furnishing of all materials, equipment, tools, and all other facilities, all applicable taxes, and the performance of all labor and services necessary or proper for completion of the work. Prices quoted shall also include any and all payment incentives available to PAGE UTILITY ENTERPRISES.

8. REFERENCES. The BIDDER shall provide a list of five (5) current and five (5) former clients. References should have similar scope and requirements to those outlined in these BID DOCUMENTS. Unacceptable references, as determined by PAGE UTILITY ENTERPRISES, may be sufficient reason to deny award of this project to BIDDER.

9. STATEMENT OF QUALIFICATIONS. As evidence of his competency to perform THE WORK, BIDDER shall complete and submit with his BID the Statement of Bidder Qualifications. Low bidders may be asked to furnish additional data to demonstrate competency. By submitting a BID, BIDDER certifies that he is skilled and regularly engaged in the general class and type of work called for in the BID DOCUMENTS.

Additionally, BIDDER shall comply with all provisions of Arizona Revised Statutes, Title 32, Chapter 10.

10. SUBCONTRACTORS. The CONTRACTOR may subcontract any part of the work to be performed under this CONTRACT as long as resulting charges to PAGE UTILITY ENTERPRISES do not exceed the Lump Sum BID quoted in the Bid Form and the subcontractor(s) is/are licensed to perform the work required by the CONTRACT. The BIDDER shall submit the List of Subcontractors and Supplier form, listing all of the subcontractors and major suppliers it intends to use in the performance of THE WORK. PAGE UTILITY ENTERPRISES reserves the right to reject any BID based on submission of an incomplete list of subcontractors and major material suppliers as non-responsive. PAGE UTILITY ENTERPRISES reserves the right to reject, prior to award of the CONTRACT, the bidder's request for substitution of subcontractors or major material suppliers provided, however, substitute subcontractors may be considered as long as they comply with the requirements of these CONTRACT DOCUMENTS.

11. DETERMINATION OF SUCCESSFUL BIDDER. Except where PAGE UTILITY ENTERPRISES exercises the reserved right herein to reject any or all bids, the CONTRACT shall be awarded by PAGE UTILITY ENTERPRISES to the RESPONSIVE and RESPONSIBLE BIDDER who has submitted the lowest lump sum BID.

PAGE UTILITY ENTERPRISES may conduct such investigation as PAGE UTILITY ENTERPRISES deems necessary to assist in the evaluation of any BID and to establish the responsibility, qualifications, and financial ability of BIDDERS, proposed subcontractors and other persons and organizations to do THE WORK in accordance with the BID DOCUMENTS.

12. AWARD OF CONTRACT. Notwithstanding any other provision in these BID DOCUMENTS, PAGE UTILITY ENTERPRISES reserves the right to (a) waive any immaterial defect or informality; or (b) reject any or all BIDs, or portions thereof; or (c) reissue this IFB. Within Sixty (60) days after opening of the bids, PAGE UTILITY ENTERPRISES shall act upon them. The acceptance of a BID shall be a written NOTICE OF AWARD and no other act shall constitute acceptance.

13. TIME FOR EXECUTING CONTRACT. Any BIDDER whose BID has been accepted shall be required to execute the CONTRACT and return it to PAGE UTILITY ENTERPRISES within ten (10) days after receipt of the NOTICE OF AWARD, complete with required bond forms and insurance certificates. Failure or neglect to do so shall constitute a breach of the agreement effected by the NOTICE OF AWARD. The rights and obligations provided for in the CONTRACT shall become effective and binding upon the parties only with its formal execution by PAGE UTILITY ENTERPRISES.

The damages to PAGE UTILITY ENTERPRISES for such breach shall include loss from interference with its construction program and other items whose accurate amount shall be difficult or impossible to compute. The amount of the Bid Bond accompanying the BID of such BIDDER shall be retained by PAGE UTILITY ENTERPRISES as liquidated damages for such breach.

14. SUSPENSION & DEBARMENT. PAGE UTILITY ENTERPRISES reserves the right to reject the BID of any person or corporation that has previously defaulted on any contract with PAGE UTILITY ENTERPRISES or has engaged in conduct that constitutes a cause for debarment or suspension.

15. PROTEST PROCEDURE. The award determination of the Page Utility Board and/or Page City Council shall be final.

16. PUBLIC RECORD. All BIDS submitted in response to this invitation shall become the property of PAGE UTILITY ENTERPRISES and shall become a matter of public record; provided, however, that the BIDDER shall clearly identify information that he considers to be confidential. To the extent that PAGE UTILITY ENTERPRISES agrees with such designation, such information will be held in confidence whenever possible.

GENERAL CONDITIONS

The following Provisions are general in scope and may refer to conditions which will not be encountered in the performance of THE WORK included in this CONTRACT and which are not applicable thereto. Any requirements, provisions or other stipulation of these General Conditions which pertain to a non-applicable condition shall be excluded from the scope of this CONTRACT.

1. CERTIFICATION. By signature of the Bid Form, BIDDER certifies:
 - A. The submission of the BID did not involve collusion or other anti-competitive practices.
 - B. The BIDDER shall not discriminate against any employee, or applicant for employment in violation of Federal Executive Order 11246, or A.R.S. § 31-1461 et seq.
 - C. The BIDDER has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted BID.
 - D. The BIDDER submitting the offer hereby certifies that the individual signing the BID is an authorized agent for the BIDDER and has authority to bind the BIDDER to the CONTRACT.
 - E. That no person has been employed or retained to solicit or secure this CONTRACT upon an agreement or understanding for a commission, percentage, brokerage or contingency fee, and that no member of the UTILITY Board, CITY Council or CITY employee has any interest, financial or otherwise, in the Contracting firm.

2. COMPLIANCE WITH LAW. The CONTRACTOR, in the execution of THE WORK, shall conform to all applicable Federal, State, and local laws, rules and regulations. If CONTRACTOR observes that the CONSTRUCTION DOCUMENTS are at variance therewith, it shall promptly notify PAGE UTILITY ENTERPRISES in writing, and any necessary changes shall be made as provided in this CONTRACT for changes in work. CONTRACTOR shall bear all costs arising from work performed contrary to such laws, rules and regulations, and without such notice to PAGE UTILITY ENTERPRISES.

3. LICENSES. THE WORK to be performed under the CONTRACT will be subject to the provisions on Title 34 of the Arizona Revised Statutes (A.R.S. § 34-101 through 34-461, as amended). All BIDDERS and their subcontractors shall be duly licensed to perform THE WORK at the time the BID is submitted pursuant to all applicable laws, rules and regulations (Each BIDDER shall note their license number on the Bid Form). At all times thereafter, while performing THE WORK, CONTRACTOR shall maintain in current status all licenses, permits, certifications, approvals and authorizations necessary to perform all obligations as set forth in the BID DOCUMENTS. It shall be the CONTRACTOR's responsibility to verify that its subcontractors have all appropriate licenses, permits, certifications, approvals and authorizations prior to their performing PAGE UTILITY ENTERPRISES work on behalf of the CONTRACTOR.

4. LIQUIDATED DAMAGES. If CONTRACTOR fails to complete this CONTRACT on or before the completion date as specified in the CONTRACT and NOTICE TO PROCEED, then and in that event, for each day this CONTRACT shall remain uncompleted, PAGE UTILITY ENTERPRISES may deduct the sum of Five Hundred (\$500.00) per day from this CONTRACT price as payment by CONTRACTOR of liquidated damages sustained by reason of the failure of CONTRACTOR to complete this CONTRACT on the date specified. Provided, however, that if the completion of the CONTRACT is delayed by PAGE UTILITY ENTERPRISES or by casualty beyond CONTRACTOR'S control, then and in such event, the time of completion of this CONTRACT shall be extended for an additional period equal to the time lost due to such delay. Provided, always, however, that CONTRACTOR shall at the time of such delay, if any, request in writing such additional time.
5. PROVISIONS REQUIRED BY LAW. All applicable Federal, State and local laws, rules and regulations of all authorities having jurisdiction over construction for the project shall apply to the CONTRACT throughout, and they shall be deemed to be included in the CONTRACT the same as if each were fully set forth verbatim herein. Contractor shall be familiar with and at all times shall observe said laws, rules and regulations.
6. DEFFECTIVE WORK. PAGE UTILITY ENTERPRISES, by and through the Department Director named herein or Utility General Manager, or a properly authorized agent of either, shall have the authority to reject all materials and/or services that do not conform to the specifications of this CONTRACT. In such an event, PAGE UTILITY ENTERPRISES shall give written notice of the noncompliance to the CONTRACTOR. Within ten (10) days from receipt of such notice, the CONTRACTOR shall undertake the work necessary to correct such deficiencies, and to bring the work into compliance with the CONTRACT DOCUMENTS at CONTRACTOR's own expense. PAGE UTILITY ENTERPRISES may withhold payment(s) in the event defective work is not remedied.

The acceptance of materials, equipment, or workmanship by or on behalf of PAGE UTILITY ENTERPRISES shall not be a bar to future rejection if they are subsequently found to be inferior in quality or in uniformity to the material or equipment specified, or are not as represented to PAGE UTILITY ENTERPRISES. Neither shall any payment be construed as acceptance of any defective material or work, either wholly or in part.

7. CHANGE ORDERS FOR CHANGED OR EXTRA WORK. PAGE UTILITY ENTERPRISES reserves the right at any time during the progress of THE WORK to make necessary alterations of, deviations from, additions to, or deletions from the CONTRACT, or may require the performance of EXTRA WORK neither covered by the specifications nor included in the BID, but forming a part of THE WORK contracted for; provided however, the CONTRACTOR shall not proceed with any such change or EXTRA WORK without a written CHANGE ORDER approved by PAGE UTILITY ENTERPRISES. Adjustments, if any, in the amount to be paid to the CONTRACTOR by reason of any such change shall be agreed upon by the Parties prior to issuance of the CHANGE ORDER.

No claim for any changed or EXTRA WORK of any kind shall be allowed unless the work is ordered and approved in writing by PAGE UTILITY ENTERPRISES in the form of a CHANGE ORDER. No anticipated profits shall be allowed for work deleted.

In the event any written instructions appear to the CONTRACTOR to involve a change or EXTRA WORK for which, in his opinion, he should receive extra compensation, he shall make a written request to the Department Director named herein, or his properly authorized agent, for a written CHANGE ORDER. The matter shall then be submitted to PAGE UTILITY ENTERPRISES for final determination as to whether or not a change or EXTRA WORK was involved, and if so, the amount due to the CONTRACTOR. Any claim for extra cost pursuant to this provision, together with supporting documents and receipts must be filed within ten (10) consecutive calendar days after performing the work for which the extra cost is claimed.

If CONTRACTOR, in the course of THE WORK, finds any discrepancy between the CONSTRUCTION DOCUMENTS and the physical conditions of the locality, or any errors or omissions in the CONSTRUCTION DOCUMENTS or in the layout as given by points and instructions, it shall be CONTRACTOR's duty to immediately inform PAGE UTILITY ENTERPRISES, in writing, and PAGE UTILITY ENTERPRISES shall promptly verify the same. Any work done after such discovery, until authorized in writing, shall be done at CONTRACTOR's risk.

8. PROTECTION OF WORK/PROPERTY. The CONTRACTOR, at no additional expense to PAGE UTILITY ENTERPRISES, shall at all times safely guard and protect Contractor's own work; provide, erect, and maintain suitable barriers around all excavations or obstructions to prevent accidents; and provide, place and maintain during the night sufficient lights, signals, and signs for this purpose on or near the work. The CONTRACTOR shall at all times, until its completion and final acceptance, protect his work apparatus, equipment, and material from accidental or other damage; and make good any damages thus occurring at no additional cost to PAGE UTILITY ENTERPRISES.

The CONTRACTOR, at no additional expense to PAGE UTILITY ENTERPRISES, shall at all times be responsible for the preservation of all public and private property on the surface and subsurface, along and adjacent to the work and shall conduct its operations so as to insure the prevention of injury or damage thereto. In the event damage or injury is done to public or private property on account of any act, omission, neglect, or misconduct in the execution of THE WORK, such property shall be restored by CONTRACTOR.

CONTRACTOR shall exercise care to protect from injury all water lines, sanitary sewer lines, gas mains, telephone cables, electric cables, services pipes, and all other utilities and fixtures which may be encountered during the progress of work. All utilities and other service facilities or fixtures if damaged, shall be repaired by CONTRACTOR without additional compensation.

Until written final acceptance of the work by PAGE UTILITY ENTERPRISES, CONTRACTOR shall be responsible for and take every precaution against injury or damage to any part of THE WORK from any cause, whether arising from the execution or non-execution of THE WORK . CONTRACTOR shall rebuild, repair, restore, and make good all injuries or damages of any portion of THE WORK occasioned by any cause, with the exception of negligence or willful misconduct of PAGE UTILITY ENTERPRISES, before final acceptance and shall bear the expense thereof;

9. SUBCONTRACTS. CONTRACTOR agrees that it is as fully responsible to PAGE UTILITY ENTERPRISES for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.
10. FINAL PAYMENT. Prior to receiving final payment, THE WORK shall be completed according to the CONTRACT DOCUMENTS, as determined by PAGE UTILITY ENTERPRISES. Retention shall be as provided in A.R.S. § 34-221. The acceptance of final payment by the CONTRACTOR shall operate as a release to PAGE UTILITY ENTERPRISES of all claims by the CONTRACTOR for all things done or furnished in connection with the CONTRACT and for every act and neglect of PAGE UTILITY ENTERPRISES, and others relating to or arising out of THE WORK under the CONTRACT, except for claims made in writing and still unsettled, and specifically itemized at the time the final payment request is made.
11. CLEAN UP. CONTRACTOR shall, as directed by PAGE UTILITY ENTERPRISES, remove from CITY's property and from all public and private property, at its own expense, all temporary structures, rubbish, and waste materials resulting from its operation. All surplus materials and all materials and equipment removed and not reused as a condition of this CONTRACT shall remain or become the property of the CONTRACTOR, unless otherwise so stated in writing.
12. WARRANTY. CONTRACTOR shall provide a written guarantee covering all costs for repair or replacement of defective work for a period of **two (2) years**.
13. LIENS. Neither final payment nor any part of the retained percentage shall become due until CONTRACTOR delivers to PAGE UTILITY ENTERPRISES a complete release of all liens arising out of this CONTRACT, or receipts in full or in lieu thereof, and if required in either case, an affidavit that so far as it has knowledge or information the release and receipts include all the labor for which a lien could be filed. If any lien remains unsatisfied after all payments are made, CONTRACTOR shall pay to PAGE UTILITY ENTERPRISES all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorneys' fee.

All materials, services, and other deliverables supplied to PAGE UTILITY ENTERPRISES under this CONTRACT shall be free of all liens other than the security interest held by the CONTRACTOR until payment in full is made by PAGE UTILITY ENTERPRISES.

14. PAGE UTILITY ENTERPRISES' RIGHT TO DO WORK. If CONTRACTOR should neglect to prosecute THE WORK properly or fail to perform any provision of this CONTRACT, PAGE UTILITY ENTERPRISES, after ten (10) days written notice to CONTRACTOR, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due CONTRACTOR.
15. ROYALTIES & PATENTS. CONTRACTOR shall pay all royalties and license fees. It shall defend all suits or claims for infringement of any patent rights and shall indemnify, defend, and hold PAGE UTILITY ENTERPRISES harmless from loss on account thereof, except that PAGE UTILITY ENTERPRISES shall be responsible for all such losses when a particular process or the product of a particular manufacturer or manufacturers is specified, but if CONTRACTOR has information that the process or article specified is an infringement of a patent it shall be responsible for such loss unless it promptly gives such information to PAGE UTILITY ENTERPRISES.
16. SCHEDULES. CONTRACTOR shall submit at such times as may be requested by PAGE UTILITY ENTERPRISES, schedules which shall show the order in which CONTRACTOR proposes to carry on THE WORK with dates at which CONTRACTOR shall start the several parts of THE WORK and estimated dates of completion of the several parts.
17. OWNERSHIP OF DOCUMENTS. All original drawings, boring logs, field data, estimates, field notes, plans, specifications, documents, reports, calculations, maps and models, and other information developed by CONTRACTOR under this CONTRACT shall vest in and become the property of PAGE UTILITY ENTERPRISES and shall be delivered to PAGE UTILITY ENTERPRISES upon completion or termination of the services, but CONTRACTOR may retain record copies thereof.
18. INSPECTION OF WORK. PAGE UTILITY ENTERPRISES representatives shall at all times have access to THE WORK wherever it is in preparation or progress. If the specifications, PAGE UTILITY ENTERPRISES' instructions, laws, ordinances, or any public authority, require any work be specifically tested or approved, CONTRACTOR shall give PAGE UTILITY ENTERPRISES timely notice of its readiness for inspection and if the inspection is by an authority other than PAGE UTILITY ENTERPRISES, of the date fixed for such inspection. Inspections by PAGE UTILITY ENTERPRISES shall be promptly made, and where practicable at the source of the supply. If any work should be covered up without approval or consent of PAGE UTILITY ENTERPRISES, it must, if required by PAGE UTILITY ENTERPRISES, be uncovered for inspection at CONTRACTOR's expense.

Re-examination of questioned work may be ordered by PAGE UTILITY ENTERPRISES, and if so ordered the work must be uncovered by CONTRACTOR. If such work is found to be in accordance with the BID DOCUMENTS, PAGE UTILITY ENTERPRISES shall pay the costs of re-examination and replacement. If such work is found not to be in accordance with the BID DOCUMENTS, CONTRACTOR shall pay such costs.

19. NON-DISCRIMINATION. PAGE UTILITY ENTERPRISES does not discriminate on the basis of race, color, national origin, familial status, religious affiliation or disability, in its CONTRACTOR selection. The CONTRACTOR doing business with PAGE UTILITY ENTERPRISES must be in compliance with the Federal Civil Rights Act of 1964, and Title VII of the Act (Rev. 1979), and the Americans With Disabilities Act of 1990.

ARIZONA STATUTORY BID BOND
PURSUANT TO TITLE 34, ARIZONA REVISED STATUTES
(Penalty of this bond must not be less than 10% of bid amount)

KNOW ALL MEN BY THESE PRESENTS THAT:

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

WHEREAS, the Principal has submitted a bid for the work titled:

Wastewater Pond 2B Liner Replacement

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

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

By _____
Principal

By _____
Surety

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLE 34, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of this CONTRACT amount)

KNOW ALL MEN BY THESE PRESENTS THAT:

_____ (hereinafter "Principal"), as Principal, and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____, with its principal offices in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto the City of Page, Arizona (hereinafter "Obligee"), in the amount of [amount of Contract], for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written CONTRACT with Obligee, dated the, _____, 2023 for:

Wastewater Pond 2B Liner Replacement

Which contract is hereby referred to and made part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal promptly pays all monies due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in the contract, this obligation is void. Otherwise it remains in full force and effect.

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

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

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

By _____
Principal

By _____
Surety

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLE 34, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of this CONTRACT amount)

KNOW ALL MEN BY THESE PRESENTS THAT:

_____ (hereinafter "Principal"), as Principal, and
_____ (hereinafter "Surety"), a corporation organized and
existing under the laws of the State of _____, with its principal offices in the City of
_____, holding a certificate of authority to transact surety business in Arizona
issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1,
as Surety, are held and firmly bound unto the City of Page, Arizona (hereinafter "Obligee"), in the
amount of [Amount of Contract], for the payment whereof, Principal and Surety bind themselves,
and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the Principal has entered into a certain written CONTRACT with the Obligee, dated
the, [Contract Award Date] for: submitted a bid for the work titled:

Wastewater Pond 2B Liner Replacement

Which contract is hereby referred to and made part hereof as fully and to the same extent as if
copied at length herein.

WHEREAS, payment shall be made by Surety to Obligee upon failure of Principal to faithfully
perform and fulfill all the undertakings, covenants, terms, conditions and agreements of the
Contract regarding the performance of the contract and presentation of such to Surety by a claim,
which has been prepared and signed by the Obligee's representative and witnessed by a notary,
stating that: "The Principal is in default, such condition has existed for over 90 days, and the
Obligee is hereby exercising its rights under bond no. _____."

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal
faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and
agreements of the contract during the original term of the contract and any extension of the
contract, with or without notice to the Surety, and during the life of any guaranty required under
the contract, and also performs and fulfills all of the undertakings, covenants, terms, conditions
and agreements of all duly authorized modifications of the contract that may hereafter be made,
notice of which modifications to the Surety being hereby waived, the above obligation is void.
Otherwise it remains in full force and effect.

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

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

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

By _____
Principal

By _____
Surety

The following Agreement contains terms and conditions which the CONTRACTOR must be prepared to accept upon receipt of a NOTICE OF AWARD.

CONTRACT

Project Title: Wastewater Pond 2B Liner Replacement

This Contract ("CONTRACT") is made and entered into by and between the City of Page, dba Page Utility Enterprises of Page, an Arizona municipal corporation, (hereinafter "PAGE UTILITY ENTERPRISES"), and _____ (hereinafter "CONTRACTOR").

IN CONSIDERATION of the mutual promises and agreements set forth herein, it is agreed by and between PAGE UTILITY ENTERPRISES and CONTRACTOR, as follows:

1. **CONTRACT DOCUMENTS.** The following documents are hereby incorporated by reference into this CONTRACT, and shall be referred to as the CONTRACT DOCUMENTS:

- a. Notice of Invitation for Bid
- b. Definitions
- c. Scope of Work and/or Plans, Drawings, and Technical Specifications
- d. Instructions to Bidders
- e. General Conditions
- f. Special Conditions (if any)
- g. Arizona Statutory Bid Bond
- h. Arizona Statutory Payment Bond
- i. Arizona Statutory Performance Bond
- j. Contractor's Reference List
- k. List of Subcontractors & Material Vendors
- l. Bid Form/Unit Price Form
- m. Notice of Award
- n. Notice to Proceed
- o. Drawings and any other attachments

The above named documents are essential parts of this CONTRACT, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complimentary and to describe and provide for a complete work. CONTRACTOR agrees to be bound by all terms, conditions, covenants, and obligations in the CONTRACT DOCUMENTS as if each were again fully set forth verbatim herein. In the event that any document conflicts with or contradicts this instrument, this instrument shall control.

Execution of this CONTRACT by the CONTRACTOR is a representation that the CONTRACTOR has visited the site, become generally familiar with local conditions under which the work is to be performed and correlated personal observations with requirements of the CONTRACT DOCUMENTS.

2. **TERM and EXTENSION/RENEWAL/CHANGES.** The date of commencement of the project shall be the date fixed in the "Notice to Proceed" issued by the PAGE UTILITY

ENTERPRISES. The time for completion shall be measured from the date of commencement.

The CONTRACTOR shall complete the CONTRACT not later than **December 15, 2023**, subject to adjustments as provided in the CONTRACT DOCUMENTS.

It is agreed that time is of the essence for the completion of the work described herein and that PAGE UTILITY ENTERPRISES will be substantially damaged by the CONTRACTOR's failure to timely complete the Project according to the schedule contained in this CONTRACT and that considering that precise damages are difficult to calculate the CONTRACTOR shall pay PAGE UTILITY ENTERPRISES the sum of Five Hundred Dollars (\$500.00) per day for each day the project schedule is extended past the established duration provided the delay is "Non Excusable" (Delays are caused by the actions or inactions of the CONTRACTOR, subcontractor, supplier, or any other party for whom the CONTRACTOR is responsible). These liquidated damages are not punitive and are not negative performance incentives as they are stipulated damages that PAGE UTILITY ENTERPRISES will have sustained in the event of a default by the CONTRACTOR to complete the work within the stipulated time. These liquidated damages have been arrived at by a good faith effort to estimate the actual damages that would likely arise from a breach by the CONTRACTOR and are a reasonable forecast of just compensation for the harm that would be caused by late delivery or untimely performance of this CONTRACT.

3. PAYMENT. In consideration of the services specified in this CONTRACT, PAGE UTILITY ENTERPRISES agrees to pay CONTRACTOR in the manner hereinafter specified.

CONTRACTOR shall provide detailed documentation in support of requested progress payments in accordance with A.R.S. § 34-221. PAGE UTILITY ENTERPRISES shall then make payments in accordance with its obligation as provided by A.R.S. § 34-221. Any payments made shall not prevent PAGE UTILITY ENTERPRISES from objecting to charges after payment therefore in appropriate cases, or from seeking reimbursement for any such charges.

In no event shall the total payment(s) paid to CONTRACTOR under this CONTRACT exceed \$_____.

Nothing in this CONTRACT shall create any obligation on the part of PAGE UTILITY ENTERPRISES to pay or see to the payment of any money due any subcontractor, except as may be required by law.

4. SCOPE OF SERVICES. CONTRACTOR shall provide for PAGE UTILITY ENTERPRISES all labor, materials and equipment necessary to perform THE WORK provided for in the CONTRACT DOCUMENTS. All work shall be done per specifications called for in the CONTRACT DOCUMENTS.

5. CONTRACTOR/SUBCONTRACTOR PERFORMANCE. CONTRACTOR shall perform the work in accordance with the terms of this CONTRACT and to the best of CONTRACTOR'S ability. CONTRACTOR agrees to exercise the skill and care, which

would be exercised by comparable professional Contractors performing similar services at the time and in the locality such services are performed. Furthermore, CONTRACTOR shall perform the work or services in accordance with generally accepted methods and standards.

CONTRACTOR shall employ suitably trained and skilled personnel to perform all work or services under this CONTRACT. If failure to meet acceptable standards results in faulty work, CONTRACTOR shall undertake, at CONTRACTORS own expense, corrective adjustments, modifications, or repair.

CONTRACTOR shall be fully responsible for all acts and omissions of its subcontractor(s) and of persons directly or indirectly employed by subcontractor(s).

6. INSURANCE. CONTRACTOR, at his own expense, shall purchase and maintain the herein stipulated minimum insurance with companies duly licensed and subject to legal process within the State of Arizona, possessing a current A.M. Best, Inc. Rating of A- or better.

All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of this CONTRACT is satisfactorily completed and formally accepted; failure to do so may, at the sole discretion of PAGE UTILITY ENTERPRISES, constitute a material breach of this CONTRACT.

CONTRACTOR's insurance shall be primary insurance in regard to PAGE UTILITY ENTERPRISES, and any insurance or self-insurance maintained by PAGE UTILITY ENTERPRISES shall not contribute to it. The insurance policies shall contain a waiver of transfer rights of recovery (subrogation) against PAGE UTILITY ENTERPRISES, its agents, officers, officials and employees for any claims arising out of CONTRACTOR's acts, errors, mistakes, omissions, work or services. The City of Page, dba Page Utility Enterprises of Page, shall be named as an additional insured.

Prior to commencing work or services under this CONTRACT, CONTRACTOR shall furnish PAGE UTILITY ENTERPRISES with Certificates of insurance, or formal endorsements as required by this CONTRACT, issued by CONTRACTOR's insurer(s), as evidence that policies providing the required coverages, conditions and limits required herein are in full force and effect. All Certificates of Insurance shall be identified with the bid number and title.

If a policy does expire during the life of this CONTRACT, a renewal certificate must be sent to PAGE UTILITY ENTERPRISES fifteen days prior to the expiration date. Insurance required herein shall not expire, be cancelled, or materially changed without thirty (30) days written notice to PAGE UTILITY ENTERPRISES.

Commercial General Liability

CONTRACTOR shall maintain Commercial General Liability insurance with a limit of not less than \$1,000,000 for each occurrence with a \$2,000,000 Products/Completed Operations Aggregate and a \$2,000,000 General Aggregate Limit. The policy shall include coverage for bodily injury, broad form property damage, personal injury, products and

completed operations and blanket contractual coverage including, but not limited to, the liability assumed under the indemnification provisions of this CONTRACT.

Such policy shall contain a severability of interest provision, and shall not contain a sunset provision or commutation clause, or any provision, which would serve to limit third party action over claims.

The Commercial General Liability additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc.'s Additional Insured, Form B, CG 20101185, and shall include coverage for the CONTRACTOR's operations and products and completed operations.

Automobile Liability

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

Workers' Compensation

The CONTRACTOR shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over the Contractor's employees engaged in the performance of the work or services; and, Employer's Liability insurance of not less than \$100,000 for each accident, \$100,000 disease for each employee, and \$500,000 disease policy limit.

In case any work is subcontracted, this CONTRACT will require the Subcontractor to provide Workers' Compensation and Employer's Liability to at least the same extent as required of this CONTRACTOR.

Professional Liability

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

7. INDEMNIFICATION. To the fullest extent permitted by law, CONTRACTOR shall indemnify, defend and hold harmless PAGE UTILITY ENTERPRISES, its agents, officers, officials and employees from and against any and all claims, demands, suits, actions, proceedings, loss, cost and damages of every kind and description, including any reasonable attorney fees, which may be brought or made against or incurred by PAGE UTILITY ENTERPRISES on account of (1) loss or damage to any property or interest of PAGE UTILITY ENTERPRISES, its officers, employees and agents, or any damages, injury to person or property, or death of any person arising out of, relating to, or alleged to have resulted from any acts, errors, negligence, recklessness, or intentional misconduct,

omissions, work, or services of CONTRACTOR, its employees, agents, representatives, or subcontractors, their employees, agents, or representatives, (2) any workers' compensation claims, unemployment compensation claims or unemployment disability claims of employees of CONTRACTOR or claims under similar such laws or obligations. This indemnification shall not extend to any loss, damage, injury, or death to the extent caused by the negligence or willful misconduct of PAGE UTILITY ENTERPRISES, or its employees.

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

8. INDEPENDENT CONTRACTOR STATUS. Both parties agree that: (a) the work contracted for in this CONTRACT falls within the distinct nature of CONTRACTOR'S business; (b) the nature of the work contained within this CONTRACT is specialized, and PAGE UTILITY ENTERPRISES has elected to contract out the work rather than attempt to perform the work with its current workforce; (c) CONTRACTOR is an incorporated business that possesses the personnel and materials necessary to perform the work; (d) the relationship of the work provided by CONTRACTOR has no relationship to the regular business conducted by PAGE UTILITY ENTERPRISES; (e) it is understood and agreed that CONTRACTOR is an independent contractor, and nothing herein contained shall constitute, create, give rise to, or otherwise recognize an employment relationship, joint venture, partnership, or formal business association or organization of any kind between the parties hereto, other than as contracting parties, nor shall CONTRACTOR or any subcontractor, or any employee of CONTRACTOR or any subcontractor be deemed to be employed by PAGE UTILITY ENTERPRISES or entitled to any remuneration or other benefits from PAGE UTILITY ENTERPRISES, other than as set forth in this CONTRACT.

9. ASSIGNMENT. CONTRACTOR shall not assign its rights to this CONTRACT, in whole or in part, without prior written approval of PAGE UTILITY ENTERPRISES. Approval may be withheld at the sole discretion of PAGE UTILITY ENTERPRISES, provided that such approval shall not be unreasonably withheld.

10. AUTHORITY TO CONTRACT. CONTRACTOR warrants its right and power to enter into this CONTRACT. If any court or administrative agency determines that PAGE UTILITY ENTERPRISES does not have authority to enter into this CONTRACT, PAGE UTILITY ENTERPRISES shall not be liable to CONTRACTOR or any third party by reason of such determination or by reason of this CONTRACT.

11. CANCELLATION FOR CONFLICT OF INTEREST. This CONTRACT is subject to cancellation for conflict of interest pursuant to A.R.S. § 38-511, the pertinent provisions of which are incorporated into this CONTRACT by reference.

12. TERMINATION OF CONTRACT FOR CAUSE. If, through any cause, CONTRACTOR shall fail to fulfill in timely and proper manner its obligations under this CONTRACT, or if CONTRACTOR shall violate any of the covenants, provisions, or stipulations of this CONTRACT, PAGE UTILITY ENTERPRISES shall thereupon have the right to terminate this CONTRACT by giving written notice to CONTRACTOR of such termination and

specifying the effective date thereof, at least ten (10) days before the effective date of such termination.

In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by CONTRACTOR shall, at the option of PAGE UTILITY ENTERPRISES, become its property and CONTRACTOR shall be paid an amount based on time and expenses incurred by CONTRACTOR prior to the termination date; however, no payment shall be allowed for anticipated profits on unperformed work or services. Notwithstanding the above, CONTRACTOR shall not be relieved of liability to PAGE UTILITY ENTERPRISES for damages sustained by PAGE UTILITY ENTERPRISES by virtue of any breach of this CONTRACT by CONTRACTOR and PAGE UTILITY ENTERPRISES may withhold payments to CONTRACTOR for purpose of set-off until such time as the exact amount of damages due the PAGE UTILITY ENTERPRISES from CONTRACTOR are determined.

13. TERMINATION FOR CONVENIENCE. PAGE UTILITY ENTERPRISES may terminate this CONTRACT at any time by giving written notice to CONTRACTOR of such termination and specifying the effective date thereof, at least thirty (30) days before the effective date of such termination. In that event, all finished or unfinished documents and other materials shall, at the option of PAGE UTILITY ENTERPRISES, become its property. If this CONTRACT is terminated by PAGE UTILITY ENTERPRISES as provided herein, CONTRACTOR shall be paid an amount based on the time and expense incurred by CONTRACTOR prior to the termination date, however, no payment shall be allowed for anticipated profit on unperformed work or services.

14. NON-APPROPRIATION OF FUNDS. Notwithstanding any other provision of this CONTRACT, this CONTRACT may be terminated if for any reason there are not sufficient appropriated and available monies for the purpose of maintaining PAGE UTILITY ENTERPRISES or other public entity obligations under this CONTRACT. PAGE UTILITY ENTERPRISES shall have no further obligation to CONTRACTOR, other than to pay for services rendered prior to termination.

15. BONDING REQUIREMENTS. CONTRACTOR shall provide, pursuant to A.R.S. §34-211, payment and performance bonds for not less than One Hundred Percent (100%) of this CONTRACT amount. Copies of said bonds shall be attached to and become a part of this CONTRACT.

16. REMEDIES. Either party may pursue any remedies provided by law for breach of this CONTRACT. No right or remedy is intended to be exclusive of any other right or remedy and each shall be cumulative and in addition to any other right or remedy existing at law or at equity or by virtue of this CONTRACT.

17. WAIVER. Failure of either party to insist on one or more instances upon the full and complete compliance with any of the terms or provisions of this CONTRACT to be performed on the part of the other, or to take any action permitted as a result thereof, shall not be construed as a waiver or relinquishment of the right to insist upon full and complete performance of the same, or any other covenant or condition, either in the past or in the future. The Acceptance by either party of sums less than may be due and owing it at any time shall not be construed as an accord and satisfaction.

18. CHOICE OF LAW/VENUE. Any dispute, controversy, claim or cause of action arising out of or related to this CONTRACT shall be governed by Arizona law. The venue for any such dispute shall be in Coconino County, Arizona. Each party waives the right to object to venue in Coconino County for any reason.

19. ENTIRE AGREEMENT. This CONTRACT constitutes the entire agreement between the parties pertaining to the subject matter hereof, and all prior or contemporaneous agreements and understandings, oral or written, are hereby superseded and merged herein. This CONTRACT may be modified, amended, altered or extended only by a written amendment signed by the parties.

20. CONSTRUCTION OF THIS CONTRACT. This CONTRACT shall be construed and interpreted according to its plain meaning, and no presumption shall be deemed to apply in favor of, or against the party drafting this CONTRACT. The parties acknowledge and agree that each has had the opportunity to seek and utilize legal counsel in the review of and entry into this CONTRACT.

21. A.R.S. 35-393. Pursuant to A.R.S. 35-393 et seq., CONTRACTOR certifies that it is not currently engaged in, and agrees for the duration of the contract not to engage in, a boycott of Israel

22. A.R.S. § 41-4401. CONTRACTOR warrants compliance with all Federal immigration laws and regulations relating to employees and subcontractors and warrants its compliance with A.R.S. § 41-4401 including the E-verify program. A breach of this section shall be deemed a material breach of the CONTRACT that is subject to penalties up to and including termination of the CONTRACT. CITY retains the legal right to inspect the papers of CONTRACTOR or any subcontractor employee who works on the CONTRACT to ensure compliance with this provision.

23. Pursuant to A.R.S. §35-394, CONTRACTOR certifies that it does not currently, and agrees for the duration of the CONTRACT that it will not, use: 1. The forced labor of ethnic Uyghurs in the People's Republic of China; 2. Any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; and 3. 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.

If CONTRACTOR becomes aware during the term of the CONTRACT that it is not in compliance with the written certification, CONTRACTOR shall notify the CITY within five business days after becoming aware of the noncompliance. If CONTRACTOR does not provide the CITY with a written certification that CONTRACTOR has remedied the noncompliance within one hundred eighty days after notifying the CITY of the noncompliance, the CONTRACT terminates.

24. NOTICES. All notices, requests, demands, payments and other communications hereunder shall be in writing and shall be deemed given if personally delivered or mailed, certified mail, return receipt requested, or sent by overnight carrier to the following address on the date received:

City:

Contractor:

City of Page dba Page Utility Enterprises
640 Haul Road
P.O. Box 1955
Page, Arizona 86040

IN WITNESS WHEREOF, the parties have executed this CONTRACT on the dates set forth below.

City of Page dba Page Utility Enterprises
An Arizona municipal corporation

Contractor:

By _____

By: _____

Date _____

Date _____

Attested By:

Approved as to Form:

City Attorney

THE CONTRACTOR'S REFERENCE PAGE
(Submit with Bid)

ALL REFERENCES WILL BE TREATED AS THE CONTRACTOR'S CONFIDENTIAL BUSINESS INFORMATION. PAGE UTILITY ENTERPRISES may contact some or all of the references provided in order to determine Bidder's RESPONSIBILITY and performance record on work of similar scope. PAGE UTILITY ENTERPRISES reserves the right to contact references other than those provided in the response and to utilize the information gained from them in the evaluation process.

Previous work for PAGE UTILITY ENTERPRISES may be used as references. Complete each item for all 10 references (5 Current and 5 Former):

Current References:

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Former References:

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

Owner/Agency:	
Address:	
City, State, Zip	
Phone:	
Contact Person:	
Project Name/Scope	

STATEMENT OF BIDDER'S QUALIFICATIONS

If bidder is a corporation, answer the following:

- (a) Date of incorporation: _____
- (b) State of incorporation: _____
- (c) President's name: _____
- (d) Vice President's name: _____
- (e) Secretary's or Clerk's name: _____
- (f) Treasurer's name: _____

If bidder is a partnership, answer the following:

- (a) Date of organization: _____
- (b) Name and address of all partners. State whether it is a general or limited partnership: _____
_____.

If other than a corporation or partnership, describe the organization and name principals:

Major types of work done by the organization:

How many years has your organization been in business as a contractor under your present business name: _____

How many years experience in the proposed type and scale of construction work has your organization had: _____

- (a) As a general contractor: _____
- (b) As a subcontractor: _____

What is the construction experience of the principal individuals of your organization?

Individual's Name	Present Position or Office	Years Construction Experience	Magnitude & Type of Work	In what Capacity
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

The Contractor's Arizona Contractor's License #: _____

The Contractor's Federal Department of Transportation #: _____

BID FORM

Bidder's Name: _____

The undersigned bidder has carefully examined the BID DOCUMENTS and the site of the work for the Wastewater Pond 2B Liner Replacement project for Page Utility Enterprises, and shall provide all necessary machinery, tools, apparatus, and other means of construction and do all THE WORK and furnish all materials called for in the BID DOCUMENTS.

The undersigned BIDDER understands that the quantity of work as shown herein shall be lump sum, complete in place.

THE BIDDER AGREES TO PERFORM ALL OF THE NECESSARY WORK DESCRIBED IN THE BID DOCUMENTS FOR THE LUMP SUM BID PRICE OF:

_____ Dollars (\$_____)

Accompanying this BID is a Bid Bond for Ten Percent (10%) of the lump sum bid payable to PAGE UTILITY ENTERPRISES, which is to be forfeited as liquidated damages, if, in the event that this bid is accepted, the undersigned fails to execute the CONTRACT and furnish satisfactory performance and payment bonds under the conditions and within the time specified in the BID DOCUMENTS; otherwise said Bid Bond is to be returned to the undersigned.

Date: _____

Name of Bidder: _____

Signature of Bidder: _____

Title of Bidder: _____

Address of Bidder: _____

Bidder's Telephone Number: _____

Bidder's Fax Number: _____

BIDDER shall have the following License(s) to perform THE WORK specified herein:

Arizona General Contractor's License #: _____

Federal Department of Transportation #: _____

Federal Tax ID #: _____

NOTICE OF AWARD

Date:

Contractor's Name:
Street/P.O. Box:
City, State, Zip:

SUBJECT: NOTICE OF AWARD – Wastewater Pond 2B Liner Replacement

Page Utility Enterprises, having duly considered the bid submitted on _____, 2023 for Page Utility Enterprises Wastewater Pond 2B Liner Replacement as outlined in the CONTRACT DOCUMENTS, and it appearing that your BID for performing the work is fair, equitable, and in Page Utility Enterprises' best interest, said BID is hereby accepted at the lump sum price contained therein, and in accordance with all terms, conditions, covenants, and provisions set forth in the CONTRACT DOCUMENTS.

In accordance with the terms of the CONTRACT DOCUMENTS, you are required to execute the formal CONTRACT and furnish the required Payment and Performance Bonds within ten (10) consecutive calendar days from and including the date of receipt of this Notice.

In addition, you are requested to furnish at the same time, the required certificates of insurance evidencing compliance with the requirements for insurance stated in the CONTRACT DOCUMENTS.

The Bid Bond submitted with your bid will be retained until the CONTRACT has been executed and the required Payment and Performance Bonds have been furnished and approved.

City of Page, Arizona
Sincerely,

Name:
Department Director Title:

RECEIVED AND ACCEPTED:

Contractor

By: _____
Name: _____
Date: _____

NOTICE TO PROCEED

Date:

Contractor's Name:
Street/ P.O. Box:
City, State, Zip:

Attention:

SUBJECT: NOTICE TO PROCEED – Wastewater Pond 2B Liner Replacement

You are hereby authorized to proceed with work effective _____, 2023 and fully complete all work by December 15, 2023. The completion date for this Project is therefore _____, 2023. Liquidated damages of \$ Five Hundred dollars (\$ 500) per day are applicable for each day past _____, 2023 for which work on this Project is not complete, unless otherwise provided.

City of Page, Arizona
Sincerely,

Name:
Department Director Title:

RECEIVED AND ACCEPTED:

Contractor

By: _____
Name: _____
Date: _____

Wastewater Pond 2B Liner Replacement

Bid all sections - Failure to bid all sections will result in rejection of bid
 Page Utility Enterprises retains the right to award all, part or none of the work shown herein

	Items	Unit	Quantity	Unit Cost	Total (quantity x unit cost)
1	Mobilization	LS	1		
2	Time and Materials	LS	1	\$20,000.00	\$20,000.00
3	Installation of 60 mil HDPE liner	S.F.	450,000		
4	Connection of HDPE Liner to Concrete Structure	EA.	1		
5	Installation of HDPE Pipe Boot	EA.	3		

TOTAL