

BOARD OF SUPERVISORS AGENDA ITEM REPORT AWARDS / CONTRACTS / GRANTS

C Award Contract C Grant	Requested Board Meeting Date: 09/21/21	
* = Mandatory, information must be provided	or Procurement Director Award:	

*Contractor/Vendor Name/Grantor (DBA):

Achen-Gardner Construction, LLC (Headquarters: Chandler, AZ); Borderland Construction Company, Inc. (Headquarters: Tucson, AZ); Ellison-Mills Construction, LLC (Headquarters: Casa Grande, AZ); Hunter Contracting Co. (Headquarters: Gil bert, AZ)

*Project Title/Description:

Job Order Master Agreement: Wastewater Conveyance System And Related Facilities Repair, Rehabilitation & Construction Services

*Purpose:

Award: Master Agreement No. MA-PO-22-035. This award of master agreement is recommended to the four (4) highest qualified contractors in an annual shared amount not to exceed \$18,000,000.00 for an initial one (1) year agreement term from 10/01/21 to 09/30/22, which may be extended for up to four (4) additional one year terms. Administering Department: Regional Wastewater Reclamation.

Board of Supervisors Policy D29.4 authorizes the Procurement Director to execute annual renewals in an amount not to exceed the annual amount approved by the Board of Supervisors. This is an indefinite delivery/indefinite quantity job order master agreement. For projects estimated at less than \$200,000.00, the department may select a contractor based on availability, specialty or other such basis as the department may determine in its sole discretion. For those projects, pricing will be per the Contractor Unit Price Books. For projects estimated at \$200,000.00 or more, all contractors will be given the opportunity to compete on the basis of cost or cost and schedule through a request for quotation. No individual job order may exceed \$2,000,000.00

*Procurement Method:

Solicitation for Qualifications No. SFQ-PO-2100017 was conducted in accordance with A.R.S. § 34-604 and Pima County Board of Supervisors Policy D29.1 as a two-step competitive solicitation. For Step One, six (6) responsive Statements of Qualifications (SOQs) were received and evaluated by a seven (7) member committee using qualifications and experience-based selection criteria. Based on scoring of the SOQs, a short-list of five (5) respondents were invited to oral interviews. After the interview stage, a short-list of four (4) repondents were invited to participate in Step Two, which consisted of technical scenario and price proposal/price book evaluations. Scores for Step One and for Step Two were combined to obtain the final scores. Based on the final scores, the final list of the four (4) highest qualified contractors is recommended for award.

Attachments: Notice of Recommendation for Award and Master Agreement.

*Program Goals/Predicted Outcomes:

This job order master agreement provides the Regional Wastewater Reclamation Department (RWRD) resources for construction-related repair, rehabilitation, re-construction and emergency responses to critical components within the public sewer conveyance system.

*Public Benefit:

The resources provided address critical issues derived from the Conveyance System Assessment Program per requirements from the Arizona Department of Environmental Quality (ADEQ) through compliance with the Capacity, Management, Operation & Maintenance (CMOM) plan. The Arizona Aquifer Protection Protection Permit (APP) established the CMOM requirements for Arizona. Through CMOM, RWRD is required to provide a system condition assessment of the entire conveyance system every ten (10) years. This assessment identifies structural and operational issues within the conveyance system. As structural deficiencies are discovered they are to be repaired or, at a minimum, identified and monitored until further degredation escalates to a point requiring repair. RWRD operates the assessment program based on National Association of Sewer Service Companies (NASSCO) standards for condition ratings, i.e.; 1 - being good through 5 - being imminent failure.

*Metrics Available to Measure Performance:

Monthly review of the contractor progress schedule of ongoing job orders with each job order contractor. Maintenance of a job order management spreadsheet to track monthly and annual nembers of pipeline joint repairs, pipeline Cured in Place Pipe (CIPP) liner installation, manhole repairs and miscellaneous job orders. Monthly review of invoicing staus per job order

*Retroactive:

No

TO: COB 9-8-21
PGS: 319
VETS: 1

THE APPLICABLE SECTION(S) BELOW MUST BE COMPLETED

Click or tap the boxes to enter text. If not applicable, indicate "N/A", Make sure to com

Click of tap the boxes to	enter text, it not applicable, indicate "	N/A". Make sure to complete mandatory (*) fields
Contract / Award Information		
Document Type: <u>MA</u>	Department Code: PO	Contract Number (i.e., 15-123): <u>22-035</u>
Commencement Date: 10/01/21	Termination Date: <u>09/30/22</u>	Prior Contract Number (Synergen/CMS):
Expense Amount \$ 18,000,000.00	☐ Reve	nue Amount:\$
*Funding Source(s) required: Regional	Wastewater Reclamation Departme	nt Obligations
Funding from General Fund? C Yes	• No If Yes \$	%
Contract is fully or partially funded with	Federal Funds? C Yes © No	
If Yes, is the Contract to a vendor or s	ubrecipient?	
Were insurance or indemnity clauses mo If Yes, attach Risk's approval.	odified? C Yes © No	
Vendor is using a Social Security Number If Yes, attach the required form per Adminis		
Amendment / Revised Award Informa	tion	
Document Type:	Department Code:	ContractNumber (i.e., 15-123):
Amendment No.:	AMS	Version No.:
Commencement Date:	New	Termination Date:
	Prior	r Contract No. (Synergen/CMS):
C Expense C Revenue C Inicrea	se C Decrease	· · · · · · · · · · · · · · · · · · ·
Is there revenue included? C Yes	No If Yes \$	unt This Amendment: \$
*Funding Source(s) required:		
Funding from General Fund? C Yes	No If Yes \$	%
Grant/Amendment Information (for g	rants acceptance and awards)	C Award C Amendment
Document Type:	Department Code:	Grant Number (i.e., 1S-123):
Commencement Date:	Termination Date:	Amendment Number:
Match Amount: \$	Revenue	e Amount: \$
*All Funding Source(s) required:	_	
*Match funding from General Fund?	C Yes C No If Yes \$	
*Match funding from other sources? *Funding Source:	C Yes C No If Yes \$	
*If Federal funds are received, is fund	ng coming directly from the Federal	government or passed through other organization(s)?
Contact: Keith E. Rogers Digitally st	Igned by Keith E. Rogers 1.09.02 13:43:07 -07:00' Division Ma	Scott Loomis Date: 2021,09.02 18:01:29-07:00
	Terri Spencer Digitally signed by Terri Spencer Date: 2021.09.03 09:44	i Spencer
Department Director Signature:	- John	Date: 9/3/21
Deputy County Administrator Signature:		Date: 9/3/2021
County Administrator Signature:	() hum	Date: 9/3/2071



NOTICE OF RECOMMENDATION FOR AWARD

Date of Issue: August 27, 2021

The Procurement Department hereby issues formal notice to respondents to Solicitation No. SFQ-PO-2100017 for Job Order Master Agreement: Wastewater Conveyance System And Related Facilities Repair, Rehabilitation and Construction Services that the following listed respondents will be recommended for award of a shared Master Agreement in the annual amount of \$18,000,000.00. The award action is scheduled to be performed by the Board of Supervisors on or after September 21, 2021.

Award is recommended to the most qualified Respondents (listed alphabetically):

AWARDEE NAMES

Achen-Gardner Construction, LLC
Borderland Construction Company, Inc.
Ellison-Mills Construction, LLC
Hunter Contracting Company

NOTE: Pursuant to A.R.S. §34-604(H), only the names of the firms on the final list may be disclosed.

Issued by: Keith E. Rogers, CPPB; Procurement Officer Telephone Number: 520-724-3542

This notice is in compliance with Pima County Procurement Code §11.12.010(C) and §11.20.010(C).

Copy to: Pima County SBE via e-mail at SBE@pima.gov

PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT

PROJECT: Job Order Master Agreement:

Wastewater Conveyance System And Related Facilities

Repair, Rehabilitation & Construction Services

CONTRACTORS: Achen-Gardner Construction, LLC

550 S 79th St. Chandler, AZ 85226

Borderland Construction Company, Inc.

400 E 38th St. Tucson, AZ 8573

Ellison-Mills Construction, LLC

3152 N Lear Ave.

Casa Grande, AZ 85122

Hunter Contracting Co. 701 N. Cooper Rd. Gilbert, AZ 85233

CONTRACT NO.: MA-PO-22-035

AMOUNT: \$18,000,000.00

FUNDING: REGIONAL WASTEWATER RECLAMATION DEPARTMENT OBLIGATIONS

JOB ORDER MASTER AGREEMENT

1. Parties, Background and Purpose.

- 1.1. <u>Parties</u>. This Agreement is entered into between Pima County, a body politic and corporate of the State of Arizona, hereinafter called County, and Contractors, hereinafter called Contractor in the singular, Contractors in the plural, and collectively referred to as the Parties.
- 1.2. <u>Authority</u>. County has a need to establish an Agreement with up to four (4) Job Order Contractors for Wastewater Conveyance System And Related Facilities Repair, Rehabilitation & Construction Services.
- 1.3. Qualifications Based Solicitation. County conducted a competitive qualifications-based procurement pursuant to A.R.S. §34-604, for Job Order Contractors under SFQ-PO-2100017. Based on an evaluation of the respondents' representations of their qualifications and necessary due diligence, County selected the four (4) highest qualified Contractors as Job Order Contractors. The Job Order Contractors have agreed to be bound by and adhere to the requirements of this Agreement.

2. Basic Terms, Renewals, Extensions and Revisions.

- 2.1. <u>Initial Term</u>. This Master Agreement (Agreement), as approved by the Board of Supervisors, commences on 10/01/2021, and terminates on 09/30/2022, unless sooner terminated or further extended pursuant to the provisions of this Agreement. This Agreement establishes the terms under which the Job Order Contractors will be assigned and perform tasks and projects under this Agreement.
- 2.2. <u>Extension Options</u>. County, at its sole discretion, may extend up to four (4) additional one-year terms or add funding to this Agreement at any time with the acknowledgment of the Contractors and the Board of Supervisors' or the Procurement Director's approval pursuant to Board of Supervisor Policy D29.4.

Contract extensions, renewals, or revisions will occur through the issuance by County to Contractor of a revised Agreement document setting forth the requested changes. Failure by Contractor to object in writing to the proposed revisions, terms, conditions, scope modifications and/or specifications within 10 calendar days of issuance by County will signify acceptance of all such changes by Contractor and the revision will be binding upon the Parties.

2.3. <u>Individual Job Orders</u>. Individual job orders will be implemented by issuing a Delivery Order (DO) to the selected Job Order Contractor to perform the work. Each DO will be an independent contract that will incorporate and be subject to the terms of this Agreement. The terms "DO", "Job Order", and "Contract" are used interchangeably in this Agreement.

2.3.1. Competition Thresholds.

- 2.3.1.1. For projects less than \$200,000.00, County will utilize Exhibit E Contractor Unit Price Books for pricing. County may select a Contractor based on availability, specialty, or such other basis as County may determine in its sole discretion. During emergency situations requiring immediate attention by County (ie. Flooding or other disaster prevention) County reserves the right to select a Job Order Contractor on a non-competitive basis for the work. In addition, the requirement that a Job Order Contract be in place prior to the initiation of work is waived during such an event. During such an emergency, a Contractor may be contacted and given instructions by a County Project Manager to perform the work immediately without an approved Job Order. It is understood that County will prepare a Job Order as soon as practicable following said instructions.
- 2.3.1.2. For projects of \$200,000.00 or more, Contractors will compete on the basis of cost or cost and schedule through a request for quotation. Price may be either a fixed cost or a guaranteed maximum price.
- 2.3.1.3. All federally funded Job Orders will be competitively bid among all Contractors.
- 2.3.1.4. No individual Job Order may exceed \$2,000,000.00, including change orders.
- 2.3.2. <u>Small Business Enterprise</u>. These services are subject to the Pima County Code, Title 20, and Chapter 20.04, pertaining to participation of subcontractors. The Pima County SBE Program is a race and gender neutral program established to encourage contracting with all small businesses. A minimum goal of three percent (3%) for participation by Small Business Enterprises (SBEs) of the total amount of the annual agreement applies to each Job Order Contractor individually. Only firms listed on the *City of Tucson Small Business Enterprise Certified Business Directory* are eligible to meet the SBE goal. The current list of certified SBE firms can be located on the City of Tucson's Procurement Website, http://www.tucsonprocurement.com/assets/SBEDirectory.pdf.
 - 2.3.2.1. Contractor shall supply a year-to-date subcontractor and SBE utilization report covering the entire Master Agreement to date to the Pima County Procurement Department, Business Enterprise Program Coordinator on a quarterly basis. If the Contractor has experienced difficulties in achieving the SBE goal, they may present Certificate of Good Faith Effort/Request for Waiver at that time.
 - 2.3.2.2. For projects that are federally-funded, a Disadvantaged Business Enterprise (DBE) goal pursuant to Pima County Code Title 20, must be established for the individual Job Order and does not apply toward the three percent (3%) SBE goal.
- 2.3.3. Construction Completion Time: Work performed under this Agreement will be as stated in Individual Job Orders issued under this Agreement. County will assess Liquidated damages against Contractor based upon the construction completion time, if so specified in a Job Order.

- 2.3.4. <u>SubContractors</u>: SubContractors will be selected in accordance with Contractor's SubContractor Selection Plan, incorporated herein by reference.
- 3. Scope of Services. Contractor will provide County all labor, materials and equipment necessary to complete the project as described in Exhibit A Scope of Services (86 Pages), incorporated into this Agreement. All work will be done per specifications called for in the solicitation documents as contained in Pima County Solicitation Number SFQ-PO-2100017, Exhibit B General Conditions (11 Pages), Exhibit C Special Conditions Multiple Award Job Order Contract (12 Pages), Exhibit D Supplemental Provisions For Federal Aid Construction Contracts (3 Pages), Exhibit E Contractor Unit Price Books (78 pages), and other documents incorporated into this Agreement.

4. Compensation and Payment.

- 4.1 Compensation. County will pay Contractor as specified.
 - 4.1.1 Invoices. Contractor will provide detailed documentation in support of requested payment. The Contractor must cite the Delivery Order number on all invoices. Payments will be made in accordance with ARS § 34-609. For the period of record retention required under Article 25, County reserves the right to question any payment made under this Article and to require reimbursement by setoff or otherwise for payments determined to be improper or contrary to the Agreement or law.
- 5. **Federal Funding**. County and Contractor understand the Job Orders under this Agreement may be funded partially or entirely through a federal grant or other source of federal funding.
 - 5.1. Federal Labor Standards. Federal Labor Standards are applicable for Job Orders identified as being federally funded.
 - 5.2. <u>Additional Requirements</u>. Federal forms will be attached to the Job Order, and Contractor agrees to be bound by all requirements.
 - 5.2.1. Exhibit D Supplemental Provisions for Federal-Aid Construction Contracts (3 Pages).
 - 5.2.2. <u>Davis Bacon (AZ. Wage Decision)</u>. Minimum wage rate, withholding, payroll, apprentice, subcontracting, and termination provisions, and the Work Hour and Safety Standards Act related to overtime pay and safety.
 - 5.3. Subcontracting. Contractor will not subcontract on any federally-funded Job Order with any firm or person listed in the Federal Government's System for Award Management (SAM) system (https://www.sam.gov/portal/public/SAM) with an active exclusion.
- 6. **Insurance**. The Insurance Requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract.
 - 6.1. Ratings. Contractor's insurance shall be placed with companies licensed in the State of Arizona and the insureds shall have an "A.M. Best" rating of not less than A- VII. County in no way warrants that the minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.
 - 6.2. Insurance Coverages and Limits.
 - 6.2.1. Minimum Scope and Limits of Insurance: Contractor will procure and maintain at its own expense insurance policies (the "Required Insurance") satisfying the below requirements (the "Insurance Requirements") until all of its obligations under this Agreement have been met. The below Insurance Requirements are minimum requirements for this Agreement and in no way limit Contractor's indemnity obligations under this Agreement. County in no way warrants that the required insurance is sufficient to protect the Contractor for liabilities that may arise from or relate

to this Agreement. If necessary, Contractor may obtain commercial umbrella or excess insurance to satisfy the Insurance Requirements.

- 6.2.1.1. Commercial General Liability (CGL) Occurrence Form with limits of \$2,000,000 Each Occurrence and \$2,000,000 General Aggregate. Policy will include bodily injury, property damage, and broad form contractual liability coverage, personal and advertising injury and products completed operations.
- 6.2.1.2. <u>Business Automobile Liability</u> Bodily Injury and Property Damage for any owned, hired, and/or non-owned automobiles used in the performance of this Agreement with a Combined Single Limit (CSL) of \$1,000,000 each accident.
- 6.2.1.3. Workers' Compensation and Employers' Liability Statutory requirements and benefits for Workers' Compensation. In Arizona, WC coverage is compulsory for employers of one or more employees. Employer's Liability coverage- \$1,000,000 each accident and each person disease.
- 6.2.1.4. <u>Builder's Risk Insurance</u> Insurance applies to this Agreement. Contractor is required to maintain throughout the course of construction Builder's Risk Insurance in a dollar amount equal to the full insurable value under contract, which shall include "All Risk" coverage. Pima County shall be named as a "Loss Payee". Contractor is responsible for equipment, materials, and supplies until completion of the project and acceptance by County.
- 6.2.1.5. <u>Claims-Made Coverage</u>. Claim-Made Insurance Coverage If any part of the Required Insurance is written on a claims-made basis, any policy retroactive date must precede the effective date of this Agreement, and Contractor must maintain such coverage for a period of not less than three years following Agreement expiration, termination or cancellation.

6.3. Additional Insurance Requirements:

The policies will include, or be endorsed to include, as required by this written agreement, the following provisions:

- 6.3.1 Additional Insured: The General Liability and Business Automobile Liability Policies shall each be endorsed to include Pima County, its departments, districts, boards, commissions, officers, officials, agents, and employees as additional insureds with respect to liability arising out of the activities performed by or on behalf of Contractor.
- 6.3.2 <u>Subrogation</u>: The General Liability, Business Automobile Liability and Workers' Compensation Policies shall each contain a waiver of subrogation endorsement in favor of County, its departments, districts, boards, commissions, officers, officials, agents, and employees for losses arising from work performed by or on behalf of Contractor.
- 6.3.3 <u>Primary Insurance</u>: The Contractor's policies shall stipulate that the insurance afforded the Contractor shall be primary and that any insurance carried by County, its agents, officials, or employees shall be excess and not contributory insurance.
- 6.3.4 Insurance provided by Contractor shall not limit Contractor's liability assumed under the indemnification provisions of this Contract.

6.4 Notice of Cancellation:

Each Required Insurance policy must provide, and certificates specify, County will receive not less than 30 days advance written notice of any policy cancellation, except 10-days prior notice is sufficient when the cancellation is for non-payment of a premium. Notice shall include the County project or Agreement number and project description.

6.5 Verification of Coverage:

Contractor will furnish County with certificates of insurance as required by this Contract. An authorized representative of the insurer will sign the certificates.

- All certificates and endorsements, as required by this Agreement, are to be received and approved by County before work commences. Each insurance policy required by this Agreement must be in effect at, or prior to, commencement of work under this Agreement. Failure to maintain the insurance coverages or policies as required by this Agreement, or to provide evidence of renewal, is a material breach of Agreement.
- All certificates required by this Agreement shall be sent directly to the appropriate County Department. The Certificate of Insurance shall include County project or contract number and project description on the certificate. County reserves the right to require complete copies of all insurance policies required by this Contract at any time.

6.6 Approval and Modifications:

County's Risk Management Department may approve a modification of the Insurance Requirements without the necessity of a formal Contract amendment, but the approval must be in writing. Neither the County's failure to obtain a required insurance certificate or endorsement, the County's failure to object to a non-complying insurance certificate or endorsement, or the County's receipt of any other information from the Contractor, its insurance broker(s) and/or insurer(s), constitutes a waiver of any of the Insurance Requirements.

7. Indemnification.

- 7.1. To the fullest extent permitted by law, Contractor indemnifies, defends, and holds harmless County, its officers, employees and agents from and against any and all suits, actions, legal administrative proceedings, claims or demands and costs attendant thereto, including reasonable attorney's fees and court costs, to the extent caused by any negligent, reckless or intentionally wrongful act or omission of Contractor, its agents, employees or anyone acting under its direction or control or on its behalf in connection with performance of this Agreement. The obligations under this Article do not extend to the negligence of County, its agents, employees or indemnities.
- 7.2. All warranty and indemnification obligations under this Agreement shall survive expiration or termination of the Contract, unless expressly provided otherwise. The Parties agree that any indemnification provision inconsistent with A.R.S. § 34-226 is, in all cases, not void, but will be interpreted and applied as if it were consistent with A.R.S. § 34-226.
- 7.3. Upon request, Contractor may fully indemnify and hold harmless any private property owner granting a right of entry to Contractor for the purpose of completing the project.
- 8. **Bonding Requirements**. Contractor will file payment and performance bonds with County, as required by A.R.S. §§ 34-610 and 34-611, no later than the time of agreement on the price (or Guaranteed Maximum Price) for any construction under this Agreement.
 - 8.1. Bonds will be submitted on an annual basis for the full value of all construction reasonably anticipated during the Agreement year or may be provided on a Job-Order by Job-Order basis; in the latter case, Contractor will anticipate additional Job Orders and provide bonds in reasonable increments.
 - 8.1.1. If bonds are secured on a Job-Order by Job-Order basis, the Contracting Department will obtain the appropriate bonds from Contractor upon issuance of a Job Order and prior to release of the Delivery Order.

8.2. At no time will the cumulative value of the bonds be less than the total value of the construction performed by Contractor under this Agreement, including Job Orders awarded to CONTRACTOR but not yet completed.

9. Laws and Regulations.

- 9.1. <u>Compliance with Laws</u>. Contractor will comply with all federal, state, and local laws, rules, regulations, standards and Executive Orders, without limitation to those designated within this Agreement.
- 9.2. <u>Choice of Law; Venue</u>. The laws and regulations of the State of Arizona govern the rights of the parties, the performance of this Agreement, and any disputes hereunder. Any action relating to this Agreement will be brought and maintained in Superior Court in Pima County.
- 10. Status of Independent Contractor. Contractor is an independent Contractor and Contractor is not an employee of County and is not entitled to receive any of the fringe benefits associated with County employment, and will not be subject to the provisions of the County's merit system. Contractor is responsible for payment of all Federal, State and Local taxes associated with the compensation received by Contractor from County. Contractor is responsible for program development and operation without supervision by County.

11. Contractor/SubContractor Performance.

- 11.1. <u>Performance</u>. Contractor will perform the work with the degree of care and skill which a licensed contractor in Arizona would exercise under similar conditions. Contractor will employ suitably trained and skilled personnel to perform all required services under this Agreement. Prior to changing any key personnel, especially those key personnel County relied upon in making this Agreement, Contractor will obtain County's approval.
- 11.2 Responsibility. Contractor is responsible for the professional quality, technical accuracy, timely completion, and the coordination of all its effort and other services furnished by Contractor under this Agreement. Without additional compensation, Contractor will correct or revise any errors, omissions, or other deficiencies in all products of its efforts and other services provided. This includes resolving any deficiencies arising out of the acts or omissions of Contractor found during or after the course of the services performed by or for Contractor under this Agreement, regardless of County having knowledge of or condoning or accepting the products or the services. Correction of such deficiencies will be at no cost to County.
- 11.3. <u>SubContractor License</u>. Contractor will ensure that all SubContractors have the appropriate and current license issued by the Arizona Registrar of Contractors for work they perform under this Agreement. Contractor will not permit any SubContractor to perform work that does not fall within the scope of the SubContractor's license, except as may be permitted under the rules of the Registrar of Contractors.
- 11.4. <u>Subcontractor Acts and Omissions.</u> Contractor will be fully responsible for all acts and omissions of its SubContractor(s) and of persons directly or indirectly employed by SubContractor and of persons for whose acts any of them may be liable to the same extent that Contractor is responsible for the acts and omissions of persons directly employed by it. Nothing in this Agreement creates any obligation on the part of County to pay any SubContractor, except as may be required by law.
- 11.5. <u>SubContractor List</u>. Contractor must use the SubContractor's named on Contractor's SubContractor List submitted with the bid. No SubContractor may be added or changed without the prior written approval of County subsequent to review and approval by the Administering Department Director and Procurement Director. Substitution of non-SBE SubContractors may be approved at the discretion of County for reasons including but not limited to, availability, insolvency or any other reason deemed to be in the best interest of County. Approval for substitution of SBE SubContractors that are listed on the Bidders Statement of Proposed SBE Utilization submitted with the bid will only be granted if the provisions of Section 20.28.050 of the Pima County Code have been met.

- 12. **Assignment.** Contractor will not assign its rights or obligations under this Agreement in whole or in part, without County's prior written approval. County may withhold approval at its sole discretion.
- 13. Non-Discrimination. Contractor will comply with all provisions and requirements of Arizona Executive Order 2009-09, which is hereby incorporated into this contract, including flow-down of all provisions and requirements to any SubContractors. During the performance of this Agreement, Contractor will not discriminate against any employee, client or any other individual in any way because of that person's age, race, creed, color, religion, sex, disability or national origin.
- 14. Americans with Disabilities Act. Contractor will comply with Title II of the Americans with Disabilities Act (Public Law 110-325, 42 U.S.C. §§ 12101-12213) and the federal regulations for Title II (28 CFR Part 35).
- 15. Authority to Contract. Contractor warrants its right and power to enter into this Agreement. If any court or administrative agency determines that County does not have authority to enter into this Agreement, County will not be liable to Contractor or any third party by reason of such determination or by reason of this Agreement.
- 16. Non-Waiver. The failure of County to insist in any one or more instances upon full and complete compliance with any of the terms and provisions of this Agreement or to take any action permitted as a result thereof is not 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 is not an accord and satisfaction.
- 17. Cancellation for Conflict of Interest. This Agreement 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.

18. Termination of Contract for Default.

- 18.1. Upon a failure by Contractor to cure a default under this Agreement within 10 days of receipt of notice from County of the default, County may, in its sole discretion, terminate this Agreement for default by written notice to Contractor. In this event, County may take over the work and complete it by Contract or otherwise. Contractor and its sureties, if any, will be liable for any damage to County resulting from Contractor's default, including any increased costs incurred by County in completing the work.
- 18.2. Default Events. The following constitutes an event of default:
 - 18.2.1. Abandonment of or refusal or failure to prosecute the work or any separable part thereof with the diligence that will insure completion within the time specified in this Agreement, including any extension, or a failure to complete the work (or the separable part of the work) within the specified time;
 - 18.2.2. Persistent or repeated refusal or failure to supply enough properly skilled workers or materials to perform the work on schedule;
 - 18.2.3. Failure to provide competent supervision at the site;
 - 18.2.4. Failure to take down, rebuild, repair, alter or amend any defective or deficient work, or to remove any defective or deficient material;
 - 18.2.5. Failure to make prompt payment to SubContractors or suppliers for material or labor;
 - 18.2.6. Loss of Contractor's business or other required license or authority, or any curtailment or cessation for any reason of business or business operations that would substantially impair or preclude Contractor's performance of this Agreement;

- 18.2.7. Disregard of laws, ordinances, or the instructions of County or its representatives, or any otherwise substantial violation of any provision of the Agreement; or
- 18.2.8. If a voluntary or involuntary action for bankruptcy is commenced with respect to Contractor, or Contractor becomes insolvent, makes a general assignment for the benefit of creditors, or has a receiver or liquidator appointed in respect of its assets.
- 18.3. Termination. In the event of a termination for default:
 - 18.3.1. All finished and unfinished as-builts, shop drawings, documents, data, studies, surveys, drawings, photographs, reports and other information in whatever form, including electronic, acquired or prepared by Contractor for this project become County's property and will be delivered to County not later than five business days after the effective date of the termination;
 - 18.3.2. County may withhold payments to Contractor arising under this or any other Contract for the purpose of set-off until such time as the exact amount of damage due County from Contractor is determined; and
 - 18.3.3. Subject to the immediately preceding subparagraph 18.3.2, County's liability to Contractor will not exceed the reasonable value of work satisfactorily performed prior to the date of termination for which payment has not been previously made.
- 18.4. <u>Non-Termination</u>. County will not terminate the Agreement nor any Job Order issued under this Agreement for default or charge Contractor with damages under this Article if:
 - 18.4.1. Except for subparagraph 18.2.8 in subsection 18.2 above, the event of default or delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of Contractor. Examples of such causes include:
 - 18.4.1.1. Acts of God or of the public enemy,
 - 18.4.1.2. Acts of County in either its sovereign or contractual capacity,
 - 18.4.1.3. Acts of another Contractor in the performance of a contract with County,
 - 18.4.1.4. Fires,
 - 18.4.1.5. Floods,
 - 18.4.1.6. Epidemics,
 - 18.4.1.7. Quarantine restrictions,
 - 18.4.1.8. Strikes,
 - 18.4.1.9. Freight embargoes,
 - 18.4.1.10. Unusually severe weather, or
 - 18.4.1.11. Delays of SubContractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both Contractor and the SubContractor(s) or suppliers; and
 - 18.4.2. Contractor, within three days from the beginning of any event of default or delay (unless extended by County), notifies County in writing of the cause(s) therefor. In this circumstance, County will ascertain the facts and the extent of the resulting delay. If, in the judgment of County the findings warrant such action, the time for completing the work may be extended.

- 18.5. Receipt of Notice. For the purposes of subsection 18.1 above, "receipt of notice" includes receipt by hand by Contractor's onsite project manager, by facsimile transmission, or under the Notices clause of this Agreement.
- 18.6. Excusable. If, after termination of the Agreement for default, County determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if County had terminated the Contract for convenience as set forth in Article 17.
- 18.7. Rights and Remedies. The rights and remedies of County in this Article are cumulative and in addition to any other rights and remedies provided by law or under this Agreement.
- 19. **Termination for Convenience of County**. County may terminate this Agreement at any time by giving written notice to Contractor of such termination and specifying the effective date thereof, at least 15 days before the effective date of such termination. In that event, all finished or unfinished documents and other materials will, at the option of County, become its property. If County terminates the Agreement as provided herein, County will pay Contractor an amount based on the time and expenses incurred by Contractor prior to the termination date. However, County will make no payment for anticipated profit on unperformed services.
- 20. **Non-Appropriation of Funds**. Notwithstanding any other provision in this Agreement, County may terminate this Agreement if for any reason the Pima County Board of Supervisors does not appropriate sufficient monies for the purpose of maintaining this Agreement. In the event of such termination, County has no further obligation to Contractor, other than payment for services rendered prior to termination.
- 21. **Notices**. Any notice required or permitted to be given under this Agreement must be in writing and be served by delivery or by certified mail upon the other party as follows:

COUNTY:

Jackson Jenkins, Director Regional Wastewater Reclamation Department 201 N Stone Ave, 8th Floor Tucson, AZ 85701 Tel: 520-724-6549

Tel: 520-724-6549 Fax: 520-724-6553

- 22. Non-Exclusive Agreement. Contractor understands that this Contract is Non-Exclusive and is for the sole convenience of County. County reserves the right to obtain like services from other sources for any reason.
- 23. Agreement Documents.
 - 23.1. Incorporation of Documents: Contractor and County in entering into this Agreement have relied upon information provided in Solicitation No. SFQ-PO-2100017 Conveyance System And Related Facilities Repair, Rehabilitation & Construction Services, Exhibit A Scope of Work, Bonds (Bid, Payment, and Performance Bonds), Exhibit B General Conditions to the Contract, Exhibit C Special Conditions Multiple Award Job Order Contract, Exhibit D Supplemental Provisions For Federal Aid Construction Contracts (3 Pages), Exhibit E Contractor Unit Price Books (78 pages), Special Provisions, Technical Specifications and Plans, Construction Documents, Drawings and Specifications, Addenda, and on information provided in Contractor's response to this Solicitation. These documents are hereby incorporated into and made a part of this Agreement by reference as if set forth in full herein.
 - 23.2. Order of Precedence: In the event of a conflict or inconsistency between or among the Agreement documents, the documents shall take precedence in the following order:
 - 23.2.1. This Agreement
 - 23.2.2. Exhibit B General Conditions
 - 23.2.3. Special Provisions, Technical Specifications, and Plans

- 23.2.4. Contractor Response to the Solicitation
- 23.2.5. Instructions to Bidders
- 23.2.6. Invitation to Bid
- 23.3. <u>Deviation</u>: The parties may, by written mutual agreement, deviate from this order of precedence in resolving inconsistencies between or among contract documents. Any such agreement interpreting the documents shall be incorporated into the Agreement by amendment.
- 23.4. <u>Conflict</u>: In the event of any conflict between any provision in the Special Conditions, and any provision of the General Conditions, or any other incorporated document, the provision in the Special Conditions shall take precedence.
- 24. Ownership of Documents. Ownership of 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 Agreement vests in and become the property of the County and will be delivered to County upon completion or termination of the services, but Contractor may retain record copies thereof.

25. Books and Records.

- 25.1. <u>Maintenance</u>. Contractor will keep and maintain proper and complete books, records and accounts, which will be open at all reasonable times for inspection and audit by duly authorized representatives of County.
- 25.2. <u>Retention</u>. Contractor will retain all records relating to this Agreement at least five years after its termination or cancellation or until any related pending proceeding or litigation has been closed, if later. Alternatively, Contractor may, at its option, deliver such records to County for retention.
- 26. Remedies. Either party may pursue any remedies provided by law for the breach of this Agreement, provided, however, that the procedures in Article 29 are first exhausted. No right or remedy is intended to be exclusive of any other right or remedy and each is cumulative and in addition to any other right or remedy existing at law or at equity or by virtue of this Agreement.
- 27. Severability. Each provision of this Agreement stands alone, and any provision of this Agreement found to be prohibited by law is ineffective to the extent of such prohibition without invalidating the remainder of this Agreement.
- 28. **Delays**. Neither party will be considered in default in the performance of its obligations to the extent that the performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such party.

29. Disputes.

- 29.1. Resolving Dispute. In the event of a dispute between County and Contractor regarding any part of this Agreement or the Parties' obligations or performance hereunder, either party may request a special meeting between their respective representatives to resolve the dispute. If the dispute remains unresolved, then either Party may request escalation of the issue to a meeting between the Director of the Pima County Department administering this Agreement and Contractor's counterpart official, such meeting to be held within one week of the request, unless otherwise agreed. If the dispute is still not resolved after that meeting, then either party may pursue such remedy or remedies as may be available to them under the laws of the State of Arizona.
- 29.2. <u>Performance</u>. The Parties will continue performance of their respective obligations under this Agreement notwithstanding the existence of any dispute.

30. Public Records.

30.1. <u>Disclosure</u>. Pursuant to A.R.S. § 39-121 et seq., and A.R.S. §§ 34-603(H), 604(H), in the case of Construction or Architectural and Engineering services procured under A.R.S. Title 34, Chapter 6, all information submitted by Contractor in any way related to this Agreement, including, but not limited to, pricing, product specifications, work plans, and any supporting data becomes public information and upon request, is subject to release and/or review by the general public including competitors.

30.2. Records Marked Confidential.

- 30.2.1. Any information submitted related to this Agreement that Contractor believes constitutes proprietary, trade secret or otherwise confidential information must be appropriately and prominently marked as confidential prior to submittal to County and be accompanied by an index specifically identifying and describing the general contents of each page so marked. The index is a Public Record and must not include any information considered confidential.
- 30.2.2. Notwithstanding the above provisions, in the event records marked confidential are requested for public release pursuant to A.R.S. § 39-121 et seq., County will release records marked confidential 10 business days after the date of notice to the Contractor of the request for release, unless Contractor has, within the 10 day period, secured a protective order, injunctive relief or other appropriate order from a court of competent jurisdiction in Arizona, enjoining the release of the records. For the purposes of this paragraph, the day of the request for release is not counted in the time calculation. Contractor will be notified of any request for such release on the same day of the request for public release or as soon thereafter as practicable. County shall not, under any circumstances, be responsible for securing a protective order or other relief enjoining the release of records marked confidential, nor shall County be in any way financially responsible for any costs associated with securing such an order.

31. Legal Arizona Workers Act Compliance.

- 31.1. Compliance with Immigration Laws. Contractor warrants that it will at all times during the term of this Agreement comply with all federal immigration laws applicable to Contractor's employment of its employees, and with the requirements of A.R.S. § 23-214 (A) (together the "State and Federal Immigration Laws"). Contractor will further ensure that each SubContractor who performs any work for Contractor under this Agreement likewise complies with the State and Federal Immigration Laws.
- 31.2. <u>Books & Records</u>. County has the right at any time to inspect the books and records of Contractor and any SubContractor in order to verify such party's compliance with the State and Federal Immigration Laws.
- 31.3. Remedies for Breach of Warranty. Any breach of Contractor's or any SubContractor's warranty of compliance with the State and Federal Immigration Laws, or of any other provision of this section, is a material breach of this Agreement subjecting Contractor to penalties up to and including suspension or termination of this Agreement. If the breach is by a SubContractor, and the subcontract is suspended or terminated as a result, Contractor will take such steps as may be necessary to either self-perform the services that would have been provided under the subcontract or to retain a replacement SubContractor (subject to County approval if SBE or DBE preferences apply), as soon as possible so as not to delay project completion.
- 31.4. <u>SubContractors</u>. Contractor will advise each SubContractor of County's rights, and the SubContractor's obligations, under this Article by including a provision in each subcontract substantially in the following form:
 - "SubContractor hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to SubContractor's employees, and with the requirements of A.R.S. § 23-214 (A). SubContractor further agrees that County may inspect the SubContractor's books and

- records to ensure that Contractor is in compliance with these requirements. Any breach of this paragraph by SubContractor is a material breach of this contract subjecting SubContractor to penalties up to and including suspension or termination of this contract."
- 31.5. Costs. Any additional costs attributable directly or indirectly to remedial action under this Article are the responsibility of Contractor. In the event that remedial action under this Article results in delay to one or more tasks on the critical path of Contractor's approved construction or critical milestones schedule, such period of delay will be excusable delay for which Contractor is entitled to an extension of time, but not costs.
- 32. Israel Boycott Certification. Pursuant to A.R.S. § 35-393.01, if Contractor engages in for-profit activity and has 10 or more employees, and if this Agreement has a value of \$100,000.00 or more, Contractor certifies it is not currently engaged in, and agrees for the duration of this Contract to not engage in, a boycott of goods or services from Israel. This certification does not apply to a boycott prohibited by 50 U.S.C. § 4842 or a regulation issued pursuant to 50 U.S.C. § 4842.
- 33. Cooperative Use of Resulting Agreement. As allowed by law, COUNTY has entered into cooperative procurement agreements that enable other Public Agencies to utilize procurement agreements that COUNTY has developed. Participating agencies may contact CONTRACTOR with requests to provide services and products pursuant to the pricing, terms and conditions defined by the COUNTY Master Agreement. Minor adjustments are allowed subject to agreement by both CONTRACTOR and Requesting Party to accommodate additional cost or other factors not present in the COUNTY's agreement and required to satisfy particular Public Agency code or functional requirements and within the intended scope of the solicitation and resulting contract. The parties to the cooperative procurement will negotiate and transact any such usage in accordance with State, County and other Public Agency procurement rules, regulations and requirements. CONTRACTOR will hold harmless COUNTY, its officers, employees, and agents from and against all liability, including without limitation payment and performance associated with such use. CONTRACTOR may view a list of agencies that are authorized to use COUNTY contracts at the Procurement Department Internet home page: http://www.pima.gov/procure by selecting the link titled Authorized Use of County Contracts.
- 34. Counterparts. This Agreement may be executed in one or more counterparts, each of which will be deemed an original and all of which together will constitute one and the same instrument. Facsimile or other electronically delivered copies of signature pages to this Agreement shall be treated between the Parties as original signatures for all purposes.
- 35. **Amendment**. Except for the amendment provision above in Article 2, this Contract may be modified, amended, altered or extended only by a written amendment signed by the Parties.
- 36. Entire Agreement. This document constitutes the entire agreement between the parties and all prior or contemporaneous agreements and understandings, oral or written, are hereby superseded and merged herein.
- 37. **Effectiveness and Date**. This Agreement will become effective when all parties have signed it. The date of this Agreement will be the date the Agreement is signed by the last party to sign it (as indicated by the date associated with that party's signature).

(The remainder of this page intentionally left blank)

Each Party is signing this Contract on the da	te below that Party's signature.
PIMA COUNTY:	CONTRACTOR:
Chair, Board of Supervisors	Signature
Date	Name and Title (Please Print)
	Date
ATTEST:	
Clerk of the Board	-
Date	
APPROVED AS TO FORM:	
Deputy County Attorney	-
Stacey Roseberry Name (Please Print) 9/3/2021 Date	- -
LISTE	

Each Party is signing this Contract on the date b	pelow that Party's signature.
PIMA COUNTY:	CONTRACTOR
Chair, Board of Supervisors	Signature Dantel J. Spitza / Vice President
Date	Name and Title (Please Print) 9-7-2021 Date
ATTEST:	
Clerk of the Board	
Date	
APPROVED AS TO FORM:	
Deputy County Attorney	
Stacey Roseberry Name (Please Print) 9/3/2021	

Date

Chair, Board of Supervisors Chair, Board of Supervisors Signature Todd Adams, Vice President Name and Title (Please Print) September 3, 2021 Date ATTEST: Clerk of the Board Date APPROVED AS TO FORM: Deputy County Attorney Stacey Roseberry Name (Please Print) 9/3/2021	Each Party is signing this Contract on the d	ate below that Party's signature.
Date Todd Adams, Vice President Name and Title (Please Print) September 3, 2021 Date ATTEST: Clerk of the Board Date APPROVED AS TO FORM: Stacey Roseberry Name (Please Print) 9/3/2021	PIMA COUNTY:	CONTRACTOR: FORM
Date Name and Title (Please Print) September 3, 2021 Date ATTEST: Clerk of the Board Date APPROVED AS TO FORM: Stacey Roseberry Name (Please Print) 9/3/2021	Chair, Board of Supervisors	Signature
Date ATTEST: Clerk of the Board Date APPROVED AS TO FORM: Deputy County Attorney Stacey Roseberry Name (Please Print) 9/3/2021	Date	
Clerk of the Board Date APPROVED AS TO FORM: Deputy County Attorney Stacey Roseberry Name (Please Print) 9/3/2021		
Date APPROVED AS TO FORM: Stacey Roseberry Name (Please Print) 9/3/2021	ATTEST:	
APPROVED AS TO FORM: Shared Stacey Roseberry Name (Please Print) 9/3/2021	Clerk of the Board	_
Deputy County Attorney Stacey Roseberry Name (Please Print) 9/3/2021	Date	
Stacey Roseberry Name (Please Print) 9/3/2021	APPROVED AS TO FORM:	
Name (Please Print) 9/3/2021	Deputy County Attorney	
Date	Name (Please Print)	<u></u>

Each Party is signing this Contract on the date below that Party's signature.

PIMA COUNTY:	CONTRACTOR:
Chair, Board of Supervisors	Signature Jason Delarlo - Co-Buner
Date	Name and Title (Please Print) 9/3/2021 Date
ATTEST:	
Cierk of the Board	
Date	
APPROVED AS TO FORM:	
Stoney	
Deputy County Attorney	
Stacey Roseberry Name (Please Print)	
9/3/2021 Date	

PIMA COUNTY:	CONTRACTOR
Chair, Board of Supervisors	Signature
And the second s	Max Taddei, CEO
Date	Name and Title (Please Print)
	9/3/2021
	Date
ATTEST:	
Clerk of the Board	www.
Date	
APPROVED AS TO FORM:	
Stown	
Deputy County Attorney	· · · · · · · · · · · · · · · · · · ·
Stacey Roseberry	
Name (Please Print)	
9/3/2021	· ·
Date	•

EXHIBIT "A" (86 pages) SCOPE OF SERVICES

(Rev. 07/23/21)

This is an indefinite delivery/indefinite quantity, job order contract under which the Contractor will provide all labor, materials, management, supervision, services, and coordination required to provide a full range of conveyance system maintenance, repair, rehabilitation, and construction services. All such work is to be requested by the COUNTY from time to time by issuance of an individual job order for each individual project. Services are for the Pima County Regional Wastewater Reclamation Department.

<u>General Scope:</u> Scope of work will include repair, construction, improvement and maintenance of new and existing

COUNTY owned structures, and facilities.

Exhibit "A" consists of the following sections:

A1 SCOPE OF WORK

A2 BACKGROUND AND INTRODUCTION

A3 EMERGENCY REPONSE

- A3-1 Response Time
- A3-2 Emergency Job Order Liquidated Damages
- A3-3 Emergency Payment Multiplier

A4 PROJECT MANAGEMENT

- A4-1 Project Kick-Off Meeting
- A4-2 Job Order Progress Meetings and Job Order Progress Reports
- A4-3 Subcontractor, Engineer Design & Surveying Management
- A4-4 Community Relations
- A4-5 Resident Notification

A5 REFERENCES AND JOB ORDER SUBMITTALS

- A5-1 References
- A5-2 Submittals

A6 JOB ORDER EXECUTION

- A6-1 Work Within Easements and Right-Of-Way
- A6-2 Execution
- A6-3 Maintenance of Sewage Flows
- A6-4 Cleaning of Sewer
- A6-5 Television Inspection
- A6-6 Sewer Preparation Prior to Liner Installation
- A6-7 CIPP Liner installation
- A6-8 Service Connections
- A6-9 Utility Trench Pavement Patch
- A6-10 Chip Seal Coat
- A6-11 Manhole Construction
- A6-12 Manhole Rehabilitation
- A6-13 Manhole Adjustment and Reconstruction
- A6-14 Manhole and Cleanout Frame and Cover and Existing Manhole Section Replacement and Salvage/Disposal
- A6-15 Pot-Holing
- A6-16 Cleanout Reconstruction
- A6-17 Excavation and Backfill

A6-18	Manhole Bench Rehabilitation
A6-19	Pipe Point Repair
A6-20	Clean-Up
A6-21	Concrete Sidewalks and Curb
A6-22	Property Damage
A6-23	Punch List Items
A6-24	Traffic Control
A6-25	Section Reserved
A6-26	General Field Procedures
A6-27	Scheduling of Work
A6-28	Immediate Maintenance Requirements
A6-29	Grouting of Cavities

A7 MEASUREMENT

A7-1 RWRD Price Book Unit Measure/Payment

A8 ADMINISTRATIVE PROVISIONS

A8-1	Availability of Applicable Information
A8-2	Coordination and Approvals
A8-3	Quality Control
A8-4	Submittals
A8-5	Force Account
A8-6	Invoicing and Payment
A8-7	COUNTY Responsibilities

The following Appendices are attached:

SUB APPENDIX A	Engineering Resources
SUB APPENDIX B	Wastewater Flow Management Plan Guidelines
SUB APPENDIX C	Residential/Business Notification Guidelines
SUB APPENDIX D	Cured In Place Pipe (CIPP) Specifications
SUB APPENDIX E	Procedure for Reporting Unauthorized Discharges/Releases
SUB APPENDIX F	Manhole Rehabilitation Specifications
SUB APPENDIX G	Construction Safety Plan Outline

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A1 SCOPE OF WORK:

Job Orders will be issued for the maintenance, repair, rehabilitation, adjustment or construction of Conveyance Facilities or other RWRD facilities. Job Orders scope may include irrigation systems and landscaping, site grading, pavement repair and installation, surveying, potholing for locating RWRD utilities or other utilities impacting conveyance assets, installation, maintenance and repair of odor control facilities, minor related design work and permitting, Storm Water Pollution Prevention Plan preparation and inspection and other related facilities construction tasks. The conveyance system is described below.

It is the COUNTY's intent to primarily use this contract to perform work on both large and small diameter pipes, sanitary sewer manholes and structures, lift stations, siphons, and other conveyance system appurtenances. Methods for sewer line maintenance, repair and construction may involve open cut, CIPP, concrete rehabilitation, coatings and other methods of repair and rehabilitation. The scope of work shall also include furnishing of materials, repairing, rehabilitating, and reconstruction of existing sewer structures & constructing new manholes over existing sewer lines.

The purpose of this contract is to specify the terms and conditions whereby the Contractor shall:

- 1. Provide effective project management of any/all Subcontractors, field procedures, and all related supporting contracts included in this project.
- 2. Obtain all necessary permits and coordinate with affected jurisdictions.
- 3. Coordinate and provide public notification prior to Job Order accomplishment.
- 4. Provide sewer line cleaning, closed circuit television (CCTV) inspection, without wastewater in the lines, and video recording of existing sewer and services connections prior to repair, rehabilitation or reconstruction.
- 5. Provide sewer line cleaning, closed circuit television (CCTV) inspection, without wastewater in the lines, and video recording of existing sewer and services connections after repair, rehabilitation or reconstruction, and provide verification of re-instatement of lateral connections.
- 6. Rehabilitate existing sewers by the CIPP method, or other approved method, and Reinstatement of lateral connections without excavation.
- 7. Performance of spot repairs, as required, by the repair method selected by COUNTY. Perform active leak sealing operations, as required.
- 8. Performance of sanitary sewer structure rehabilitation by coating and/or reconstruction.
- 9. Provide replacement, rehabilitation and/or adjustment of structures such as manholes, siphons, and pump
- 10. Provide sewage flow management and maintenance of flow, with zero release of sewage.
- 11. Provide and perform all required acceptance testing.
- 12. Maintenance of traffic in accordance with local, state, and federal requirements.
- 13. Adhere to all safety requirements in accordance with local, state, and federal requirements.
- 14. Provide As-Builts as required.
- 15. Respond to emergency sanitary sewer overflow (SSO) situations as required.

Attention to detail, adherence to safety measures, and organizational skills will be a key factor to the success of this contract. All design standards, materials and workmanship for public sanitary sewers are to be in accordance with the latest edition of the Pima COUNTY Regional Wastewater Reclamation Department Manuals of Engineering Design Standards and Standard Specifications and Details for Construction, except as modified by the provisions and specifications of this contract. Copies of said Manuals are on file at Pima COUNTY Wastewater Management offices at 201 N. Stone Avenue, 5th Floor.

PROJECT PHASING

Normal Job Order Accomplishment

The following Five-Phase Approach shall be followed throughout the life of this contract for "normal" Job Order Accomplishment (Time-frame shown corresponds to a **one-reach repair** Job Order level of effort):

Phase One: Day One. This phase consists of a Job Order being issued by the COUNTY Project Manager to the Contractor. The Job Order will also mark day one of the required performance period. The actual performance period will be calculated by COUNTY by issuing a total of 4 weeks for the initial reach to be rehabilitated and adding an additional week for each additional reach. For example: a one reach Job Order will have a 4-week performance period specified as it is delivered to the Contractor in Phase I. A four reach Job Order will have a 7-week performance period (four weeks for the initial reach and one week each for the subsequent three reaches for a total of seven weeks). The Job Order may include one sewer pipe reach or multiple reaches. In a similar manner, performance periods will be established for manhole repairs or rehabilitations.

The Job Order will include:

	a prioritized written report summarizing CCTV inspection results identifying sewer defects, or a report
	detailing manhole defects;
	a definition of the Job Order time period;
	a definition of the "affected neighborhood";
	a listing of the number of reaches and household connections that are necessary;
	a map of affected property owners;
	a copy of the CCTV inspection log and tape; and
	submittal checklist with the items identified which need to be addressed and returned to COUNTY.
Ш	submittal checklist with the items identified which need to be addressed and returned to COON 1.

Phase Two: Day two to Day four (three days). With the information provided by the Job Order in the Phase One, the Contractor shall turn in the required submittals for the rehabilitation/reconstruction of each specific reach included in the Job Order. The required submittals for this Phase are identified in the Submittal Section III.4.2.

Phase Three: Day five to Day six (two days). Once the submittals received in Phase Two are approved by COUNTY Field Engineering, a NTP will be issued to the Contractor by the COUNTY Project Manager.

Phase Four: Day seven through completion of Job Order performance period. The receipt of the NTP, issued in Phase Three, allows the Contractor to start mobilization and proceed with the required rehabilitation work.

Phase Five: Completion of Performance Period and Job Order invoice payment. Upon the receipt, review and approval of the Punch List Completion Report and Submittals on the Phase Four, COUNTY will proceed with payment for the Completed Job Order. Partial payments will be processed on Job Orders that extend longer than 30 days, once the submittals for the installed reaches for the requested partial payment are received. The required submittals for this Phase are identified in the Submittal Section III.4.2.

Manhole/Cleanout Phasing

The following Five-Phase Approach shall be followed throughout the life of this contract for "Normal" Job Order Accomplishment (Time-frame shown correspond to a Job Order for set of manholes and/or cleanouts repair or rehabilitation Job Order level of effort):

Phase One: Day One. This phase consists of a Job Order being issued by the Pima COUNTY Project Manager to the Contractor. The COUNTY Job Order will include written report summarizing and identifying all manholes/cleanouts needing repair; the Job Order will also mark day one of the required performance period. The actual performance period will be calculated by COUNTY, and shall not exceed a total of twenty-one (21) working days for the Job Order to be completed from the NTP issue date.

The following information will be included in each work order:

□Indication of "NORMAL or EMERGENCY" response time.
□"Scope of Services" outlining the required work to be performed.
□A map indicating the location of the project.
□A sample job order is included in the Solicitation for Qualifications

Phase Two: Day two to Day four (three working days). With the information provided by the Job Order in the Phase One, the Contractor shall turn in the required submittals for the reconstruction/adjustment of each Job Order.

Phase Three: Day five to Day seven (three working days). Once COUNTY Field Engineering approves the submittals received in Phase Two, a NTP will be issued to the Contractor by the COUNTY Project Manager.

Phase Four: Day eight to Completion of Performance Period. The receipt of the Notice To Proceed issued in Phase Three allows the Contractor to start mobilization and proceed with the required rehabilitation work.

Phase Five: Completion of Performance Period and Job Order invoice payment. Upon the receipt, review and approval of the Completed Job Order(s), payments will be processed on Job Orders (s) on a monthly basis.

In order to achieve a good interface between the Contractor and COUNTY, a sample Job Order dry-run will be developed for this project. This dry-run will go through the five phases of Job Order Accomplishment.

After successfully completing the initial Job Order dry-run, a contract Notice to Proceed will be issued. The Contractor thereafter, shall schedule all new personnel for training in all aspects of the work as provided in the initial Job Order Dry-run. The training of new personnel will be performed at COUNTY's earliest convenience.

The Contractor shall perform these tasks on a Job Order-by-Job Order basis not to exceed the performance period for each Job Order, and each Job Order's tasks shall be complete and accepted by COUNTY before the COUNTY issues the next Job Order Notice To Proceed. The COUNTY reserves the right to issue multiple Job Orders in case of an emergency situation or as the Contractor demonstrate its capability to handle multiple Job Orders simultaneously. When multiple Job Orders are issued, COUNTY will prioritize and provide the order of execution for each of the Job Orders.

In case of an emergency situation, the COUNTY and the Contractor will work together to minimize the amount of time for the accomplishment of each phase.

In the event of any conflict, seeming or real, between the Special Provisions and the RWRD Standard Details and Specifications for Public Improvements, the Special Provisions shall prevail.

Job Orders that are not completed within the calculated performance period will trigger the deduction of Liquidated Damages in the amount as provided for in Section 108 of PAG Standard Specifications from the amount owed to the Contractor to cover COUNTY management and inspection expenses.

COUNTY guarantees no minimum or maximum to the size or amount of any Job Order or to the TOTAL contract amount over the life-time of the contract.

The Contractor shall be expected to accomplish each Job Order in the most efficient and expeditious manner possible. The Contractor, when requested by COUNTY, shall submit the list of equipment proposed to be used on specific Job Order for review and approval prior to commencement of the Job Order.

A2 BACKGROUND AND INTRODUCTION

It is the intent of these specifications to provide a means for rehabilitating sanitary sewer lines using mainly the Cured-In-Place-Pipe (CIPP) reconstruction process. Other trenchless technologies will be considered, on a case-by-case basis, as approved by COUNTY. The awarded Contractor shall be responsible for providing all labor, materials, equipment, flow control/management, tools, transportation, and supplies required to complete the work in accordance with the terms of the Contract and the repair method selected by COUNTY. The involved rehabilitation and/or point repair work is to be achieved with zero release of sanitary sewage. When complete, the liner pipe will extend from one manhole to the next manhole in a continuous watertight length, and all active lateral connections (if applicable) in this length will be reinstalled without exception, and be free of all forms of restrictions.

Where rehabilitation is not feasible due to the extent of the deterioration, these Specifications provide for the Point Repair by replacement of the involved deteriorated sections. These Specifications also provide for the rehabilitation of sewer structures (manholes, diversion structures, siphon inlets and outlets, etc.) suffering from deterioration and/or offset in the frame and cover and riser area resulting in infiltration by the application of an internal, approved, coating system. These Specifications also provide for the reconstruction of the sanitary sewer structure from significant deterioration of or offset (greater than 6 inches) in the frame/riser such that internal rehabilitation methods are insufficient to acceptably restore the integrity of the structure. This specification also applies to the vertical adjustment of sewer structures to the extent that the adjustment is being made as part of a rehabilitation project for sewer structures as determined by COUNTY.

A3 <u>EMERGENCY RESPONSE:</u>

A3-1 Response Time:

An EMERGENCY response is required when there is an actual or imminent danger to the public health and/or property. When responding to an EMERGENCY job order, the Contractor must be able to complete site assessment and mobilize (to the site) with the necessary equipment within 120 minutes of being notified by COUNTY personnel. FOR EMERGENCY situations in the Mt. Lemmon, Green Valley, and Arivaca Junction areas, the response time for EMERGENCY work orders shall be 180 minutes.

The Contractor must provide and constantly update a list of its personnel (including telephone numbers) that are assigned to respond to EMERGENCY job orders, on a monthly basis.

A3-2 EMERGENCY Job Order Liquidated Damages:

Failure to respond to the work site within the required response time and with the required equipment will result in an initial Liquidated Damages Penalty of \$500.00 Dollars. An additional \$100.00 Dollars per hour will be assessed for each successive hour thereafter, until the Contractor's personnel start repair work on site, with the required equipment, to bring the EMERGENCY situation under control.

A3-3 EMERGENCY Payment Multiplier:

EMERGENCY Job Order payment shall be calculated with a 1.15 multiplier for work performed under Emergency status (price book work), as required by the COUNTY. Once the EMERGENCY has been determined to be stabilized (no longer a threat to life, health, or property) by COUNTY personnel on site, the EMERGENCY will Job Order will be closed and a standard Job Order for the remaining scope or repair will be issued.

A4 PROJECT MANAGEMENT:

The services provided under this task relate to monitoring the progress and performance of the Contractor and its Subcontractors. The Contractor selected for this project shall be responsible for the effective, timely, efficient, and environmentally sound completion of the required work and shall also be held fully accountable for the conduct and actions of its staff, and staff of the Subcontractors.

A4-1 Project Kick-Off Meeting

A4-1a	The Contractor shall conduct a Kick-Off meeting for the project.	At the	Kick-Off	meeting	the
Contra	ctor shall:				
	Introduce the project team.				
	Establish project task goals				
	Review the project Job Order Accomplishment Phases.				
	As directed and agreed upon with COUNTY:				
	 Establish lines of communication between the Contractor, its Sub 	contract	ors, and (COUNTY	

 Establish formats for project deliverables following COUNTY approved standards. Establish public notification procedures following COUNTY approved standards. Present the mobilization schedule. Present the required submittals.
A4-1b The Contractor shall prepare the agenda in consultation with the COUNTY Project Manager and record and prepare minutes of the meeting.
A4-2 Job Order Progress Meetings and Job Order Progress Reports
Note that each Job Order Accomplishment Phase has to be completed before proceeding with the next phase. The approval to begin the next phase will not be issued until all deliverables listed on each phase have been received and approved by COUNTY Project Manager on a Job Order-by-Job Order basis.
A4-2a Throughout the Contractor's performance of this contract, the Contractor shall prepare a written Job Order Completion Report detailing the Contractor's efforts and achievements for each completed Job Order Each Job Order Completion Report shall be presented to COUNTY as part of the Phase Five Submittals. The Job Order Completion Report shall include, but not be limited, to:
 □ Summary of Work performed during the completed Job Order. □ Collection of any and all Lessons Learned for implementation on future Job Orders. □ Status of the punch list items generated during that Job Order. □ Job Orders still open for resolution. □ As-Builts of the reach if changes occurred. □ Expected warranty "cut-off" date.
A4-2b The monthly Job Order meetings (estimated duration 1 hours) shall be for the purpose of discussing preparing, and resolving all related Job Order issues. The Contractor shall turn in all required initial submittal during the initial Job Order Meeting. This initial meeting shall mark the start of the Second Phase for Job Order Accomplishment. The Contractor shall submit the mailing labels/door hangers of the affected residents in the area of the Job Order to be executed for COUNTY approval.
A4-2c The Contractor shall be responsible for recording and typing the minutes of each meeting and for submittal of a copy of the minutes to the Project Manager within five (5) calendar days of the date on which the meeting was held. Upon receipt of concurrence with the meeting minutes, the Contractor shall revise an resolve the minutes, if necessary, and resubmit the minutes to COUNTY for record purposes. The minute shall identify each significant agenda topic, summarize the discussions, identify action items with the responsible party, and indicate conclusion(s) reached in a manner sufficiently complete to adequately record the meeting. The Job Order meetings are in addition to the normal day-to-day communications between the Contractor and COUNTY. Special meetings may be required at more frequent intervals to discuss issue affecting the quality and timeliness of its completion, and may be called by either the Contractor or COUNTY.
A4-2d As-Built Records. Upon completion of construction, and as part of the final submittals for Phase Verthe Contractor shall forward a complete set of as-built drawings and a copy set in accordance with COUNT standards. These drawings shall indicate all final measurements and locations of all Work constructed under this Contract, deviations from design sewer alignment and grade, structural changes, and flow configurations. They shall also include, but not be limited to the following:
 Lengths, elevations, grades, stations and locations of all sewers, identified by Contract items, pipe size and depth between manholes, special structures and terminals; Lengths and locations of all water mains, identified by Contract items, depth and main size;

Ш	Distances between sewer service wyes and tees, with tie-in measurements to mannoles and indication
	as to type of connection, length of house connection, and location and depth of end of lateral;
	Distance between water service connections, with tie-in measurements to valves, fire hydrants, laterals,
	and other fittings, and indication as to size of connection, length of service connection, location of curb
	or corporation stop and end of pipe;
	Alignment of water mains, sewers, process piping, buildings, tanks, roadways, and other structures,
	where final installed location of alignment differs from that shown on the Plans, including tie-in
	measurements of distinguished mark's that can be identified on the aerial photograph or topographic
	survey plan; and
	Every other feature or aspect of the completed Project which differs from or was not shown on the
	original Contract Plans.
	The locations of all House Connection Sewer (HCS) openings and abandoned HCSs

A4-3 Subcontractor, Engineering Design & Surveying Management

- **A4-3a** Due to the extent of this project it is anticipated that more than one Subcontractor and/or Subcontractor crews may be required for Job Order accomplishment.
- A4-3b The Contractor shall provide currently licensed/bonded, qualified Subcontractors to perform the work that the Contractor is not qualified to perform. The Contractor shall be responsible for insuring that the work of its Subcontractors is performed within the guidelines established herein, in a timely manner, and shall not adversely impact the overall Job Order schedule.
- **A4-3c** When it is necessary for the JOC Contractor to Hire an Engineering Firm (or Engineer) for design and/or inspections (examples geotechnical, electrical, mechanical, materials, etc.), the engineer must be registered in the State of Arizona in the appropriate field of expertise.
- **A4-3d** For design work the Firm must be approved by the COUNTY. The COUNTY can request the Contractor to provide a design and As-Builts with appropriate seals on all drawings.
- **A4-3e** If surveying is required, the surveyor must be licensed to practice in the State of Arizona and will be required to seal survey information within the drawings.

A4-.4 Community Relations

- A4-4a Due to the extent of this project it is anticipated that the Contractor will be in a position where interaction with the public will be often required. It is the intent of Pima COUNTY to maintain a positive public image at all times during the construction planning, progress, and completion. To that effect, the COUNTY Community Relations Manager shall be contacted whenever a situation involving public property damage, Sanitary Sewer Overflows (SSO's, see SUB APPENDIX E), residential street closure, major street lane closures, or any other major interaction with the public is required (contact phone numbers will be provided). All information delivered to the public or the press shall be coordinated with the COUNTY Community Relations Manager. All inquiries from the press shall be directed to the COUNTY Community Relations Manager.
- **A4-4b** Any damage to COUNTY infrastructure or to private or public property shall be immediately repaired or rehabilitated to COUNTY or property owner's satisfaction at no additional expense to COUNTY. The property owner and COUNTY will be notified of the problem and the repair. The COUNTY Community Relations Manager shall be contacted to interact with the public on behalf of COUNTY. This does not preclude the Contractor or his/her representative from speaking to a resident whose property has been damaged at the time of the incident.

Neither does it preclude the Contractor or his/her representative from speaking to residents or a specific resident who approach him/her later in the project unless he/she has been instructed not to communicate with specific

individuals. In such cases, the Contractor or his representative will address the individual or individuals courteously and politely and refer them to the designated Pima COUNTY representative.

- **A4-4c** During any Sanitary Sewer Overflow (SSO) situation, the COUNTY Community Relations Manager shall be contacted to interact with the public and media as the Department spokesperson.
- **A4-4d** When public meetings are required in preparation for a rehabilitation project, per SUB APPENDIX C, close coordination with the COUNTY Community Relations Manager shall be required.
- **A4-4e** A project supervisor must be available for calls on a cell phone (paid for by the Contractor and with a Local Tucson number) from 5:00 p.m. to 8:00 a.m. Monday through Friday and 24 hours a day on weekends and COUNTY holidays. This **local** phone number will be provided to residents in affected areas so they can ask questions or address concerns about work that might be taking place "after hours" in their neighborhood.

A4-5 Resident/Business Notification

Residents may need to be notified of inspection or construction activities, including changes in street traffic or lane closures. All the residents within the proposed work area shall be notified of the estimated timing, duration, and type of activities to be performed in the area. The Contractor and its Subcontractors shall communicate and coordinate with the public in an effective, efficient, and friendly manner in order to be a "good neighbor" and foster their cooperation during the task. During the course of the project, if the original time for the construction activity is accelerated or delayed, the Contractor will notify the COUNTY PM, Community Relations, as well as residents to commencement of any work schedule change 24 hours in advance.

- A4-5a The Contractor shall present and submit for County approval the proposed notification letter. The resident's addresses and information are available on the Pima County GIS data files. If notification is required, notifications shall be mailed and/or hand delivered to residents, as specified in **Sub Appendix C**, prior to the actual cleaning and/or CCTV inspection activity. The Contractor and/or its Subcontractors field crews shall carry a copy of the notification letter at all times.
- **A4-5b** Every effort shall be made to determine if a neighborhood or home owner association exists within the proposed work area. If such an organization is active, it shall also be included in the notification procedures. The Contractor shall contact the County Community Relations Manager for a list of known neighborhood associations with their respective points of contacts (POC). The list shall be part of the final report for the project.

A5 REFERENCES AND JOB ORDER SUBMITTALS:

This task describes the project references and submittal requirements for CIPP Rehabilitation/Pipeline Reconstruction, Point Repairs, Manhole Rehabilitations, and Manhole Reconstructions. Failure to provide the required up to date submittals at the Project Kick-Off meeting will result in the contractor's NOT being issued JO's

A5-1 References

Where a reference is made to one of the standards listed below, the revision in effect at the time of the bid opening shall apply. If there is a conflict between any ASTM data and this specification, this specification shall govern.

American Society for Testing and Materials (ASTM)

ASTM D-638: Test Method for Tensile Properties of Plastics

ASTM D-790: Test Method for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials

ASTM F-1216: Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.

ASTM C-581: Standard Practice for Determining Chemical Resistance of Thermosetting Resins Used in Glass-Fiber-reinforced Structures Intended for Liquid Service

ASTM D-3681: Standard Test Method for Chemical Resistance of "Fiberglass" (Glass-Fiber-Reinforced Thermosetting Resin) Pipe in a Deflected Condition

ASTM F 1743: Rehabilitation of Existing Pipelines and Conduits by Pulled-In-Place Installation of Cured-In-Place Thermosetting Resin Pipe (CIPP)

Arizona Department of Environmental Quality (ADEQ), Section R18-9-E301.4.01 General Permit: Sewage Collection System.

Pima County Regional Wastewater Reclamation Department Standard Details and Specification, latest edition.

Pima Association of Governments (PAG) Standard Details and Specification, latest edition.

A5-2 General Contract Submittals

A5-2a Due to the phase approach of this contract, the Contractor shall be required to establish a submittal schedule for the duration and performance of this contract. The submittals will be required as per the phase of the Job Order.

A5-2b Before the Contractor receives the Contract NTP, the Contractor shall present COUNTY with the following:

		List of Subcontractors certifications and qualifications
	$\overline{\Box}$	Local Tucson phone numbers for all superintendents and project managers
	\Box	Coating applicator's certifications and qualifications
	$\overline{\Box}$	Confined space entry procedures and certifications for the General Contractor's personnel and all
	_	Subcontractor's personnel requiring entrance to the sewage system (Cleaning, Manhole
		Rehabilitation, Manhole Reconstruction, Closed Circuit Televising (CCTV))
	П	All relevant information for the proposed (CIPP) liner from the resin manufacturer (specifications,
	_	characteristics, properties, and methods of application). Ref: Cured In Place Pipe (CIPP)
		Specifications, SUB APPENDIX D.
	П	Spill Prevention Plan
	\exists	Construction Safety Plan per SUB APPENDIX G.
	П	Emergency Personnel telephone numbers (updated thru contract duration as needed)
	ī.	Contractors equipment cost for owned equipment (updated thru contract duration as needed) for
	_	force account work payment calculation
		Draft of Residents Notification Letter/Door hangers
	_	
A5-2c		As the contract progresses and a Job Order is issued, the Contractor shall (on a Job Order basis)
as nart	of t	the submittals for the Job Order Accomplishment, (Phase Two), submit to COUNTY the following
ao pait suhmitt	als t	to include but not limited to:
Jubillit	ais	to Molado Bat Hot Himse se.
	П	A copy of the proposed work schedule
		Pricing based on Pima COUNTY Wastewater Unit Price Book; this pricing will be stated as a
		computation of prices for each item times the quantity and will give an over-all Not To Exceed
		amount
		Design data and specifications data sheets listing all parameters used in the CIPP design and
		thickness calculations based on Appendix X1 of ASTM F-1216.
		Flow Management Plan (If required)
	_	

		Confined space entry plan (if required)
		Traffic Control Plan (If Required)
		Proposed method of sewer cleaning
		Residents Notification Letter customized to the specific Job Order location
		Pipe materials and appurtenances
		Submittal for seals and grout
		Manhole Reconstruction Shop Drawings & material submittals (If required by the Job Order)
		Manhole/structure coating product
		Photos and video of the proposed construction area (before & after construction) for COUNTY records (If required by the Job Order).
•		Proposed lay down area for construction activities
		Any Environmental related permit including but not limited to SWPPP permits, Native Plant Preservation Surveys and Plans, 404 Permits, Right of Entry or Right of Way permits, or other
	_	required permits.
		Erosion Control Plan per COUNTY requirements for construction impacting less than 1 acre. NASSCO certifications for personnel performing CCTV inspections
		Submittal for all other equipment and material not previously approved after award of the Contract Resident Notification Log
<i>A5-2d</i> (Phase limited t		During the progress of the Job Order, as part of the submittals for the Job Order Accomplishment, ir), the Contractor shall submit to COUNTY the following submittals/Deliverables, to include but not
	_	Daily progress reports, to be turned in to the Pima COUNTY Inspector for approval and
		coordination. The daily report will include the proposed activities for the next day.
		A copy of the "wet-out", Styrene Monitoring Log and "Cure" reports in an approved format immediately after curing of each liner is completed if applicable.
		Pipe Installation Cut sheets
		Concrete tickets
		Notification of any property damage
A5-2e Upon completion of the Job Order the Contractor shall submit to COUNTY the following submittals/Deliverables for the process of payment, to include but not limited to:		
	П	Job Order Completion Report
		Materials Tests Results
•		Updated list of punch list items
	H	Records and DVDs documenting line cleaning and television inspection of completed work
•		Actual resin volume used, and test results of infrared spectrum analysis conducted on each lot of resin, if applicable
	_	
	_	Copy of cured liner samples test result reports, if applicable Photos and video of the construction area (after construction)
		Notification of any property damage
		Job Order status report
		Meeting Minutes
		As-Built/Record drawings if required in the Job Order
	Ш	Electronic photos of completed manhole/cleanout reconstruction and or adjustment to finish grade.
: 10	ne d	ORDER EXECUTION

A6

Utilizing the Job Order information and submittals approved on the previous subtask, COUNTY will issue a NTP to the Contractor. The Contractor shall then proceed with the Job Order.

The Contractor shall research all available public records such as: existing As-Builts, Wastewater Operations Division Hansen Infrastructure Management System (IMS) database, sewer base maps, Ortho-photos (where available), subdivision plats, GIS data maps, or any other data source the Contractor and/or COUNTY deem reliable or necessary.

The **Contractor** shall provide, at a minimum, one-week notice when requesting from COUNTY any other data sources (existing As-Builts, sewer base maps, Ortho-photos, subdivision plats, GIS data maps, COUNTY Field Operations survey folders) deemed reliable or necessary and not otherwise accessible to the public.

A6-1 Work Within Easements and Right-Of-Way

- A6-1a This work is to be done within existing public rights-of-ways. It shall be the responsibility of the Contractor to obtain any and all necessary permits to conduct the work within the rights-of-way shown in the plans, including any permits required for temporary pavement cuts within the roadway. It will be the Contractor's responsibility to obtain any Right of Entry permits or agreements required to perform work within other jurisdictions or utilities easements, right of way, or property including ADOT and Railroad right of way, easements or property. The Contractor shall prepare and provide control plans as necessary, including for traffic and sewage flow management. The Contractor shall complete the ADEQ application for the purpose of obtaining the ADEQ Approval to Construct letter if required. Payment for the required permits shall be made per permit receipt amount from the Jurisdiction Payment Bill, with no markup allowed, out of the Permits Line Item.
- A6-1b The Contractor shall follow Pima COUNTY Native Plant Preservation Plan. The Contractor shall make every effort to minimize damage to existing improvements and/or vegetation during all work operations. Any existing improvement and/or vegetation which require removal for work access shall be replaced "in kind" by the Contractor. All costs associated with the above work within rights-of-way shall be included in pipe installation costs, except as provided for by specific items in the Special Provisions. Any existing improvement and/or vegetation that is damaged or removed by the Contractor outside the rights-of-way shall be replaced "in kind" and to a condition equal to or better than the original at the Contractor's expense.

A6-2 Execution

- A6-2a The Contractor shall visit all line segments proposed for rehabilitation and notify COUNTY in writing of any site conditions or visible problems, such as access, which would prevent the accomplishment of the work.
- A6-2b After receiving the Notice to Proceed, a notification letter and door hanger, provided by the Contractor and approved by COUNTY, shall be delivered by the Contractor to each residence affected by the installation process as specified in SUB APPENDIX C as soon as possible. Residents shall be informed when wastewater and/or water service interruption will take place and the approximate duration.
- A6-2c The Contractor shall be on site with all necessary equipment in good working order no later than 7:00 a.m. on the day specified in the NTP. Every effort shall be made by the Contractor to complete all work by 5:00 p.m. The Contractor shall notify each residence affected by the construction activities, for which service has not been re-established by 5:00 p.m. of the estimated time the service reconnection will be complete. No work, unless required by an emergency and authorized by COUNTY, will be performed on weekends and holidays. Contractor shall schedule Traffic Control and Flow Management during non-peak hours whenever possible, so as to best accommodate the neighborhoods and traffic flow.
- A6-2d Except for CIPP or alternate pipe rehabilitation/repair method, flow management operations, and manhole rehabilitation (protective coating), all work shall be scheduled on a 7:00am to 5:00pm workday, unless other hours are authorized or required by the COUNTY, with the exception of Flow Management, which shall be manned and operated on a 24 hour, 7 days per week basis until the completion of the project, and Emergency Repairs as required. Prior to commencement of Construction activities involving Cured In Place Pipes (CIPP), the Contractor shall notify Pima COUNTY Industrial Wastewater Control of the project schedule and will give them the opportunity to schedule sampling of the curing waters prior to discharging them back into the sewer system.

- A6-2e The Contractor shall deliver the uncured resin impregnated liner to the site, provide all equipment required to install the liner into the conduit, expand the liner in accordance with the manufacturer's standard procedures, and cure it in place. The liner shall be impregnated with resin not more than 72 hours (or other time as defined and recommended by the product manufacturer) before the proposed time of installation and stored in accordance with the manufacturer's recommended procedures.
- A6-2f The Contractor shall take steps to minimize the spread of noxious odors to the surrounding neighborhood. This shall include but not be limited to covering the tops of the manholes where flow management pumps are removing wastewater from the existing sewer line or discharging wastewater to the existing sewer line, and using portable odor abating devices (if required by the job order). All measures being employed shall first be reviewed and approved by COUNTY.
- **A6-2g** Work performed shall be in accordance with local, state, and federal standards and requirements. Safety and maintenance of traffic are the responsibility of the Contractor. Site safety shall be maintained around the clock during the work performance.
- **A6-2h** All debris resulting from construction activities shall be disposed in an approved landfill at the Contractor's expense.

A6-3 Maintenance of Sewage Flows:

- A6-3a The Contractor shall be responsible for all sewage flow management around the pipe to be cleaned, televised, repaired, replaced or lined, or any manhole rehabilitation where bench work will be required, in accordance with COUNTY standards (see SUB APPENDIX B for detailed Flow Management Submittal requirements). Pump and flow management lines shall be of adequate capacity and size to handle 1.5 times the peak wet weather flow without affecting the service connections upstream of the sewer line being lined. The Contractor shall be responsible for cleanup, repair, and property damage costs and claims resulting from sewage overflow or backup caused by inadequate pumping or any other reason related to the Contractor's lining work. A certified maintenance person capable of starting, stopping, refueling, troubleshooting, and maintaining this equipment during the rehabilitation work shall continuously monitor pumps and equipment.
- A6-3b The Contractor shall take appropriate steps to ensure that all pumps, piping, and hoses that carry raw sewage are protected from vandalism, vehicular traffic and pedestrian traffic.
- A6-3c In the event, during any form of "Maintenance of Sewage Flows" that raw sewage is spilled, discharged, leaked or otherwise deposited in the open environment, due to the Contractor's work, the Contractor is responsible for any cleanup of solids and disinfecting of the area affected. This work shall be performed at the

Contractor's expense with no additional cost to COUNTY. The Contractor is also responsible for notifying COUNTY **immediately regardless of quantity** and complying with any and all regulatory requirements in regard to the spill with no additional cost to COUNTY. The Contractor shall be charged back for any fines, penalties, or other costs or damages imposed upon COUNTY by any agency or private party as a result of a spill or improper discharge by the Contractor.

A6-4 Cleaning of Sewer:

This contract may require cleaning of the sewers prior to CCTV activities, including manhole washdown and siphons. The Contractor and its Subcontractors shall provide all materials, labor and supervision, necessary to clean the collection system. The purpose of cleaning is so that all potential defects are visible and the true physical condition of the sewer can be ascertained.

- A6-4a The Contractor shall supply equipment for sewer cleaning capable of removing sewage solids, sludge, roots, grease, grit, dirt, rocks, rags, and other deleterious materials and obstructions from sewers without damage to the existing sewer pipes. The Contractor shall use equipment that will efficiently clean the pipe and remove solids from the collection system in a minimum amount of time.
- A6-4b Cleaning methods that may be used include, but are not limited to, high velocity hydraulic cleaners and power rodders. Other methodologies recommended by the Contractor or its Subcontractors must be approved by COUNTY. The Contractor shall protect the integrity of the collection system and all manholes from damage during the cleaning operations.
- A6-4c The Contractor shall remove sewage solids, sludge, roots, grease, grit, dirt, rocks, rags, and other debris resulting from the cleaning operation at the next downstream manhole. The Contractor shall not pass material from an upstream segment to the next downstream segment. When hydraulic or mechanical cleaning equipment is used, the Contractor shall construct a weir, dam, or functionally equivalent structure in the downstream manhole to trap solids for removal. The Contractor must be vigilant in removing solids and must monitor the manhole to ensure that no harm comes from backing up the main. The Contractor shall coordinate the location of disposal of liquid material (decant) with COUNTY. Normally, the Contractor will be able to decant into a manhole from which debris has been removed. The Contractor shall obtain and complete all permits, documentation, and waste manifest to transport and dispose of solid materials to the Tres Rios Water Reclamation Facility (WRF). The Contractor shall be responsible for the transport and disposal of the material removed during cleaning at no additional cost to the County.
- A6-4d The Contractor and its Subcontractors shall take adequate precautions to prevent, and shall be responsible for any structural flooding damage or sanitary sewer overflows (SSO's) that occur due to cleaning operations.
- **A6-4e** If, during the CCTV inspection, the sewers and manholes are not, in the opinion of the COUNTY representative, adequately cleaned, the CCTV inspection shall stop and the areas in question shall be cleaned, or re-cleaned by the Contractor or its Subcontractors at no additional cost to the County.
- A6-4f Because of the age and possible condition of the sewer lines, the Contractor and its Subcontractors shall exercise extreme caution when cleaning the sewers. The Contractor and its Subcontractors shall routinely use high velocity hydro-cleaning equipment preceding the CCTV activity. The Contractor shall protect the pipeline and its appurtenances from damage during the cleaning operation.

Any damage resulting from the cleaning operation shall be repaired by the Contractor, at no additional cost to the County, using repair methods approved by the COUNTY.

- Cleaning of Sewers will be required throughout the duration of the contract. Flow management shall be in operation and the sewer line dry before starting the cleaning operation. It shall be the responsibility of the Contractor to remove all internal debris, roots, and other protrusions from the sewer line that will prevent insertion of the liner or compromise the integrity of the finished product. The Contractor shall take adequate precautions to prevent and shall be responsible for any flooding damagethat occurs due to cleaning operations. If, during the TV inspection, the sewers are not, in the opinion of the COUNTY representative, adequately cleaned, the TV inspection shall stop and the areas in question shall be cleaned or re-cleaned by the Contractor. Because of the age and possible condition of the sewer, the Contractor shall exercise extreme caution when cleaning the sewers. The Contractor shall submit their proposed cleaning methods for approval before starting any cleaning operations. The Contractor shall not routinely use high velocity hydro-cleaning equipment immediately preceding the TV camera. The Contractor shall use high velocity hydro-cleaning equipment in conjunction with the TV inspection only when so directed by the COUNTY representative. In general, COUNTY will review and approve the method of cleaning being proposed by the Contractor based on the condition of the existing pipe.
- A6-4h In addition, prior to television inspection and video recording, the sewer shall be cleaned to such a condition that the video camera can adequately discern structural defects, misalignments, and points of infiltration and exfiltration. Prior to pipe rehabilitation, all sand, rocks, gravel, mud, grease, and other debris that could interfere with or otherwise adversely impact the success of the rehabilitation shall be removed. Intruding laterals shall be cut prior to rehabilitation where applicable.
- A6-4i Solids, wastewater, and debris resulting from the cleaning operation shall be captured and hauled by the Contractor to the Tres Rios WRF for decanting. Nothing shall be allowed to go to the respective WRF through the sewage system. Under no circumstance shall sewage or solids be dumped onto the surface, street, or into waterways, ditches, inlets, or storm drains.

A6-5 Television Inspection:

The required software for this contract is to be in accordance with the latest Granite Software edition used by Pima COUNTY. No substitutions will be allowed.

- After the sewer section to be lined has been cleaned, after liner installation and reinstatement of lateral connections or after sewer line repair or replacement has been completed, the line shall be inspected with a television camera able to provide a total view, up and down and side to side by panning a minimum of 275 degrees and rotating 360 degrees. Lighting for the camera shall be directed, and of sufficient intensity to provide a clear picture of the entire periphery of the existing sewer. The Contractor shall supply COUNTY with clear, viewable, color digital video disk (DVD) showing the line segment from the centerline of one manhole to the centerline of the next manhole, including service connections, before and after the lining process, and after sewer line repair or replacement, recorded back to back. A copy of all paper records, digital records, and DVDs shall be submitted to COUNTY upon request and shall be submitted to COUNTY on an as completed Job Order basis and prior to request for payment. Note: Contractor may select to record on removable hard drive and transfer data to DVD for submittal. If both pre- and post- rehabilitation video records are not presented prior to a payment request for a Job Order, payment for the work will not be made and the request will be rejected.
- A6-5b The interior of the pipeline shall be carefully inspected to determine the location of any conditions, which may prevent proper installation of liner into the pipelines, and it shall be noted both on digital video recording and on log sheets so that these conditions can be corrected.

A6-5c The camera shall be moved through the line in either direction at a uniform rate, stopping when necessary to permit proper documentation of the sewer's condition and features in accordance with NASSCO Defect and Features Coding Standards. In no case shall the camera be pulled at a speed greater than 30 feet per minute. The camera shall be panned, tilted, and rotated as is necessary to best view and evaluate all features

and points of interest found. If, during the inspection operation, the television camera will not pass through the entire sewer segment, the Contractor shall set up the equipment so that the inspection can be performed from the opposite manhole. A blower shall be used, as needed, to defog the sewer line and promote a clear picture.

- **A6-5d** Televising and digital video recording after rehabilitation and reinstatement of lateral connections shall be conducted without wastewater in the sewer lines.
- A6-5e The digital video recording shall include a view into each service connection before use and, if possible, in use after the lining process. If the connection cannot be shown in use, a thorough video inspection of the connection will be required before moving on through the line and the digital video recording shall indicate "resident not available, flush test not possible". At service connections, the Contractor shall slowly scan the entire edge of the service connection (360 degrees).
- A6-5f At a minimum, the CCTV equipment shall consist of a pan and tilt color camera capable of illumination and recording features. The CCTV equipment must be equipped with a radio frequency transmitter. The TV truck must include a radio frequency receiver to allow the operator to mark on the ground surface with spray paint, the location of the sewer line and or serious defects, which require immediate repair. The data collected shall be PC based, using the latest Pima COUNTY Granite software, capable of recording the CCTV logs. The camera shall be either transported by tractor or tagging and maintain centering of the camera in the pipe centerline.
- A6-5g If during the television inspection of a manhole section, the camera is unable to pass an obstruction even though flow is unobstructed, televise the manhole section from the other direction (reverse setup) in order to obtain a complete recording of the line. Whenever such a condition arises, notify the Project Manager or designated representative.
- A6-5h When the camera is being pulled from the other direction in order to inspect on either side of an obstruction, and a second obstruction is encountered away from the first obstruction, notify the Project Manager or designated representative and request a review of the recorded image.
- **A6-5***i* The County makes no guarantee that the sanitary sewer designated for television inspection is clear for the passage of the camera. Selection of the appropriate equipment, tools and methods for securing safe passage of the camera is the Contractors responsibility.
- A6-5j If during CCTV inspection of a line segment the camera gets "stuck" inside the pipe and can't be pulled, the Contractor shall notify the Project Manager immediately. The Contractor will be required to remove its camera/equipment and will be responsible for all costs associated with retrieving its camera/equipment including excavation, trench safety, bedding, backfill, base, pavement, pipe replacement or repair in accordance with Pima County Standard Specifications.
- A6-5k The inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections by closed circuit television (CCTV). The CCTV Contractor has to be certified with the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment

Certification Program (PACP) defect code usage. All pipeline features and defects shall be observed and annotated on the video, in accordance with NASSCO Defect and Features Coding.

A6-51 The Contractor's TV inspection operator shall provide and record audio comments on the digital video recording what the operator sees during the actual TV inspection. The audio comments shall note the condition of the pipe and the location of connections to the sewer to supplement the visual information, shown on the TV recording, concerning the distance in feet through the pipe the TV camera has traveled. The COUNTY representative reserves the right, both at the time of the actual TV inspection and at the time of the receipt of the finished DVDs, to reject DVDs because of a poor picture quality (clarity, brightness, etc.). The Contractor shall re-televise, re-inspect, record, and resubmit new DVDs of those sewer segments that may have been rejected by COUNTY because of poor quality, all within the bounds of present state of the art televising capabilities. All sewer reaches that may have to be re-inspected will be done by the Contractor at no expense to COUNTY. At the beginning of each TV inspection, the Contractor's TV equipment operator shall both visually display using a video header, and orally note on the audio track of the DVD, the location, day, date and time of the TV inspection.

A6-5m Within manholes, both ends of the liner shall be televised and video recorded to determine proper cutting and to detect any leaks between the liner and the host pipe.

A6-5n The Contractor shall identify each line segment by street name, upstream and downstream manhole numbers, date, length of line, host pipe type, and in the case of rehab by the CIPP method, liner thickness. Each service connection will be identified by their respective house number and street name. This information shall be indicated on the video using audio and/or superimposed text.

A6-50 During televising and video recording, each line segment shall be measured to determine the exact length for billing purposes. Measurement for location of rehabilitation shall be by the footage meter on the cable (or a mutually agreed upon device), which shall appear continuously on the video picture and DVD. Footage meter shall be standardized to reflect the distance from the centerline of the starting manhole to the centerline of the ending manhole. Accuracy of the distance meter shall be checked by use of a walking meter, roll-a-tape, or other suitable device. Logs and DVDs shall indicate the location of all noted features, relative to the centerline of the manholes.

A6-5p The Contractor shall take adequate precautions to prevent and shall be responsible for any flooding damage that occurs due to cleaning operations. If, during the TV inspection, the sewers are not, in the opinion of the COUNTY representative, adequately cleaned, the TV inspection shall stop and the areas in question shall be cleaned or re-cleaned by the Contractor. Because of the age and possible condition of the sewer, the Contractor shall exercise extreme caution when cleaning the sewers. The Contractor shall not routinely use high velocity hydro-cleaning equipment immediately preceding the TV camera. The Contractor shall use high velocity hydro-cleaning equipment in conjunction with the TV inspection only when so directed by the COUNTY representative.

A6-5q CCTV operations shall comply with standard COUNTY CCTV inspection requirements. The Contractor shall label each individual Video Disk (DVD) and shall provide a separate written index of all DVDs submitted. The index shall list, by DVD, each sewer segment recorded thereon, and shall be accompanied by a map that clearly indicates which DVD covers, which reach of, inspected sewer. In addition to paper logs, the DVDs shall include a log that relates each inspected sewer segment to the counter indication on the DVD showing a distance in feet from the manhole to each lateral connection or physical feature noted during that segment's TV inspection. Upon completion of the TV inspection, all DVDs shall be submitted to COUNTY and

shall become the property of the COUNTY. All CCTV operations indexes and daily logs shall be compiled and included in the project's summary report.

A6-6 Sewer Preparation Prior to Liner Installation:

A6-6a Any protruding pieces of concrete, "dropped" joints, or broken pipe shall be corrected by trenchless methods or point repairs so that the host pipe is left in a clean, smooth condition ready for lining, unless otherwise jointly determined by the Contractor and COUNTY that the defect will not compromise the integrity of the liner. Prior to liner installation, all active leaks of a magnitude that may compromise the liner shall be stopped using chemical grout. If conditions, such as broken pipe and major blockages, are found that would prevent proper cleaning, or where additional damage could result if cleaning were attempted or continued, the Contractor, with the approval of COUNTY, shall perform the necessary point repair, and then complete the cleaning.

A6-7 CIPP Liner Installation

A6-.7a Reference: Cured In Place Pipe (CIPP) Specifications, SUB APPENDIX D.

A6-8 Service Connections:

- A6-8a The re-connection of service connections for CIPP rehabilitation Job Orders, shall be completed, unless otherwise specified, without excavation, from the interior of the pipeline by means of a television camera directed cutting device. All re-cut service connections shall be neat and smooth and free of all burrs, frayed edges, or any restrictions preventing free flow. Service connections shall be trimmed and wire-brushed to 100% of the original opening. No coupons, debris, or shavings shall be left inside the service connections or the lined pipe. COUNTY will provide the Contractor with the approximate location of house service connections in the CCTV videotapes provided with each Job Order package for both open cut or trenchless repair methods. During the pre-rehabilitation television inspection of the line, the Contractor shall confirm the house service connection location. There is the potential for inadequate connection reopening resulting in sewage back up in private homes. The Contractor shall be responsible for any and all damages to private properties due to defective work. All other repair methods where open cut repair or replacement of sewer lines is called for, will require the service be reinstated at the same time the sewer pipe is being repaired or replaced.
- A6-8b The Contractor shall maintain a crew or a plumber capable of responding on short notice (one hour) to the affected residences for such emergencies that may occur as a result of the lining process. The Contractor shall provide a minimum of two 24-hour telephone numbers to be contacted in case of an emergency.
- A6-8c The Contractor will be responsible for all costs incurred due to deficiencies related to the lining procedure or sewer line replacement. In the event a service connection is not properly reinstated, the Contractor shall rectify the defect without cost to COUNTY.
- **A6-8d** The Contractor shall stop all visible leaks, including those at service connections, to achieve an acceptable watertight seal.
- **A6-8e** During televising, the camera shall slowly scan the entire edge of the service connections (360 degrees).

A6-9 Utility Trench Pavement Patch:

A6-9a Pavement replacement shall be performed in conformance with the Pima Association of Governments (PAG) Standard Specifications and Standard Details for Public Improvements. The work includes, but is not limited to, removal of existing asphaltic concrete or cold patch; placement of new material; all striping and pavement markers.

A6-10 Chip Seal Coat

A6-10a Chip seal shall be performed in conformance with Section 404 of the Pima Association of Governments (PAG) Standard Specifications. In the event a double chip seal coat is required on a Work Order, the Contractor shall be paid the line item cost for chip seal multiplied by two (2).

A6-11 Manhole Construction:

A6-11a All manhole construction and installation shall be performed in compliance with COUNTY standards and specifications. Unless otherwise specified on the Work Order, all sanitary sewer manholes shall be precast units conforming to the requirements of ASTM C478 or ASTMD6783. Construction of new manholes shall consist of furnishing and installing all materials necessary, including but not limited to, manhole frames and covers, adjustment rings and steps, removal of existing pipe and the finishing of the bench and inverts. All new sanitary manholes shall be hydro tested or vacuum tested for water tightness as required by the Arizona Department of Environmental Quality (ADEQ), Section R18-9-E301.4.01 General Permit: Sewage Collection Systems

A6-12 Manhole Rehabilitation:

A6-12a Reference: Manhole Coatings & Rehabilitation Specifications and also PCRWRD Approved Product list, **SUB APPENDIX F**.

A6-13 Manhole Adjustment and Reconstruction:

Manhole adjustment is defined as the elevation change of the manhole structure in order to raise or lower the manhole to a specified elevation, but that does not require the addition or removal of the cone or barrel sections. Manhole adjustments shall be achieved by adding or removing manhole adjustment rings/bricks or the use of mortar (not to exceed 1/2 inch in thickness). The existing manhole frame and cover shall be removed, cleaned and reinstalled unless directed by COUNTY to replace the existing frame and cover with a new frame and cover. All work shall be performed in accordance with COUNTY Standard Details.

Vertical Tolerance

Manhole rims shall not exceed 0.5 inch above or below finish grade. Manhole rims that exceed this requirement shall be adjusted to match final grade by the contractor. This includes work related to pavement overlay or resurfacing.

<u>Brick</u>

Brick used for manhole adjustments shall conform to the requirements of ASTM C32, Grade MS. Brick dimensions shall be accepted by the inspector prior to use.

Mortar

Mortar used for manhole adjustments shall conform to the requirements of SSDC Section 3.3.2.C. Fine aggregate for mortar shall conform to ASTM C144. Concrete shall not be used in place of mortar.

Damaged Frame and Cover

Under no circumstances shall the contractor be permitted to reinstall a damaged frame and cover. Damaged components shall be replaced in kind with new or used components acceptable by the Inspector.

Foreign Material Adhering to Frame and Cover

The Contractor shall remove asphalt or chip seal material from frames and covers. If the Contractor is unable to remove material to the satisfaction of the Inspector, the Contractor shall replace the frame and cover. The Contractor shall ensure that the manhole lids and pick holes are clean and free of any construction material, debris, or obstruction prior to the project being accepted. The Contractor is not responsible for removing material remaining from prior work by others.

Coatings and Linings

Any manhole coating or lining disturbed by the Contractor's operation shall be replaced in-kind in conformance with RWRD requirements.

- A6-13b Reconstruction of the manhole cone and/or barrel section occurs when the required amount of adjustment to the manhole causes a violation of the dimensional ranges noted in the appropriate COUNTY Standard Details for adjustment of brick, precast concrete and flat top manholes. All manhole reconstruction shall be done in accordance with the applicable COUNTY Standard Details. Any additional or replacement manhole sections shall be new material. In situations that require an increase in vertical height of the manhole, the Contractor shall re-use the existing cone section, if one originally existed, unless otherwise directed by the Engineer or his designated representative. Joints of new manhole sections must provide a suitable match (in configuration and performance) with the existing manhole section joint. The Contractor shall be responsible for the proper disposal of the existing manhole section(s). The costs associated with removal and/or proper disposal of an existing manhole section(s) shall be incidental to the appropriate RWRD Price Book Item.
- **A6-13c** Reconstruction of a brick manhole will normally require the removal of bricks in the cone section to the straight wall of the manhole, where a new cone section can be added to achieve the desired manhole finish elevation. The Contractor may submit to the Engineer a plan to use precast concrete manhole sections in lieu of bricks in the reassembly of the manhole to be adjusted. This plan must receive the Engineer's approval prior to the ordering of the precast concrete manhole sections. Any additional or replacement manhole sections shall be

new material. The costs associated with the proper disposal of the removed, unused and remaining bricks shall be considered incidental to the appropriate RWRD Price Book Item.

A6-14 Manhole and Cleanout Frame and Cover and Existing Manhole Section Replacement and Salvage/Disposal:

- A6-14a If an existing manhole frame and cover is replaced with a new manhole frame and cover, COUNTY shall direct the Contractor to either salvage and deliver the existing frame and cover to COUNTY's Operations Division Yard (3355 N. Dodge Blvd.) or to properly dispose of the existing frame and cover. The Contractor shall coordinate deliveries to Conveyance Yard by calling 520-724-3400. The costs associated with salvaging the existing manhole frame and cover(s) and delivery to COUNTY shall be considered incidental to the appropriate RWRD Price Book Item.
- A6-14b Replaced manhole sections shall remain the property of Pima COUNTY and shall be salvaged and delivered by the Contractor to a site specified by COUNTY and/or his designated representative. If the existing manhole section is deemed to not be salvageable by COUNTY or its designated representative, the Contractor shall be responsible for the proper disposal of the existing manhole section. The costs associated with removal, salvage and delivery to COUNTY or proper disposal of an existing manhole section(s) shall be incidental to the appropriate RWRD Price Book Item.

A6-15 Pot-Holing:

- **A6-15a** If a feature cannot be located, the Contractor or its designated Subcontractor shall perform pot holing to determine its location. The Contractor shall be responsible for the proper disposal of the existing pot holing debris. The costs associated with removal and/or proper disposal of the existing pot holing debris shall be incidental to the appropriate RWRD Price Book Item.
- A6-15b The Contractor shall coordinate with the appropriate regulating departments or agencies of all

towns or jurisdictions included in Pima COUNTY. As a minimum, the Contractor shall contact each one of the appropriate Public Works or Transportation Departments of Marana, Oro Valley, Pima County, Sahuarita, South Tucson, and City of Tucson to comply with Blue Staking, all affected Utility Agencies, and permitting requirements.

A6-15c The Contractor shall comply with all Occupational Safety and Health Administration (OSHA) regulations pertaining to Pot-Holing operations.

A6-16 Cleanout Reconstruction:

A6-16a Reconstruction of existing cleanouts shall be done by replacement with a new manhole.

A6-17 Excavation and Backfill:

- **A6-17a** Due to the existing condition of our sewer lines, it is expected that some of our lines will be encroached upon by private landscaping, vegetation overgrowth, alleyways and within public streets. On such conditions, the Contractor shall excavate to positively locate these lines.
- **A6-17b** At a minimum Excavation shall be done to locate and identify sewer facilities within COUNTY designated sewer easements. The Contractor may be required to excavate the width of the easement and/or ROW and at a depth as deep as the nearest locatable downstream manhole.
- **A6-17c** The Contractor shall coordinate with the appropriate regulating departments or agencies of all towns or jurisdictions included in Pima COUNTY. As a minimum, the Contractor shall contact each one of the appropriate Public Works or Transportation Departments of Marana, Oro Valley, Pima County, Sahuarita, South Tucson, and City of Tucson to comply with Blue Staking, utility coordination, and permitting requirements.
- **A6-17d** The Contractor shall comply with all Occupational Safety and Health Administration (OSHA) regulations pertaining to excavation and backfilling operations.
- **A6-17e** The Contractor shall comply with backfill and compaction requirements as set forth in PCRWRD Standard Specifications and Details for Construction.

Guidelines for compaction testing of backfill for small projects.

The following guideline shall apply to any public sewer facility construction or repair that does not fall under the requirements of SSDC Section 3.1.3.F Backfill Density Testing Procedures. This guideline is intended to address compaction of backfill for small projects, point repairs, and the construction of new manholes. Furthermore, this guideline is intended to ensure consistency in our compaction records.

Backfill material shall be compacted in lifts to attain a minimum of 95% standard proctor. Failure of backfill compaction test results will result in rejection of that portion of the work. The Inspector shall select test locations that are representative of the contractor's general backfill installation effort.

Trench Backfill

This guideline shall apply to each 100 feet or less of open trench excavation. Compaction tests shall be reported for each vertical two (2) feet of compacted backfill, commencing at approximately four (4) feet of compacted material above the top of pipe; and shall continue to the surface. For construction in paved roads, an additional test shall be performed to document that the aggregate base course has been compacted to 100% maximum density per PAG SSPI Section 303-3.02.

Manhole and Structure Backfill

Compaction testing for backfill around manholes and structures shall consist of one test per each vertical two (2) feet of compacted backfill. For manholes, test locations shall rotate with successive 2-foot increments at 120 degree intervals and shall continue to the surface. Density testing of backfill around formed structures shall consist of one test per each vertical two (2) feet of compacted backfill, alternating sides with successive 2-foot increments. For construction in paved roads, an additional test shall be performed to document that the

aggregate base course has been compacted to 100% per PAG SSPI Section 303-3.02.

The Inspector may require additional tests if field conditions warrant, soil conditions change, or if they judge the compactive effort to be inconsistent. Nothing in this guideline shall prevent or limit the contractor/materials tech from performing as many additional tests as they deem necessary

A6-18 Manhole Bench Rehabilitation:

A6-18a Rehabilitation of the manhole bench occurs when the manhole channel(s) must be reconstructed, as to allow a smooth flow from the inlet pipe(s) to the outlet pipe(s). All manhole bench reconstruction shall be done in accordance with the applicable COUNTY Standard Details. The Contractor shall be responsible for the proper disposal of the manhole bench debris. The costs associated with bench rehabilitation safety equipment, removal and/or proper disposal of the existing manhole debris shall be incidental to the appropriate RWRD Price Book Item.

A6-18b The Contractor shall develop a written procedure for permit-required confined space entries in strict conformance with OSHA and all local, state and federal safety standards. This procedure shall be signed in ink by an official authorized to bind the Contractor to its provisions and submitted for approval prior to physically accessing any active sanitary sewer line or related facility. Pima County Wastewater Management, Confined Entry Procedure, Dec 1994 (Available upon request) shall be followed for all permit-required confined space entries, and all personnel shall be familiar with these procedures.

A6-19 Pipe Point Repair:

A6-19a Pipe point repairs and sewer line replacements will be required throughout the duration of the contract. The Contractor shall field verify the location and extent of the repair, which are otherwise authorized by COUNTY. All excavation and new pipe installation related work shall be performed in compliance with COUNTY standards and specifications. The Contractor shall be required to remove all defective portions of the pipe by cutting the pipe perpendicular to the pipe axis. The repair shall include all pipe, couplings (Smith Blair or approved equal by COUNTY), fittings, and other materials required for the repair/reconstruction of the sewer line.

A6-19b For point repairs on large diameter pipes for which solid profile pipe is not available, contact County for an approved list of pipe materials. The existing pipe shall be removed from the ground and properly disposed of at a Pima COUNTY landfill at the Contractor's expense. The new pipe shall be installed in the same location and at approximately the same slope in sand bedding per standard detail WWM 105. Where the pipe connects to manholes, a watertight seal shall be used such as link seals in combination with mortar. The pipe shall be air tested using the applicable ASTM Standards.

A6-19c For all other pipes, solid profile PVC pipe shall be used per the latest ASTM Standards. The existing pipe shall be removed from the ground and properly disposed of at an approved landfill at the Contractor's expense. The new pipe shall be installed in the same location and approximately the same slope per Pima COUNTY Standard Specifications. The Contractor is solely responsible for keeping the pipe to line and grade. Where the pipe connects to manholes, a watertight seal shall be used such as link seals in combination with mortar. Air testing may be required in certain circumstances, based on the project representative's direction, using the applicable ASTM Standards.

A6-19d Density tests, backfill specifications, and soil compaction shall be performed in accordance with Standard Specifications and Details for Construction.

Guidelines for compaction testing of backfill for small projects.

The following guideline shall apply to any public sewer facility construction or repair that does not fall under the requirements of SSDC Section 3.1.3.F Backfill Density Testing Procedures. This guideline is intended to address compaction of backfill for small projects, point repairs, and the construction of new manholes. Furthermore, this guideline is intended to ensure consistency in our compaction records.

Backfill material shall be compacted in lifts to attain a minimum of 95% standard proctor. Failure of backfill

compaction test results will result in rejection of that portion of the work. The Inspector shall select test locations that are representative of the contractor's general backfill installation effort.

Trench Backfill

This guideline shall apply to each 100 feet or less of open trench excavation. Compaction tests shall be reported for each vertical two (2) feet of compacted backfill, commencing at approximately four (4) feet of compacted material above the top of pipe; and shall continue to the surface. For construction in paved roads, an additional test shall be performed to document that the aggregate base course has been compacted to 100% maximum density per PAG SSPI Section 303-3.02.

A6-20 Clean-Up:

- A6-20a The Contractor shall keep the work area in a neat and orderly condition by frequent removal of debris. Upon completion of the lining process or sewer line replacement at each location, all debris and unused material shall be promptly removed from the area. The area will be left in a condition similar to, or better than, before the work was performed.
- **A6-20b** The Contractor may be required to perform various landscaping and/or hydroseeding based upon individual project requirements and as directed by the COUNTY.

A6-21 Concrete Sidewalks and Curb:

A6-21a Concrete Sidewalks and Curb Removal and Replacement shall be done per PAG Standard Specifications and Details unless otherwise required by the local jurisdiction.

A6-22 Property Damage:

A6-22a Any damage to COUNTY infrastructure or to private or public property will be immediately repaired or rehabilitated to COUNTY and/or the Property owner's satisfaction at no additional expense to COUNTY. The property owner and COUNTY (COUNTY) will be notified of the problem and the date of the repair. The property owner must acknowledge acceptance of the completed repairs by signing a form releasing the COUNTY and the Contractor from further claims.

A6-23 Punch List Items:

A6-23a The Contractor shall correct any problems found within 30 days of discovery. The Contractor shall maintain an updated list of Punch List Items, and shall submit it to COUNTY once a week. Delay in the completion of Punch List Items shall be grounds to stop the Job Order progress payment.

A6-24 Traffic Control

- A6-24a The work under this section shall consist of providing flagging services and furnishing, installing, maintaining, moving, and removing barriers, barricades, warning signs, delineators, lights, signals, cones, pavement markings, impact attenuation devices, and other traffic control devices in order to provide safe and efficient passage through and/or around the work and protecting the public and workers from damage to person and property within the limits and for the duration of the project.
- A6-24b All work shall conform to the requirements of the current edition of the Work Zone Standards and Guidelines published by the U.S. Department of Transportation, Federal Highway Administration as amended by the appropriate jurisdiction and, hereinafter, referred to as the traffic control standards for the protection of workers and the public.
- A6-24c Traffic control, when required, shall be the Contractor's responsibility in strict accordance with each individual town, city, or jurisdiction's safety requirements and ordinances. When work takes place in the traveled portion of the public right-of-way such that, it is necessary to alter the normal pattern of traffic in order to safely accomplish the work, the Contractor, or its designated Subcontractor shall provide the required traffic

control in accordance with PAG Standard Specifications unless required otherwise by the city or town where the work will be performed.

- A6-24d The Contractor is advised that some Job Orders might be situated within the City of Tucson, Town of Marana, Town of Sahuarita, Town of Oro Valley, and City of South Tucson Right-of-Ways and as such, they will be under the jurisdiction of that city or town. All traffic plans and permits for those Job Orders shall be coordinated through that city or town as required. The Contractor shall prepare and submit a Traffic Control Plan to that city or town for their approval before commencement of work. Traffic control shall be in accordance with Section 701 of the most current version of the PAG Standard Details and Specifications for Public Improvements unless required otherwise by the city or town.
- A6-24e Prior to the actual start of construction operations within a roadway, specific approval of traffic control, including possible detours, provisions for emergency services and public transportation access will be required. A copy of the approved traffic control plan shall be submitted to COUNTY. No separate payment shall be made for the preparation of traffic control plans. The cost shall be included in the overall cost of the project.
- A6-24f COT has placed a recurring ban on traffic control (due to construction for example) on major Tucson traffic arteries during certain months (a portion of November, all of December, and a portion of January). The Contractor should verify the specifics of this ban with COT directly by calling Traffic Engineering, 520-791-4529. The COT Traffic Control Plan also applies to regular civic events including the Gem Show. COT evaluates the effect of project construction on the Gem Show on a case-by-case basis. The Gem Show occurs regularly during the third week of January through the first week of February. The Contractor is advised to verify the effect of the Gem Show restrictions on the Job Order construction, if any.
- •A6-24g Contractor shall schedule Traffic Control and Flow Management during non-peak hours whenever possible, so as to best accommodate the neighborhoods and traffic flow.
- A6-24h Failure to have an approved Traffic Control Plan (if required) on site at all times will result in the JO being shut down until the approved Traffic Control is on site.

A6-25 Section Reserved

A6-26 General Field Procedures

- A6-26a The Contractor is expected to access system features within public right of ways or easements while at the same time respecting to the largest degree viable private property rights. The Contractor and/or its Subcontractors shall perform all their operations with diligent safety standards for themselves and the general public. To minimize disruption to the public, ingress and egress to manholes shall follow the public sanitary sewer lines to the points where it crosses public access.
- A6-26b The Contractor shall make every effort to clearly identify its personnel, equipment, and vehicles as COUNTY authorized agents for this project. Contractor and Subcontractor field personnel shall wear safety vests at all times and carry a copy of the notification letter at all times.
- A6-26c All attempts shall be made to respect non-standard access to private property, and utmost professional courtesy when contacting the general public. In addition to the proximity of private property, the Contractor may expect that the majority of the involved easements are heavily vegetated or landscaped. This situation should be expected especially in or around residential neighborhoods where public easements are not clearly marked or established, and some degree of landscaping encroachment shall be expected and tolerated by the Contractor. Vehicular access shall be controlled and limited to existing right-of-ways and access roads in order to avoid and minimize damaging the existing vegetation.
- A6-26d If trimming of vegetation is required, it shall be limited to the smallest possible area around the system feature requiring the CIPP installation, and that area only. In this event, the Contractor shall fully comply with all applicable local, state, and federal vegetation and riparian codes, ordinances, and regulations. All

trimmed or disturbed vegetation shall be removed from the area, and disposed of in approved landfills or composting facilities at the Contractor's expense.

A6-26e The conservation laws,	Contractor shall comply and follow all local, State and Federal safety, wildlife and vegetation codes, regulations, protocols and guidelines including but not limited to:
☐ Dust Contr ☐ Native Veg ☐ Riparian H ☐ Endangere	ise, and Safety Regulations of Regulations getation Ordinances abitat Ordinances ad Species of Ordinances
sanitary sewer system inform its personner active gravity san certification shall be	Contractor or Subcontractor employees are expected to physically enter the active public stem at some point in the Job Order performance, the Contractor shall be responsible to of the fact that most of the field work in this contract is to be carried out on/within operating, tary sewer lines and related facilities (manholes, lift stations, meters). Confined entry e required for all personnel that might be in a position to work near, or enter any sanitary entry into the related sanitary manholes may involve, but not be limited to, exposure to one wing hazards:
Oxygen-Do Flammable Toxic atmo Temperatu Engulfmer Excessive Slick or we Falling obj Insects; in Insect Pes Lifting hea	ire extremes It hazards Indicate the state of the state o

The Contractor and Sub-Contractors shall maintain good housekeeping and cleaning practices A6-26a at all times. Good general personal and equipment hygiene principles and protection shall be adhered to, and personal protection equipment (PPE) shall be available to all employees to prevent or minimize the exposure to raw sewage at all times. The Contractor shall comply with all applicable local, state, and federal safety regulations. Particular attention must be directed toward OSHA confined space entry rules. The Contractor shall develop a written procedure for permit-required confined space entries in strict conformance with OSHA and all local, state and federal safety standards. This procedure shall be signed in ink by an official authorized to bind the Contractor to its provisions and shall be submitted for approval to COUNTY prior to physically accessing any active sanitary sewer line or related facility. Pima COUNTY Wastewater management, Confined Space Entry Procedure (current version) shall be followed for all permit-required confined space entries, and all Contractor personnel shall be familiar with these procedures. The Contractor shall provide all equipment necessary to make an OSHA acceptable confined space entry. All costs associated with safety equipment and confined space entry(s) shall be considered appurtenant to the appropriate line item, and no additional payment shall be made for these costs. No entrance, for any reason, into the public sanitary sewage system's confined spaces shall occur without the expressed consent of COUNTY (Operations Division) and the utilization of the required safety provision. The written procedure shall include certification of training for all personnel assigned to the project.

Electrical Hazards

A6-26h The Contractor shall provide a CONSTRUCTION SAFETY PLAN. A suggested outlined can be found in **Sub Appendix G**. The Contractor shall provide a knowledgeable, full time, safety officer to monitor and assure that all work is being performed in strict accordance with all applicable city, COUNTY, state, and federal safety standards and in strict compliance with the submitted CONSTRUCTION SAFETY PLAN. The safety officer shall be present at all times during construction activities.

A6-27 Scheduling of Work

It shall be the Contractor's responsibility to schedule all activities so as to maximize the efficiency of its operations. It is preferred, to minimize the interruptions and disruptions of each Job Order upon the neighborhood, that the Contractor coordinates all activities in sequence, as to prevent re-visiting the same area on a later date. As a minimum, the schedule shall consider the following:

Affected jurisdictions
Insure the procurement of all required excavation permits (If and where applicable)
Traffic control plans and permit requirements where applicable/required
Where applicable, contact all affected utilities located in the area
Blue Stake for utility locations (If and where required)
Access/Easements limitations or restrictions
Additional public notifications for future operations (If required)
Availability of pot-holing Contractor
Availability of point repair Contractor
Availability of manhole reconstruction/rehabilitation Contractor

A6-27a Existing Utilities

Under State Law (ARS 40-360-21) the Contractor is required to contact all utilities in order to determine the locations of their respective utilities prior to any excavation. The Contractor is responsible for any damages to existing utilities and will make any necessary repairs at his expense. The Contractor shall brace and/or support existing utilities as necessary to protect the existing facility from disturbance/damage.

- A6-27b The Contractor shall contact Blue Stake (Arizona 811) two (2) working days prior to any excavation.
- A6-27c The Contractor shall contact Tucson Electric Power Company at least ten (10) days prior to excavation within ten (10) feet of any power pole. Tucson Electric Power Company shall provide relocation or bracing of said pole.
- A6-27d All gas line relocation required, including trenching, will be performed by Southwest Gas Corporation or their Contractor. Southwest Gas will determine actual location of new and/or relocated gas lines.
- A6-27e Any required utility relocation shall be accomplished in cooperation with and to the satisfaction of the company or agency having jurisdiction over the particular utility. All costs associated with any utility relocation made by the Contractor shall be negotiated under PAG Standard Specifications section 109-5, Force Account Work. Where utilities are relocated by the utility owner or their representative, payment shall be made per utility relocation bill amount from the Utility Owner, with no markup allowed, out of the Utility Relocation Line Item.
- A6-27f Any required water line relocation shall be performed by the utility or by Contractor at the utilities option. All water line relocation shall be in accordance with appropriate water utility Standard, Specifications and Details and ADEQ Bulletins.
- A6-27g The Contractor shall maintain utility and sewer service during construction to all parties and establishments tributary to the work. The equipment, material and manner with which any required

temporary sewer flow management is constructed shall assure continuous sewer service without spill or discharge of raw sewage during operation, installation or removal of the sewer flow management equipment. The Contractor shall submit a plan and associated details of any proposed flow management for review by COUNTY and the Engineer. See SUB APPENDIX B of this Contract for additional information.

A6-28 Immediate Maintenance Requirements

The release of sanitary sewage is considered a violation of Federal Environmental Regulations, and can result in fines and criminal penalties from the Environmental Protection Agency (EPA). The highest priority of the Contractor shall be to insure the proper operation of the public sanitary sewer system.

During this subtask the Contractor shall identify and report to COUNTY any abnormal condition found on the system requiring maintenance. There are two categories of abnormal conditions, emergency and non-emergency. The difference is that emergency conditions affect the flow or public health and shall be reported immediately. The non-emergency conditions are all other conditions that, although abnormal, can be notified at the end of the day because they are not critical to the system's operation. When an emergency situation is found, the Contractor's responsibility is to report IMMEDIATELY to:

F	rom 7:00 AM to 5:00 PM	COUNTY Operations Dispatcher:	520-724-3400
See SU I	B APPENDIX B for further require	ments.	
As a mir	nimum, the following information sl	nall be provided:	
	Facility feature number Address Location How to access the area, and if	there are any special conditions that t	he response team needs to
	know about the area (Private Best description of the situation	e property, gates, fences, or vehicle size	
Emerge	ncy conditions include but are not	limited to:	
	Partial and full line blockages Surcharging manholes Collapsed structures (benches,	overs, frames, and cement collars	ency condition.

Once notified, COUNTY personnel will make the determination of what actions are required.

In the event that it is determined that the Contractor failed to follow these notification procedures in **SUB APPENDIX** E by either neglect or lack of due diligence, resulting in COUNTY being sued or fined by any of the monitoring agencies, the Contractor will be charged for all associated costs (e.g. COUNTY mitigation, fines, legal costs).

A6-29 Grouting of Cavities

A6-29a Grouting will be required throughout the duration of the contract. The Contractor shall field verify the location and extent of the grouting, which are otherwise authorized by COUNTY. All grouting related work shall be performed in compliance with COUNTY standards and specifications.

A6-29b When the pipe rehabilitation is completed, grouting of any cavities between the new CIPP liner and the existing ground, shall be completely filled with a COUNTY approved, Controlled Low Strength Mix (CLSM) #1 grout. The grout can be injected through a cored hole from within the rehabilitated pipe or boring

from the surface to the cavity to be pressure grouted.

A7 RWRD Price Book Unit Measurement /Payment

RWRD Price Book unit prices will include <u>ALL COSTS</u> (with the exception of sales taxes), including labor, materials, equipment, overhead, bonding, pre-construction, indirect costs, etc., incidental to performing the work and completing the Job Order with the exception of any Change Orders deemed necessary and directed by the Owner. Sales tax will be a reimbursable item based upon actual cost. Mobilization costs will be a separate unit cost.

The amount of work to be done may be more or less than the estimated quantities and may be increased or decreased by the COUNTY as circumstances may require. The increase or decrease in any quantity shall not be regarded as grounds for an increase in the unit price or in the time allowed for the completion of the work, except as provided in the Contract Documents.

Price Book line item costs are expected to be valid for one Master Agreement term (one year). Price adjustments, with documentation, may be requested by the contractors in conjunction with the Master Agreement renewals. Price adjustment requests must be submitted at least 30 days prior to Master Agreement renewal. During periods of market fluctuations or supply chain interruptions the County may consider temporary adjustments to specific items or specific classes of items upon written requests. All such requests shall include documentation of the relevant conditions causing the request.

A7-1 RWRD Price Book (RWRDPB) Items: (Rev. 07/23/2021)

RWRDPB Item Numbers 1-20: Furnish and Install CIPP Liner in Existing 6"- 78" Dia. Host Gravity Sewer Pipe: The pipe will be measured for payment along the center line of the pipe from the center of manhole to center of manhole. The respective unit prices specified to be paid, per LINEAL FOOT, of rehabilitated pipe, shall be compensation in full for furnishing all pipe, sewer fittings and other materials required for rehabilitating pipe lines by trenchless technology; for laying, setting, and jointing of all pipes and fittings; for all testing, including leakage tests; de-watering by any and all methods; any excavation, backfill and recompaction, pavement removal and replacement required to rehabilitate existing sewer main; all cleaning up; all labor, tools, and construction equipment; and for all other work and incidental expenses. Payment includes all costs for water required for liner installation and curing, all costs for root removal, applicable taxes, and public notifications per.

Resin: The resin system shall be isophthalic polyester meeting the requirements of ASTM F1216, section 5.2 except as modified herein.

However, Pima County may allow the use of vinyl ester resin, along with the associated changes in design values for that type of resin, conditioned upon County review and approval by shop drawing submittal.

RWRDPB Item Numbers 21-95: Point Repairs, Line Replacements, and Associated Appurtenances: Measurement on this item shall be per point repair schedule for point repairs provided and installed. Payment shall be compensation in full for furnishing all materials (including engineered backfill if required), labor and equipment necessary to construct and install the point repairs and all required pipe or density testing as described on the Job Order and specifications, applicable taxes, and public notifications.

RWRDPD Item Numbers 96-110: Point Repair Couplings: Measurement on this item shall be per EACH coupling (Smith Blair or approved equal by COUNTY) installed complete.

<u>RWRDPB</u> Item Numbers 111-112: <u>HCS Reinstatement for CIPP Method</u>: Measurement on this item shall be per EACH reinstated HCS (house connection sewer) of the host pipe rehabilitated by the CIPP method. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to accomplish the HCS reinstatement.

RWRDPB Item Number 113: HCS Reinstatement for Open Cut Method: Measurement on this item shall be per EACH for reconnection of existing, exposed, service connections to the sewer main. Reconnection of services to new pipe shall be accomplished via wye connection; reconnections to existing pipe can be accomplished via saddle connection (as approved by County). Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to accomplish the HCS reinstatement.

<u>RWRDPB Item Numbers 114-126: Mobilization:</u> Measurement on this item shall be by LUMP SUM for project mobilization for the applicable host pipe diameter range. Payment shall be compensation in full for furnishing all labor, materials, and equipment necessary to accomplish the project mobilization for a given Job Order using either the manhole installation, CIPP liner, or spot repair method, or a combination of one or more methods in one Job order. ***separate mobilization for CIPP, point repair, manhole rehabilitation manhole adjustment***

Flow Management

RWRDPB Item Numbers 127-131: Flow Management Pumping Portion Mobilization: Measurement for this item shall be Pump Mobilized for each specific work order location, for the transportation to the job site, site preparation, and pump/pipe connections of each pump and ancillary equipment determined to be required for successful flow management for completion of the Job Order in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide, transport to the site, and make necessary connections for the flow management pumps and ancillary equipment.

RWRDPB Item Numbers 132-136: Flow Management Pumping Portion: Measurement on this item shall be per Pump discharge hose diameter mobilized at the most economical rate (on hourly, daily or weekly rate) as the Job Order schedule requires. This item includes operating the pumps for the flow management pumping portion of the system, in accordance with the Job Order plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to, maintain and operate the flow management pumping portion of the system.

RWRDPB Item Numbers 137: Vactor Truck Monitoring for Flow Management:

Measurement on this item shall be for Vactor Truck Monitoring for Flow Management (on an hourly rate) as the Job Order Work Order site location requires.

RWRDPB Items 138-142: Blank

RWRDPB Item Numbers 142-146: Flow Management HDPE Piping and Materials Portion: Measurement on this item shall be per LF for providing, installing, and operating the flow management piping and materials portion of the system, in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide, install, operate, flush and remove from the site the flow management piping and materials portion of the system per Job Order.

RWRDPB Item Numbers 147-149: Flow Management Aluminum Piping and Materials Portion: Measurement on this item shall be per LF for providing, installing, and operating the flow management piping and materials portion of the system, in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide, install, operate, flush and remove from the site the flow management piping and materials portion of the system per Job Order.

Pavements

RWRDPB Item Numbers 150: Utility Trench Pavement Patch TYPE 1: Measurement on this item shall be per SY (square yard) for providing and installing pavement patch of Type 1 AC layer, per PAG Std Dtl 216, in accordance with the standard specifications for public improvements. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to complete the installation of the

pavement patch Type 1 including striping, markers, traffic control, and any removal and disposal of existing material required.

RWRDPB Item Numbers 151: Utility Trench Pavement Patch TYPE 2: Measurement on this item shall be per SY (square yard) for providing and installing pavement patch of Type 2, with 2 inch thick AC layer, per PAG Std Dtl 216, in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to complete the installation of the pavement patch Type 2 including striping, markers, traffic control, and any removal and disposal of existing material required.

RWRDPB Item Numbers 152: Utility Trench Pavement Patch TYPE 3: Measurement on this item shall be per SY (square yard) for providing and installing pavement patch of Type 3, with 2 inch thick AC layer, per PAG Std Dtl 216, in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to complete the installation of the pavement patch Type 3 including striping, markers, traffic control, and any removal and disposal of existing material required.

RWRDPB Item Number 153: Chip Seal Coat: Measurement on this item shall be per SY (square yard) for providing and installing chip seal coat per Section 404 of PAG Std Specs, and in accordance with the

standard specifications for public improvements. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to complete the installation of the chip seal coat including, traffic control.

RWRDPB Item Number 154: Asphaltic Concrete Finish Course (Mix #3): Measurement on this item shall be per SY (square yard) for providing and installing the asphaltic concrete finish course (mix #3), with 2 inch thick layer incremental adjustment to the thickness stated in RWRDPB Items 1-3, per Section 406 of PAG Std Specs, and in accordance with the standard specifications for public improvements. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to complete the installation of asphaltic concrete finish course (mix #3).

RWRDPB Item Number 155: Metal Plate (8' x 10' x 1"): Measurement on this item shall be per DAY for providing and installing the plate to the job site, applying cold mix around the plate as required, complete in place, and in accordance with the standard specifications for public improvements. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide installation and removal of the plate on site.

RWRDPB Item Number 156: Metal Plate (8' x 10' x 1"): Measurement on this item shall be per WEEK for providing and installing the plate to the job site, applying cold mix around the plate as required, complete in place, and in accordance with the standard specifications for public improvements. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide installation and removal of the plate on site.

Manholes & Bases - New

RWRDPB Item Numbers 157-159: Furnish and Install New Standard/Non Reinforced Manhole Base 4' and. 5', Diameter: Measurement and payment on these items shall be at the unit price bid EACH, for the specified manhole base diameter. Payment shall be compensation in full for furnishing all materials, labor, and equipment necessary to furnish and install the base, complete. This shall include, but not limited to, compensation for any unforeseen obstructions of difficulties which may be encountered in construction of the base; for all excavation; pot-holing cost; placement and compaction of backfill material; all material testing; transportation of construction materials and excess materials; all cleanup; hauling and proper disposal of debris at an authorized landfill; all disposal fees; costs for all other work and incidental expenses necessary to construct and install the manhole base as called for on the assigned Job Order and in accordance with COUNTY Standard Details and Specifications and the Contract Special Provisions.

RWRDPB Item Numbers 160-161: Furnish and Install New Reinforced Manhole Base 4' and 5' Diameter. Measurement and payment on these items shall be at the unit price bid EACH, for the specified reinforced manhole base diameter. Payment shall be compensation in full for furnishing all materials, labor, and equipment necessary to furnish and install the reinforced base, complete. This shall include, but not limited to, compensation for any unforeseen obstructions of difficulties which may be encountered in construction of the base; for all excavation; pot-holing cost; placement and compaction of backfill material; all material testing; transportation of construction materials and excess materials; all cleanup; hauling and proper disposal of debris at an authorized landfill; all disposal fees; costs for all other work and incidental expenses necessary to construct and install the manhole base as called for on the assigned Job Order and in accordance with COUNTY Standard Details and Specifications and the Contract Special Provisions.

RWRDPB Item Numbers 162-163: Blank:

RWRDPB Item Number 164: Furnish and Install New Shallow Manhole: Measurement on this item shall be unit bid EACH, for the specified new 30" diameter shallow manhole. Payment shall be compensation in full for furnishing all materials, labor, and equipment necessary to furnish and install the shallow manhole, complete. This shall include, but not limited to, compensation for any unforeseen obstructions of difficulties which may be encountered in construction of the manhole; for all excavation; pot-holing cost; placement and compaction of backfill material; all material testing; transportation of construction materials and excess materials; all cleanup; hauling and proper disposal of debris at an authorized landfill; all disposal fees; costs

for all other work and incidental expenses necessary to construct and install the manhole as called for on the assigned Job Order and in accordance with COUNTY Standard Details and Specifications and the Contract Special Provisions.

RWRDPB Item Numbers 165-172: Furnish and Install New Manhole Material for 4' and 5' Diameter Manholes: Measurement and payment on these items shall be at the unit price bid per VERTICAL FOOT, for the specified manhole diameter within the specified range of depth, measured to the nearest tenth (0.1) of a foot of the manhole height. The manhole height shall be measured from the manhole base invert elevation to the top of the rim elevation. Payment shall be compensation in full for furnishing all materials, labor, and equipment necessary to furnish and install manhole material, complete. This shall include, but not limited to, compensation for the shaft, cone and/or flat top slab, grade rings, steps, and manhole frame and cover, complete; any unforeseen obstructions of difficulties which may be encountered in construction of the manhole material; for all excavation; pot-holing cost; placement and compaction of backfill material; for all testing including material testing and watertight testing; transportation of construction materials and excess materials; all cleanup; hauling and proper disposal of debris at an authorized landfill; all disposal fees; costs for all other work and incidental expenses necessary to construct and install the manhole materials as called for on the assigned Job Order and in accordance with COUNTY Standard Details and Specifications and the Contract Special Provisions

Manholes & Bases - Rehabilitate

RWRDPB Item Numbers 173-174: Rehabilitate and Coat Existing Manhole Base 4 or 5 Ft Dia (Sub Appendix "F"): Measurement on this item shall be per EACH existing 4 or 5 foot diameter rehabilitated and coated existing manhole base, complete, in place, per Sub Appendix "F", in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to complete the rehabilitated manhole base.

RWRDPB Item Number 175: Rehabilitate and Coat Existing Manhole Base 5 Ft Dia. (Sub Appendix "F"): Measurement on this item shall be per EACH existing 5 foot diameter rehabilitated and coated manhole base, complete, in place, per Sub Appendix "F", in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to complete the rehabilitated manhole base.

Manhole - Coating

RWRDPB Item Number 176: Provide Protective Coating For Existing Manhole: Measurement on this item shall be per S.F. of existing manhole coated on its walls, ceiling, and riser sections, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the coating in the existing manhole, except the base and frame and cover.

RWRDPB Item Number 177: Provide Protective Coating For New or Existing Manhole Ring and Cover: Measurement on this item shall be per EACH new or existing manhole ring and cover section coated, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the coating on the manhole ring and cover.

Manhole - Frames & Covers

RWRDPB Item Number 178; Provide 14" Cleanout Frame and Cover: Measurement on this item shall be per EACH new cleanout frame and cover provided and installed, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the new cleanout frame and cover.

RWRDPB Item Number 179: Provide 24" Dia. Manhole Frame and Cover: Measurement on this item shall be per EACH New 24 inch diameter manhole frame and cover provided and installed, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the 24 inch diameter manhole frame and cover.

RWRDPB Item Number 180: *Provide 30" Dia. Manhole Frame and Cover:* Measurement on this item shall be per EACH New 30 inch diameter manhole frame and cover provided and installed, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the 30 inch diameter manhole frame and cover.

RWRDPB Item Number 181: Provide 24" Dia. Waterproof Manhole Cover and Frame: Measurement on this item shall be per EACH New 24 inch diameter manhole cover and frame provided and installed, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the 24 inch diameter waterproof manhole cover and frame.

RWRDPB Item Number 182: Provide 30" Dia. Waterproof Manhole Cover and Frame: Measurement on this item shall be per EACH New 30 inch diameter manhole cover and frame provided and installed, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the 30 inch diameter waterproof manhole cover and frame.

RWRDPB Item Number 183: Provide 24" Dia. Bolted Waterproof Manhole Cover and Frame: Measurement on this item shall be per EACH New 24 inch diameter bolted waterproof manhole cover and frame provided and installed, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the 24 inch diameter bolted waterproof manhole cover and frame.

RWRDPB Item Number 184: Provide 30" Dia. Bolted Waterproof Manhole Cover and Frame: Measurement on this item shall be per EACH 30 New inch diameter bolted waterproof manhole cover and frame provided and installed, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the 30 inch diameter bolted waterproof manhole cover and frame.

Manhole - Concrete Collar

RWRDPB Item Number 185: Provide Standard Concrete Collar: Measurement on this item shall be per EACH new manhole concrete collar provided and installed, complete, in place, per COUNTY Standards, per RWRD Std Dtl 211. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the new manhole concrete collar.

RWRDPB Item Number 186: Provide Protective Concrete Collar: Measurement on this item shall be per EACH new manhole concrete collar provided and installed, complete, in place, per RWRD Std Dtl 212, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the new manhole concrete collar.

Manhole - Adjustment to Grade

RWRDPB Item Number 187: Adjust Existing 24" Dia. Frame and Cover For Brick Manhole: Measurement on this item shall be per EACH existing 24" diameter frame and cover for brick manhole adjusted to the finished grade, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to adjust the existing

brick manhole to the grade specified. This shall include, but not be limited to, compensation for any unforeseen obstructions or difficulties which may be encountered in adjustment of the manhole; for potholing costs; all excavation of existing material and placement and compaction of backfill material; all material testing: transportation of construction materials and excess materials, all cleanup, hauling and proper disposal of debris at an authorized landfill; all landfill disposal fees; costs for all safety equipment; and all other work and incidental expenses necessary to adjust the existing manhole.

RWRDPB Item Number 188: Adjust Existing 30" Dia. Frame and Cover For Brick Manhole: Measurement on this item shall be per EACH existing 30" diameter frame and cover for brick manhole adjusted to the finished grade, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to adjust the existing brick manhole to the grade specified. This shall include, but not be limited to, compensation for any unforeseen obstructions or difficulties which may be encountered in adjustment of the manhole; for potholing costs; all excavation of existing material and placement and compaction of backfill material; all material testing: transportation of construction materials and excess materials; all cleanup, hauling and proper disposal of debris at an authorized landfill; all landfill disposal fees; costs for all safety equipment; and all other work and incidental expenses necessary to adjust the existing manhole.

RWRDPB Item Number 189: Adjust Existing 24" Dia. Frame and Cover For Reinforced Concrete Manhole. Measurement on this item shall be per EACH existing 24" diameter frame and cover for reinforced concrete manhole adjusted to the finished grade, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to adjust the existing precast manhole to the grade specified. This shall include, but not be limited to, compensation for any unforeseen obstructions or difficulties which may be encountered in adjustment of the manhole; for pot-holing costs; all excavation of existing material and placement and compaction of backfill material; all material testing: transportation of construction materials and excess materials; all cleanup, hauling and proper disposal of debris at an authorized landfill; all landfill disposal fees; costs for all safety equipment; and all other work and incidental expenses necessary to adjust the existing manhole.

RWRDPB Item Number 190: Adjust Existing 30" Dia. Frame and Cover For Reinforced Concrete Manhole: Measurement on this item shall be per EACH existing 30" diameter frame and cover for reinforced concrete manhole adjusted to the finished grade, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment

necessary to adjust the existing precast manhole to the grade specified. This shall include, but not be limited to, compensation for any unforeseen obstructions or difficulties which may be encountered in adjustment of the manhole; for pot-holing costs; all excavation of existing material and placement and compaction of backfill material; all material testing: transportation of construction materials and excess materials; all cleanup, hauling and proper disposal of debris at an authorized landfill; all landfill disposal fees; costs for all safety equipment; and all other work and incidental expenses necessary to adjust the existing manhole.

Manhole - Reconstruction

RWRDPB Item Number 191: Reconstruct Existing Cleanout To Finished Grade: Measurement on this item shall be per EACH existing cleanout adjusted to the finished grade, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to reconstruct the existing cleanout to the grade specified and per COUNTY Standards and Appendix A — Engineering Resources... This shall include, but not be limited to, compensation for any unforeseen obstructions or difficulties which may be encountered in adjustment of the manhole; for pot-holing costs; all excavation of existing material and placement and compaction of backfill material; all material testing: transportation of construction materials and excess materials; all cleanup, hauling and proper disposal of debris at an authorized landfill; all landfill disposal fees; costs for all safety equipment; and all other work and incidental expenses necessary to reconstruct the existing cleanout.

RWRDPB Item Numbers 192-193: Reconstruct Existing 4 or 5 FT Dia. Brick Manhole To Finished Grade: Measurement on this item shall be per VF (vertical foot) existing 4 or 5 ft diameter brick manhole barrel/cone section adjusted to the finished grade, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to reconstruct the existing brick manhole to the grade specified. This shall include, but not be limited to, compensation for new manhole barrel and/or cone section, new grade rings, new steps, for any unforeseen obstructions or difficulties which may be encountered in reconstruction of the manhole; for potholing costs; all excavation of existing material and placement and compaction of backfill material; all material testing: transportation of construction materials and excess materials; all cleanup, hauling and proper disposal of debris at an authorized landfill; all landfill disposal fees; costs for all safety equipment; and all other work and incidental expenses necessary to reconstruct the existing manhole.

RWRDPB Item Numbers 194-195: Reconstruct Existing 4 or 5 FT Dia. Reinforced Concrete MH To Finished Grade: Measurement on this item shall be per VF (vertical foot) existing 4 or 5 ft diameter reinforced concrete manhole barrel/cone section adjusted to the finished grade, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to reconstruct the existing precast manhole to the grade specified. This shall include, but not be limited to, compensation for new manhole barrel and/or cone section, new grade rings, new steps, for any unforeseen obstructions or difficulties which may be encountered in reconstruction of the manhole; for pot-holing costs; all excavation of existing material and placement and compaction of backfill material; all material testing: transportation of construction materials and excess materials; all cleanup, hauling and proper disposal of debris at an authorized landfill; all landfill disposal fees; costs for all safety equipment; and all other work and incidental expenses necessary to reconstruct the existing manhole.

Manhole – Bench Rehabilitation

RWRDPB Item Numbers 196: 4 foot Diameter Manhole Bench Rehabilitation: Measurement on this item shall be per EACH manhole bench rehabilitated, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to rehabilitate the bench/channel(s) inside a manhole.

RWRDPB Item Numbers 197: 5 foot Diameter Manhole Bench Rehabilitation: Measurement on this item shall be per EACH manhole bench rehabilitated, complete, in place, and in accordance with the project

plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to rehabilitate the bench/channel(s) inside a manhole.

Pot Holing

RWRDPB Item Number 198: Pot-holing: Measurement on this item shall be per VF (vertical foot) of required. Pot-holing, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor, and equipment necessary to locate COUNTY facilities.

Excavation and Backfill

RWRDPB Item Number 199: Excavation & Backfill: Measurement on this item shall be per CY (cubic yard) for excavation and backfill, using native soil for backfilling, required excavation and backfill that is not already addressed in another given RWRDPB Item, (use CY = (Width*Length*Depth)/27 0' to 4' deep. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to accomplish the excavation and backfill work in accordance with the Plans and Specifications.

RWRDPB Item Number 200: Excavation & Backfill: Measurement on this item shall be per CY (cubic yard) for excavation and native backfill for required excavation and backfill that is not already addressed in another given RWRDPB Item, (use CY = (Width*Length*Depth)/27 4.1' to 10' deep. Payment shall be compensation

in full for furnishing all materials, labor and equipment necessary to accomplish the excavation and backfill work in accordance with the Plans and Specifications.

RWRDPB Item Number 201: Excavation & Backfill: Measurement on this item shall be per CY (cubic yard) for excavation and native backfill for required excavation and backfill that is not already addressed in another given RWRDPB Item, (use CY = (Width*Length*Depth)/27 10.1' to 15' deep. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to accomplish the excavation and backfill work in accordance with the Plans and Specifications.

RWRDPB Item Number 202: Excavation & Backfill: Measurement on this item shall be per CY (cubic yard) for excavation and backfill of AB material for tasks that required excavation and backfill that is not already addressed in another given RWRDPB Item, (use CY = (Width*Length*Depth)/27 0' deep to 4' deep. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to accomplish the excavation and backfill work in accordance with the Plans and Specifications.

RWRDPB Item Number 203: Excavation & Backfill: Measurement on this item shall be per CY (cubic yard) for excavation and backfill of AB material for tasks that required excavation and backfill that is not already addressed in another given RWRDPB Item, (use CY = (Width*Length*Depth)/27 4.1' deep to 10' deep. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to accomplish the excavation and backfill work in accordance with the Plans and Specifications.

RWRDPB Item Number 204: Excavation & Backfill: Measurement on this item shall be per CY (cubic yard) for excavation and backfill of AB material for tasks that required excavation and backfill that is not already addressed in another given RWRDPB Item, (use CY = (Width*Length*Depth)/27 10.1' deep to 15' deep. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to accomplish the excavation and backfill work in accordance with the Plans and Specifications.

Concrete Work

RWRDPB Item Numbers 205-211: Concrete Sidewalks, Concrete Driveways, PCCP Concrete, and Curb Removal and Replacement: Measurement shall be per CUBIC YARD of existing concrete sidewalk and concrete curb removed and replaced "in-kind" in accordance with the Standard Specifications and Standard Details numbers 200, 203, 209, 211, and 213 complete, in-place. Payment shall be at the unit price and

shall be compensation in full for furnishing all labor, materials and equipment necessary to accomplish the concrete sidewalk and/or concrete curb removal and replacement, inclusive of saw cutting, removal and proper disposal of debris at an authorized landfill, subgrade compaction; furnishing and placing forms; furnishing and placement of Class "B" concrete, providing proper surface drainage, protection of existing utilities and other sundry improvements and all other work necessary to complete the items in conformance with the Standard Specifications and Standard Details.

Miscellaneous

RWRDPB Item Number 212-213: Porta Potties: Measurement on this item shall be per EACH WEEK for a porta potty provided and installed, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the porta potties.

RWRDPB Item Number 214: Grouting of Cavities: Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to inject grout; includes mobilization of grouting equipment, grout material and transportation of the material to the site, boring or coring to access the cavity, injection of the grout, complete in place, with no allowance for wasted material, repair of the cored pipe using a COUNTY approved method, repair of the bored surface opening by a COUNTY approved method, clean up and, demobilization of the equipment used.

<u>RWRDPB Item Numbers 215-217: CCTV:</u> Payment shall be made per linear foot of successfully televised pipe, complete, in place, to COUNTY Standards.

RWRDPB Item Numbers 218-220: *Pipe Cleaning:* Payment shall be made per linear foot of successfully cleaned pipe (includeds chain flail for DIP), complete in place, to COUNTY Standards.

RWRDPB Item Number 221: Provide As-Built Documents: Measurement on this item shall be per SHEET for providing as built documents, sealed by an AZ Registered Land Surveyor, complete, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the required as built documents.

RWRDPB Item Number 222: Provide Construction Staking: Measurement on this item shall be per LINEAR FOOT for providing construction staking, complete, in place, and in accordance with the project plans and specifications. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the required construction staking.

RWRDPB Item Numbers 223: Asbestos Cement Pipe Removal and Proper Disposal: Measurement on this item shall be per TON for the removal and disposal of ACP, in accordance with all regulations regarding the approved procedures for removal and disposal of asbestos cement pipe materials. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to remove and dispose.

RWRDPB Item Numbers 224-227: Remove and Install Security Fencing: Measurement on this item shall be per LINEAR FOOT for the removal and/or installation of barb wire and chain link fencing, per COUNTY standards. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to remove and/or install the required fencing.

RWRDPB Item Number 228-229: Remove and Install 20' Security Gate: Measurement on this item shall be per EACH 20' security gate that is removed and/or installed, per COUNTY standards. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the required gate removal and replacement.

RWRDPB Item Numbers 230-231: Remove and Replace 6' and 8' CMU Wall: Measurement on this item shall be per SQUARE FOOT CMU wall that is removed and replaced, per COUNTY standards.

Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the required CMU wall removal and replacement.

<u>RWRDPB Item Number 232: Archaeological Monitoring:</u> Measurement on this item shall be per HOUR as required, per County standards. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the necessary monitoring services.

<u>RWRDPB Item Number 233: Hydroseeding:</u> Measurement on this item shall be per ACRE for Hydroseeding services as required, per County standards. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the Hydroseeding services.

RWRDPB Item Number 234: Shop/Engineering Drawings: Measurement on this item shall be per SHEET for providing Shop/Engineering Drawings as required, per County standards. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the Drawings.

RWRDPB Item Number 235: Rip-Rap: Measurement on this item shall be per SQUARE YARD for providing D_{50} 6" rip-rap as required, per County (Blue Book) standards. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the rip-rap.

RWRDPB Item Number 236: Install Survey Monument per Standard Detail RWRD 503: Measurement on this item shall be per EACH to provide and install Survey Monuments, per County standards. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide and install the Survey Monument.

RWRDPB Item Number 237: Provide miscellaneous services, construction materials and installation by Force Account: Measurement and payment for miscellaneous construction, materials and equipment required for work which is outside of the scope of the contract and not covered under a PRICE PROPOSAL line item shall be done as outlined in Section 109-5 EXTRA AND FORCE ACCOUNT WORK of the PAG Standard Details and Specifications for Public Improvements. Examples of such work are as follows: Force Main Repair, Flush Tank Removal, Lamphole Abandonment, Use of Approved Test Products (including UV Point Repair and Carbon-Fiber Manhole Coating), Surveying, Traffic Control, Permits, Utility Relocation, SWPPP, and Landscaping. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the required Surveying services. Work under this item must be authorized by COUNTY prior to the commencement of the work. This item will only be used as needed; all the monies for this item may not be spent during the course of construction on this project.

A8 ADMINISTRATIVE PROVISIONS:

It shall be the Contractor's responsibility to provide the requested services and to produce and assemble the documents described herein. The formal work relationship between the Contractor and COUNTY shall be maintained between the Contractor's Project Manager and COUNTY's Project Manager. This formal relationship shall include the passage of all written forms of correspondence, requests for information, notifications, submittals, and claims for payment.

A8-1 Availability of Applicable Information

The COUNTY staff will provide or coordinate the available information applicable to the work of the Contractor that is not otherwise available to the public. The Contractor shall make inquiries to the COUNTY Project Manager to resolve if possible, any inconsistencies or deficiencies found within the information supplied.

A8-2 Coordination and Approvals

It shall be the Contractor's responsibility to provide all coordination with involved utilities, governmental agency, private owner or company, and regulatory agencies with jurisdiction over the location of the project, and to resolve any issue requisite to providing the services and documents required herein.

A8-3 Quality Control

- A8-3a The Contractor has total responsibility for the accuracy, timeliness and completeness of the work and the documents it is to furnish under this contract. COUNTY will review the submittals to determine if quality control procedures are being applied and if they are adequate and appropriate for the work presented.
- A8-3b Submittals of the work and supporting documentation thereof as provided below shall be accomplished by documentation, which shows the Contractor has established and is following quality control procedures. Such documentation may be in the form of copies of appropriate deliverables lists, tables, checklists, etc. which show columns for checking, revision, re-checking, and quality control reviews, as appropriate. Submittals to COUNTY not accompanied by documentation, which verifies the use of quality control procedures, may be returned to the Contractor if it appears to COUNTY that quality control procedures are not being followed. Documentation of the application of quality control procedures may be considered to be a requisite element of each review submittal.

A8-4 Submittals

A8-4a Formal submittals of the work are considered to be milestones. The submittals are due at the beginning of the requiring Phase. The Contractor shall conduct the work to complete the tasks in accordance with the respective approved schedules.

A8-4b The Contractor submittals for COUNTY approval or review shall include, but not be limited to the following:

Item No.	ittals Schedule Description	Applicable Section
1.	Coating applicator's certifications and qualifications	After award
2.	Confined space entry procedures for the main Contractor's personnel and all Subcontractor's personnel requiring entrance to the sewage system (Cleaning, Manhole Rehabilitation, Manhole Reconstruction, Closed Circuit Televising (CCTV))	After award
3.	All relevant information for the proposed (CIPP) liner from the resin manufacturer (specifications, characteristics, properties, and methods of application). Ref: Cured In Place Pipe (CIPP) Specifications, Sub Appendix D.	After award
4.	Draft of Residents Notification Letter/Door hangers	After award
5.	Spill Prevention Plan	After award
6.	WO Schedule	Phase II
7.	Coating applicator's certifications and qualifications	Phase II
8.	Cleaning of Sewer Proposed Method Submittal	Phase II
9.	Copies of CCTV personnel National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program (PACP) defect code usage	Phase II
10.	Design Data and Specification data sheet listing all parameters used in the CIPP design and thickness calculations based on Appendix XI of ASTM F-1216	Phase II
11.	Pricing based on Bid Schedule; this pricing will be stated as a computation of prices for each item times the quantity and will give an over-all Not To Exceed amount.	Phase II

12.	Certified test report to demonstrate compliance of the proposed CIPP with the specified ASTM Standards	Phase II
13.	Manufacturers storage and handling instructions for the liner tube and resin	Phase II
14.	Installation, heating, curing, and cool-down schedule plan for each inversion	Phase II
15.	Resin manufacturer data sheet	Phase II
16	Description of methods for avoiding liner stoppage during installation and plans for protecting downstream sewer that have previously been lined	Phase II
17.	Traffic Control Plan (If Required)	Phase II
18.	Resident Notification Letter for approval.	Phase II
19.	Submittal for seals and grouts.	Phase II
20.	Product specifications on inversion lubricants (if used)	Phase II
21.	Manhole rehabilitation coating products submittals	Phase II
22.	Manhole reconstruction shop drawings & material submittals	Phase II
23.	Flow Management Plan	Phase II
24.	Point repair proposed procedures, materials, and shop drawings.	Phase II
25.	Personnel certifications for Confined Spaces, and Pump Operators	Phase II
26.	Photos and video of the proposed construction area (before construction)	Phase II
27.	Proposed lay down are for construction activities	Phase II
28.	Contractor daily reports	Phase IV
29.	A copy of the "wet-out" and "Cure" reports in an approved format immediately after curing of each liner is completed.	Phase IV
30.	Updated list of punch list items	Phase V
31.	Job Order Completion Report	Phase V
32.	Records and DVDs documenting line cleaning and television inspection of completed work.	Phase V
33.	Actual resin volume used, and test results of infrared spectrum analysis conducted on each lot of resin.	Phase V
34.	Copy of cured liner samples test result reports	Phase V
35.	Photos and video of the proposed construction area (after construction)	Phase V
36.	Notification of any property damage	As Needed
37.	Monthly WO Meeting Minutes	Monthly Meeting

A8-5 Force Account

Work that is considered by county to be out of the scope of work of this contract shall be paid for as a force account item following PAG section 109-5 guidelines, unless agreed or specified otherwise within the contract documents.

A8-6 Invoicing and Payment

Contractor will submit to COUNTY, within a reasonable timeframe, invoices for payment in a format and method that is acceptable to COUNTY, including any itemization or formatting as required. Typically, invoices shall be submitted monthly, or within 30 days of project completion.

No payment shall be made for stored materials, unless specifically allowed for a specific item in a particular Job Order issued, in which case payment for the agreed stored material will only be made for the specific Job Order. The stored material shall be **owned** by the Contractor, no third party payments will be processed.

A8-7 COUNTY Responsibilities

The COUNTY will perform the following functions during the execution of this Contract:

Designate a Project Manager to direct the Contractor and serve as a single point of contact for all of
the Contractor's formal contacts with the COUNTY. Said Project Manager may be changed by written
notification to the Contractor;
Secure the necessary reviews and approvals from COUNTY Staff reviewers
Provide the required Notices-To Proceed without unnecessary delays
Provide timely payment of the Contractor's reimbursement vouchers
Provide copies of any relevant, available studies, reports, or other documentation prepared by or for
COUNTY or other agencies which may bear on the work unless such studies, reports or documents
have been published separately and are available publicly
Provide the Contractor with all information stated to be provided the Contractor under this Contract.

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SUB APPENDIX "A"

ENGINEERING RESOURCES

Current Engineering Design Standards, Details and Directives are available at

EDS 2016-RevJUN2017.pdf (pima.gov)

and are hereby referenced.

SUB APPENDIX "B" PROCEDURES IMPLEMENTATION OF WASTEWATER FLOW MANAGEMENT

<u>Wastewater Flow Management Goal:</u> To provide for the uninterrupted flow of wastewater around the section or sections of pipe where construction work will be performed. To eliminate spills associated with by pass pumping operations and to contain and promptly clean up SSO's caused by flow management activities.

Current Engineering Design Standards, Details and Directives are available at

SSDC 2016-RevJUN2017.pdf (pima.gov)

and are hereby referenced.

SUB APPENDIX "C"

RESIDENTIAL/BUSINESS NOTIFICATIONS

When interruption of customers sanitary service is required due to a Job Order, the contractor must follow the guidelines set in section 2.8 of the 2016 RWRD Standard Specifications for Construction.

Current Engineering Design Standards, Details and Directives are available at

SSDC 2016-RevJUN2017.pdf (pima.gov)

and are hereby referenced.

If COUNTY determines that a neighborhood meeting is required, the Contractor and Pima County Wastewater Management shall jointly hold a neighborhood meeting a minimum of five (5) calendar days prior to commencement of work on the project. The Contractor's Superintendent and COUNTY staff shall be in attendance at the meeting. The purpose of the meeting is to discuss the parameters of the project, and how it will affect the neighborhood residents/businesses. Identification of special requirements for handicapped persons will be addressed.

Prior to commencing work, the Contractor shall notify all residents/businesses whose service connections will be interrupted by means of a bilingual door hanger, at least 48 hours in advance of the service interruption. This notification shall be in person, whenever possible, and shall include a pamphlet describing the Job Order, the method of construction, and the approximate date and length of time that the interruption of service will occur. The Contractor's proposed written notification shall be submitted to COUNTY for review and approval prior to distribution to the public. The Contractor shall confirm the notification again verbally, whenever possible, at least 24 hours before the interruption actually happens. The 24-hour bilingual notifications shall include an "Official Notification/Notificación Oficial" approved by the COUNTY. The Contractor shall maintain a notification log, which will include the date and time of the notification for all the involved properties, the contact person's name, or if no contact was made, that the information was left at the door. This notification log shall be submitted to COUNTY prior to construction.

During the course of the project, if the original time for the construction activity is accelerated or delayed, the Contractor will notify the COUNTY PM, Community Relations, as well as residents to commencement of any work schedule change 24 hours in advance.

SUB APPENDIX "D"

CURED-IN-PLACE PIPE (CIPP) SPECIFICATIONS

- &

SPECIAL PROVISIONS FOR CURED-IN-PLACE SECTIONAL LINER (CIPSL) (Trenchless point repair for gravity sewer pipelines)

Dated October 2014

*These Special Provisions are Generic in nature and intended to apply to any and all Job Order Contracts

SPECIAL PROVISIONS-CURED IN PLACE PIPE (CIPP)

SECTION

SECTION 701 - PRIORITY OF SPECIFICATIONS

SECTION 702 - LOCATION OF WORK

SECTION 703 - DESCRIPTION OF WORK

SECTION 704 - EXISTING UTILITIES

SECTION 705 - WORK WITHIN RIGHTS-OF-WAY, PRIVATE STREETS, AND EASEMENTS

SECTION 706 - TEMPORARY UTILITIES

SECTION 707 - DAMAGE TO WORK DURING CONSTRUCTION

SECTION 708 - TRAFFIC CONTROL, DETOURING, AND ACCESS TO ADJACENT PROPERTIES

SECTION 709 - AS-BUILT RECORDS

SECTION 710 - NOTIFICATION OF WORK TO PROPERTY RESIDENTS/OWNERS

SECTION 711 - WASTEWATER FLOW MANAGEMENT PLANS

SECTION 712 - CLOSED CIRCUIT TELEVISING (CCTV) SPECIFICATIONS

SECTION 713 - CURED-IN-PLACE PIPE (CIPP) INSTALLATION PROCEDURES

SECTION 714 - CIPP MATERIALS

SECTION 715 - STRUCTURAL REQUIREMENTS

SECTION 716 - REHABILITATION OF EXISTING MANHOLES

SECTION 717 - PAVEMENT REMOVAL AND REPLACEMENT

SECTION 718 - MISCELLANEOUS OTHER WORK SECTION 719 - MEASUREMENT AND PAYMENT

SECTION 720 - PERMITS AND SUBMITTALS

SECTION 721 - ASBESTOS CEMENT PIPE REMOVAL AND DISPOSAL

INTENT AND PURPOSE

Intent and purpose of these Special Provisions is to interpret and/or supplement all Pima County Regional Wastewater Rehabilitation Department (PCRWRD) Standard Specifications and Details for Construction 2016 Edition, PCRWRD Engineering Design Standards 2016 Edition, and the Pima Association of Governments (PAG) Standard Specifications and Standard Detail Drawings for Public Improvements, updated November 2015, to the extent and in the manner referred to and to provide additional Specifications.

SECTION 701 - PRIORITY OF SPECIFICATIONS

In the event of any conflict, seeming or real, between these Special Provisions and the PCRWRD Standard Specifications and Details for Construction 2016 Edition, or the Pima Association of Governments (PAG) Standard Specifications and Standard Detail Drawings for Public Improvements, updated November 2015, these Special Provisions shall prevail, and the order in which they govern shall be:

- 1. Special Provisions
- 2. Project Plans
- 3. PCRWRD Standard Details for Construction, 2016 Edition
- 4. PCRWRD Standard Specifications for Construction, 2016 Edition
- 5. PAG Standard Specifications for Public Improvements, updated November 2015
- 6. PAG Standard Detail Drawings for Public Improvements, updated November 2015

The Contract Drawings which accompany and form part of these Special Provisions bear the title "Project Title and G/R Number".

SECTION 702 - LOCATION OF WORK

This project is known as the "Project Title and G/R Number". The project is located within Sections Project Specifics, Pima County, Arizona. The project is bordered on the north by Project Specifics. The location is depicted in the Contract Drawings accompanying these Specifications.

SECTION 703 - DESCRIPTION OF WORK

- 703.1 The work to be performed consists of furnishing all materials, equipment and supplies, and performing all labor in connection with the rehabilitation of a sanitary sewer and other work shown on Plan No. *Project Specifics*, complete in place, in strict accordance with the Standard Specifications, Standard Drawings, Contract Documents, and these Special Provisions. One Contractor shall perform entire rehabilitation project utilizing one or more lining technology.
- 703.2 The rehabilitation work in this project shall include but not limited to: Flow Management

Classiss

Cleaning

Close Circuit Television (CCTV)

Point Repairs

Cured-in-place pipe (CIPP)

Manhole Rehabilitation

Bench/Channel Rehabilitation

Construction of Required Structures

703.3 The rehabilitation consists of approximately *XX,XXX* linear feet of existing X, and *XX*-inch gravity sewer pipe and rehabilitation of approximately 100 manholes. The existing gravity sewer includes asbestos cement (AC), vitrified clay (VC), reinforced concrete pipe (RC), and ductile iron (DI) pipes, and reinforced concrete man holes. 703.4 The *PCRWRD* approved trenchless technology for this specific job is installation of a thermosetting resinimpregnated, felt fiber tube inserted, inflated, and water cured in the existing conduit, henceforth referred to as cured-in-place pipe (CIPP).

- 703.5 The PCRWRD approved manhole rehabilitation technology is Project Specifics coatings.
- 703.6 **Project Specifics:** There are X new manholes and XX feet of new x" (polyvinyl chloride (PVC), reinforced concrete pipe (RCP) gravity sewer pipe to be installed.

SECTION 704 - EXISTING UTILITIES

- 704.1 Under State Law Arizona Revised Statue (ARS 40-360-21) the Contractor is required to contact all utilities in order to determine the locations of their respective utilities prior to any excavation. The Contractor shall be responsible for any damages to existing utilities and shall make any necessary repairs at his expense. The Contractor shall brace and/or support existing utilities as necessary to protect existing facilities from disturbance and/or damage.
- 704.2 Contractor shall verify locations and elevations of all existing utilities prior to any construction. The Contractor shall call Blue Stake at 811 or 1-800-782-5348 two (2) full working days prior to any excavation. Saturdays, Sundays, and holidays are not considered to be working days. The Contractor shall provide the PCRWRD inspector a copy of the Blue Stake Ticket(s) and all utility coordination records performed for all required construction activities for this project at least two (2) working days prior to commencing work.
- 704.3 The Contractor shall contact Tucson Electric Power Company at least ten (10) working days prior to excavation within ten (10) feet of any power pole. Tucson Electric Power Company shall provide relocation or bracing of said pole.
- 704.4 All gas line relocation required, including trenching, will be performed by Southwest Gas Corporation or their Contractor. Southwest Gas Corporation will determine actual location of new and/or relocated gas lines.
- 704.5 Any required utility relocation shall be accomplished in cooperation with and to the satisfaction of the company or agency having jurisdiction over the particular utility. The Contractor shall be responsible for all costs associated with any utility relocation. The Contractor shall provide the PCRWRD inspector a copy of all utility plans and coordination records performed for all required construction activities for this project at least two (2) working days prior to commencing work.
- 704.6 Any water line relocation(s) required shall be performed by the Contractor or by the Water Company's Contractor. All existing water lines are part of the *Utility Specific* (*Tucson Water, Metro Water, etc.*). All water line relocation shall be in accordance with *Utility Specific* Standard Specifications and Details and Arizona Administrative Code of the Department of Environmental Quality (ACC ADEQ) Title 18, Chapter 5, except as modified on the Plans. See Section 709, "TEMPORARY UTILITIES" of these Special Provisions, regarding construction water for the project.
- 704.7 The Contractor shall maintain utility and sewer service during construction to all parties and establishments tributary to the work. The equipment, material and manner with which any required temporary sewer Flow Management is constructed shall assure continuous sewer service without spill or discharge of raw sewage during operation, installation or removal of the sewer flow management equipment. The Contractor shall submit a plan and associated details of the proposed FMP for review to PCRWRD in accordance with Section 2 of the PCRWRD Standard Specifications and Details for Construction 2012 Edition. See Section 712, "Wastewater Flow Management Plans" of these Special Provisions for additional information.

SECTION 705 - WORK WITHIN RIGHTS-OF-WAY, PRIVATE STREETS, AND EASEMENTS

705.1 This work is to be done within existing public rights-of-way of Pima County and City of Tucson, private streets, and public sewer and utility easements, as shown on the plans. It shall be the responsibility of the Contractor to obtain any and all necessary permits to conduct the work within the rights-of-way shown in the plans, including any permits required for temporary pavement cuts within the roadway. The Contractor shall prepare and provide all required plans, including but not limited to traffic control and temporary sewage flow management. In

addition, the Contractor shall provide dewatering plans if necessary should ground water be encountered. The Contractor shall provide the PCRWRD inspector a copy of all required plans and coordination records performed for all required construction activities for this project at least two (2) working days prior to commencing work.

705.2 The Contractor shall make every effort to minimize damage to existing improvements during all work operations. Any existing improvement which requires removal for work access shall be replaced "in kind" by the Contractor to the satisfaction of the right of way or easement owner. All costs associated with the above work within rights-of-way, private streets, and easements shall be included in pipe installation costs, except as provided for by specific items in the proposal. Any existing improvement which is damaged or removed by the Contractor outside the rights-of-way, private streets, and easements shall be replaced "in kind" and to a condition equal to or better than the original at the Contractor's expense. The Contractor shall provide to the PCRWRD inspector a copy of all records related to the resolution of these situations including acceptance by the affected parties, any ancillary actions, remedies, and any other pertinent information/work related to the original incident within ten (10) working days after the work has been completed.

SECTION 706 - TEMPORARY UTILITIES

- 706.1 The Contractor shall provide, at no additional cost to PCRWRD, all construction power used at the site. He shall make all arrangements with the electrical utility for power takeoff points, voltage and phasing requirements, transformers and metering and shall pay all costs and fees arising there from. It shall be the Contractor's responsibility to provide all special connections required for his work.
- The Contractor shall provide, at no additional cost to PCRWRD, all construction water used at the site. The Contractor shall make all arrangements with Tucson Water for water takeoff points and metering and shall pay all costs and fees arising there from. It shall be the Contractor's responsibility to provide all special connections required for his work. The Contractor shall make provisions for delivering the water from the connection(s) to the point(s) of use. The Contractor shall also be responsible for making provisions to locate water supply hoses below surface grade when it is necessary to extend hoses across roadways. For some above ground installations, the Contractor may consider using hose-wheel ramps to protect the hoses from vehicle traffic. The Contractor shall coordinate all hose installations within the right-of-way with Pima County or City of Tucson and PCRWRD. PCRWRD may require below grade placement at some locations independent of Pima County and City of Tucson requirements. The Contractor shall coordinate with the PCRWRD Field Engineering Unit (FEU) early in the coordination process to ensure the project-specific requirements of PCRWRD FEU are clearly understood and provisions made for implementation thereof. The Contractor shall provide the PCRWRD inspector a copy of all required plans and coordination records performed for all required construction activities for this project at least two (2) working days prior to commencing work.

SECTION 707 - DAMAGE TO WORK DURING CONSTRUCTION

The Contractor shall make every effort to prevent damage to the sewer and related appurtenances during construction. Any and all damage to the sewer and/or appurtenances resulting from negligence on the part of the Contractor shall be rectified by the Contractor to the satisfaction and approval of PCRWRD at the expense of the Contractor. It shall be the Contractor's responsibility to protect the sewer and related appurtenances from all reasonably foreseeable potentially damaging events until final approval and acceptance by PCRWRD.

SECTION 708 - TRAFFIC CONTROL, DETOURING, AND ACCESS TO ADJACENT PROPERTIES

- 708.1 The Contractor is advised that this project is situated within Pima County and City of Tucson Right-of-Ways and is under the jurisdiction of the Pima County and City of Tucson Departments of Transportation. All traffic plans and right-of-way permits shall be coordinated through the appropriate DOT. The Contractor shall prepare and submit a Traffic Control Plan to them for their approval before commencement of work. Traffic Control Plans shall be in accordance with the most current version of the appropriate jurisdiction's Standard Details and Specifications.
- 708.2 Prior to the approval of construction operations within a roadway, specific approval of traffic control, including possible detours, provisions for emergency services and public transportation access, will be required. A

copy of the approved traffic control plan shall be submitted to the PCRWRD inspector at least two (2) working days prior to commencing work.

SECTION 709 - AS-BUILT RECORDS

- 709.1 The Contractor shall maintain a complete set of As-Built Record Drawings that are acceptable to PCRWRD. The As-Built Records shall be kept up-to-date throughout the project and will be available for examination by PCRWRD personnel and their representatives upon request.
- 709.2 Upon completion of sewer rehabilitation, the Contractor shall forward a complete set of As-Built Record Drawings to PCRWRD FEU in accordance with Section 1.4.7 of the PCRWRD Standard Specifications and Details for Construction, 2016 edition and ARS 32-152. The Contractor shall also identify locations of reinstated Active House Connection Sewer (HCS) openings. These drawings shall indicate deviations, including CIPP thicknesses less than that for fully deteriorated pipe, from Special Provisions, Plans, and Specifications. Contractor shall provide the Contractor's Completion Date and Contractor's Comments for each sewer reach on all of the plan sheets. Final approval and payment of the project will not be provided until after the As-Built Record Drawings are accepted by PCRWRD.

SECTION 710 - NOTIFICATION OF WORK TO PROPERTY RESIDENTS/OWNERS

- 710.1 The Contractor shall notify the property residents/owners within the area of the proposed work, using a PCRWRD approved Official Notification form. The notification process is usually done in three steps:
- An official notification form (Sample in Appendix A) sent by PCRWRD, usually 30 calendar days prior to start of work in all affected areas.
- An Official Contractor's notification sent by the Contractor, usually 3 calendar days prior to start of work in the affected areas.
- An official Door hanger (Sample in Appendix A) in the affected area, usually 24 hours before start of work in the affected areas.
- All of the notifications shall be written in both English and Spanish languages and distributed to residents/owners
- 710.1 **Schedule and Notification Letter**: The Contractor shall develop a list of all the affected area residents and Mailings shall be prepared and sorted in compliance with United States Postal regulations. Residents/owner addresses are available on the Pima County Department of Transportation (PCDOT) GIS website.)
- 710.1.1 Due to the large area to be rehabilitated, the work shall be performed in sequence by areas. The Contractor shall present and submit for PCRWRD approval the proposed schedule along with mailing addresses of all affected residents/owners. Once the schedule and notification letter are approved by PCRWRD, the contractor shall hand-deliver or mail the notifications using stationary and envelopes from PCRWRD.
- 710.1.2 For the duration of the project, contractor field crews shall carry a copy of the notification letter at all times. The notification letter shall list a Contractor phone number for notification during the day as well as an "after-hours" cell phone number in the event of an emergency between the hours of 5:00 p.m. and 8:00 a.m.
- Public Meetings: The Contractor and PCRWRD shall jointly schedule a minimum of one neighborhood meeting prior to commencement of work on the project. The Contractor's Superintendent, their subcontractors, and PCRWRD staff shall be in attendance at these meetings. The Contractor and PCRWRD shall jointly hold a public meeting by the affected areas 30 days prior to commencement of work on the project. The purpose of the meeting will be to discuss parameters of the project and impacts on neighborhood residents/businesses. Due to the large area to be rehabilitated, the work may be performed in sequence by areas and more than one meeting may be required. The contractor's superintendent, all their subcontractors, and PCRWRD staff shall be in attendance at the meeting(s). Requirements of special needs of individuals will be documented and addressed at the meeting.
- 710.3 Active Service Connections: Prior to commencement of work affecting tributary systems, the Contractor shall be responsible for determining locations of all active connections, then further identify any business, commercial, high flow, or any other service connections in which flow cannot be interrupted. CCTV records of most tributary reaches

are available at PCRWRD Conveyance Division. If any discrepancies arise in the field, records are available to the contractor in PCRWRD Permits Section located on the 1st floor of the Public Works Building, 201 North Stone Avenue. If the information is not available in the Permits Section, the Contractor shall determine the locations by visiting the site, CCTV, dye testing, consulting with the owner/resident, or by other approved methods. The Contractor shall submit a proposed plan for maintaining uninterrupted use of these service connections for the Engineer's approval at least two (2) working days prior to commencing work.

- 710.4 **Bilingual Door Hanger**: By means of a bilingual door hanger (Sample in Appendix A), the contractor shall notify all residents/businesses whose service connections will be interrupted at least 24 hours in advance of the service interruption. This notification shall be in person, whenever possible, and shall include the approximate date and length of time that the interruption of service will occur. The Contractor's proposed written notification shall be submitted to PCRWRD for review and approval prior to distribution to the public. The Contractor shall confirm the notification again verbally, whenever possible, at least 24 hours before the interruption. The 24-hour bilingual notifications shall include an "Official Notification/Notificacion Oficial" approved by the PCRWRD.
- 710.5 **Notification Log**: The Contractor shall maintain a notification log, which will include the date and time of the notification for all involved properties, the contact person's name, or if no contact was made, that the information was left at the door. The notification log shall be made available to the PCRWRD inspector upon request.
- 710.6 **Temporary Portable Restroom Facilities:** The Contractor shall provide temporary portable restroom facilities at the beginning of, and for the duration of the service interruption. The number of facilities shall be not less than one (1) portable restroom per four (4) residential units and one (1) portable restroom per business. The portable temporary restroom facilities shall be structurally stable, shall be kept clean, and shall include hand washing stations. The Contractor shall accommodate the special needs including Americans with Disabilities Act (ADA) requirements, if any, for the continuance of sewer service of all the residents/owners.

If sewer service cannot be effectively/fully restored within 24 hours after interruption, physical flow management pumping for the house connection must be provided.

SECTION 711 - WASTEWATER FLOW MANAGEMENT PLANS

- 711.1 The sewer to be rehabilitated under this project is an active line in a deteriorated condition. The Contractor shall develop, and submit for PCRWRD approval, as many wastewater Flow Management Plans (FMP) as required to provide uninterrupted flow around the section or sections of pipe designated to be rehabilitated and are affected by the construction work.
- 711.2 The purpose of the FMP is to provide full unobstructed view of the interior of the line during the CCTV operations and allow maximum access to the sewer system to perform the required rehabilitation activities. All required FMP work shall be in accordance with Section 2 of the PCRWRD Standard Specifications and Details for Construction 2016 Edition.
- 711.3 Activities requiring FMP shall include but not limited to:
 - Initial CCTV Pipeline Inspection and Condition Assessment
 - Removal of line obstructions
 - Cleaning
 - CIPP Installation
 - Post Inversion CCTV
 - Manhole Rehabilitations
- 711.4 The Contractor shall prepare and submit for PCRWRD approval one original and two copies of their wastewater FMP, showing the method for each affected reach of project sewer. Wastewater FMP submittals shall be made, before a Notice to Proceed is issued, to:

Field Engineering Manager
Pima County Regional Wastewater Rehabilitation Department
1313 S. Mission Road
Tucson, Arizona 85713

- 711.5. Wastewater flow management operations shall not be performed by the Contractor until receipt of written approval from PCRWRD. PCRWRD Field Operations (520-724-3400) and the affected treatment facility Tres Rios WRF (520-724-6100), Agua Nueva WRF (520-443-6464), must be notified at least 72 hours prior to commencement of any FMP.
- 711.6 The Contractor shall, at his expense, obtain all permits necessary for the installation and operation of the wastewater flow management equipment.
- 711.7 For wastewater FMPs gravity type designs are typically preferred over pumped type designs. However, the most appropriate type of wastewater flow management should be used for the project.
- The flow management equipment shall be quiet running and shall be equipped with noise suppression apparatus, including, but not limited to sound boards and engine mufflers. Contractor shall be required to meet the noise abatement requirements of Pima County.
- 711.9 Prior to start of construction, the Contractor shall also prepare a Sanitary Sewer Overflow (SSO) spill prevention plan, to be included with his wastewater FMP submittal, and obtain plan acceptance from PCRWRD FEU.
- 711.10 For gravity type wastewater FMPs the following specifications apply:
 - Show influent & discharge points with elevations & stationing on the design plans
 - Survey, blue stake, and show the plan and profile on the design plans
 - Design sewer pipe plugs for expeditious removal during startup testing
- 711.11 For pumped type wastewater FMPs the following specifications apply:
 - Show suction & discharge points with elevations & stationing on the design plans
 - Provide pump performance curves
 - Submit calculations to verify suction lift of pumps has not been exceeded
 - Suction lines shall be steel reinforced pipe or better
 - Structural calculations are required for all aluminum pipe designs
 - Use separate intakes for each pump with debris control
 - Intake manifolds are not acceptable
 - Provide adequate intake line spacing (center to center) to avoid vortexing
 - Provide high level alarm notification to pagers or cell phones
 - Discharge manifolds are acceptable
 - Provide redundant air release valves and discharge force mains
 - Provide multiple fuel tanks with 24 hours of fuel supply
 - Provide containment under each pump and manifold
 - Protect discharge piping from vandalism and vehicular damage
 - Butt-fused HDPE (Minimum thickness SDR11, 160 psi) is the required material for the discharge piping
- The Contractor shall be responsible for insuring that there is no unauthorized discharge or spill of raw sewage as a result of the flow management operation. In the event of a sewage spill the Contractor shall:
 - Notify the PCRWRD Field Operations Division (520-724-3400)
- Be responsible for the prompt cleanup and disinfecting of the spill using an on-site disinfectant meeting EPA and PCRWRD specifications for SSO mitigation to the satisfaction of the PCRWRD Operations Manager.
- 711.13 In cases where the Contractor is not in compliance with mitigation efforts, any assistance provided by PCRWRD will be billed to the Contractor. The Contractor shall compensate PCRWRD for the cost of any fines levied as a result of a spill or unauthorized discharge.
- 711.14 For information regarding measured sewage and storm flows in the subject sewer line, the Contractor shall contact PCRWRD Metering Section at (520) 724-6180. The Contractor shall be responsible for verifying this information and then providing a sufficient number of pumps to handle the normal peak flows with additional reserve capacity to handle wet weather flows and pump malfunctions.

- The Contractor shall provide backup pumps equal in number to 50% of the number of pumps being used and of the same discharge capacity. Any fractional number of pumps shall be rounded up to the next higher whole number. Flow management pumps shall be manned 24 hours per day. No unattended operation will be permitted. The Contractor shall be responsible for the periodic inspection of the flow management pipelines and shall provide a written log documenting the time of each inspection in accordance with Section 2.6.2.b, of the PCRWRD SSDC 2016 edition.
- 711.16 "Lay-flat" hoses are not authorized. Where flow management pipelines cross existing paved residential roads, a ramp over the pipes will be constructed or other arrangements made to insure that local access is maintained to homes and businesses. A minimum of 12 inches of cover will be provided over the top of the flow management pipelines located in areas where vehicular traffic must cross over them. This cover requirement may be reduced if approved in writing by PCRWRD, after the Contractor submits an acceptable cover design. The pipelines at the crossing shall be designed for an H-20 truck loading and have a slope that will permit large tractor trailer and fire apparatus to cross over the ramp safely.

SECTION 712 - CLOSED CIRCUIT TELEVISING (CCTV) SPECIFICATIONS

- 712.1 The CCTV Contractor shall be a qualified firm experienced in televised inspection of sanitary sewers. All inspection of pipelines shall be in color format performed by NASSCO certified personnel trained in locating breaks, obstacles and service connections by closed circuit television (CCTV). A copy of the training certificates shall be submitted to the PCRWRD inspector at least two (2) working days prior to commencing work. All CCTV inspection of pipelines shall be performed while the pipeline is dry with no flows in the pipeline to provide full unobstructed view of the interior of the line during the CCTV operations. The CCTV Contractor shall perform all support activities related to the rehabilitation efforts for this project to include but not limited to:
 - Initial Inspections and Pipeline Assessment, requirement validation
 - Cleaning and Pre-Inversion Video
 - Post-Inversion Video
- 712.2 The Contractor shall provide for the uninterrupted flow of sewage around the section or sections of pipe designated for pre and post-CCTV work so that a full, unobstructed view of the pipeline and newly installed liner can be obtained. The camera shall be properly setup so that it is approximately in the center of the pipeline and that the lighting is attenuated such that it will produce an accurate image of the finished CIPP. If accumulated sediments are suspected or if so determined by the PCRWRD representative, the Contractor shall clean the sewer line in order to facilitate an accurate and reliable camera operation. If the Contractor does not have the cleaning capability, then it shall engage a qualified firm experienced in flushing of sanitary sewers to perform the work.
- 712.3 All video recordings shall be formatted to be compatible with the latest version of Granite XP in use by PCRWRD, in full color format, conform to current NASSCO-PACP standards, show the entire reach, and be of sufficient quality to clearly detect imperfections and/or defects in the installed liner. At a minimum, the CCTV equipment shall consist of a pan and tilt color camera, with an optic zoom, capable of illumination and recording features. The camera shall be a tractor capable of centering the camera in the center of the pipeline. The required software for this contract is Granite Net (Version shall be determined by PCRWRD). Granite Net requires an ESRI Arc license to be installed. PCRWRD will provide the SQL database for Granite Net to be used on any Pima County inspections. No substitutions will be allowed.
- 712.4 The Contractor shall meet with PCRWRD Conveyance personnel to validate these requirements and procedures before project start. The project superintendent, CCTV Foreman, and the CCTV operators shall be present.
- 712.5 **Initial Inspection and Assessment of Pipelines**: The interior of the pipeline(s) shall be carefully inspected to determine the location of any conditions which may prevent proper installation of the proposed liner into the pipelines. Any conditions which may prevent proper insertion of the liner shall be noted and corrected prior to

proceeding with liner installation. During inspection of the pipeline interior, the locations of any service connections shall be noted and accounted for on the log sheets.

712.6 CCTV Lengths: The following is an estimate of the total lengths of CCTV requirement for the project:

Pipe Diameter (in inches)	Total Reach Length (LF)
15"	5,123
18"	3,517
21"	278
24"	571
27"	7,998
30"	11,972
33"	12,856
36"	9,519
TOTAL LENGTH	51,834

- 712.7 **Sewer Inspection Reporting**: At the completion of the project the Contractor shall provide PCRWRD with one (1) copy of the CCTV indexed videotapes and paperwork forms for each trunk/interceptor, with a final Project Summary report with the video inspection on CD-ROMs. The report will serve as a reference book for the project and for future engineering evaluation. The report shall contain the following elements:
 - 1. Cover page identifying the subject sewer(s) in the report and the dates of CCTV work;
 - 2. Base map identifying the general location of the sewer lines in the report;
 - 3. Reference map identifying the report subsections as a part of the whole report along with the corresponding Project As Built Drawings sheets from the Project Plans;
 - 4. Labeled tabs for each subsection;
 - 5. Reference list of all reaches (using PCRWRD identifiers) in the subsection, in the order of upstream to downstream, with a comment column to document any major issues with each reach, and a column identifying the media number it resides on:
 - 6. List of all VCR/DVD/CD media numbers and a subheading of all reaches contained in each unit in recorded order;
 - 7. List of all reaches with a subheading of all digital images recorded for that reach;
 - 8. Copies of all CCTV logs acquired for that subsection, in the order of the reference list.
- 712.8 **Report Deliverable**: The report shall be compiled in a 3-ring binder format. One (1) copy of the report shall be submitted to the PCRWRD PM within three (3) weeks after completion of the report area.
- 712.9 **Final Summary Report**: The final report shall summarize the entire project, including a time-line of start and completion dates for the CCTV work detailed in each separate report. All contract issues, project difficulties, scheduling

problems, or other specific information relating to the execution of this contractshall be communicated and summarized. Receipt of the final report shall constitute completion of the project.

SECTION 713 - CURED-IN-PLACE PIPE (CIPP) INSTALLATION PROCEDURES

- 713.1 **Specification for CIPP**: This section covers the rehabilitation of pipelines and conduits by the installation of a resin-impregnated flexible tube that is inserted and inflated into the original conduit by use of a hydrostatic head or air pressure. When cured by hot water or steam, the finished CIPP pipe shall be continuous and formed to the original pipeline or conduit.
- 713.2 **ASTM References**: This specification references ASTM F1216 and/or ASTM F1743 which is made a part hereof by such reference and shall be the latest edition and revision thereof. ASTM F 1216 and/or ASTM F1743 shall govern when this specification does not address installation methods and materials. If there is a conflict between ASTM F1216 or ASTM F1743 and this special provision, this special provision shall govern.
- 713.3 **Safety**: The Contractor shall insure that all personnel are aware of the potential for pipeline collapse before commencing work and shall take appropriate safety precautions to protect both the workers and the pipeline. The Contractor shall carry out his operations in strict accordance with all applicable OSHA standards and shall be responsible for providing a safe work environment at the work site. Prior to issuing the project's Notice to Proceed the Contractor shall develop and submit a written plan covering procedures for confined space entry and styrene protection and require all personnel, including subcontractors involved with the project, to be familiar with it in strict accordance with OSHA and all local, state, and federal safety standards. These plans shall be signed in ink by an official authorized to bind the Contractor to its provisions and shall be submitted for PCRWRD FEU approval prior to physically accessing any active sanitary sewer line or related facility. The plan shall include certification of training for all personnel assigned to the project.
- 713.3.1 Confined Space Entries: Particular attention is drawn to those safety requirements involving working with confined space entries. All Contractor and subcontractor personnel shall be made aware of the fact that work for this project is to be carried out within an operating gravity sewer line(s). Any entry into the sewer line(s) or appurtenant manhole(s) may involve but not be limited to exposure to one or more of the following hazards:

	Pathogenic microorganisms
	Oxygen-deficient atmospher
	Flammable atmosphere
	Toxic atmosphere
	Temperature extremes
	Engulfment hazard
	Excessive noise
	Slick or wet surfaces
П	Falling objects

No entrance, for any reason, into the public sanitary sewage system's confined spaces shall occur without the expressed consent of PCRWRD's Conveyance Division and the utilization of the required safety provisions.

- 713.4 Safety Equipment: The Contractor shall be responsible to provide all required equipment to carry out his operations in strict accordance with all applicable OSHA standards and shall be responsible for providing a safe work environment at the work site. In addition to the confined space entry requirements the Contractor shall provide monitoring of styrene concentrations in all enclosed or partially enclosed work spaces during construction operations and maintain a monitoring log to demonstrate to PCRWRD FEU that employees are NOT exposed to concentrations of styrene which are above the OSHA limits for the time weighted average (TWA) or short term exposure levels (STEL). The monitoring log shall be made available to the PCRWRD inspector upon request.
- 713.5 **Work Site Air Quality Monitoring**: In addition to the confined space entry monitoring requirements, the Contractor shall also monitor the work site and maintain a monitoring log for styre ne migration. In accordance with Title 17, Air Quality Control, of the Pima County Code, the Contractor shall comply with air monitoring of the work site during the installation of the CIPP, to test for any offsite migration of styrene. The Contractor shall contact Pima

County to verify these requirements. The monitoring log shall be made available to the PCRWRD inspector upon request.

- 713.5.1 **Odor Mitigation**: In addition to the monitoring the Contractor shall consider using the following styrene odor mitigation techniques:
- 713.5.1.1 Hydraulic turbulence increases the rate of release of dissolved gases, release the heated cook water slowly to reduce/avoid hydraulic turbulence.
- 713.5.1.2 Lower the liquid temperature of the cook water before the release to inhibit styrene gas from escaping into the sewer atmosphere. This could be the result of either increased solubility of styrene gas or liquefaction of the styrene gas (phase change) at the lower cook water release temperature.
- 713.5.1.3 Use of blowers (fans) mounted over downstream manholes to pull out contaminated sewer atmosphere and release at street grade level. This will prevent the contaminated sewer atmosphere from finding an unprotected HCS line and migrating into a residence or business. A dry p-trap would cause an unprotected HCS line.
 - 713.5.1.4 Addition of food flavoring to the resin or any PCRWRD approved masking agent.
- 713.6 **Existing Pipe Condition**: The sewer to be rehabilitated under this project is in a fully deteriorated condition. The Contractor shall insure that all personnel are aware of the potential for collapse before commencing work and shall take appropriate safety precautions to protect both the workers and the pipe. All inspection and obstruction removals/corrections of pipelines shall be performed while the pipeline is dry with no flows in the pipeline. The Contractor shall follow all FMP requirements as per Section 712, of these Special Provisions and the latest PCRWRD Standards.
- 713.7 **Inspection and assessment of Pipelines**: All inspection of pipelines shall be performed by NASSCO certified personnel trained in locating breaks, obstacles and service connections by closed circuit television (CCTV) in accordance with Section 712, of these Special Provisions and the latest PCRWRD Standards.
- 713.8 Line Obstructions: It shall be the responsibility of the Contractor to clear the line of all obstructions such as solids, offset joints, protruding service connections, protruding mortar at joints or service connections, protruding reinforcement steel bars, or collapsed pipe that will prevent the insertion of the liner. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, then, upon receipt of written approval and direction from the PCRWRD PM, the Contractor shall make a point repair excavation to uncover and remove or repair the obstruction. Payment for point repairs shall be in accordance with Section 109, Extra and Force Account Work, of the PAG Standard Specifications for Public Improvements.
- 713.9 Cleaning of Sewer Line: It shall be the responsibility of the Contractor to remove all internal debris, roots, and other material from the sewer line as a result of the removal of all obstructions found during the initial inspection. The Contractor is responsible for determining the appropriate method of cleaning based on the condition of the existing pipe. The cleaning shall be performed accompanied by the CCTV camera to insure a clean line. The pre-insertion videos and log sheets shall be submitted to PCRWRD FEU for review prior to receiving a notice-to-proceed (NTP) from PCRWRD for the particular insertion work.
- 713.9.1 **Pipes with T-Lock Lining**: For pipes with diameters of between 30-42", the Contractor shall remove minimum 5' of the T-Lock liner at each end. This is to assist in the mechanical lock of the CIPP liner to the host pipe.
- 713.10 **Monitoring Temperatures and Curing**: Temperature sensors shall be placed at the upstream and downstream ends of the reach being lined to monitor the pressurized fluid's (air or water) temperature during the curing process.
- 713.10.1 To monitor the temperatures inside the liner walls and to verify proper curing, temperature sensors shall be placed between the host pipe and the liner in the bottom of the host pipe (invert) throughout the reach to record

the heating and cooling that takes place on the outside of the liner during processing. The sensors shall be spaced apart at intervals no greater than 20-feet for pipe sizes up to 15-inches in diameter, and no greater than 10-feet for pipe sizes 18-inches and larger. Additionally, sensors shall be strategically placed at points where a significant heat sink is likely to be anticipated. The monitoring of these sensors shall be by a small computer which can record the temperatures at this interface throughout the processing of the CIPP utilizing a tamper-proof database. The proposed temperature sensor monitoring system and related software shall be as manufactured by ZIA Systems (www.ziasystems.com/) or approved equal.

- 713.10.2 Prior to installing the liner in the host pipe, the temperature monitoring system's proper functioning shall be confirmed by hooking it up to the computer and seeing that the sensors are reporting their ambient temperatures. No more than two sensors in sequence can be found faulty during this test. If three or more sensors in sequence are discovered faulty, a new sensor array shall be pulled into the host pipe replacing the previously installed array; and the new array shall be again tested for its proper functioning. The sensor monitoring system function confirmation report shall be made available to the PCRWRD inspector upon request.
- 713.10.3 Curing of the resin system shall be as per the directions of the CIPP System Manufacturer of the CIPP product. The temperatures achieved and the duration of holding the liner at those temperatures shall be per the System Manufacturer's established procedures. If any sensor or sensors along the reach indicates that there is a localized issue with respect to achieving proper curing per the written installation procedure, the Installer shall address the issue immediately using previously established protocols for such an event. The sensor array's database required in the above paragraph shall have an output report that identifies each sensor by its station in the reach and shows the maximum temperature achieved during the processing of the CIPP and the time sustained at or above the Manufacturer's required curing temperature at each sensor. The Contractor shall provide remote access to the temperature Monitoring system for PCRWRD inspector immediate feedback on site at all times during the curing process.
- 713.10.4 **Pipes with T-Lock Lining**: In sections where the host pipe has T-Lock liner, the contractor shall allow the water curing temperature to drop to 90°F before releasing the water, to aid with the anchoring/locking of the CIPP liner to the host pipe and decrease the possibility of shrinkage of the installed CIPP liner.
- 713.11 **Wet out Logs:** The Contractor shall make available to the PCRWRD Inspector the wet out logs (either from the plant, over the hole, or on site facilities) for all inversions during this project. At a minimum, logs shall include:

 □ Project Name and Number,
 - □ Date of wet out, dry liner thickness, dry liner length and length after wet out,
 □ Length of time for the preparation, mixing, and filling time, including the total time of
 - ☐ Length of time for the preparation, mixing, and filling time, including the total time from preparation to storage of the wet out liner,
 - The diameter of the liner, total weight in pounds of the mixture, and the total weights of the materials used to make the resin and how many ponds per If were injected.
 - ☐ Liner inversion number, resin batch number used for the impregnation,
 - ☐ The reaches included in the inversion with the appropriate MH numbers and the size of the pipelines being rehabilitated.

The wet out logs shall be made available to the PCRWRD inspector upon request.

- 713.12 **Tube Installation**: The tube material shall meet the requirements of ASTM F1216, Section 5. The tube shall be sized for the final position in the pipe and shall be fabricated to a size that when installed will form to the internal circumference and length of the original pipe with no noticeable bulges or folds present. Allowance should be made for variations in internal pipe diameters and circumferential stretching during inflation. Stretching and cut of liner shall be within the range of the manufacturer's recommended tolerances. Should inserted liners at the beginning of the project indicate excessive bulges or folds, PCRWRD shall be permitted to request changes in the Contractors tube fabrication to eliminate said defects.
- 713.12 **CIPP Sample Collection**: The Contractor shall prepare a minimum of 1 sample of the CIPP from each insertion of CIPP that is undertaken. The samples shall be restrained samples for diameters of CIPP less than 18"; and flat plate samples for diameters of CIPP 18" and larger. All CIPP samples shall be properly marked with the date of inversion or insertion and the inversion or insertion number, once the sample is removed from the source. The PCRWRD inspector must be present during all sample taking. Sample testing shall be compliance with ASTM

- F 1216, Section 8, as applicable. The samples shall be tested for thickness and initial physical properties as per Section 715.9 of these Special Provisions. A certified copy of these test results shall be delivered within ten (10) days of the inversion to the PCRWRD Inspector.
- 713.12.1 For small line (<18") projects, restrained samples shall be produced by lining through a short piece of pipe of the same diameter of the existing sewer. The form must be maintained in a reasonably horizontal orientation with a proper heat sink (i.e. sandbags). Each sample shall be cut in half and each half shall be signed and dated by both the Contractor and PCRWRD Inspector. The Contractor shall retain one signed sample and provide the other signed sample to the PCRWRD inspector. The Contractor shall submit their samples to a laboratory for testing. The sample shall be taken preferably from an intermediate manhole or the receiving manhole.
- 713.12.2 For large line (≥ 18") projects, the length of the form shall be a minimum of two times and preferably three times the sample length required by the testing lab. The flat plate samples shall be taken directly from the wet out tube, clamped between flat plates, and cured in the down tube. Each sample shall be cut in half and each half shall be signed and dated by both the Contractor and PCRWRD Inspector. The Contractor shall submit their samples to a PCRWRD pre-approved laboratory for testing.
- Project Specific: Reinstatement of House Connection Sewers: After the curing of the CIPP is complete and inspected, existing house connection sewers shall be re-opened without excavation, utilizing a remotely controlled cutting device, monitored by CCTV. The cut liner shall have no jagged edges and shall be trimmed smooth. Project Specific The contractor shall provide a "top hat" seal, recommended by the lining manufacturer, at each house connection sewer so that no leakage of fluids may infiltrate between the liner and the existing sewer pipe surface. The Contractor shall have a minimum of two (2) complete functional cutters plus key spare components on the jobsite before each installation or in the immediate area of the jobsite that can be quickly obtained. Existing capped house connection sewers shall not be re-opened. Unless directed by the Engineer or his authorized representative, all existing house connection sewers shall be reinstated. No additional payment shall be made for excavations for the purpose of re-opening existing house connection sewers unless prior approval is obtained from the Engineer. The Contractor shall be responsible for all costs and liability associated with any excavation and house connection restoration work not approved by the Engineer.
- 713.14 Project Specific Demonstration Section(s): Prior to embarking on the entire CIPP project the Contractor shall install CIPP in at least one sewer reach test section determined by the PCRWRD PM to demonstrate the Contractor's understanding of PCRWRD's acceptable criteria. This demonstration section work shall include cleaning, pre-installation CCTV, liner installation, post CCTV, and submittal of a Post-Installation video recording and a sample of the completed CIPP test section. Upon acceptance of the demonstration section(s) by the PCRWRD PM, the Contractor may proceed with the project.
- 713.15 **Post-Installation Inspection**: In addition to physically sampling the finished CIPP and upon completion of each CIPP sewer reach, the Contractor shall conduct a post-installation CCTV quality control assessment of the completed work in accordance with Section 712 of these Special Provisions. The CCTV inspection should be used to confirm tightness of the fit of the CIPP to the host pipe and to identify any imperfections or conditions in the new CIPP. The flow shall be bypassed during the post-TV work so that a full, unobstructed view of the newly installed liner can be obtained. The camera shall be properly setup so that it is approximately in the center of the pipeline and that the lighting is attenuated such that it will produce an accurate image of the finished CIPP. PCRWRD may require a FEU Inspector present during the post-CCTV recording. The finished liner shall be continuous over its entire length and be free from visual defects such as foreign inclusions, dry spots, holes, wrinkles, seam separation, discoloration, and delamination. All observed conditions shall be logged using the same standardized coding system (NASSCO) as was used for the pre-TV survey. A copy of the Post-Inversion CCTV survey, including the coding log, shall be delivered to the PCRWRD Inspector.
- 713.15.1 Once the liner insertion and curing process is completed for a sewer reach deemed acceptable by the Contractor, the Contractor shall present the PCRWRD inspector, within two (2) working days of liner completion, the CCTV video recordings of all acceptable CIPP installation and suitable logs for evaluation.
- 713.15.2 If after the liner insertion and curing process is completed for a sewer reach, the reach is deemed unacceptable by the Contractor, the Contractor, within five (5) working days of liner completion, shall submit a

written statement to PCRWRD of a list of defects within the sewer reach and proposed corrective measures of the defects for PCRWRD review/acceptance.

- 713.16 Any defects which will affect the integrity or strength of the CIPP or adversely affect the hydraulic capacity of the CIPP shall be repaired or replaced at no cost to PCRWRD. These defects shall be repaired or liner replaced, at the discretion of PCRWRD PM, per liner manufacturer's recommendations by the Contractor at no cost to PCRWRD.
- 713.16.1 **Finish**: The finished CIPP shall be continuous over the entire length of an insertion run and be as free as commercially practicable from visual defects such as foreign inclusions, dry spots, pinholes, wrinkles, seam separation, discoloration, and delamination. During the warranty period any defects which will affect the integrity or strength of the CIPP shall be repaired at the Contractor's expense, in a manner mutually agreed by PCRWRD and the Contractor. Methods of repair shall be proposed by the Contractor and submitted to PCRWRD PM for review and approval before proceeding with the repairs.
- 713.16.2 **Wrinkles**: Wrinkles in the finished project which cause a backwater of one (1) inch or more or reduce the hydraulic capacity of the pipe between the 4:00 and 8:00 O'Clock pipe positions and wrinkles which exceed five per cent of the pipe diameter are unacceptable and shall be removed or repaired by the Contractor at no additional cost to PCRWRD. Wrinkles in the finished liner that reduce the structural stability of the existing sewer pipe are unacceptable. If a void is discovered between the liner and the existing pipe in the location of the wrinkle, the Contractor shall repair or replace that section of liner at no additional cost to Pima County. Methods of repair shall be proposed by the Contractor and submitted to PCRWRD PM for review and approval before proceeding with the repairs.
- 713.16.3 **Separations of the seams**: Separations of the seams in the finished liner are unacceptable and shall be removed or repaired by the Contractor at no additional cost to PCRWRD. Methods of repair shall be proposed by the Contractor and submitted to PCRWRD PM for review and approval before proceeding with the repairs.
- 713.16.4 Sealing CIPP at Manholes: The CIPP shall make a tight fitting seal with the existing pipe(s) in the manhole.
- All reaches shall include hydrophilic end seals, as well as epoxyanchor/end seals for tail, inversion, and line-thru manholes.
- 713.16.4.2 If due to broken or misaligned pipe at the manhole wall, CIPP fails to make a tight seal at any point, the Contractor shall apply a seal at that point. The seal shall be of a resin mixture compatible with the CIPP. The top half of the pipe shall be neatly cut off and not broken or sheared off, a maximum of four (4) inches and a minimum of two (2) inches from the walls, to allow for the liner to lock at the manhole opening and limit possible shrinkage of the liner. Cutting the liner flush with the face of the manhole walls shall not be allowed to prevent/limit liner shrinkage. The Contractor shall leave a maximum of two (2) inches of CIPP extending from the edge of the channel on both sides. The finished channel in the manhole shall be a smooth continuation of the pipe(s) and shall be merged with other lines or channels, if any to provide easy flow transition. Channel cross-section shall be U-shaped with a minimum height of half pipe diameter to three-fourths of the pipe diameter for fifteen (15) inches and larger. The side of the channels shall be built up with mortar/concrete to provide benches at a maximum of 1 in 12 pitch towards the channel.
- 713.17 Clean-Up: Clean-Up-Upon acceptance of the installation work and testing, the Contractor shall clean and restore the project area to a condition at least equal to the original condition, as directed by the Engineer.
- 713.18 The initial acceptance of the completed CIPP is the responsibility of the Contractor and not PCRWRD. A final post installation CCTV video of the entire sewer reach (manhole to manhole or manhole to cleanout) shall be submitted to the PCRWRD PM after all defects are repaired to the satisfaction of PCRWRD. Acceptance of this final CCTV video recording is at the discretion of the PCRWRD CCTV Section and conduction of additional CCTV inspections due to the initial inspections not being in compliance with PCRWRD standards, shall be conducted by the Contractor at no cost to PCRWRD. PCRWRD reserves the right to CCTV any liner installation with Department personnel or representative.

- 713.19 **Emergency Action Plan**: The Contractor shall present to the PCRWRD PM a proposed Emergency Action Plan with corrective measures to be utilized should an inserted tube fail to extend through the entire pipe reach being rehabilitated. The proposed emergency action plan shall include details of any specialized equipment, materials, personnel and regulatory reporting and compliance requirements which may be required should one or more of the following situations occur:
- 713.19.1 Failure, blowout or collapse of inserted tube during the curing process.
- 713.19.2 Boiler or heater mechanical failure during the curing process.
- 713.19.3 Aborting, removing, handling and proper disposal of resin impregnated tube after insertion into carrier pipe but prior to curing.
- 713.19.4 Mechanical failure of sewage flow management equipment prior to a rehabilitated pipe reach being placed back into service.
- 713.19.5 Finding of incorrect measurement(s) or fabrication error(s) after tube has been inserted into pipe.
- 713.19.6 Emergency action spill plan for wastewater spill.

Submission and approval of the aforementioned emergency action plan by the Contractor shall not relieve him of his responsibilities to take action for any other emergency, not specifically stated herein, which may arise during the course of the work.

SECTION 714 - CIPP MATERIALS

- 714.1 **Suitability of Material**: Proposed materials shall be suitable for use in the environment and conditions of the project.
- 714.1.1 Tube: The tube shall consist of one or more layers of a flexible needled felt or an equivalent nonwoven or woven material (such as fiberglass), or a combination of nonwoven and woven materials, capable of carrying the prescribed quantity of resin, withstanding the required installation pressures and curing process temperatures or an approved liner from the PCRWRD Approved Product list. The tube's materials of construction should be compatible with the resin system to be used on this project. The material should be able to stretch to fit irregular pipe sections, negotiate minor bends, and dimple at any service or branch connections.
- 714.1.1.1 The tube shall contain no intermediate or encapsulated impervious elastomeric layers that would prevent the resin from migrating and filling the annular spaces between the host pipe and the cured liner. No materials shall be included in the tube that is subject to delamination in the cured CIPP.
- Resin: The resin system shall meet the requirements of ASTM F1216, section 5.2 except as modified herein. In addition, the resin shall be high-grade corrosion resistant specifically designed for the CIPP being installed. The wall color of the interior pipe surface of the CIPP after installation shall not be of a dark or non-reflective nature that could inhibit proper closed circuit television inspection. No fillers shall be added to the resin without the specific approval of PCRWRD.
- 714.1.3 Caulking/Seal: The caulking/seal shall be of a resin mixture compatible with the CIPP and in accordance with the CIPP manufacturer's recommendations.
- 714.2 Color of Liner Material: The liner material shall not be made of a dark or non-reflective material that would inhibit proper CCTV inspection.
- 714.3 **Manufacture**: The tube should be fabricated to a size that, when installed, will tightly fit the internal circumference and the length of the original pipeline or conduit. Allowances should be made in its manufacture for the longitudinal and circumferential stretching that occurs during the placement of the tube.

- 714.3.1.1. The tube shall be uniform in thickness and, when subjected to the installation pressures, will meet or exceed the designed finish wall thickness throughout its length.
- 714.3.1.2. Any plastic film applied to the tube on what will become the interior wall of the finished CIPP shall be compatible with the resin system used, translucent enough that the resin saturation is clearly visible, and shall be firmly bonded to the felt material. (Tubes with removable calibration tubes such as those used in UV light-cured CIPP do not have to meet this bonding requirement.)
- 714.3.1.3. The tube shall be marked for distance at regular intervals along its entire length, not to exceed 5 feet. Such markings shall also include the CIPP System Manufacturer's name or identifying symbol (brand), the tube number, and pipe diameter.
- Approved Manufacturers: See PCRWRD Approved Product list Section F. These are the only approved manufacturers of CIPP liner pipe. No substitution is permitted. Rehabilitation of the existing pipelines shall be by insertion with CIPP. The CIPP system used must have a minimum proven performance record of 250,000 LF of successful CIPP installation in the United States.
- Contractor: The licensed lining Contractor must have successfully installed a minimum of 50,000 feet of CIPP liner in sewers with nominal diameters of 8 inches and larger. In addition, the Contractor must have successfully installed an individual length of CIPP in excess of the longest length between manholes in this project. This qualifying experience must have been completed in the United States and within the past 5 years. The Contractor Experience Form and the Superintendent Experience Form are required to be submitted at the same time with the Contractor's Bid Schedule.

SECTION 715 - STRUCTURAL REQUIREMENTS

- 715.1 **Design Criteria**: All liner pipe used to line the existing sewer shall be designed to have a minimum service life of 50 years and to withstand the total vertical and lateral loads, including, but not limited to, soil load, live loads and hydrostatic loads. Design shall be based on the assumption that the existing carrier pipe provides no structural support to the liner pipe, except for transmitting loads. No design shall rely on bonding to the existing carrier pipe wall. The following design criteria shall be utilized to develop suitable structural and corrosion resistant design for the pipe:
- 715.1.1 **Dead Loads**: Design is to be based on the actual depth of soil cover above the top of the pipe. The Contractor shall use the manhole depths and pipe diameters (listed on the plan set) to approximately calculate the actual depth of soil cover near the manholes. Assume a soil weight of 120 pounds per cubic foot and a modulus of soil reaction (E's) of 1,000 psi. The assumed minimum depth of cleanouts and terminal man holes is four (4) feet. If As Built drawings exist and show soil borings for the project area, include as attachment for design calculations.
- 715.1.2 Live Loads: Are based on HS20-44 (A.A.S.H.T.O Latest Edition).
- 715.1.3 **Corrosion**: Corrosion-All liner pipe, joints, and fittings to be furnished shall be suitable for continuous service in sewage environments with 10% sulfuric acid at an average wastewater temperature of 84 degrees Fahrenheit.
- 715.1.4 **Buckling**: Pipe design shall incorporate a safety factor of 2.0 for external loads in accordance with ASTM F 1216 Appendix XI.
- 715.1.5 **Hydrostatic Pressure**: Water table shall be construed as being two (2.0) feet below finished grade extending over the entire project length. Because the depth of soil cover varies over the entire project length, the calculated hydrostatic pressure will vary over the entire project length. After calculating the approximate depth of soil cover near each manhole, the Contractor shall subtract two (2.0) feet to get the resulting assumed water table elevation near each manhole.

- 715.1.6 **Ovality**: Percentage ovality of original pipe equals 5%.
- 715.1.7 Long-Term Modulus of Elasticity: Assume this value to be 50% of the initial modulus of elasticity.
- 715.1.8 Flexural Strength: Minimum value of 4,500 psi.
- 715.1.9 CIPP Liner Thickness: The minimum CIPP liner thickness for use on this project, measured in all cases with the plastic coating or pre-liner tube excluded, shall be the Minimum Liner Thickness as per PCRWRD approved design.
- 715.1.10 Existing sewer pipe is assumed to be fully deteriorated.
- 715.2 **Submittals:** Before commencing any work, the Contractor shall submit the following:
- 715.2.1 **Material Certifications**: Certifications of the materials including the cell classifications, grades, types of resins, glass fibers, and all other materials used in the manufacture of the liner pipe.
- 715.2.2 **CIPP Design Calculations**: Complete calculations including list of parameters, all formulas and all other data which are necessary for the design of the liner pipe. Calculations submitted shall use a design temperature of 73.4 (+/- 3.6) degrees Fahrenheit and shall include, but not be limited to: soil loads, live loads, hydrostatic loads, pipe stiffness (PS), Dimension Ratio (DR), flexural modulus, initial and long term (50 years) values of pipe deflection after installation, pipe bending strain, hydrostatic collapse resistance, constrained buckling strength, ovality reduction factor, and allowable installation length. Drawings showing the cross sectional profile of the liner pipe wall and pipe joint details shall also be submitted.
- 715.2.4 **Manufacturer's Specifications**: Relevant information from the resin manufacturer shall include specifications, characteristics, properties, and methods of application. A written certification that the resin material complies with the required application, along with curing temperature, and duration of the temperature depending upon the sewer size and CIPP Liner thickness as determined for the project shall be submitted. A blanket letter shall not be sufficient in case of varying CIPP Liner thickness and lengths. This information shall be used during field inspection to verify that proper curing procedures are being followed.
- 715.2.4 **Temperature/Time Logs Forms**: The Contractor shall submit the format of the curing Temperature/Time Log sheets for review and approval. At a minimum the log shall contain the inversion number, the manhole numbers of the reach(es) included in the inversion, design liner thickness, resin and liner been used, and the date of the inversion. Information on the temperature range and cure times recommended by the resin manufacturer shall also be submitted for each run of CIPP installed.
- 715.2.5 **Previous CIPP Field Samples**: To verify past performance, the manufacturer shall submit a minimum of 5 test results from previous field installations of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the CIPP physical properties as specified in Section 715 of these Special Provisions have been achieved in previous field applications. New resin systems can be used by obtaining prior approval from PCRWRD and arranging to have testing done in an independent testing lab utilizing the proposed resin system and tube materials to confirm that these same physical properties can be obtained. In this case of a new resin system, only one test value shall be required. The previous field samples or the new resin system samples (as the case may be) shall be provided to PCRWRD as shop drawing type submittals. Test Reports: Submit certified copies of test reports on physical and chemical properties of the resin and
- 713.2.5 Test Reports: Submit certified copies of test reports on physical and chemical properties of the resin and flexible tube.
- 715.3 Testing Requirements: All CIPP samples shall be collected in accordance with Section 713.12 of these Special Provisions for each inversion or insertion marked with the date of inversion or insertion, and properly marked with the inversion or insertion number, once the sample is removed from the source. The PCRWRD inspector must be present during all sample taking. The Contractor can use the following pre-approved laboratories for CIPP sample testing:

Microbac 4750 Nautilus Court South Boulder, Colorado 80301 Tel: (303) 581-0079

Fax: (303) 581-0195

Ramtech Laboratories 14104 Orange Avenue Paramount, California 90723 Tel: (562) 633-4824

Fax: (562) 633-4128

HTS Pipe Consultants 420 Pickering Houston, TX 77091 Tel: (713) 692-8373

715.3.1 **Thickness**: It is the responsibility of the Contractor to demonstrate to the PCRWRD PM that the CIPP liner wall thickness measured from the flat plate sample, is not less than the minimum thickness as per PCRWRD approved design. If necessary, the Contractor shall do an additional liner insertion, approved by Pima County, to meet the minimum liner thickness specification requirement or else pay a penalty based on the amount of liner thickness deficit. The monetary penalty option will only be allowed at PCRWRD's discretion and then only after it has been demonstrated that the installed liner can handle the structural loads imposed upon it.

- 715.3.1.1 The monetary penalty for liner thickness deficit shall be calculated as follows:

 Penalty per l.f. = (Amount of liner thickness deficit in mm/minimum liner thickness specified in mm) x (l.f. bid price of installed liner)
- 715.3.2 **Chemical Resistance**: The CIPP shall meet the chemical resistance requirements of ASTM F1216, Appendix X2. CIPP samples for testing shall be of tube and resin system similar to that proposed for actual construction. It is required that CIPP samples with and without plastic coating meet these chemical testing requirements.
- 715.3.3 **Physical Properties**: A minimum of one (1) sample of the CIPP from each insertion shall be tested for flexural strength and the flexural tangent Modulus of Elasticity in accordance with the latest version of ASTM D790, Procedure A. These tests shall be done utilizing the full thickness of the CIPP and with the plastic coating or preliner tube removed. If the tests cannot be run on the full thickness of the CIPP in one test, then the testing laboratory shall coordinate with PCRWRD to determine what should be done.
- 715.3.3.1 If the minimum Modulus of Elasticity is not met, then the following penalties will apply at the option of PCRWRD:

Modulus of Elasticity DeviationPenalty1 to 9,999 psi\$10/linear foot reduction in payment10,000 to 24,999 psi\$20/linear foot reduction in payment25,000 to 49,999 psi\$30/linear foot reduction in payment50,000 to 74,999 psi\$40/linear foot reduction in payment75,000 psi and greaterAdd additional liner thickness to meet the required thickness of liner calculated using the lower modulus of elasticity.

715.3.3.2 If the minimum flexural strength is not met, then the following penalties will apply at the option of PCRWRD:

Flexural Strength Deviation Penalty

1 to 199 psi	\$10/linear foot reduction in payment
200 to 399 psi	\$20/linear foot reduction in payment
400 to 599 psi	\$30/linear foot reduction in payment
600 psi and greater	Insert new liner that meets the minimum flexural strength requirements.

If an additional liner is installed over an existing liner, the Contractor must utilize a procedure whereby the additional liner will adhere to the existing liner in a manner acceptable to PCRWRD. Methods of repair shall be proposed by the Contractor and submitted to PCRWRD PM for review and approval before proceeding with the repairs.

SECTION 716 - REHABILITATION OF EXISTING MANHOLES-(section not used)

SECTION 717 - PAVEMENT REMOVAL AND REPLACEMENT-(section not used)

SECTION 718 - MISCELLANEOUS OTHER WORK

Miscellaneous other work shall consist of the removal and the replacement of existing improvements that will be encountered within the area of the construction of the project and items of work which are necessary for the completion of the project work and necessary to protect, maintain, serve, and restore the property of the owner to its original and intended use and for other items of work which are not included in any of the bid items of the contract work. This work shall be considered incidental to the Contract work and no measurement or payment shall be made unless expressly approved PCRWRD, in which case it shall be paid for as a FORCE ACCOUNT item.

SECTION 719 - MEASUREMENT AND PAYMENT

- 719.1 General: The method of measurement and payment for the various items comprising the completed work follows. Payment for the items shall be compensation in full for the furnishing of all overhead, material, labor, tools, equipment, and using or installing appurtenances necessary to complete all the work in a good, neat, and satisfactory manner as shown on the plans or as specified. Each item, fixture, piece of equipment, etc. shall be complete with all necessary connections and appurtenances for satisfactory use or operation. No additional payment will be made for work on appurtenances related to each item unless particularly noted or specified. Measurement shall be made of the completed work in place with no allowance for waste. All work not particularly noted or specified to be included in a bid item is considered appurtenant to the appropriate bid item, and no additional payment shall be made.
- 719.2 The Contractor will receive and shall accept compensation provided for in the Contract as full payment for furnishing all material and for performing all work under the Contract in a complete and acceptable manner, and for all risk, loss, damage or expense of whatever nature arising from this Contract or prosecution of this work.
- 719.3 The *successful* Contractor shall prepare a Schedule of Values for this project and submit it after notification of recommendation for award of contract. The Schedule of Values is an itemized list that has a format similar to the contract Bid Proposal except that additional cost subdivisions are required for lump sum and other items that represent a combination of subordinate components. The purpose of the Schedule of Values is simply to provide Pima County with more detailed information regarding the component cost makeup of lump sum bid items and other combined items in the bid.
- 719.3.1 <u>Bid Item No.1: Mobilization:</u> Mobilization will be measured for payment by the lump sum as a single complete unit of work. The basis for payment shall be in accordance to Section 901, Mobilization, of the PAG Standard Specifications for Public Improvements, updated November 2015.
- 719.3.2 <u>Bid Item No. 2: Fumish, Operate and Maintain Sewage Flow Management Systems/Equipment:</u> Measurement on this item shall be by LUMP SUM for preparing each required FMP acceptable to PCRWRD and furnishing, operating, and maintaining sewage flow management systems/equipment necessary to accomplish the sewer rehabilitation work. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to provide the sewage flow management systems/equipment in accordance with the Plans and Special Provisions.
- 719.3.3 <u>Bid Items Nos. 3 10: Furnish and Install CIPP Liner in Existing 15", 18", 21", 24", 27", 30", 33", and 36" Gravity Sewer Pipe:</u> The pipe will be measured for payment along the center line of the pipe from the center of manhole to center of manhole. The respective unit prices specified to be paid, per LINEAR FOOT, of rehabilitated

pipe, shall be compensation in full for furnishing all liner, and other materials required for rehabilitating pipe lines by trenchless technology; for laying, setting, and jointing of all pipes and fittings; for rehabilitating man holes; for all testing, including leakage tests; de-watering by any and all methods; any excavation, backfill and re-compaction, pavement removal and replacement required to rehabilitate existing sewer main (i.e. for point repairs); all cleaning up; all labor, tools, and construction equipment; and for all other work and incidental expenses, and for reconnecting service connections and laterals if any. Payment includes all costs obtaining necessary permits, water required for liner installation and curing, all costs for root removal and cleaning before, CCTV before and after of lines to be rehabilitated, temporary and all costs for providing traffic control. Any new manholes needed to accomplish the rehabilitation of the sewer pipe other than those shown in the bid proposal shall be included in this bid item. These additional manholes shall be coated in accordance with Section 716 of these Special Provisions. When the Contractor requests payment from PCRWRD for constructing a portion of the CIPP pipe, he is required to submit (with the invoice) redlines of project plans and specifications which show the as-built information for the completed CIPP pipe.

- 719.3.4 <u>Bid Item No. 11: Reinstatement of House Connection Sewer:</u> Measurement for this item shall be for EACH reinstatement of existing house connection sewer. Payment shall be compensation in full for furnishing all materials, labor and equipment necessary to re-open and seal each house connection sewer in accordance with the Plans and Specifications.
- 719.3.5 <u>Bid Item No. 12: Manhole Rehabilitation:</u> The manhole will be measured for payment from pipe invert to manhole cover. The respective unit prices specified to be paid per VERTICAL LINEAR FOOT (VLF) of rehabilitated manholes shall be compensation in full for furnishing all materials, labor and equipment necessary to provide all required cleaning, including sand blasting and wet abrasive blasting, all flushing, all applications of hydraulic cements and coatings, all caulking, carbon fiber, epoxy coatings, and all testing of the finished coatings on all parts of the manhole in accordance with the Plans and Specifications.
- 719.3.6 <u>Bid Item No. 13: Force Account:</u> Measurement and payment for miscellaneous labor, construction, materials, and equipment required for work which is outside of the scope of the contract as bid shall be done as outlined in Section 109-5 EXTRA AND FORCE ACCOUNT WORK of the PAG Standard Specifications for Public Improvements, updated November 2015. Work under this item must be authorized by the Engineer or his designated representative prior to the commencement of the work. This item will only be used as needed; all the monies for this item may not be spent during the course of construction on this project.

SECTION 720 - PERMITS AND SUBMITTALS

- 720.1 The Contractor is required to obtain all necessary permits before starting project construction, including but not limited to: PCRWRD Project Construction Permit, PCDOT Right-Of-Way Permit, Arizona Department of Water Resources DWR Permit to Withdraw Groundwater Form 518 (temporary de-watering), PDEQ Air Quality Permit, and Tucson Water Construction Water Permit, a PC Floodplain Use Permit, OR A PC Floodplain Use Permit is not required, however, the Contractor is to notify the Pima County Flood Control District prior to construction so that they may observe the construction.
- 720.2 There will be no direct payment to the Contractor for time and expenses related to obtaining the necessary permits. Payment for obtaining these permits is understood to be included in the total contract price awarded to the Contractor.
- 720.3 Formal submittals of the work are considered to be milestones. The periods of time at which these submittals are due are in calendar days and are firm to the extent that the due date will be extended to the next PCRWRD business day should the scheduled due date fall on a Saturday, Sunday, or Holiday. The Contractor shall conduct the work to complete the tasks in accordance with the respective approved schedules.

SUBMITTALS SCHEDULE CIPP REHABILITATION

Item		Ар	olicable
No.	Description	Yes/No	Section
WIT	'H BID		
	Contractor Experience Form		714.5
DD	Superintendent Experience Form		714.5
PRI	OR TO NOTICE TO PROCEED	·	
	Wastewater Flow Management Plan(s)		711.4
	Confined Space Entry and Styrene Protection Procedures		713.3
	Emergency Action Plan		713.19
	Contractor Certification by Manufacturer		MH Rehab
PRIOF	R TO START OF CONSTRUCTION		
	Blue Stake Ticket		704.2
	Other Utilities Plans and Coordination Records		704.5
	Right of Ways/Easement Work related Construction Permits		705.1
	Temporary Utilities		706.2
	Traffic Control Plan		708.2
	Residents' Notification Letter And Schedule		710.1
	Active Service Connections		710.3
	Notification Door Hanger		710.4
	Notification Log		710.5
	SSO Spill Response Plan		711.9
	CCTV Operators NASSCO Certificates of training	-	712.1
	Contractor's Calculations for Liner Thickness		713.7.2

	Operational Plan for Inspection & Cleaning of Sewer		714.1.05.b
	Procedure/Information on Mitigating Shrinkage & Wrinkling		712.8 & 714.1.05.d
	References from Public Wastewater Service Providers		714.1.05.e
	Certified Laboratory Test Reports physical properties for resin and flexible tube		713.7.3
	Resin Manufacturer's Information and Certification of Compliance		713.7.4
	Certifications of Compliance Materials used in CIPP		713.7.1
	Test Results from Previous Field Installations		713.8.4
	Material Safety Data (MSD) Sheets for Components of CIPP		712.1.3 & 714.1.05.j
	PCRWRD Project Construction Permit		714.1.03.j
	ADEQ Discharge Authorization Permit		718
	PCDEQ Fugitive Dust Activity Permit	 	718
	Plan for Maintaining Service connection use		712.4 & 714.1.13
PRIO	R TO CIPP INSTALLATION		
	Line Obstructions	-	713.8
	Pre-Insertion Videos and Log Sheets		713.9
	Temperature sensor system function test		713.10.2
	Wet Out Logs	· .	713.11
	OIDD MOTALLATION		
2081	CIPP INSTALLATION		
	Styrene Monitoring Logs		713.4
	Site Air Quality Monitoring CIPP Samples		713.5
	Contilled Convert CIDD Task Day III		713.12
	Certified Copy of CIPP Test Results		713.12 713.12
·	Certified Copy of CIPP Test Results Chemical resistance, & physical properties		713.12 713.12 713.8.5.3 thru
	Certified Copy of CIPP Test Results Chemical resistance, & physical properties		713.12 713.12 713.8.5.3 thru 713.8.5.5
	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets		713.12 713.12 713.8.5.3 thru 713.8.5.5 712.9
	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10
	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1.8
	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 8 713.15.2
	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1.8
PRIOF	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records R TO FINAL ACCEPTANCE OF PROJECT		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 8 713.15.2
PRIOF	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records R TO FINAL ACCEPTANCE OF PROJECT Existing Improvements Damages		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 713.15.2 713.15
PRIOF	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records TO FINAL ACCEPTANCE OF PROJECT Existing Improvements Damages Record As-Built Drawings		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 8 713.15.2 713.15
PRIOF	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records R TO FINAL ACCEPTANCE OF PROJECT Existing Improvements Damages		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 713.15.2 713.15
PRIOF	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records TO FINAL ACCEPTANCE OF PROJECT Existing Improvements Damages Record As-Built Drawings		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 8 713.15.2 713.15
PRIOF	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records TO FINAL ACCEPTANCE OF PROJECT Existing Improvements Damages Record As-Built Drawings		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 8 713.15.2 713.15 705.2 709.2 712.8/712.
PRIOF	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records TO FINAL ACCEPTANCE OF PROJECT Existing Improvements Damages Record As-Built Drawings		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 & 713.15.2 713.15 705.2 709.2 712.8/712.
PRIOF	Certified Copy of CIPP Test Results Chemical resistance, & physical properties Curing temperature/time log sheets Monitoring Temperatures and Curing Logs Post-Inspection Acceptance Statement and/or List of Defects with Corrective Plan Post Inversion CCTV Records TO FINAL ACCEPTANCE OF PROJECT Existing Improvements Damages Record As-Built Drawings		713.12 713.8.5.3 thru 713.8.5.5 712.9 713.10 713.15.1 & 713.15.2 713.15 705.2 709.2 712.8/712.

ASBESTOS CEMENT PIPE REMOVAL AND DISPOSAL

- 721.1 The Contractor is advised that the transite pipe to be removed contains as bestos. This pipe is classified as a Category II Regulated Asbestos-Containing Material. The Contractor shall apply for and obtain an Asbestos NESHAP Activity Permit from the Pima County Department of Environmental Quality. All work under this Section shall comply with Section 940 of the PAG Standard Specifications For Public Improvements. A copy of the permit shall be provided.
- Prior to commencement of work, the Contractor shall provide training certificates for all personnel and/or any Asbestos Abatement Contractor working on asbestos abatement. In addition, the Contractor shall provide the Engineer a signed statement to the fact that workers have been notified that (a) asbestos containing materials are present at the work site and (b) they are removing asbestos containing materials (as applicable to the employees).
- 721.3 Air monitoring test results shall be provided to the Engineer.
- 721.4 Disposal of transite pipe shall be at an Agency approved facility. Waste shipment records of transite pipe removed from the site complete with the receiving disposal site operator's signature and date shall be provided to the Engineer.
- 721.5 This work shall be considered incidental to the Contract and no measurement of payment shall be made.

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SUB APPENDIX "E"

Procedure for Reporting Unauthorized Discharges/Releases

During any Unauthorized Discharge or Release of Sanitary Sewer Effluent immediately call Pima County Regional Wastewater Reclamation at 520-724-3400

Identify yourself and company name, state that the discharge is from "Job Order Number and Location" Flow Management Setup, and PCRWRD Permit Number

Give clear directions as to where the discharge is located (directions from nearest cross street if no address is available).

State any pertinent details such as volume of discharge, did it enter the wash, residence address, is discharge ongoing or it has stopped, etc.

Should any RELEASE occur from any portion of the Flow Management Setup, you are to follow these procedures immediately!!

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SUB APPENDIX "F"

TECHNICAL SPECIFICATIONS FOR MANHOLE REHABILITATION AND CORROSION PROTECTIVE COATING APPLICATION

Dated December 2016 V2

A. <u>GENERAL</u>

It is the responsibility of the contractor to know and understand these specifications, to have them on site during the performance of any and all work, and to adhere to them at all times.

In this Pima County (PC) Regional Wastewater Reclamation Department (RWRD) specification, the words "coating" (or "coatings") and "lining" (or "linings") are used interchangeably. Similarly, "to coat" is used interchangeably with "to line" (or other variations of these words). In this specification, an "approved coating system" is one that has been selected by the PCRWRD Product Selection Committee (PSC) for use in the public sewer system operated by PCRWRD and is included in the PCRWRD List of Approved Products (LAP) for Public Sanitary Sewer Conveyance Facilities.

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

In this specification, "existing manholes" shall mean those manholes that are currently owned and previously accepted by RWRD. "New manholes" shall mean those manholes that are constructed as either brand new or as in-kind replacement for manholes that are not candidates for rehabilitation.

"Rehabilitating" existing manholes and "applying corrosion protective coating" to such manholes shall include, but will not be limited to, the following activities:

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

Applying "corrosion protective coating" to the new manholes installed as part of this project shall include, but will not be limited to, the following activities:

- Cleaning and preparing the manhole for one of the approved coating systems.
- · Applying one of the approved coating systems, as specified herein.
- Testing the finished underlayment and surface coating, as required herein.
- And other related activities, as noted herein.

Where required by the approved construction documents, new manholes shall be coated and/or existing manholes shall be rehabilitated and an approved corrosion protective coating applied to their interior surfaces, as specified herein. The approved coating system (as specified herein) shall be applied to all exposed brick, concrete, grout, mortar, and cementitious surfaces within the manhole, including unlined concrete pipes within the manhole, bench-to-pipe transitions, bench, risers, cones, adjusting rings, etc. Coating of the metallic manhole frame and cover shall only be required if noted on the construction documents.

For projects containing more than five (5) manholes requiring coating, an example manhole procedure

shall be followed. In such cases, prior to the start of any manhole rehabilitation or coating work, the RWRD Field Engineer will identify one manhole within the project that will be used as an example manhole. The example manhole will require rehabilitation and shall be rehabilitated by the contractor using the approved coating system, in conformance with these specifications. The manhole will be completed using the milestones listed in Section I of this specification. Upon completion and final acceptance of the example manhole by the RWRD Field Engineer, it shall be used as the standard for all project manholes.

B. <u>APPROVED CORROSION PROTECTIVE COATING SYSTEMS:</u>

The approved corrosion protective coating systems for application to existing manholes shall be as identified in the LAP. Each of the approved coating systems has an underlayment material and a surface coating material. The underlayment material (if required) and the surface coating material installed in any one manhole shall be from the same coating system and specified as compatible by the manufacturer.

Sprayable or trowelable formulations of Approved Products are acceptable. If "sprayable", the product shall be applied by an airless sprayer or spincaster. Regardless of the installation method, the final surface texture throughout the entire manhole, as judged solely by the RWRD Inspector, shall have a Concrete Surface Profile (CSP) value of 1 to 3, as defined by the International Concrete Repair Institute (ICRI). The Contractor shall not re-use or apply rebounded, spilled or over-sprayed material.

No substitutions outside the LAP are permitted without the approval of the RWRD Field Engineer. All coating systems shall be applied in conformance with these specifications.

C. <u>COATING APPLICATORS</u>:

The Contractor performing the work covered by this specification (also referred to herein as "the coating applicator") shall have a minimum of five (5) years' experience performing sewer manhole rehabilitation and corrosion protective coating work and shall have completed a minimum of five (5) such projects within the last five (5) years, one of which shall have been completed within the last 60-days using one or more of the RWRD Approved Products. The coating applicator shall document said project experience on the "Performance History" form included in this specification. The contractor shall submit the completed Performance History form to the RWRD Field Engineer for approval. The coating applicator shall report on the form any failures that occurred on any of the listed projects within five (5) years after final acceptance. The coating applicator shall also report any remedial action taken to address said failures and the final resolution. The coating applicator may attach additional sheets as necessary. An unacceptable performance history (e.g., having less than five (5) years of experience, having fewer than five (5) completed projects within the last five (5) years, and/or having failures within five (5) years after final acceptance on any of the listed projects that have not been corrected by remedial action), as determined by the RWRD Field Engineer, shall serve as the basis of rejection of the coating applicator.

The Contractor shall also submit a signed and dated certification letter from the manufacturer of the product (e.g., one of the Approved Products) that the applicator intends to install in the manhole(s). The certification letter shall state that the coating applicator has been trained and is certified and approved by the manufacturer to apply the manufacturer's coating in sewer manholes. The certification letter shall include the name of the Certified Applicator employed by the Contractor, date of training and certification expiration date. Failure to supply a valid certification letter shall result in the disqualification of the Contractor from installing said product in the RWRD system.

D. COATING SYSTEM APPLICATION:

Cleaning and Preparation Activities:

- a. Unless otherwise noted on the construction documents, for existing manholes lined with an existing PVC liner (e.g., T-lock liner), the Contractor shall remove the existing PVC liner prior to other cleaning activities at no cost to Pima County.
- b. Unless otherwise noted on the construction documents, existing or new liners on pipelines connecting to or passing through the manhole shall be left intact and in-place.
- c. Unless otherwise noted on the construction documents, for existing manholes lined or coated with a previously applied corrosion protective coating, the Contractor shall entirely remove the existing liner/coating (including any underlayment layers) prior to performing other cleaning activities at no cost to Pima County.
- d. Steps in the existing manholes shall be replaced at the discretion of the RWRD Inspector. Should the Inspector require the steps to be replaced, they shall be removed after the existing concrete has been water blasted and the final existing concrete surface profile has been exposed. The steps shall be cut flush with the concrete surface profile before re-surfacing begins. No portion of the remaining embedded steps shall protrude above the surface of the concrete. The steps shall then be replaced per PCRWRD Standard Detail RWRD 210 before final coating.
- e. Prior to application of the approved coating, all portions of the manhole to be coated shall be cleaned of all dust, loose particles, corroded or damaged materials, oils, grease, curing compounds, chemical contaminants, previously applied paints, insecticide coatings, and any other material indicated by the Inspector. The Contractor shall clean the manhole by abrasive blasting, followed by water blasting. Both abrasive blasting and water blasting shall be required. Abrasive blasting may be either wet or dry. Abrasive blasting equipment shall be rated for a minimum of 90 pounds per square inch (psi). Water blasting shall be performed with water blasting equipment capable of a minimum of 5,000 psi at 4 gallons per minute (gpm). The Contractor shall remove all sand, or other abrasive material, and all debris from the manhole with an industrial vacuum cleaner or other means approved by the RWRD Inspector.
- f. Other manhole cleaning methods may be used in addition to abrasive blasting and water blasting, as necessary to properly clean and prepare the manhole, but shall not be used as a substitute for abrasive blasting and water blasting without prior approval of the RWRD Field Engineer. Subject to RWRD Inspector approval, other methods that may be used in addition to abrasive blasting and water blasting (but not as a substitute for them) are high pressure water jetting, shot blasting, grinding, mechanical removal methods, chemical cleaning, detergent cleaning, hot water blasting and acid etching. If chemical cleaning or acid-etching are used, the substrate shall be neutralized and washed of residue.
- g. The Contractor shall be aware that manhole cleaning and preparation activities (e.g., water blasting and abrasive blasting) may cause damage to certain materials and finishes. The Contractor shall be solely responsible to protect portions of the manhole (including appurtenances and attachments) that are not designated for such cleaning and preparation activities from damage and shall be responsible to repair any damage caused by their activities at no cost to Pima County. Furthermore, the Contractor shall protect portions of the manhole on which the Contractor has previously applied the corrosion protective coating from any subsequent preparation or repair activities.

- h. Any and all products to be used for the work shall be identified in a detailed submittal provided by the Contractor to the RWRD Field Engineer for approval. Approval, in writing, from the RWRD Field Engineer must be received by the contractor prior to any products' use. Chemical use shall conform to local, state and federal laws and regulations. Safety Data Sheets (SDS) for all chemicals shall be hard-copied and available on site at all times.
- i. For new manholes, a manhole suitably prepared for coating shall have a uniform surface texture conforming to an ICRI CSP value of 2 to 3, and shall be free of laitance or other irregularities. For existing manholes, a manhole suitably prepared for coating shall have all loose, soft, discolored or otherwise deteriorated material removed from the manhole and the surface of the manhole shall have a texture at least as rough as ICRI CSP value of 4. The RWRD Inspector may use one or more of the following observations/tests to determine whether the manhole has been properly cleaned and prepared:
 - Visual appearance of the manhole The prepared substrate shall have the appearance of sound concrete (or brick and/or mortar), free from discolored, white, chalky and cracked areas.
 - 2. Aural observations When struck with a metal hammer or tool, the prepared substrate shall exhibit the characteristic sound of solid, competent concrete (or brick).
 - 3. Mechanical abrasion tests The substrate should be competent enough such that it cannot be scraped off with the claw of a hammer or similar metal tool.
 - 4. PH testing The Inspector may use wetted litmus paper applied to the surface of the substrate to ensure that the pH of the substrate is 10 or higher. Any cleaning required after the pH testing will be done at no cost to Pima County.
 - 5. Phenolphthalein testing The Inspector may apply a few drops of phenolphthalein to the surface of the concrete, whereby sound concrete should yield a purple color. Cleaning and removal of the phenolphthalein residue after testing will be done at no cost to Pima County.
- j. The RWRD Inspector may elect to use one or more of the above tests. The selection of test methods shall be at the sole discretion of the RWRD Inspector.
- k. If after cleaning, a new or existing manhole does not meet the requirements under section E.1.h, the RWRD Inspector shall have the authority to require that additional effort be made to adequately prepare the manhole. For existing manholes, the RWRD Inspector may also require removal of deteriorated concrete or other substrate materials that do not pass one or more tests as described under section E.1.h. These additional requirements shall be at no cost to Pima County.
- The Contractor shall remove loose material from the manhole. The Contractor shall take all necessary precautions to prevent debris from damaging the manhole and/or entering the sewer at no cost to RWRD. The RWRD Inspector shall approve the Contractor's precautions prior to any work being conducted.
- m. Any visible water infiltration or seepage through joints or seams in the existing manhole walls shall be eliminated at no cost to Pima County, using a material approved by the RWRD Field Engineer and compatible with the approved coating system. A letter from the underlayment material manufacturer and finish surface coating material manufacturer stating that the material used to stop the infiltration is compatible with their product shall be submitted to the RWRD Field Engineer for approval before any such material may be used.
- n. After the manhole is properly cleaned and prepared, the Contractor shall drill a hole no larger than ½-inch in diameter that penetrates a minimum of 2-inches into the concrete (or other manhole wall surface type). The Contractor shall then install a 3/8-inch diameter 316 stainless steel expansion bolt into the hole. The bolt shall penetrate a minimum of 2-inches into the manhole wall, but shall be long enough that a minimum of 1-inch length (but no more than 2-

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

- O. The time between manhole cleaning and preparation activities and application of the first coating layer shall not exceed two (2) hours without repeating the 5000 psi at 4 gpm water blasting process.
- p. The Contractor shall properly dispose of all debris resulting from the manhole cleaning and preparation activities at no cost to Pima County. Said disposal shall be in accordance with all local, state and federal laws and regulations. Debris disposal into the sewer system is entirely prohibited.

2. <u>Underlayment Material Application:</u>

The requirements of this section apply to both existing and new manholes, as dictated by project requirements to produce an acceptable coating system installation.

- a. Prior to any surface coating work, the Contractor shall fill all voids (including any irregularities left by the removal of PVC liner tees) and restore the manhole surface to an even and uniform surface profile using an underlayment approved by the coating manufacturer as compatible with the coating system being applied.
- b. The underlayment shall be installed over a clean surface prepared in accordance with the requirements of this specification. The Contractor shall employ whatever means necessary (e.g., humidity control, temperature control, additional blasting, mechanical surface preparation, etc.) to ensure proper curing of the underlayment layer, strong adherence of the underlayment layer to the prepared manhole surface, and strong adherence to any layer installed over the underlayment layer.
- c. After installation, the underlayment shall be uniform, free of trowel marks and irregularities. Irregularities shall be defined as any void, depression ripple, wave, bubble, bump or crack anywhere within the underlayment material. It is the responsibility of the Contractor to identify conditions that may require additional underlayment thickness in order to meet the requirements of this specification. The additional underlayment work will be done at no additional cost to Pima County.
- d. This paragraph shall apply to those manholes where one or more adhesion tests are required. (Refer to the section herein titled "ADHESION/BOND TESTING"). For such manholes, after the underlayment layer has cured for a minimum of 4 hours but before the surface coating has been applied over the underlayment layer, the Contractor shall test the underlayment layer for proper adhesion to the underlying substrate in accordance with the section herein titled, "ADHESION/BOND TESTING". Only if the underlayment layer in a manhole passes the adhesion test(s) in that manhole shall the Contractor progress to the next step of surface coating application. If the underlayment layer does not pass the adhesion test(s), the Contractor shall perform the remedial and retesting procedures described in the "ADHESION/BOND TESTING" section. The remedial and retesting procedures shall be performed at no additional cost to Pima County and shall be completed prior to progressing to the next step of surface coating application.

- e. The final underlayment surface shall be consistent with an ICRI CSP value of 2 to 3.
- f. If offset barrel sections are present in a manhole, the offsets shall be corrected using a fillet of approved material to create a smooth transition. The final angle of the filleted surface shall be no steeper than 1:12.

3. Surface Coating Application:

- a. Prior to applying the surface coating, the underlayment shall be cleaned by water blasting at a minimum of 5,000 psi at 4 gpm.
- b. The approved surface coating shall be mixed in a clean, dry mixing container or tank/vessel when part of a specialized application assembly.
- c. The Contractor shall ensure strong adherence of the surface coating layer(s) to the underlying substrate and proper curing of the surface coating layer(s), using methods that are approved by the coating manufacturer. If the surface coating is applied in two or more layers, the time between applications of the various layers shall be controlled, as specified by the coating manufacturer, to ensure proper bonding between layers.
- d. For all coatings, trowel marks and other surface irregularities shall be removed by using a short nap mohair paint roller. The short nap mohair shall be dampened with water. Excess water shall be shaken off prior to use. The contractor shall submit an alternate procedure, approved by the coating manufacturer, to the RWRD Field Engineer for approval prior to using a different procedure.
- e. The surface coating shall be carefully butted against and then feathered over (4-inches minimum) any PVC liners that exist on pipes passing through or connecting to the manholes to create a continuous corrosion barrier.
- f. The required total cured thickness for the surface coating layer (not including the thicknesses of any underlayment or priming layers) for all coating systems shall be 3/16-inch or (187.5 mil).
- g. Coating components that have begun to set shall not be recovered by adding additional liquid but shall be discarded.
- h. Do not allow flowing water, chemicals or other liquids on the approved, applied coating for a minimum of 4-hours after installation, or a longer period if recommended by the coating manufacturer. Any request for a deviation from the 4-hour minimum shall be made, in writing, to the RWRD Field Engineer at least 10 business days prior to the start of any activity.
- i. After installation, the final coating shall be uniform, free of trowel marks and irregularities that may interfere with the procedures and methods for the required final testing. Irregularities shall be defined as any void, depression, ripple, wave, bubble, bump or crack anywhere within the final coating material. No sag or run in the final coating that creates a void or thinning of the material or other irregularity that detracts from the even and uniform surface shall be accepted. The final surface profile shall be consistent with an ICRI CSP value of 1 to 2. Any of the aforementioned irregularities or other issues that detract from a uniform final coating and are not consistent with an ICRI CSP value of 1 to 2, shall be considered defects and shall be repaired using a manufacturer-approved method. The repairs shall be done at no cost to Pima County.

- j. All coating termination edges shall be locked in to the substrate with a termination groove "key" cut into the substrate. The "key" shall be a minimum of 1/4" wide x 1/4" deep.
- k. If offset barrel sections are present in the manhole, the offsets shall be corrected using a fillet of approved material to create a smooth transition. The final angle of the filleted surface shall be 1:12.

E. <u>ADHESION TESTING:</u>

Adhesion testing shall be performed at two different stages of the work. Adhesion of the underlayment layer to the underlying substrate shall be tested before the surface coating layer(s) are applied. Later, after the surface coating layer(s) have been applied, the adhesion of all applied layers in the coating system to one another and to the underlying substrate shall be tested. The adhesion testing shall be completed as follows:

- 1. The number of required adhesion tests shall be based on the type and number of structures included in the work. In the case of manholes (as differentiated for the purposes of this item only from other sewer structures), there shall be a minimum of one (1) underlayment adhesion test and one (1) finished coating system adhesion test for every four (4) manholes. To determine the number of adhesion tests required, take the number of manholes included in the project, divide by four, and if the result is not a whole number, then round up to the next whole number. In the case of other sewer structures (e.g., sewer diversion structures, pump station wet wells, metering stations, etc.), there shall be a minimum of two (2) underlayment adhesion tests and two (2) finished coating system adhesion tests for every such sewer structure.
- The manholes to be subjected to adhesion testing and the specific test locations within each manhole shall be selected by the RWRD Inspector. The RWRD Inspector will be present to observe all adhesion testing.
- 3. The need to repeat an adhesion test due to an error in the performance of the adhesion testing (e.g., a dolly coming off prematurely) or due to a failure in the coating system before the required full test tensile load is applied (i.e., a "not pass" test result) shall not count as an additional test for the purposes of determining compliance with the minimum number of tests required per Item No. 1, but shall rather be designated and documented as a "repeat test". Repeat tests shall be done at no cost to Pima County.
- 4. After the underlayment layer has cured for a minimum of 4 hours (unless otherwise approved by the RWRD Field Engineer) but before the surface coating has been applied over the underlayment layer, the Contractor shall test the underlayment layer for proper adhesion to the underlying substrate. The Contractor shall perform the adhesion testing in-place and in accordance with ASTM Standard C1583-04 and the requirements of this section.
- 5. After the approved coating has been applied to all specified surfaces and has adequately cured (as determined by the manufacturer, but no more than 4 days), the Contractor shall test the finished coating system for adequate adhesion between the underlying substrate and the coating system, and between the various layers of the coating system. Said test shall be performed in-place and in accordance with ASTM Standard D7234-12, with the exception of the flat surface requirement in section 7.1.1, and the requirements of this section.

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

6. The Contractor shall perform the adhesion testing discussed in this section using a DeFelsko Positest Pull-off Adhesion Tester Model AT-C or an equal approved by the RWRD Field Engineer. All required test equipment and materials shall be provided by the Contractor. The Contractor shall

supply 50 mm-diameter dollies (as sold by DeFelsko, one dolly for each adhesion test, not reusable) and the appropriate adhesive for the dollies as needed to perform all of the required tests. The Contractor shall also provide the equipment and tools to core drill around the test location in conformance with test procedure.

- 7. If delamination or any other failure occurs between or within any of the coating system layers and/or the underlying concrete substrate prior to the application of the full, sustained test tensile load of 80 psi, the test shall be classified as "not pass". However, if the dolly comes off the surface of the coating and no other delamination or failure occurs between or within any of the coating system layers and/or the underlying concrete substrate, the test will not be classified as a "failure" or "not pass", but the test shall be repeated at no additional cost to Pima County. If delamination or other failure occurs but only when the sustained, applied tensile load is in excess of 80 psi, the test shall also be judged to be a "pass". The contractors shall not stop the test or retest(s) once they exceed the 80 psi load, but shall continue the test to failure and the final break location and load recorded.
- 8. For tests that are classified as "not pass", the RWRD Inspector may require additional testing and/or remedial action. Remedial action may include removing the entire coating system, or select components, from the entire manhole, re-cleaning of the manhole, reapplication of the coating system to all required surfaces, and retesting. Said additional testing and/or remedial action shall be at no additional cost to Pima County.
- 9. After the adhesion tests have been performed, the Contractor shall mechanically grind down the test locations to the underlying substrate and re-apply the underlayment and/or coating system (whichever has been installed up to that point in the manhole) in accordance with these specifications to patch the area. Said repair work shall be at no additional cost to Pima County. The Contractor shall not use acetone, MEK or other chemicals to dissolve the underlayment or coating system as a substitute for mechanical grinding of the test area.
- 10. If it is determined by the RWRD Field Engineer that excessive failures within the coating system or its individual parts are occurring, or if the results of adhesion testing indicate other deficiencies in the coating, the RWRD Inspector may direct the contractor to perform adhesion tests in additional manholes in order to resolve such issues. In the case of testing failures, said testing and remedial action shall be at no cost to RWRD or Pima County.

F. SPARK TESTING:

Spark testing is required only on the fully-installed finished coating system.

- 1. After the approved coating has been applied to all specified surfaces, the Contractor shall spark test the coated surfaces. The Contractor shall provide, at no cost to Pima County, a third-party, NACE Certified Level 3 Coating Inspector (with active certification in good standing) to conduct the spark testing. All specialized testing equipment necessary to perform said testing shall be furnished by the third-party Coating Inspector and shall be in good condition. The Contractor shall be responsible for supplying all support services and equipment required to facilitate the third-party inspection at no additional cost to Pima County.
- 2. The third-party Coating Inspector's NACE Level 3 certification and qualifications shall be submitted to the RWRD Field Engineer for approval prior to the start of testing. For the purposes of this specification, NACE refers to the National Association of Corrosion Engineers International.

- 3. Holiday testing of coatings shall be conducted at no less than 100 Volts per mil thickness of installed coating unless pre-approved, in writing, by the RWRD Field Engineer. A request to deviate from the 100 Volts per mil minimum standard shall be submitted no less than 10 business days prior to the start any activity.
- 4. The wire brush and test electrodes shall be maintained in proper condition (i.e. no deformed bristles, bent or dirty brushes, etc.) so as to maintain constant contact with the coating surface. Should the RWRD Inspector determine that the brush being used does not conform to the criteria of this section, the brush shall be replaced at no expense to Pima County before spark testing may continue. The entire brush shall be in constant contact with the coating surface during spark testing.
- 5. All holidays, pinholes or other deficiencies identified by the third-party Coating Inspector, shall be repaired following the coating manufacturer's recommendations and shall affect the smallest surface area possible. Repair procedures shall be submitted to the RWRD Field Engineer for approval before starting any activity.
- 6. If after two repeated repair attempts are completed, the coating system fails to pass the spark test, the RWRD Inspector will notify the RWRD Field Engineer All additional costs incurred to RWRD for having RWRD personnel on site for further repairs and inspections will be at the coating applicators cost.

G. CLEAN-UP:

Any spilled or over-sprayed material shall be removed prior to curing. After curing has occurred, clean-up may be accomplished by chipping or blasting. All discarded materials, including trash, shall be disposed of properly. Clean-up and disposal of discarded material and trash left by the crew shall be at no cost to Pima County. The clean-up area includes the area around the manhole, all Contractor vehicles and equipment, and any area where work materials have been left, stored or placed.

H. MATERIALS:

Materials shall be delivered to the site in factory sealed and labeled containers. Date of manufacture shall appear on each container. Materials shall be handled and stored according to the strictest requirements of the manufacturer and in accordance with all local, state and federal laws and regulations. Improperly stored or otherwise mishandled materials may be disallowed from use for the project at the sole discretion of the RWRD Inspector. A bill of lading for any shipment of material shall be provided upon request of the RWRD Inspector.

I. MILESTONES:

At each manhole, the RWRD Inspector shall inspect the work completed to date at the conclusion of each milestone listed below before the Contractor shall commence work on the next milestone. It is the contractor's responsibility to contact the RWRD Inspector when ready for inspection. Both the contractor and the RWRD Inspector will meet at a time mutually agreed upon to conduct the milestone inspections. Failure to have inspection performed prior to moving to the next step/milestone may result in corrective action involving removal of completed work to the point of the last inspection. For example, not having the underlayment inspected before installing the surface coating may require the surface coating to be removed to expose the underlayment layer for inspection. The required corrective action will be at the sole discretion of the Field Engineer and shall be at no cost to Pima County. The inspection milestones are as follows:

- 1. Completion of the cleaning and surface preparation activities required by these specifications.
- Completion of all void-filling activities and underlayment application, prior to surface coating application, including the associated adhesion testing of the underlayment layer.
- 3. Completion of the surface coating installation prior to testing.
- Adhesion/bond testing of the finished coating system as required by these s pecifications.
- 5. Holiday (spark) testing of the final surface coating as required by these specifications.
- 6. Final clean-up of the area.

J. WARRANTY AND BONDING:

- A. The contractor shall provide a renewable maintenance bond to cover all workmanship and all materials for each manhole or structure coated with an approved corrosion protective coating, renewed as-needed to comply with this specification, which shall be in effect for a period of not less than three (3) years from the date of Final Acceptance of the project.
 - The contractor shall submit their Bond and Warranty to the RWRD Field Engineer through the RWRD Inspector prior to and as a condition of project Final Acceptance.
 - 2. Warranty also applies to repair materials, primers, or any other products used in the application.
 - The bond shall also be unconditional in nature covering any type of failure in the coating and agreeing to repair or replace at no additional cost to PCRWRD at any point during the 3-year period.
- B. The contractor shall provide a 5-Year Warranty from the Coating Manufacturer that is addressed to PCRWRD.
- C. Coating failure is defined as blistering, cracking, embrittlement, bubbling, softening, or failure to adhere to the substrate. The RWRD Field Engineer shall be the sole judge of coating failure.
- D. Testing performed by PCRWRD during construction (e.g., spark testing, adhesion testing, and/or other testing) does not in any way modify the Warranty, nor relieve the Contractor from the responsibility for responding and correcting defects during the Warranty period.

K. MAINTAIN & PROTECT EXISTING SEWER FLOWS:

The Contractor shall be aware that the existing manholes included in this project are active, functioning manholes. The Contractor shall be required to maintain existing sewer flows in conformance with the Approved Flow Management Plan (FMP) for the project. Flow management operations shall never be implemented, modified; or discontinued without the explicit permission of the RWRD Inspector.

For new sewer lines installed as part of this project, no sewer flows shall be permitted within said sewer lines until the requirements of this specification are fully satisfied for all manholes that are required to be coated and the work has been accepted by the Field Engineer.

The Contractor shall take all necessary precautions to prevent debris from damaging the manhole and/or entering the sewer at no cost to Pima County. The RWRD Inspector shall approve the Contractor's precautions prior to any work being conducted. The Contractor shall immediately remove from the sewer lines any material that enters the sewer lines due to his operations, at no cost to Pima County.

PERFORMANCE HISTORY

INFORMATION REQUIRED FROM SUCCESSFUL BIDDER ONLY (MUST BE COMPLETED AND SUBMITTED AFTER THE BID OPENING)

PERFORMANCE HISTORY FOR THE APPLICATION OF THE SPECIFIED OR SIMILAR COATING SYSTEM IN SANITARY SEWER STRUCTURES:

(Attach additional sheets as necessary.)

Contractor Name:

Project:

Date:

Locations:

Client:

Client Phone No.:

Material Applied:

Failures and Remedial Action:

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SUB APPENDIX "G" CONSTRUCTION SAFETY PLAN OUTLINE

Introduction

The following outline will assist the Contractor in the development of a **Safety Plan** for maintaining a safe and healthful worksite while performing construction activities for Pima COUNTY Wastewater Management. The preconstruction meeting will identify specific safety requirements of the project and overall safety concerns. Items identified shall be included in the safety plan.

The safety plan should be tailored to the particular project as detailed in the construction specification and drawings. The Contractor shall impose this plan on his Subcontractors and their employees working on all projects for Pima COUNTY Wastewater Management.

Please number the pages and indicate the safety plan revision number and date on the cover, table of contents, or other suitable page, preferably on all pages.

Safety Plan Outline: The following items should be addressed as appropriate to the project.

G1	П	Applicable Regulations OSHA 29 CFR 1926 "Safety and Health Regulations for Construction". OSHA 29 CFR 1910 "General Industry Safety and Health Regulations Identified as Applicable to Construction". All other applicable regulations.
G2	0000000000000	Required Submittals Crane Operator and equipment. Welding - American Welding Society (AWS) Certification. Pressure vessels - Meeting ASTM standards. Asbestos - Licenses, Medicals, Fit Tests, Respiratory Protection Program. Rigging Plan. Excavation Plan, Cave-in Protection, Dewatering Plan, Utilities Support. Confined Space Entry Procedure Fall Protection Plan. OSHA 200 Logs. Environmental Protection (See Flow Management) Plan Certificates of Insurance with COUNTY identified as additional insured. Include Motor Vehicle Insurance. Competent Person Qualifications. ie. Excavations, Scaffolds, etc. Safety Representative's Qualifications. Personnel Qualifications for working on energized electrical circuits; Union cards or equivalent. Respiratory Protection Program.
GЗ		General Information
		H3-1 Safety Performance: Copy of the company record of injuries and accidents (OSHA 200 logs). Insurance experience modification rate for the past two years.
		H3-2 Contractor's Name: Name of project superintendent Phone number to contact project superintendent (on and off site) If a project manager is assigned, name and phone number
		H3-3 Project Name: Building Number Job Number

	Alterna	Contractor's Designated Safety Representative: number to contact safety representative te Training Documentation
G4	Respo	nsibilities
٠	G4-1	Prime Contractor:
	Designa Ensure Coordin Meet th Establis	e responsibility for all safety including safety of Subcontractor ates safety representative. that safety plan is part of contract with all Subcontractors. nates and plan work activities among all Subcontractors. the requirements of the applicable regulations. the company safety rules and policies. safety deficiencies when noted in safety inspection.
	G4-2	Contractor's Safety Representative:
	proper I Inspects Establis Ensures Initiates to be ta Propose Coordin requirer Reviews Coordin review.	work areas, including Subcontractors for unsafe conditions, including tools, equipment, and protective clothing. Establish inspection frequency. (See Checklist) is work areas, including Subcontractors for unsanitary conditions, poor housekeeping, etc. is inspection frequency. (See Checklist) is that any unsafe and/or unsanitary condition is corrected. It method of reporting unsafe conditions to prime Contractor for correction, include remedial action ken. Copies of safety inspection to be sent to the Project Manager. It is defined to the Project Manager of follow-up on changes, corrections and other actions necessary to correct unsafe conditions, trates activities with Subcontractors to ensure work proceeds in accordance with applicable safety ments. It is possible safety hazards, construction activities, etc. with their employees and Subcontractors, inates certifications, training, record keeping, etc. Keeps records in central area available for Subcontractors:
	Reviews Ensures Inspects Corrects	sible for safety of their employees. s possible safety hazards, construction activities, etc. with their employees. s that their foreman and employees understand precautions to be taken. s hand tools and equipment regularly that are used in construction activities. s safety deficiencies when identified and notified. orime Contractor immediately of any unsafe condition or activity.
G5	Fire, Me	edical, and Environmental Emergencies
	Site and Identify Identify Immedia emerger	JNTY work area emergency services, fire, medical and spill response, identify within the safety providers of these services for any emergencies arising while performing work for COUNTY: I Facility-specific information and training detailed within the safety plan. the provider of emergency medical transportation. local emergency phone numbers within the safety plan and conspicuously posted at the jobsite. ately notify the Pima COUNTY Wastewater management Project Manager in the event of any ncy. Project Manager phone and pager number identified within the safety plan and clearly posted spicuous location.

Appropriate steps to be taken by prime Contractor first aid station until arrival of ambulance.
Fire protection equipment provided for special construction activities, i.e., welding, flame cutting, etc., one fire extinguisher for each operation. Welding/cutting permit. One fire watch with no other duties assigned per open flame operation. For any fire notify the proper emergency number. Immediately notify Project Manager, Construction Inspector or Field Engineer Office at 740-2651.
G5-3 Environmental Protection (Spill Prevention) Use of containment Storage and handling of hazardous materials Operation, maintenance and repair of equipment Daily equipment inspection for leaking or loose fluid retention systems
G5-4 Housekeeping Daily requirements Removal of combustible debris Collection containers Handling asbestos or lead
G5-5 Illumination Areas illuminated Maintenance of equipment Separate circuits for lighting and power
G5-6 Sanitation Equipment provided Maintenance of equipment
G5-7 Protective Equipment Type required for project Responsibility for use Appropriate construction attire; shirts with sleeves, long pants, safety shoes Respiratory Protection and associated written program
G5-8 Safety Training and Education An outline of training to be provided to company and Subcontractor employees. Outline shall include:
The topics to be discussed. Frequency of training. Personnel to receive training.

The training provider whether it be an employee (ie. Contractor safety representative, etc.) or a Subcontractor. For example, all newly hired employees should receive initial training in the OSHA construction safety and health requirements, hazard recognition and avoidance for their particular job category.
Prior to each change in project phase a safety awareness meeting should be held with all affected employees and Subcontractor employees.
Toolbox safety talks should be held at least weekly to discuss the hazards of that particular week's activities.
G5-9 Safety Records Safety Records shall include:
Accident investigation and reporting procedure. Accident log. Notification of any accidents to Project Manager, Construction Inspector or Field Engineer Office at 740-2651.
Permits. Oxygen deficiency monitoring. Hazardous gases/vapors monitoring. LOTO of hazardous energy sources. Entry and exit procedures. Two man rule and communication. Emergency rescue equipment.
G5-12 Hazard Communication Name the individual responsible for maintaining this information and his/her responsibilities. Location and availability of the written Hazard Communication Program. Location and availability of Material Safety Data Sheets (MSDS) for all materials onsite. The type and frequency of Employee training.
G5-13 Mobile Equipment Registered vehicles, license plates. Operator qualifications, Commercial Driver's License (CDL) or equivalent. Operator's manual with all material handling equipment. Daily inspection for fluid levels and leaking or loose fluid retention systems. Backup alarms. Tarp Loads. Rollover Protective Structure (ROPS) cab. Leak-free. Maintain and repair offsite.
G5-14 Fall Protection Fall protection plan specific to job. Body harness inspection.

Lanyard inspection. Anchor points, types and locations. Guarding system. Roof edges, floor holes, wall openings, scaffolds, peaked roofs, work platforms (powered or stationary). Training.
Barricading against people and vehicles.
Documented inspection for compliance with OSHA requirements within 48 hours of notification of intent to perform Rigging Operations. Arizona Crane operator's license. Load Charts for all lifting machinery. Swing radius and barricading. Staging and path of material movements. Sling inspections. Sling tags. 48 hour notification to Project Manager prior to lift. Potential kiteing effects and calculations. Tag lines and location of line handlers.
G5-17 Temporary Services 48 hours notification to Project Manager. All requests and approvals made through Project Manager. Construction trailer service line height and code requirements per National Electric Code (NEC). Coordinate temporary services with Subcontractors. Toilet facilities. Telephone services.
G5-19 Drug-Free Workplace Written Drug-Free Workplace Program to Include: Policy Statement ii) Prohibited activities Supervisor and Employee Responsibilities Enforcement and consequences for violations

ш	Ongoing drug-free awareness training program for Supervisors and Employees to Incl Intervention Procedures - employee and supervisor.	lude:
-	Identification - Signs and Symptoms	
	Corrective action	
	Employee Assistance Options	

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SAFETY CHECKLIST

PROJECT: JOB #: DATE: TIME:

Indicate the corrective action taken, date, initial

INSPECTION ITEM

- 1. Access
- 2. Ramps/Walkways
- 3. Cylinders Concrete & Masonry
- 4. Cranes & Hoists
- 5. Electrical
- 6. Excavation & Trenching Fall Protection
- 7. Confined Space Entry
- 8. Environmental Protection (Spill Prevention)
- 9. Fire Protection & Prevention Flammable & Combustible Liquids
- 10. Floor & Wall Openings
- 11. Hazard Communication
- 12. Heavy Equipment
- 13. Housekeeping
- 14. Illumination
- 15. Ladders & Scaffolds
- 16. Material Handling, Storage & Use Occupational Health & Environmental Controls
- 17. Personal Protective Equipment
- 18. Radiation Safety
- 19. Signs & Barricades
- 20. Steel Erection
- 21. Tools, Hand & Power
- 22. Welding & Cutting
- 23. Other (Postings)
- 24. Comments

INSPECTOR:

DATE:

CC:

PHASE-HAZARD ANALYSIS

WORK PHASE*	HAZARD	PREVENTION/CONTROL	
Mobilization/Staging		The second secon	
Site Clearing			
Demolition			
Excavation			
Concrete/Masonry	acceptance of the control of the con		
Structural Steel			
Masonry/Exterior Work			
Roofing	remain and a second		
Flooring			
Utilities			

^{*} Use Safety Checklist as a guide to identify activities and hazards requiring attention within each work phase.

END EXHIBIT "A" - SCOPE OF SERVICES

EXHIBIT "B" GENERAL CONDITIONS (11 pages)

ARTICLE 1 - DEFINITIONS

Whenever in these Specifications, or in any document of instructions where these Specifications govern, the following terms or pronouns in place of them are used, the intent and meaning will be interpreted as follows:

<u>Bid:</u> The offer of the Bidder for the work when properly made out on forms containing the Bid for Lump Sum Construction supplied by COUNTY and properly submitted, signed and guaranteed.

<u>Bid Documents:</u> All Drawings, Technical Specifications, Supplementary General and/or General Conditions, Bid Schedule, Construction Contract and Bonds, and Contract Documents.

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

Board: The Board of Supervisors, Pima County, Arizona, acting under authority of the laws of Arizona.

<u>Building Code:</u> The directions, provisions, and requirements contained in the current edition of the Building Codes, with Amendments, as adopted by Pima County, supplemented by such special provisions as may be necessary, pertaining to the method and manner of performing the work, quality and quantity of material to be furnished and measurement for payment of same.

<u>Contract:</u> The written Agreement between COUNTY and CONTRACTOR covering the performance of the work and the furnishing of labor, equipment, and materials in the construction of the work.

<u>Contract Bond:</u> The approved form of security furnished by CONTRACTOR and its Surety as a guarantee on the part of CONTRACTOR to execute the work in accordance with the terms of the Contract.

<u>Contractor:</u> The party who undertakes to execute the work, acting directly or through an authorized lawful agent or employee.

PIMA COUNTY: Pima County, Arizona, a body politic and corporate, the owner of the work.

Department: The Pima County Regional Wastewater Reclamation Department.

<u>Director:</u> The Pima County Department Director, an assistant or other representative duly authorized by a Department Director to act on their behalf.

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.

Item. A detail of work for which separate payment is made.

<u>Laboratory</u>: The established laboratory of the Department or other laboratories authorized by COUNTY to test materials and work involved in the Contract.

<u>Plans:</u> The Contract drawings or exact representations thereof, which show the location, character, dimensions, and details of the work.

Project Manager, Engineer, or Architect. The person designated by COUNTY to oversee the project on its behalf.

<u>Standard Specifications</u>: The directions, provisions, and requirements contained in the current edition of the Pima Association of Governments Standard Specifications for Public Improvements, 2014 Edition with Amendments, as

adopted by Pima County, supplemented by such special provisions as may be necessary, pertaining to the method and manner of performing the work, quality and quantity of material to be furnished and measurement of payment of same.

<u>Supplementary Agreement:</u> A written agreement executed by CONTRACTOR and COUNTY covering alterations to the project. A change order or a force account work request prepared on the approved form of the Department is a supplementary agreement.

<u>Supplementary General Conditions or Special Conditions:</u> The Supplementary General Conditions or Special Conditions are additional to the General Conditions, which are conditions or requirements peculiar to the project under consideration.

<u>Surety:</u> The corporate body which is bound with and for CONTRACTOR, who is primarily liable, and which (agrees) to be responsible for its payment of all debts pertaining to and for its acceptable performance of the work for which it has contracted.

The Work: All of the work specified in the Contract.

ARTICLE 2 - RESPONSIBILITY REGARDING EXISTING UTILITIES AND STRUCTURES

The existence and locations of underground utilities indicated on the plans are not guaranteed and will be investigated and verified in the field by CONTRACTOR before starting work. Excavations in the vicinity of existing structures and utilities will be carefully done by hand. CONTRACTOR will be held responsible for any damage to, and for maintenance and protection of existing utilities and structures.

COUNTY does not guarantee the existence and locations of underground utilities indicated on the plans and CONTRACTOR will investigate and verify the location of underground utilities in the field before starting work. CONTRACTOR will carefully perform excavations in the vicinity of existing structures and utilities. CONTRACTOR is responsible for any damage to, and for maintenance and protection of, existing utilities and structures. At least two full working days prior to commencing excavation, contactor must call blue Stake Center, 1-800-STAKE-IT, between the hours of 7:00 a.m. and 4:30 p.m., Monday through Friday for information relative to the location of buried utilities.

CONTRACTOR is fully responsible for costs incurred due to damage to utilities as a result of grading or excavation operations. Utility locations shown on the Plans are approximate, and not all utilities may be shown. The possibility of conflicts with existing utilities –in-place exists. If conflicting utilities interfere with CONTRACTOR'S normal progress toward completion of this project, COUNTY may, at is option, authorize CONTRACTOR to relocate said conflicting utilities by Force Account.

It is the responsibility of CONTRACTOR to contact the utility companies in order for them to determine if there is a need for any bracing or shoring of power to telephone poles during the construction of this project. If bracing or shoring is necessary, CONTRACTOR will effect this work to the satisfaction of the utility company. COUNTY will make no measurement or direct payment for bracing or shoring.

ARTICLE 3 – LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

- A. <u>Laws to be Observed</u> -- CONTRACTOR is presumed to be familiar with and at all times will observe and comply with all Federal and State laws and local ordinances, worker's compensation, occupational disease, and unemployment compensation laws together with the payment of all premiums and taxes therefor, also all laws, ordinances, and regulations in any manner affecting the conduct of the work and will indemnify and hold harmless COUNTY and its representatives against any claim arising from the violations of such laws, bylaws, ordinances or regulations, whether by CONTRACTOR or by CONTRACTOR'S employees.
- B. <u>Permits and Licenses</u> -- COUNTY will procure all County building permits, and sewer connection fees. CONTRACTOR will post required permits on site and give all notices necessary and incidental to the due and

lawful prosecution of the work. CONTRACTOR will procure and pay for all other permits, fees, and applications for water, gas, electric and other utilities.

- C. <u>Sanitary Provisions</u> -- CONTRACTOR will provide and maintain in a neat and sanitary condition such accommodations for the use of its employees as may be necessary to comply with the requirements and regulations of the Arizona Department of Health Services or other authorities having jurisdiction therein.
- D. <u>Public Convenience and Safety</u> -- CONTRACTOR will have due regard for the public health and will conduct the work in such a manner as to provide and insure the safety and convenience of the public.

When special conditions prevail and extraordinary measures are necessary, the details will be set forth in the Technical Specifications or Special Provisions.

E. <u>Barricades, Danger, Warning, and Detour Signs</u> -- CONTRACTOR will at its expense and without further order provide, erect, and maintain at all times during the progress or temporary suspension of the work such barricades, fences, warning lights, danger signals, reflectors, signs, or other protective devices as are required to insure the safety of the public, those engaged in connection with the work and the work itself.

Unless otherwise expressly stated in the Contract, no measurement or direct payment for this work will be made, but the cost of providing, erecting, and maintaining such protection devices, including guards, watchmen and/or flagmen as required will be considered as included and paid for in the contract prices for the work.

- F. <u>Use of Explosives -- Prohibited</u>
- G. <u>Preservation and Restoration of Property</u> -- CONTRACTOR will be responsible for the preservation of all public and private property on the surface or underground, along and adjacent to the work and will conduct its operations so as to insure the prevention of injury or damage thereto. No land monuments or property will be disturbed or moved until an authorized agent has witnessed or otherwise referenced their locations.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence or the non-execution thereof on the part of CONTRACTOR, CONTRACTOR will restore such property at its own expense to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring same, or it will make good such damage or injury in an acceptable manner.

H. <u>CONTRACTOR'S</u> Responsibility for Work -- Until written final acceptance of the work by COUNTY, CONTRACTOR will have the charge and care thereof and will take every precaution against injury or damage to any part thereof by action of elements, or from any other cause, whether arising from the execution or non-execution of the work. CONTRACTOR will rebuild, repair, restore, and make good all injuries or damages of any portion of the work occasioned by any of the above causes before final acceptance and will bear the expense thereof.

In case of the suspension of work for any cause whatever, CONTRACTOR will be responsible for all work and materials and will take proper care of the work, storing all materials if necessary, and will provide suitable drainage of the work and erect necessary temporary structures.

Waiver of Legal Rights -- COUNTY will not be precluded or be estopped, by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefor, from showing the true amount and character of the work performed and materials furnished by CONTRACTOR, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or that the work or materials do not conform in fact to the Contract. Neither the acceptance by COUNTY or by any representative of COUNTY nor any payment, nor acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by COUNTY will operate as a waiver of any portion of the Contract or of any power herein reserved, or any right to damage herein provided. A waiver of any breach of the Contract is not a waiver of any other subsequent breach.

ARTICLE 4 - ACCIDENTS

CONTRACTOR will provide, at the site, such equipment and medical facilities as are necessary to supply first-aid service to anyone who may be injured in connection with the work.

CONTRACTOR must promptly report in writing to COUNTY all accidents whatsoever arising out of, or in connection with the performance of the work, whether on or adjacent to the site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, CONTRACTOR will report the accident immediately by telephone or messenger to both COUNTY and the Board.

If any claim is made by anyone against CONTRACTOR or any subcontractor on account of any accident, CONTRACTOR will promptly report the facts in writing to COUNTY, giving full details of the claim.

ARTICLE 5 - RESERVED

ARTICLE 6 - DELAY

If the number of calendar days in CONTRACTOR'S schedule plus the grace period specified in the above paragraph equals or exceeds the number of calendar days for completion stated in the solicitation, then the completion period will be as stated in the solicitation and there will be no grace period.

COUNTY and CONTRACTOR have agreed upon the Project scope, total price, and schedule for the performance of the work. The agreed schedule represents a firm commitment by CONTRACTOR and COUNTY to complete the work within the schedule identified in this Contract, as it may be adjusted from time to time.

COUNTY and CONTRACTOR understand that events may occur that delay or disrupt the schedule or require a change in the level of resources or effort. Therefore, the Contract may be adjusted as follows for Delays:

- 1. A delay in the work attributable to COUNTY is an excusable delay for which an adjustment may be made to the schedule. In any such case the schedule of the affected task or activity may be extended one day for each day of COUNTY-caused delay, provided, however, that if the COUNTY-caused delay overlaps a period of delay attributable to any other cause, the extension for COUNTY-caused delay is limited to the number of nonoverlapped days of COUNTY-caused delay.
- 2. There is no adjustment for any CONTRACTOR-caused delay in the work, including time to repair or replace defective work. In the event of a significant CONTRACTOR-caused delay exceeding three (3) workdays, CONTRACTOR will provide a recovery plan to COUNTY within five (5) days of COUNTY's request.
- 3. A delay in the work attributable to any other cause, including strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the control of COUNTY or CONTRACTOR and that arises without the fault or negligence of either, is an excusable delay for which COUNTY and CONTRACTOR agree to negotiate an appropriate schedule adjustment. If the period of delay attributable to any cause under this paragraph overlaps a period of delay attributable to any other cause, the adjustment under this paragraph will be made first and the delay attributed to such other cause will be limited to that occurring outside of the overlap.
- 4. If any of the causes of delay in Paragraphs 1 or 3 above affects a task or activity on the critical path, then the schedule adjustment may include adjustment to the completion date. If the cause does not affect a task or activity on the critical path, then the adjustment will be made from Float and the completion date shall not be changed.
- 5. If any of the causes of delay in Paragraphs 1 or 3 above results in material provable additional costs to the affected task or tasks as a result of disruption of the schedule, then the parties will negotiate an equitable adjustment therefor.

6. COUNTY and CONTRACTOR will negotiate an equitable adjustment of cost for any task or tasks for which there is any significant change in the level of effort arising from additional or changed work requested or directed in writing by COUNTY that materially deviates from or adds to the work.

CONTRACTOR must submit claims for extension of time in writing to COUNTY for review and approval no later than seven (7) days after the initiation of that delay. In the case of a continuing cause of delay, only one claim is necessary.

COUNTY will grant approval of time extension for delays only based on the verification of a daily log maintained by the superintendent at the job site. The daily log must segregate and document each individual delay occurrence, and then separately track the job costs attributable to changes in the work noted in Article 21. CONTRACTOR'S failure to maintain the daily logs in the manner described above will result in COUNTY'S denial of the claim for time extension.

If CONTRACTOR has requested detail drawings and instructions as noted in Article 9, COUNTY will not approve a request for delay on account of COUNTY'S failure to furnish drawings until two (2) weeks after demand for such drawings.

<u> ARTICLE 7 – EXECUTION, CORRELATION AND INTENT OF DOCUMENTS</u>

The Contract documents are complementary, and what is called for by any one will be as binding as if called for by all, and the most stringent requirement will apply. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. It is not intended, however, that materials or work not covered by or properly inferable from any heading, branch, class or trade of the specifications will be supplied unless distinctly so noted on the drawings. Materials or work described in words that so applied have a well-known technical or trade meaning will be held to refer to such recognized standards.

ARTICLE 8 - DETAIL DRAWINGS AND INSTRUCTIONS

COUNTY will furnish with reasonable promptness, additional instructions, by means of drawings or otherwise, necessary for the proper execution of the work. All such drawings and instructions will be consistent with the Bid documents, true developments thereof, and reasonably inferable therefrom.

ARTICLE 9 - COPIES OF DRAWINGS FURNISHED

COUNTY will provide, at no cost to CONTRACTOR, two complete sets of code approved construction documents in non-reproducible form.

COUNTY will provide, at no cost to CONTRACTOR, five (5) non-reproducible sets of construction documents used during the course of bidding the work (Bid Sets) for execution on the work. It will be CONTRACTOR'S responsibility to ensure that any modifications called for as a result of the permit process are transferred to the bid sets.

CONTRACTOR may purchase additional sets of code-approved sets or bid sets construction documents, at its expense.

<u>ARTICLE 10 - ORDER OF COMPLETION</u>

CONTRACTOR will submit at such times as may be requested by COUNTY, schedules which will show the order in which CONTRACTOR proposes to carry on the work with dates at which CONTRACTOR will start the several parts of the work and estimated dates of completion of the several parts.

ARTICLE 11 - CONSTRUCTION DOCUMENTS ON THE JOB SITE

CONTRACTOR will keep one copy of code approved construction documents on the job site, in good order, available to COUNTY and to COUNTY'S representatives. This set of documents will be kept current as to pending and approved changes in the work.

ARTICLE 12 - OWNERSHIP OF DRAWINGS

All drawings, specifications, and copies thereof furnished by COUNTY are the property of COUNTY. They are not to be used on other work and with the exception of the signed Contract set, and are to be returned to COUNTY on request, at the completion of the work. All models are the property of COUNTY.

ARTICLE 13 - CONTRACTOR'S UNDERSTANDING

CONTRACTOR has, by careful examination, satisfied itself as to the nature and location of the work, the conformation of the ground, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversations with any officer, agent or employee of COUNTY, either before or after the execution of this Contract, will affect or modify any of the terms or obligations herein contained.

ARTICLE 14 - MATERIALS, APPLIANCES, EMPLOYEES

Unless otherwise agreed, CONTRACTOR will provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary for the execution and completion of the work.

Unless otherwise agreed, all materials will be new, and both workmanship and materials will be of good quality. CONTRACTOR will, if required, furnish satisfactory evidence as to the kind and quality of materials.

CONTRACTOR will at all times enforce strict discipline and good order among its employees, and will not employ on the work any unfit person or anyone not skilled in the work that CONTRACTOR assigns to that person.

ARTICLE 15 - ROYALTIES AND PATENTS

CONTRACTOR will pay all royalties and license fees. CONTRACTOR will defend all suits or claims for infringement of any patent rights and will hold COUNTY harmless from loss on account thereof, except that COUNTY will be responsible for all such loss 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 will be responsible for such loss unless it promptly gives such information to COUNTY.

ARTICLE 16 - SURVEYS, PERMITS, AND REGULATIONS

COUNTY will furnish all property surveys unless otherwise specified. CONTRACTOR will secure and pay for permits and licenses of a temporary nature necessary for the prosecution of the work except as noted in Article 3.b. COUNTY will secure and pay for easements for permanent structures or permanent changes in existing facilities unless otherwise agreed.

CONTRACTOR will give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the work as drawn and specified. If CONTRACTOR observes that the drawings and specifications are at variance therewith, it will promptly notify COUNTY in writing, and any necessary changes will be adjusted as provided in the Contract for changes in the work. If CONTRACTOR performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without such notice to COUNTY, it will bear all costs arising therefrom.

ARTICLE 17 - PROTECTION OF WORK AND PROPERTY

CONTRACTOR will continuously maintain adequate protection of all its work from damage and will protect COUNTY'S property from injury or loss arising in connection with this Contract. It will make good any such damage, injury, or loss, except such as may be directly due to errors in the bid documents or caused by agents or employees of COUNTY. It will adequately protect adjacent property as provided by law and the bid documents. It will provide and maintain all passageways, guard fences, lights, and other facilities for protection required by public authority or local conditions.

If an emergency should occur affecting the safety of life or the work or of adjoining property, CONTRACTOR, without special instruction or authorization from COUNTY, is hereby permitted to act at his discretion, to prevent such threatened loss or injury, and CONTRACTOR will so act, without appeal, if so instructed or authorized. Any compensation claimed by CONTRACTOR on account of emergency work will be determined by COUNTY.

CONTRACTOR is responsible for equipment, materials, and supplies until completion of the project and acceptance by COUNTY.

ARTICLE 18 - INSPECTION OF WORK

COUNTY representatives will at all times have access to the work wherever it is in preparation or progress and CONTRACTOR will provide proper facilities for such access and for inspection.

If the specifications, COUNTY'S instructions, laws, ordinances, or any public authority, require any work to be specially tested or approved, CONTRACTOR will give COUNTY timely notice of its readiness for inspection and if the inspection is by an authority other than COUNTY, of the date fixed for such inspection. Inspections by COUNTY will be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of COUNTY, it must, if required by COUNTY, be uncovered for examination at CONTRACTOR'S expense.

Re-examination of questioned work may be ordered by COUNTY and if so ordered the work must be uncovered by CONTRACTOR. If such work is found to be in accordance with the bid documents, COUNTY will pay the cost of re-examination and replacement. If such work is found not to be in accordance with the bid documents, CONTRACTOR will pay such cost.

<u> ARTICLE 19 – SUPERINTENDENCE - SUPERVISION</u>

CONTRACTOR will keep on its work site during its progress a competent Superintendent and any necessary assistants, all satisfactory to COUNTY. The Superintendent will not be changed except with the consent of COUNTY, unless the Superintendent proves to be unsatisfactory to CONTRACTOR and ceases to be in its employ. The Superintendent will represent CONTRACTOR in its absence and all directions given to it will be as binding as if given to CONTRACTOR. CONTRACTOR will give efficient supervision to the work using its best skill and attention.

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 will be its duty to immediately inform COUNTY, in writing, and COUNTY will promptly verify the same. Any work done after such discovery, until authorized, will be done at CONTRACTOR'S risk.

Neither COUNTY nor CONTRACTOR, will employ an employee of the other without consent.

ARTICLE 20 - CHANGES IN THE WORK

In giving instructions, COUNTY will have authority to make minor changes in the work, not involving extra cost, and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change will be made unless in pursuance of a written order by COUNTY and no claim for an addition to the Contract sum will be valid unless so ordered.

The value of any such extra work or change will be determined in one or more of the following ways:

- 1. By mutual acceptance of a lump sum, itemized and detailed with sufficient substantiating data, as requested by COUNTY, to permit evaluation.
- 2. By unit prices named in the Contract or subsequently agreed upon.
- By cost and fixed fee.

If none of the above methods is agreed upon, CONTRACTOR, provided it receives an order as above, will proceed with the work. In such case and also under case (c), it will keep and present in such form as COUNTY may direct, a correct account of the net cost of labor and materials, together with vouchers. In any case, COUNTY will certify to the amount, including allowance for overhead and profit, due to CONTRACTOR. Pending final determination of cost, payments on account of changes will be made on COUNTY'S estimate.

The amount of CONTRACTOR'S overhead and profit allowed for any change order, whether increase or decrease, will not exceed the following limits for work by CONTRACTOR:

Overhead Limit: ten percent (10%) of direct cost;

Profit Limit: five percent (5%) of the sum of direct cost and overhead cost.

For any portion of the work for a change order that is performed by a Subcontractor or a Sub Subcontractor, CONTRACTOR'S combined overhead and profit limits allowed will not exceed five percent (5%) of the actual direct cost of the work.

CONTRACTOR'S cost for additional work or changes requested by COUNTY which result in an approved extension of time to the contract will be limited to the cost of the extra work determined in one or more of the three ways described previously in this Article, and the actual wage or salary paid for the on-site job superintendent in direct employ of CONTRACTOR in performance of the work. This amount will be prorated to the actual amount of extra time approved and will only include the direct amount paid to the superintendent plus actual cost of all overhead items applicable to payroll for that position, such as insurance, taxes, FICA, worker's compensation, and unemployment taxes and benefits.

ARTICLE 21 – CLAIMS FOR EXTRA COST FOR ADDITIONAL WORK

If CONTRACTOR claims that any additional instructions by drawings or otherwise involve extra cost under this Contract, it will give COUNTY written notice thereof within a reasonable time after the receipt of such instructions, and in any event before proceeding to execute the work, except in an emergency endangering life or property. The procedure will then be as provided for in Article 20 "Changes in the Work". No such claim will be valid unless so made.

ARTICLE 22 - DEDUCTIONS FOR UNCORRECTED WORK

If COUNTY deems it not expedient to correct work injured or done not in accordance with the Contract, an equitable deduction from the Contract price will be made therefor.

CONTRACTOR will promptly remove from the premises all materials condemned by COUNTY as failing to conform to the Contract, whether incorporated in the work or not, and CONTRACTOR will promptly replace and re-execute its own work in accordance with the Contract and without expense to COUNTY and will bear the expense of making good all work of other CONTRACTORS destroyed or damaged by such removal or replacement.

If CONTRACTOR does not remove such condemned work and materials within a reasonable time, fixed by written notice, COUNTY may remove them and may store the material at the expense of CONTRACTOR. If CONTRACTOR does not pay the expense of such removal within ten days' time thereafter, COUNTY may, upon ten day's written notice, sell such materials at auction or at private sale and will account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by CONTRACTOR.

ARTICLE 23 - SUSPENSION OF WORK

COUNTY may at any time suspend the work, or any part thereof by giving three (3) days' notice to CONTRACTOR in writing. When the reason for such suspension involves safety, health or welfare issues, the three (3) day written notice requirement may be waived at the decision of the COUNTY Management. CONTRACTOR will resume the work within ten (10) days after the date fixed in the written notice from COUNTY to CONTRACTOR to do so.

ARTICLE 24 - COUNTY'S RIGHT TO DO WORK

If CONTRACTOR neglects to prosecute the work properly or fails to perform any provision of this Contract, COUNTY may, after three (3) days written notice to the CONTRACTOR, 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.

ARTICLE 25 - COUNTY'S RIGHT TO TERMINATE CONTRACT

If CONTRACTOR persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payment to subcontractors for material or labor, or persistently disregards laws, ordinances, or the instructions of COUNTY, or otherwise is guilty of a substantial violation of any provision of the contract, then COUNTY may, without prejudice to any other right or remedy and after giving CONTRACTOR ten (10) days written notice, terminate the employment of CONTRACTOR and take possession of the premises and of all materials, tools, and appliances thereon and finish the work by whatever method COUNTY may deem expedient. In such case CONTRACTOR will not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price will exceed the expense of finishing the work, including compensation for additional managerial and administrative service, such excess will be paid to CONTRACTOR. If such expense will exceed such unpaid balance, CONTRACTOR will pay the difference to COUNTY. COUNTY will certify the expense incurred by COUNTY as herein provided, and the damage incurred through the CONTRACTOR's default.

ARTICLE 26 - REMOVAL OF EQUIPMENT

In any case of annulment or termination of this Contract before completion from any cause whatever, CONTRACTOR, if notified to do so by COUNTY, will promptly remove any part or all of its equipment and supplies from the property of COUNTY, failing which COUNTY will have the right to remove such equipment and supplies at the expense of CONTRACTOR.

ARTICLE 27 - USE OF COMPLETED PORTIONS

COUNTY has the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the time for completing the entire work or such portions may not have expired, but such taking possession and use is not an acceptance of any work not completed in accordance with the Bid documents. If such prior use increases the cost of or delays the work, CONTRACTOR will be entitled to such extra compensation, or extension of time, or both, as COUNTY may determine.

ARTICLE 28 - PAYMENTS WITHHELD

COUNTY may decline to certify payment or, because of discovered evidence or observations, may nullify the whole or any part of any certificate for payment previously issued, to such extent as may be necessary in its opinion to protect COUNTY from loss because of:

- Defective work not remedied.
- 2. Third party claims filed or reasonable evidence indicating probable filing of such claims.
- 3. Failure of CONTRACTOR to make payments properly to Subcontractors or for labor, materials, or equipment.
- 4. Reasonable evidence that the work cannot be completed for the unpaid balance of the Contract sum.
- 5. Damage to another CONTRACTOR.

When the above grounds are removed, payment will be made for amounts withheld because of them.

ARTICLE 29 - WARRANTY

CONTRACTOR will provide a written guarantee covering all costs for repair or replacement of defective work for a period of two (2) years (or longer if noted elsewhere in the construction documents) from substantial completion. CONTRACTOR will complete repair, or respond to COUNTY in writing with repair solution, within seventy-two (72) hours of notification by COUNTY. COUNTY may make emergency repairs to ensure life safety or to prevent property loss, without invalidating the warranty.

ARTICLE 30 - LIENS

Neither the final payment nor any part of the retained percentage will become due until CONTRACTOR delivers to COUNTY 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; but CONTRACTOR may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to COUNTY, to indemnify COUNTY against any lien. If any lien remains unsatisfied after all payments are made, CONTRACTOR will pay to COUNTY all monies that COUNTY may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

ARTICLE 31 - RIGHTS OF VARIOUS INTERESTS

Wherever work being done by COUNTY'S forces or other contractors is contiguous to work covered by this Contract the respective rights of the various interests involved will be established by the COUNTY to secure the completion of the various portions of the work in general harmony.

ARTICLE 32 - SEPARATE CONTRACTS

COUNTY reserves the right to let other contracts in connection with this work. CONTRACTOR will afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and will properly connect and coordinate its work with theirs.

If any part of CONTRACTOR'S work depends upon proper execution or results of the work of any other CONTRACTOR, CONTRACTOR will inspect and its report will constitute an acceptance of the other contractor's work after the execution of its work.

To insure the proper execution of its subsequent work, CONTRACTOR will measure work already in place and will at once report to COUNTY any discrepancy between the executed work and the drawings.

<u> ARTICLE 33 – COUNTY'S STATUS</u>

The COUNTY has general review of the work and has the authority to reject all work and materials that do not conform to the Contract.

<u> ARTICLE 34 – CLAIMS AND DISPUTES</u>

All claims, demands, disputes, controversies, and differences that arise between the parties hereto as result of or in connection with this Contract will be referred to County in writing with a request for review and response in accordance with this paragraph, which County will render in writing within a reasonable time.

Contractor will deliver written notice of each such claim, demand, dispute, controversy or difference to County within fifteen (15) days of the occurrence of the event giving rise thereto and written supporting data will be submitted to COUNTY within forty-five (45) days of such occurrence unless COUNTY specifies a different period of time in writing to Contractor. The submission to COUNTY with respect to any such claim, demand, dispute, controversy or difference will be a condition precedent to any exercise by Contractor of such rights or remedies as Contractor may otherwise have under the Bid documents or at law in respect of any such claim, demand, dispute, controversy or difference.

If either COUNTY or Contractor is dissatisfied with any decision of COUNTY and both parties agree in writing, then the dispute may be settled by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the arbitrator(s) will be entered in any court having jurisdiction thereof. All arbitration hearings must be held in Tucson, Arizona.

ARTICLE 35 - CLEANING UP

CONTRACTOR will, as directed by COUNTY, remove from COUNTY'S property and from all public and private property, at its own expense, all temporary structures, rubbish, and waste materials resulting from its operation.

ARTICLE 36 - RESERVED

<u> ARTICLE 37 – ARCHAEOLOGICAL FEATURES</u>

Construction for this project may occur in an archaeological sensitive area. The COUNTY Office of Conservation and Sustainability Cultural Resources Division will determine prior to construction (other than emergencies) any special site monitoring requirements. Human burials, including human skeletal remains, cremations, and funerary objects are protected under A.R.S. section 41-844 on state, COUNTY, and municipal lands, and under A.R.S. section 41-865 on private lands. Should archaeological features and/or artifacts or human remains, including human skeletal or cremation remains be discovered, work at that location will cease immediately, and the area will be taped off and avoided until archaeological investigations are completed. Construction is subject to delay in that location pursuant to applicable State law, while consultation with the Arizona State Museum and appropriate documentation and data recovery takes place. To the extent permitted by law, all archaeological artifacts and other materials will belong to COUNTY. No monetary compensation will be made to CONTRACTOR for any claims due to delays in the work schedule. Only the Contract construction time will be extended to permit the original scheduled number of days for completion of the project.

ARTICLE 38 - RESERVED

ARTICLE 39 - RESERVED

<u>ARTICLE 40 - HAZARDOUS MATERIALS/ HAZARDOUS WASTES / HAZARDOUS SUBSTANCES ABATEMENT</u>

Should CONTRACTOR uncover, or otherwise become aware of the presence of any Hazardous Materials, Hazardous Wastes or Hazardous Substances during the construction of this project, notice will be served immediately to the COUNTY Project Manager, and all work surrounding said materials or substances will be ceased until directed to proceed. Construction delays due to Hazardous Materials, Hazardous Wastes or Hazardous Substances abatement may occur.

If this contract does not otherwise require the services of a Hazardous Materials CONTRACTOR, abatement of such materials will be provided by COUNTY, at its expense and independent of this contract.

If this Contract already employs the services of a Hazardous Materials CONTRACTOR, the cost to abate any such additional materials will be added to the contract as Additional Services, in accordance with the provisions of Article 21 "Claims for Cost of Additional Work", and time extensions granted in accordance with the provisions of Article 6 "Delays

<u>ARTICLE 41 – WASTE DISPOSAL FACILITIES</u>

CONTRACTOR will legally dispose of all construction debris in appropriate COUNTY operated waste disposal facilities and pay any applicable fees. In the case of conflicts with the provisions of the Contract Specifications, this provision applies.

ARTICLE 42 - AS-BUILT DRAWINGS

CONTRACTOR will keep an accurate record of all changes and deviations from the Project Plans and Specifications and submit to COUNTY one set of "As-Built" drawings including dimension, location of underground utilities, etc., upon completion of the work. As-Built drawings will be drawn and submitted in such a format as prescribed by COUNTY.

ARTICLE 43 - RESERVED

END EXHIBIT "B" - GENERAL CONDITIONS

EXHIBIT "C" (12 pages) SPECIAL CONDITIONS – MULTIPLE AWARD JOB ORDER CONTRACT

ARTICLE 1 - OVERVIEW AND DEFINITIONS

A. <u>Overview of Job Order Contracting Arrangement</u> – This Agreement establishes a Multiple-Award, indefinite quantity, job order contracting Arrangement for such construction services within the scope of this Agreement as COUNTY may request from time to time by issuance of an individual Job Order Contract for each Project.

The Contract Price for each Job Order shall not exceed \$2,000,000.00, including any Change Orders.

There is no limit on the number of Job Orders COUNTY may issue to any CONTRACTOR during any twelve (12) month term of this Contract or during the entire period this Contract is in effect.

Generally, a CONTRACTOR may not refuse to quote any Job Order under this Agreement properly issued by COUNTY, unless CONTRACTOR can legitimately claim the scope of work is poorly defined, hazardous to health or safety, outside the bounds of the intended use of this Agreement, or the CONTRACTOR does not have the capacity to accept the Job Order and begin work in a timely manner.

COUNTY shall have the right to perform work of the types included in this Agreement itself or to have other contractors perform such work.

- A. Definitions The following terms will have the following meanings when used in the Agreement. Other terms may be defined elsewhere in the Documents. Terms not defined in the Agreement shall have their ordinary meaning within the usage of the trade. The presence or absence of initial capitals does not indicate a change in meaning.
 - "Alternatives Analysis" means assessment of alternatives for design, means and methods or other scope considerations that are evaluated using value engineering principles and have the potential to reduce construction costs while still delivering a quality and functional Project that meets COUNTY requirements.
 - "Contract Price" means the price to be paid for the Work (and for Pre-Construction Services, if any) as specified in the Job Order. The Contract Price shall be a fixed, lump sum price, or a Not-to-Exceed Guaranteed Maximum Price, based on the CONTRACTOR'S accepted quotation.
 - "Contract Time" means the time for performance of the Work under a Job Order as specified in the Job Order commencing with the Start Date and ending with Final Completion Date set forth in the Job Order, as modified.
 - "Critical Path Method (CPM)" is a scheduling technique which identifies the logical sequence of the activities occurring in a construction project, the anticipated time required to complete each activity in the project, and the activities that must be completed on schedule to finish the project within the anticipated time. Typically, activities are arrayed in a network that shows both activities and their dependencies. CPM is also used as a management technique which enables contracting parties to predict when activities may occur so that resources can be effectively used and limitations can be identified.
 - "Critical Path" means that sequence of dependent activities in a project that will take the longest time to complete. Any delay in the completion of any of these activities may extend the Substantial Completion date.
 - "Day" means calendar day unless specifically provided otherwise or required by law.
 - "Design Professional (DP)" means, as to a Job Order, the person, if any, who will perform Design Services relating to the Work under the Job Order and who is designated as the Design Professional in the Job Order.
 - "Drawings and Specifications" means, as to a Job Order, the drawings and specifications, if any, attached to the Job Order and specifications included in the Job Order Contract Documents. The Drawings and

Specifications set forth the requirements for construction of the Project. Where there are no drawings and specifications for the Work prepared by a Design Professional, COUNTY will deliver to the CONTRACTOR line drawings and/or a written description of the Work and, in each such case, the line drawings and/or the written description shall be deemed the drawings for the Work for that Job Order for all purposes.

"Final Completion Date" means, as to a Job Order, the date by which CONTRACTOR shall have completed all Work under a Job Order, including, without limitation, all deficiency, correction and incomplete items (Punch List).

"Job Order" means the Contract for a Project executed by COUNTY under this Agreement, as it may be modified by Change Orders, if any, relating to the Project under the Job Order.

"Minor Change" means a change in the Work having no impact on cost or time or the COUNTY'S approved design intent, as determined by COUNTY.

"Notice to Proceed" means written notice given by COUNTY to the CONTRACTOR fixing the date on which the CONTRACTOR will start to perform the Work under that Job Order. The start date will be the Start Date stated in the Job Order.

"Plans and Specifications" means the plans and specifications upon which the Job Order's price proposal is based.

"Pre-Construction Services" means the performance under a Job Order requiring such services of alternatives analysis, cost or schedule estimating, value engineering, constructability or other design reviews or consultation in the review of a COUNTY or third-party design prepared by a COUNTY-provided design professional.

"Project" means each project of COUNTY as to which some or all of the work is to be performed under a Job Order.

"Qualifications/Proposals Documents" means the Solicitation for Qualifications issued by COUNTY for this Job Order Contract, all Addenda thereto, and all information and documents submitted by CONTRACTOR relating thereto including, without limitation, CONTRACTOR'S submission of formal sealed qualifications, and also including, without limitation, the subcontractor management plan submitted by the CONTRACTOR. It also includes all other qualifications/proposals documents: that is all documents and materials delivered by COUNTY to CONTRACTOR in connection with CONTRACTOR'S submission of qualifications and submission of a proposal for the contract.

"Sales Taxes" - Sales taxes are deemed to include all sales, use, excise, consumer, franchise, and other taxes which are legally enacted when negotiations of a Job Order Contract Price are concluded, whether or not yet effective or merely scheduled to go into effect. Taxes are actual costs and are a not-to-exceed reimbursable amount.

"Schedule of Values (SOV)" A spreadsheet with estimated costs organized by subcontract categories, allowances, bid contingency, general conditions costs, taxes, bonds, insurances, and the CONTRACTOR'S construction phase fee. The supporting document for the spreadsheet must be provided in an organized manner that correlates with the schedule of values. The backup information shall consist of the request for bids, bids received, and clarification assumptions used for the particular bid item listed on the schedule of values, if applicable. The SOV may be output from the Project Schedule if the Project Schedule is cost-loaded.

"Start Date" means, as to a Job Order, the date specified in the Notice to Proceed for that Job Order for CONTRACTOR to begin the Work.

"Subcontractor" means a subcontractor of the CONTRACTOR for any of the Work included in a Job Order or any subcontractor at any tier of such a subcontractor.

"Substantial Completion" means when the Work, or an agreed upon portion of the Work, is sufficiently complete so that COUNTY can occupy and use the Project or a portion thereof for its intended purposes. The conditions of Substantial Completion that apply to a specific Job Order will be listed in the Notice to Proceed Letter for that Job Order.

"Supplier" means a person providing materials, supplies or equipment to be included in the Work to CONTRACTOR or any Subcontractor.

"Technical Specifications" means the general provisions and the detailed specifications prescribed by COUNTY describing the materials and performance required for each individual Job Order.

"Work" and "Work (Construction)" mean all labor, materials, supplies, tools, equipment, transportation; site cleanup, storage and disposal of construction debris, supervision, management, overhead and profit, bonds, insurance, licenses and permits, taxes, intellectual property royalty and license fees, all other activities and items required to perform the Work under a Job Order as described in the Scope of Work in the Job Order. Work does not include Pre-Construction Services in connection with a Job Order.

ARTICLE 2 - JOB ORDER DEVELOPMENT

The steps for development of a Job Order and Quotation will generally be the following:

- For Projects estimated under \$200,000.00, and during emergency situations COUNTY will notify the selected CONTRACTOR of a new Project and may or may not schedule a site visit to explain and discuss the project. Design documents, if any, will be provided to the CONTRACTOR by the time of the site visit. Pricing shall be in accordance with Exhibit E Contractor Unit Cost Price Books. Once the parties agree on the scope of the project, COUNTY will memorialize the agreement in a Job Order and deliver it to CONTRACTOR who shall have five (5) working days, unless a shorter period is specified in the Job Order, to commence construction. Unless otherwise specified by COUNTY, issuance of the Job Order shall constitute Notice to Proceed. In the event of an emergency, the requirement that a Job Order Contract be in place prior to the initiation of work is waived. During such an emergency, a Contractor may be contacted and given instructions by a COUNTY Project Manager to perform the work immediately without an approved Job Order. It is understood that the COUNTY will prepare a Job Order as soon as practicable following said instructions.
- 2. For Projects estimated at \$200,000.00 or greater, the COUNTY will notify all Job Order Contractors under contract to COUNTY. The request shall advise all CONTRACTORS of the nature of the Work to be done and include the selection criteria and methodologies COUNTY will use to make the "best value" decision. Criteria could include lowest bid, lowest bid meeting schedule, best cost alternative(s), etc. The request letter may also include an estimate of the total dollars the COUNTY has budgeted for the Job. CONTRACTOR shall be provided an opportunity to ask questions, seek clarification and/or inspect the site, if requested. Alternatively, the COUNTY may identify in the request the date and time for a meeting or site visit to explain and discuss the Work and further refine the scope of the project. Design documents, if any, may be provided in advance or at the meeting or site visit.
- 3. Upon establishment of the scope of the needed Project, each CONTRACTOR interested in performing the Job Order shall prepare its proposal for accomplishment of the Project utilizing the CONTRACTOR'S best estimating practices to develop a fixed, lump sum or not-to-exceed Guaranteed Maximum Contract Price to complete the Work, including any additional Pre-Construction Services (if necessary). See Article 3 for a description of required proposal items. Quotes will be in letter format including an attached table listing major construction components (ie. Mobilization, grade control structures, soil cement bank protection, excavation, clearing/grubbing, subgrade prep., etc.) with quantities, unit cost, total cost as columns in the table. The time for submittal of proposals for individual Projects shall not exceed seven (7) working days unless approved by the COUNTY.
- COUNTY shall review each CONTRACTOR'S proposal and may either accept the proposals or negotiate
 modifications to the proposals until such time the COUNTY is satisfied with each of the proposals. Such

negotiations shall be limited to value alternatives of costs less than 20% of the original quotation price. Scope modifications or value alternatives that are equal to or greater than 20% shall require COUNTY to modify the original request and rebid to the benefit of all interested CONTRACTORS under this Contract.

- The Job Order will then be issued by COUNTY to the Job Order Contractor that submitted the best quotation (including schedule and/or value engineering alternatives), as measured by the criteria in the request for quotation. Past performance on earlier Job Orders, including past performance on cost or price control, may be used to determine award of future Job Orders. Quotations must be reasonably prepare, accurately describing the work including the types of materials used, quantities and other cost elements. In the instance the quotation is deemed to be unreasonable or inaccurate, the Project Manager can exercise the option to reject the bid (even if it is the lower bid) or request a revised quotation. An alternative Contractor will be chosen for the work.
- 6. Upon issuance of each Job Order by COUNTY, the Job Order Contract will be binding upon the CONTRACTOR and COUNTY. A Job Order is considered "issued" when delivered to the CONTRACTOR or sent by facsimile copy, in which case the Job Order will be "issued" when sent to CONTRACTOR'S fax number and COUNTY'S fax machine prints an acknowledgement of receipt or COUNTY.

ARTICLE 3 - JOB ORDER PROPOSAL CONTENT

Although specific Job Orders will vary, the content of Job Order proposals provided by each CONTRACTOR under this contract will generally include the following:

- 1. The description of the Scope of the Work;
- 2. The duration of the work, including CPM schedule (if required);
- 3. The Contract Price for Work (Construction), including prices for various proposed alternatives;
- 4. The Contract Price of Pre-Construction Services by CONTRACTOR (if any);
- The name of the CONTRACTOR Representative for the Project;
- 6. The Drawings and Specifications (if any) used to prepare the quotation;
- 7. Any assumptions or exclusions that qualify the CONTRACTOR'S price, including how many days the proposal is valid for,
- 8. A risk analysis of the project that identifies potential risks to the cost or schedule, or other items which the Owner may need to be informed of that will impact a successful outcome;
- 9 If any Shop Drawings, Product Data and/or Samples are required for the Job Order, the date for delivery of each required item;
- 10. A statement of which, if any, of the following are required: Preconstruction Conference, Weekly Progress Meetings, Field Office, Storage Enclosure, Materials and Equipment Handling Facility, Submittals, Shop Drawings, Product Data, Equipment List, Samples, Project Manual, Schedule of Values, Construction Progress Schedule, Narrative Reports, Progress Report, Progress Charts, Progress Photographs, Materials Status Report, Construction Diagram, Construction Status Report, Operation and Maintenance Data, Operating Maintenance Instructions and Parts List, and As-Built Drawings.

Each Job Order will be interpreted to include all items reasonably necessary to complete the Project as described in the Scope of the Work of the Job Order. All Work shall be performed in a professional manner and all materials used shall be new, of the highest quality and of the type best adapted to their purpose, unless otherwise specified.

ARTICLE 4 - JOB ORDER NEGOTIATION

- A. <u>Job Order Pricing</u> The Contract Price shall include all costs, including overhead, pre-construction, mobilization, indirect costs, etc., incidental to performing the work and completing the job order and with the exception of any changes in the scope of work as directed by the Owner as defined by ARTICLE 6, no additional payments will be made.
- B. <u>Pre-Construction Services (if any)</u> If CONTRACTOR is providing Pre-Construction Services, the proposal must be supported by documentation to establish that adequate involvement by CONTRACTOR in the planning, engineering and design work will be performed to satisfy the requirements of the project. Required services may include (but are not limited to) constructability reviews, materials recommendations, alternatives analysis, development of cost and schedule estimates and tradeoffs, and similar services.

ARTICLE 5 - JOB ORDER MANAGEMENT

A. <u>Planning, Scheduling, Monitoring</u> – Planning, scheduling and progress monitoring are essential functions of CONTRACTOR. If required by the Job Order, after the issuance of the Job Order CONTRACTOR shall prepare and submit to COUNTY a Schedule of Values allocating the Contract Price among the various portions of the Work for purposes of progress payments. The format of the Schedule of Values shall be as specified by COUNTY. In addition, if required by the Job Order, CONTRACTOR shall submit a CPM-based Construction Schedule that shall be maintained and updated for the duration of the project.

Project Management

CONTRACTOR shall employ and supply a sufficient force of workers, material and equipment, and shall prosecute the Work under each Job Order with such diligence as to maintain a steady rate of progress or, if there is a Construction Progress Schedule, the rate of progress indicated on the Construction Progress Schedule, to prevent work stoppage, and to ensure completion of the Project under each Job Order within the Contract Time.

2. Daily Log

CONTRACTOR shall maintain a Daily Log of construction activities using a form approved by COUNTY. CONTRACTOR shall include in the log all significant issues or problems affecting progress and completion of any Job Order.

If required in a Job Order, CONTRACTOR shall provide copies of the entries in the Daily Log to COUNTY no later than the morning of the next business day. The Daily Log does not constitute written notice to the COUNTY when such notice is required by the Contract.

Progress Schedule and Float

If CONTRACTOR submits an original or updated schedule which shows the Work under a Job Order and/or individual milestone(s) completing earlier than required by the adjusted Final Completion Date in the Job Order, the differences between the forecasted early completion and the required Final Completion Date shall be considered Project-owned float available for use by both COUNTY and CONTRACTOR.

B. Reporting

Monthly Reporting

If required by the Job Order, on the last business day of each calendar month, CONTRACTOR will deliver to the COUNTY a Monthly Narrative Report. The Report shall include a description of all current, issued, and in process Job Orders, the status of each and anticipated problem areas, delaying factors and their impact, and an explanation of corrective action(s) taken or proposed.

The Report shall include for each job order the Start Date, the Final Completion Date, and, for Job Orders with more than sixty (60) days between such dates, either (A) the current Progress Schedule for the Project, or (B) the date by which CONTRACTOR is to submit a proposed Progress Schedule for approval by COUNTY.

If the Project under any Job Order is behind schedule in any month, CONTRACTOR'S Narrative Report shall indicate precisely what measures it will take in the next thirty days to put the Work back on schedule.

If requested by COUNTY, CONTRACTOR shall meet with COUNTY to review the monthly Update Report and to discuss any issues.

2. <u>Contractor Responsibility</u>

To the extent required in the Job Order for the Project, CONTRACTOR shall be responsible to prepare, submit and maintain the daily log, CPM schedules and Narrative Reports indicated above; failure to do so may be considered a material breach of this Contract. Any additional or unanticipated cost or expense required to maintain logs, schedules reports shall be solely CONTRACTOR'S responsibility and shall not be charged to COUNTY.

ARTICLE 6 - CHANGES AND CHANGED CONDITIONS

A. Owner Directed Changes in the Scope of Work – By written directive at any time, COUNTY may make any changes within the general scope of the Work under a Job Order or issue additional instructions, require additional or modified Work or direct deletion of Work. CONTRACTOR shall not proceed with any change involving an increase or decrease in cost or time without prior written authorization from the COUNTY in the form of a completed and executed Change Order. If CONTRACTOR proceeds with any change involving an increase or decrease in cost or time without written authorization as required by this article, CONTRACTOR waives all rights or claims CONTRACTOR may have as a result of the change. The COUNTY'S right to make changes shall not invalidate the Agreement or Job Order Contract Documents or relieve CONTRACTOR of any liability. Any requirement of notice of change to the Surety shall be the responsibility of CONTRACTOR.

ARTICLE 7 - DELAYS AND TIME EXTENSIONS

- A. <u>Demonstration of Delay</u> It is agreed that no time extensions shall be granted nor delay damages paid by COUNTY unless the delay can be clearly demonstrated by CONTRACTOR on the basis of the updated Critical Path Schedule, cannot be mitigated, offset, or eliminated through such actions as revising the intended sequence of the Work or other reasonable means.
- B. Application of Float Since float time within the schedule is jointly owned, no time extensions will be granted nor delay damages paid until a delay occurs which extends the work beyond the adjusted Final Completion Date. Since float time within the construction schedule is jointly owned, it is acknowledged that COUNTY-caused delays on the Project may be offset by COUNTY-caused time savings (i.e., critical path submittals returned in less time than allowed by the Contract, approval of substitution requests which result in a savings of time to the CONTRACTOR, etc.).
- C. In such an event, CONTRACTOR shall not be entitled to receive a time extension or delay damages until all COUNTY-caused time savings are exceeded and the Final Completion Date or milestone date is also exceeded

ARTICLE 8 - PERFORMANCE MEASUREMENT

A. <u>Performance Assessment</u> – Promptly after final completion of the Work under each Job Order, COUNTY will complete a written evaluation of CONTRACTOR'S performance of the Work. The evaluation shall consist of completion by COUNTY of the Performance Quality Evaluation Form attached as **Attachment "1"** to these **SPECIAL CONDITIONS.**

- B. <u>Feedback</u> The completed Performance Evaluation will be shared with CONTRACTOR as a means of providing feedback regarding CONTRACTOR'S cost, schedule and quality performance. CONTRACTOR may submit additional information, comment, recommendations or rebuttal for association with the Performance Evaluation.
- C. <u>Comparative Assessment</u> CONTRACTOR's cost, schedule and quality performance of Job Orders under this Contract will be compared periodically to the performance of other like-situated Contractors. The results of these comparisons will be provided to CONTRACTOR.
 - CONTRACTOR understands that these assessments will necessarily involve significant subjectivity. CONTRACTOR agrees to this process and agrees further that the application of subjectivity in these assessments shall not form the basis for any claim or cause of action of any form whatsoever.
- D. <u>Consideration of Renewal</u> CONTRACTOR'S record of cost, schedule and quality performance and comparative assessments shall be significant considerations in the COUNTY'S determination whether to renew CONTRACTOR'S participation in the Agreement. CONTRACTOR agrees that any determination by COUNTY not to renew its participation based on performance will be at the sole discretion of COUNTY.

<u>ARTICLE 9 – SUBCONTRACTORS</u>

A. <u>Subcontractor Selection</u> – CONTRACTOR will select Subcontractors in accordance with the Subcontractor Selection Plan incorporated into this Contract by reference.

B. <u>Subcontracts</u>

- 1. CONTRACTOR agrees to deliver to each Subcontractor and to cause each Subcontractor to deliver to each sub-subcontractor a copy of this Agreement and the Job Order Contract Documents relating to the Work of the Subcontractor or sub-subcontractor. CONTRACTOR agrees to include in its contract with each Subcontractor all provisions of the Agreement and Job Order documents required to be included in those contracts and to cause its Subcontractors to include the same provisions in their contracts with their sub-subcontractors at all tiers.
- 2. Each Subcontract, or other Agreement, with any subcontractor for any job order shall include the address or location of the work.
- C. <u>Assignment Upon Termination</u> CONTRACTOR hereby assigns to COUNTY (and its assigns) all its interest in any subcontracts and purchase orders now existing or hereinafter entered into by CONTRACTOR for performance of any part of the Work under each Job Order, which assignment will be effective upon termination of the Contract by the COUNTY and only as to those subcontracts and purchase orders which the COUNTY assumes in writing. All subcontracts and purchase orders shall provide that they are freely assignable by CONTRACTOR to the COUNTY and its assigns. Such assignment is part of the consideration to COUNTY for entering into the Contract with CONTRACTOR and may not be withdrawn prior to final completion of the Work under each Job Order.

ARTICLE 10 - TERMINATION FOR CAUSE

Anything in the Contract Documents to the contrary notwithstanding, any termination of this Agreement shall automatically terminate all Job Orders as to which the Work is not complete, except that upon any termination of this Contract, COUNTY may elect by written notification to CONTRACTOR to continue in effect any or all then uncompleted Job Orders in which event this Agreement shall continue in effect as to each continued Job Order and shall terminate upon completion of the last such Job Order.

Anything in the Agreement to the contrary notwithstanding, (i) all indemnification provisions, reimbursement provisions and payment provisions shall survive termination of this Agreement under this Article and shall continue in effect indefinitely without termination, and (ii) all guarantee and warranty provisions and all provisions in the Agreement Documents requiring CONTRACTOR to correct any Work not in accordance with the relevant Job Order Documents

shall not terminate upon termination of this Agreement and shall continue in effect thereafter in accordance with the terms of each such provision.

- A. <u>Cause for Termination</u> In addition to the termination rights of the COUNTY in **ARTICLE 17 TERMINATION**OF CONTRACT FOR DEFAULT of the Agreement between COUNTY and CONTRACTOR, the COUNTY may terminate any or all Job Orders and/or the overall Job Order Agreement at the election of COUNTY, upon the occurrence of any one or more of the following events:
 - If CONTRACTOR refuses or fails to prosecute the Work under any Job Order with such diligence as will ensure its completion within the Contract Time for that Job Order; or if the CONTRACTOR fails to complete the Work under any Job Order within the Contract Time for that Job Order;
 - 2. If CONTRACTOR or any of its key Subcontractors under any Job Order is adjudged a bankrupt or insolvent or makes a general assignment for the benefit of creditors, or if CONTRACTOR or any of its key Subcontractors under any Job Order or a third party files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or similar laws concerning CONTRACTOR or any of its key Subcontractors under any Job Order, or if a trustee or receiver is appointed for CONTRACTOR or any of its key Subcontractors under any Job Order or for any of CONTRACTOR'S property on account of CONTRACTOR or a key Subcontractor under any Job Order, and, in each case, CONTRACTOR or its successor in interest or its respective key Subcontractor under any Job Order does not provide reasonably adequate assurance of future performance in accordance with the Contract Documents within 10 days after receipt of a request for assurance from the COUNTY;
 - 3. If CONTRACTOR persistently fails to supply sufficient skilled workmen or suitable materials or equipment for the Work under any Job Order,
 - 4. If, as to any Job Order, CONTRACTOR fails to make prompt payments to Subcontractors or Suppliers at any tier, or for labor, materials or equipment;
 - If CONTRACTOR fails to comply with laws, ordinances, rules, codes, regulations, orders or similar requirements of any public entity having jurisdiction;
 - 6. If, as to any Job Order, CONTRACTOR fails to follow any reasonable instructions by the COUNTY, which are consistent with the Construction Documents;
 - If, as to any Job Order, CONTRACTOR performs Work which deviates from the Job Order Documents and neglects or refuses to correct rejected Work, or
 - If, as to any Job Order, CONTRACTOR otherwise violates in any material way any provisions or requirements of this Agreement or any Job Order Contract Documents.
- B. Notice and Cure Period If COUNTY determines that one or more events of default described in Article 10(A) has occurred, the COUNTY may elect to terminate any or all Job Orders and/or terminate CONTRACTOR'S participation in the overall Agreement. To do this, the COUNTY must first give CONTRACTOR and its Surety written notice of the events of default ("Notice of Default") and allow CONTRACTOR and its Surety ten (10) calendar days to cure the events of default. If the events of default are not cured within the ten (10) calendar days, COUNTY may terminate any or all Job Orders and/or terminate CONTRACTOR'S participation in the overall Agreement by written notice to Contractor and its Surety.

C. <u>Completion of Terminated Work</u>

1. If any Job Order or participation in the Agreement is terminated, COUNTY may take over the Work under terminated Job Orders and prosecute them to completion, by contract or otherwise, and may exclude CONTRACTOR from the sites. The COUNTY may take possession of the Work under the terminated Job Orders and of all of CONTRACTOR's tools, appliances, construction equipment, machinery, supplies and plant which may be on the site of the Work for each terminated Job Order, and use the same to the full extent they could be used by CONTRACTOR, all without liability to CONTRACTOR.

In exercising the COUNTY'S right to prosecute the completion of the Work, the COUNTY may also take possession of all materials and equipment stored at the site or for which the COUNTY has paid CONTRACTOR but which are stored elsewhere. The COUNTY may use the foregoing items to finish the Work as the COUNTY deems expedient. In such case, the CONTRACTOR shall not be entitled to receive any further payment until the Work is finished.

- 2. If any Job Order is terminated, the COUNTY may demand that CONTRACTOR'S surety take over and complete the Work under the Job Order. The COUNTY may require that in so doing, the CONTRACTOR's surety not utilize CONTRACTOR in performing the Work. Upon the failure or refusal of CONTRACTOR's surety to take over and begin completion of the Work within 20 days after the demand, the COUNTY may take over the Work and prosecute it to completion as provided above.
- 3. As to any terminated Job Order, COUNTY shall have the option of requiring any, all or none of the Subcontractors and Sub-subcontractors to perform according to their subcontracts and may assign any or all of the subcontracts to a general contractor selected to complete the Work.
- 4. If COUNTY takes over the Work under any terminated Job Order, unexecuted orders entered into by CONTRACTOR for performance of any part of the Work will be effective upon acceptance by COUNTY in writing and only as to those subcontracts and purchase orders which the COUNTY designates in writing.

D. Payment for Terminated Work

- If, as to any terminated Job Order, the unpaid balance of the Contract Price exceeds the direct and indirect costs and expenses of completing the Work and all COUNTY damages including, without limitation, liquidated damages and compensation for additional professional and CONTRACTOR services ("COUNTY'S Termination Costs"), such excess shall be used to pay CONTRACTOR for the Work it performed and for which CONTRACTOR has not been paid previously and the amount shall be determined using the Tasks, Unit Prices, Coefficients, and Other Tasks and Other Prices included in the Job Order, If, as to any terminated Job Order, the COUNTY'S Termination Costs exceed the unpaid balance of the Contract Price, CONTRACTOR shall immediately upon demand pay the difference to the COUNTY or the COUNTY may set off the amount against any other amounts owing to CONTRACTOR for any cause whatsoever, whether current or future. In exercising the COUNTY'S right to prosecute the completion of the Work under any terminated Job Order, the COUNTY shall have the right to exercise its sole discretion as to the manner, methods, and reasonableness of the costs to be incurred in completing the Work, and the COUNTY shall not be required to obtain the lowest figure for Work performed in completing the Project. If the COUNTY holds a competitive procurement for remedial Work or completion of the Work under a terminated Job Order, CONTRACTOR shall not be eligible for the award of such contracts.
- 2. CONTRACTOR shall be liable for any damage to the COUNTY resulting from the termination or from CONTRACTOR'S refusal or failure to complete the Work under any terminated Job Order and for all costs necessary for repair and completion of the Project under each terminated Job Order over and beyond the Contract Price. CONTRACTOR shall be liable for all legal fees and costs required to enforce the provisions of the Agreement and/or Job Order Documents.
- E. <u>Nonexclusive Remedies</u> In the event any Job Order or CONTRACTOR'S participation in the Agreement is terminated, the termination shall not affect any other rights of the COUNTY against CONTRACTOR. The rights and remedies of COUNTY under this **Article 10** are in addition to any other rights and remedies provided by law or under the Agreement or Job Order Contract Documents. Any retention or payment of monies to CONTRACTOR by COUNTY will not release CONTRACTOR from liability.

F. <u>Erroneous Termination for Cause</u> – If any Job Order or participation in the overall Agreement is terminated under this **Article 10**, and it is determined for any reason that there was no default under **Article 10**, the termination shall be deemed a Termination for Convenience of the COUNTY.

ARTICLE 11 - TERMINATION FOR CONVENIENCE OF THE COUNTY

The COUNTY, by written notice to CONTRACTOR, may terminate any Job Order or the overall Agreement in whole or in part if sufficient appropriated or other funds are not available or the COUNTY determines, in the sole discretion of the COUNTY, that such termination is in the COUNTY'S best interest. In such case, CONTRACTOR shall be paid for all Work under each Job Order for which CONTRACTOR has not been paid previously. CONTRACTOR shall also be paid reasonable termination expenses. In no event shall such payments as to any Job Order, exclusive of termination expenses, exceed the total Contract Price for the Job Order as reduced by payments previously made to CONTRACTOR and as further reduced by the value of the Work as yet not completed. Since profit and overhead are built into the Contract Price for each Job Order, CONTRACTOR shall not be entitled any additional profit or overhead on Work performed and in addition, CONTRACTOR shall not be entitled to any profit or overhead on Work not performed.

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ATTACHMENT 1 TO EXHIBIT "C" (2 pages) PERFORMANCE EVALUATION FORM

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END OF ATTATCHMENT 1 TO EXHIBIT "C" - PERFORMANCE EVALUATION FORM END EXHIBIT "C" - SPECIAL CONDITIONS

^{20.} REMARKS (explanation of unsatisfactory evaluation is required. Other comments are optional. Provide feets concerning apacitic events or actions to justify the availation. These data must be in sufficient detail to assist contracting officers in clearatining the contractors responsibility. Continue on separate sheet(s), if needed.)

EXHIBIT "D" (3 pages) SUPPLEMENTAL PROVISIONS FOR FEDERAL AID CONSTRUCTION CONTRACTS

These provisions apply only to work subject to Federal-Aid. A copy of this Exhibit "D" and a current Wage Determination shall be attached to the Job Order for any federally funded project. Current wage determinations may be found at http://www.wdol.gov/dba.aspx

<u> ARTICLE 1 – DAVIS BACON ACT WAGE DETERMINATION</u>

CONTRACTOR shall pay wages in accordance with the most current Davis Bacon rates in effect in Pima County, Arizona at the time the Job Order is negotiated. CONTRACTOR shall provide to COUNTY at the time of Job Order negotiation, an adjustment to each of the unit prices for the line items that require payment Davis-Bacon wages. CONTRACTOR shall include a copy of the most recent Davis-Bacon Wage Determination in their proposal for incorporation into the Job Order's terms and conditions. The most current Davis-Bacon Act Wage Determinations may be found online at http://www.wdol.gov/dba.aspx

ARTICLE 2 – SUBCONTRACTORS

In addition to the requirements set forth in Article 10 of the Master Agreement, CONTRACTOR shall ensure that no subcontracts are awarded at any tier, to any individual, firm, partnership, joint venture, or any other entity regardless of the form of business organization, listed in the Federal Government's System for Award Management (SAM) system (https://www.sam.gov/portal/public/SAM) with an active exclusion.

ARTICLE 3 – OWNERSHIP OF DOCUMENTS

In addition to the requirements set forth in Article 23 of the Master Agreement, The Granting Agency reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes: (a) the copyright in any work developed under this Agreement or any subcontract; and (b) Any rights of copyright to which CONTRACTOR or COUNTY acquires ownership under this Agreement.

ARTICLE 4 - BOOKS AND RECORDS

In addition to the requirements set forth in Article 24 of the Master Agreement, CONTRACTOR shall also keep and maintain proper and complete books, records and accounts, which shall be open at all reasonable times for inspection and audit by the Granting Agency and the Comptroller General of the United States.

ARTICLE 5 - CHANGED CONDITIONS

- (1) Differing site conditions.
 - During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contractor if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.
 - (ii) Upon written notification, COUNTY will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. COUNTY will notify CONTRACTOR of the determination whether or not an adjustment of the contract is warranted.

- (iii) No contract adjustment which results in a benefit to CONTRACTOR will be allowed unless CONTRACTOR has provided the required written notice.
- (iv) No contract adjustment will be allowed under this clause for any effects caused on unchanged work.
- (2) Suspensions of work ordered by COUNTY.
 - (i) If the performance of all or any portion of the work is suspended or delayed by COUNTY in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and CONTRACTOR believes that additional compensation and/or contract time is due as a result of such suspension or delay, CONTRACTOR shall submit to COUNTY in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
 - (ii) Upon receipt, COUNTY will evaluate CONTRACTOR'S request. If COUNTY agrees that the cost and/or time required for the performance of the Contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of CONTRACTOR, its suppliers, or subcontractors at any approved tier, and not caused by weather, COUNTY will make an adjustment (excluding profit) and modify the contract in writing accordingly. CONTRACTOR will be notified of COUNTY'S determination whether or not an adjustment of the Contract is warranted.
 - (iii) No contract adjustment will be allowed unless CONTRACTOR has submitted the request for adjustment within the time prescribed.
 - (iv) No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this Contract.
- (3) Significant changes in the character of work.
 - (i) COUNTY reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and CONTRACTOR agrees to perform the work as altered.
 - (ii) If the alterations or changes in quantities significantly change the character of the work under the Contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the Contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against CONTRACTOR in such amount as COUNTY may determine to be fair and equitable.
 - (iii) If the alterations or changes in quantities do not significantly change the character of the work to be performed under the Contract, the altered work will be paid for as provided elsewhere in the Contract.
 - (iv) The term "significant change" shall be construed to apply only to the following circumstances:
 - (A) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or

(B) When a major item of work, as defined elsewhere in the Contract, is increased in excess of 125 percent or decreased below 75 percent of the original Contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original Contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

END EXHIBIT "D" - SUPPLEMENTAL PROVISIONS FOR FEDERAL CONTRACTS

EXHIBIT "E" CONTRACTOR UNIT PRICE BOOKS (78 pages)





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3 4 5 6 7 8	10" Ø 12" Ø 15" Ø 21" Ø	For 5000 LF 6.0 mm thk \$66.50/ff For 5000 LF 6.0 mm thk \$70.50/f For 2000 LF 6.0 mm thk \$75.50/ff For 2000 LF 6.1 mm thk \$85.00/ff For 2000 LF 7.4 mm thk \$99.10/ff For 1000 LF 8.6 mm thk \$110.00/ff	For 5000 LF 6.0 mm thk \$66.50/lf For 5000 LF 6.0 mm thk \$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	For 1000 LF 6.0 mm thk \$66,50/lf For 1000 LF 6.0 mm thk \$70,50/lf For 1000 LF 7.1 mm thk \$80,40/lf For 2000 LF 8.9 mm thk \$98,00/lf For 2000 LF 10.7 mm thk	For 100 LF 6.0 mm thk \$66 50/ff For 100 LF 6.6 mm thk \$77.30/ff For 100 LF 7.9 mm thk \$85.70/ff For 200 LF 9.9 mm thk \$103.70/ff For 200 LF	\$ 738,150.00 \$ 360,230.00 \$ 479,940.00
3 4 5 6 7 8	10" Ø 12" Ø 15" Ø 21" Ø	6.0 mm thk \$66.50/lf For 5000 LF 6.0 mm thk \$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	6.0 mm thk \$66.50/lf For 5000 LF 6.0 mm thk \$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	6.0 mm thk \$66.50/lf For 1000 LF 6.0 mm thk \$70.50/lf For 1000 LF 7.1 mm thk \$80.40/lf For 2000 LF 8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk	6.0 mm thk \$66.50/ff For 100 LF 6.6 mm thk \$77.30/ff For 100 LF 7.9 mm thk \$85.70/ff For 200 LF 9.9 mm thk \$103.70/ff For 200 LF	\$ 738,150.00 \$ 360,230.00 \$ 479,940.00
3 4 5 6 7 8	10" Ø 12" Ø 15" Ø 21" Ø	\$66.50/lf For 5000 LF 6.0 mm thk \$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	\$66.50/lf For 5000 LF 8.0 mm thk \$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	\$66.50/lf For 1000 LF 6.0 mm thk \$70.50/lf For 1000 LF 7.1 mm thk \$80.40/lf For 2000 LF 8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk	\$66.50/lf For 100 LF 6.6 mm thk \$77.30/lf For 100 LF 7.9 mm thk \$85.70/lf For 200 LF 9.9 mm thk \$103.70/lf For 200 LF	\$ 360,230.00 \$ 479,940.00
5 6 7 8	12" Ø 15" Ø 18" Ø 21" Ø	For 5000 LF 6.0 mm thk \$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	For 5000 LF 8.0 mm thk \$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	For 1000 LF 6.0 mm thk \$70.50/lf For 1000 LF 7.1 mm thk \$80.40/lf For 2000 LF 8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk \$113.00/lf	For 100 LF 6.6 mm thk \$77.30/lf For 100 LF 7.9 mm thk \$85.70/lf For 200 LF 9.9 mm thk \$103.70/lf For 200 LF	\$ 360,230.00 \$ 479,940.00
5 6 7 8 9	12" Ø 15" Ø 18" Ø 21" Ø	6.0 mm thk \$70.50/f For 2000 LF 6.0 mm thk \$75.50/f For 2000 LF 6.1 mm thk \$85.00/f For 2000 LF 7.4 mm thk \$99.10/f For 1000 LF 8.6 mm thk \$110.00/f	6.0 mm thk \$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	6.0 mm thk \$70.50/lf For 1000 LF 7.1 mm thk \$80.40/lf For 2000 LF 8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk	6.6 mm thk \$77.30/lf For 100 LF 7.9 mm thk \$85.70/lf For 200 LF 9.9 mm thk \$103.70/lf For 200 LF	\$ 360,230.00 \$ 479,940.00
5 6 7 8	12" Ø 15" Ø 18" Ø 21" Ø	\$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	\$70.50/lf For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	\$70.50/lf For 1000 LF 7.1 mm thk. \$80.40/lf For 2000 LF 8.9 mm thk. \$98.00/lf For 2000 LF 10.7 mm thk \$113.00/lf	\$77.30/lf For 100 LF 7.9 mm thk \$85.70/lf For 200 LF 9.9 mm thk \$103.70/lf For 200 LF	\$ 479,940.00
5 6 6 7 8 9 9	15" Ø	For 2000 LF 6.0 mm thk \$75.50/lf For 2000 LF 6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	For 2000 LF 6.0 mm thk \$75.50/If For 2000 LF 7.4 mm thk \$92.00/If For 2000 LF 8.9 mm thk \$106.00/If For 1000 LF	For 1000 LF 7.1 mm thk \$80.40/lf For 2000 LF 8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk \$113.00/lf	For 100 LF 7.9 mm thk \$85.70/fr For 200 LF 9.9 mm thk \$103.70/fr For 200 LF	\$ 479,940.00
5 6 7 8	15" Ø	6.0 mm thk \$75.50/lf For 2000 LF 6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	6.0 mm thk \$75.50/lf For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	7.1 mm thk \$80.40/lf For 2000 LF 8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk \$113.00/lf	7.9 mm thk \$85.70/lf For 200 LF 9.9 mm thk \$103.70/lf For 200 LF	\$ 479,940.00
6 7 8 9 9	15" Ø	\$75.50/lf For 2000 LF 6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	\$75.50/lf For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	\$80.40/lf For 2000 LF 8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk \$113.00/lf	\$85.70/lf For 200 LF 9.9 mm thk \$103.70/lf For 200 LF	
6 7 8 9 9	18" Ø	For 2000 LF .6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	For 2000 LF 7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	For 2000 LF 8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk \$113.00/lf	For 200 LF 9.9 mm thk \$103.70/lf For 200 LF	
6 7 8 9 9	18" Ø	6.1 mm thk \$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	7.4 mm thk \$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	8.9 mm thk \$98.00/lf For 2000 LF 10.7 mm thk \$113.00/lf	9.9 mm thk \$103.70/lf For 200 LF	
7 8 9	21" Ø	\$85.00/lf For 2000 LF 7.4 mm thk \$99.10/lf For 1000 LF 8.6 mm thk \$110.00/lf	\$92.00/lf For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	\$98.00/lf For 2000 LF 10.7 mm thk \$113.00/lf	\$103.70/lf For 200 LF	\$ 570,740.00
7 8 9	21" Ø	For 2000 LF 7.4 mm thk \$99.10/if For 1000 LF 8.6 mm thk \$110.00/if	For 2000 LF 8.9 mm thk \$106.00/lf For 1000 LF	For 2000 LF 10.7 mm thk \$113.00/lf	For 200 LF	\$ 570,740.00
7 8 9	21" Ø	7.4 mm thk \$99.10/if For 1000 LF 8.6 mm thk \$110.00/if	8,9 mm thk \$106.00/lf For 1000 LF	10.7 mm thk \$113.00/lf		5,7,740.00
8	21" Ø	\$99.10/if For 1000 LF 8.6 mm thk \$110.00/if	\$106.00/lf For 1000 LF	\$113.00/lf	11.0111111111111	
8		8.6 mm thk \$110.00/lf	For 1000 LF		\$121.00/lf	
8		8.6 mm thk \$110.00/lf		For 1000 LF	For 200 LF	\$ 342,300.00
9	24" Ø			12.4 mm thk	14.0 mm thk	042,000.00
9	24" Ø	For 1000 LF	\$119.00/lf	\$126.50/lf	\$134.60/lf	
9	24" Ø		For 1000 LF	For 1000 LF	For 200 LF	\$ 382,420.00
	,]	9.9 mm thk	11.9 mm thk	14.2 mm thk	16.0 mm thk	002,120.00
		\$121,75/lf	\$131.50/lf	\$141.00/lf	\$151.30/lf	-
	i	For 1000 LF	For 1000 LF	For 1000 LF	For 200 LF	\$ 424,510.00
10	27" Ø	11.2 mm thk	13.2 mm thk	16.0 mm thk	18.0 mm thk	
10		\$125.00/lf	\$134.00/lf	\$144.00/lf	\$155.00/lf	
10		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$ 480,500.00
	30" Ø	12.4 mm thk	14.7 mm thk	17.8 mm thk	20.1 mm thk	
		\$140.00/if	\$150.00/lf	\$161.00/if	\$172.00/if	•
	·	For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$ 537,000.00
11	33" Ø	13.7 mm thk	16.5 mm thk	19,6 mm.thk	22.1 mm thk	
		\$144.00/lf	\$155.00/lf	\$167.00/lf	\$169.00/lf	
	·	For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$ 550,500.00
12	36" Ø	14.7 mm thk	17.8 mm thk	21.1 mm thk	23,9 mm thk	
		\$154.00/lf	\$166.00/lf	\$179.00/lf	\$192.00/lf	
		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$ 595,000.00
13	39" Ø	15.7 mm thk	. 19.3 mm thk	22.9 mm thk	25.9 mm thk	
		\$165,00/lf	\$177.00/lf	\$192.00/lf	\$207.00/lf	•
		For 1000 LF	For 1000 LF	For 1000 LF	For 200 LF	\$ 575,400.00
14	42" Ø	17.3 mm thk	20.8 mm thk	24.6 mm thk	28.2 mm thk	
		\$177.00/lf	\$190.00/lf	\$206.00/lf	\$221.00/lf	
		For 1000 LF	For 1000 LF	For 1000 LF		\$ 617,200.00
15	48" Ø	19.6 mm thk	23.6 mm thk	28.2 mm thk	32,0 mm thk	
.		\$231,00/lf	\$260.00/lf	\$292.00/lf	\$567.00/lf	
42		For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF	\$ 839,700.00
16	54" Ø	21.8 mm thk	26.7 mm thk	31.8 mm thk	36.1 mm thk	
		\$277.00/lf	\$314.00/lf	\$350.00/lf	\$659.00/lf	_
-	201.07	For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF	\$ 1,006,900.00
17	60" Ø	24.1 mm thk	29.7 mm thk	35.3 mm thk	. 39.9 mm thk	
	1	\$318.00/lf	\$371,00/lf	\$424.00/lf	\$779.00/lf	
40	001.0	For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF	\$ 1,190,900.00
18	66" Ø	26.4 mm thk	32.5 mm thk	38.9 mm thk	43.9 mm thk	
1	i	\$380.00/lf	\$436.00/lf	\$495.00/if	\$890.00/lf	
	701 6	For 1000 LF	For 1000 LF	For 1000 LF		\$ 1,400,000.00
19	72°Ø	28,7 mm thk	35.6.mm thk	42.4 mm thk	48.0 mm thk	
- 1		\$383.00/lf	\$450.00/ff	\$504.00/lf	\$915.00/lf	
20	79" (*	For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF	\$ 1,428,500.00
20	78" Ø	31.0 mm thk	38.4 mm thk	46.0 mm thk	52.1 mm thk	
1	. [\$435.00/lf	\$507.00/lf	\$581.00/lf	\$1,017.00/lf	
		For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF CIPP Liner Items Subtotal:	<u>\$</u>

					(Rev. 07/23/2021)	
		A	B	С	D	
item	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1'	Extended Total
	•		Open Cut pipe	Open Cut pipe	Open Cut pipe Repair	(Sum of unit price * number of LF for
-		Repair	Repair	Repair		each of categories A - D)
21	6" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	
	•	\$48.40/lf			1	O/(f
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,212,450.00
22	8" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	
		\$53.90/lf		\$109.40/lf	\$142.4	D/If
		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 1,938,250.00
23	10" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	
- 1		\$63.00/lf	T -1-11 + 1111	\$118.90/lf	\$150.4	D/If
		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 2,121,500.00
24	12" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	
		\$70.75/lf	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$126.60/lf	\$158.0	D/lf
		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 2,275,750.00
25	15" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	
		\$85.10/lf	\$113.00/lf	\$135.40/lf	\$172.4	D/If
		For 2000 LF	For 2000 LF	For 2000 LF	For 2000 LF	\$ 1,011,800.00
26	18" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	
	-	\$93.00/lf	\$112.00/lf	\$132.00/lf		00
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 506,000.00
27	21" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	,
		\$125.00/lf	\$154.00/lf	\$184.00/lf		D/If
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 676,000.00
28	24" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	3,0,000.00
	100	\$145.00/lf	\$174.00/lf)/If
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 744,000.00
29	27" Ø .	PVC Repair	PVC Repair	PVC Repair	PVC Repair	111,000,00
	-	\$182.00/lf	\$211.00/lf	\$240.00/lf		n/lf
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 924,000.00
30	30" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	924,000.00
		\$218.00/lf	\$247,00/lf	\$276.00/lf	\$316.00	n/lf
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	1,057,000.00
31	33" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	1,007,000.00
- 1		\$309.00/lf	\$348.00/lf	\$377.00/if	\$430.00	V/If
- 1			For 1000 LF	For 1000 LF	For 1000 LF	\$ 1,464,000.00
32	36" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	1,404,000.00
		\$309.00/if	\$339.00/lf	\$377.00		ne .
			For 1000 LF	For 1000 LF	For 1000 LF	\$ 1,444,000.00
33	39" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	1,444,000,00
-		\$324.00/lf	\$363.00	\$402.00/lf	\$456.00	ne
ł		For 1000 LF		For 1000 LF	For 1000 LF	_ I
34	42" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	\$. 1,545,000.00
-	2	\$378,00/lf	\$417.00/lf	\$456,00/lf	•	ne ·
- 1	1.0	For 1000 LF	For 1000 LF	\$456,00/ir For 1000 LF	1	I
35	48" Ø		PVC Repair	PVC Repair	For 1000 LF PVC Repair	\$ 1,761,000.00
~	70 90	\$463.00/lf	\$502.00/lf	\$541.00/lf	'	uz .
	•		\$502.00/if For 1000 LF			
		11 04 1000 LF	FOI TOOU LF	For 1000 LF	For 1000 LF	\$ 2,112,000.00
					Open Cut PVC Subtotal:	\$ 20,792,750.00

	.*				(Rev. 07/23/2021)	the state of the s
		A	В	С	D	
Item	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15,1 [']	-Extended Total
		Open Cut pipe Repair	Open Cut pipe Repair	- 1- 2 E-E-	Open Cut pipe Repair	(Sum of unit price * number of LF for
- 36	6" Ø	Clay Repair	Clay Repair	Repair Clay Repair	Clay Depair	each of categories A D)
امم		-/If			Clay Repair . #	
		For 5000-LF	For 5000 LF	For 5000 LF	For 500-LE	<u> </u>
37	8" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
			-/If	-#f		
,	<u> </u>	For 5000 LF	For 5000 LF	For 5000-LF	For 500 LF	\$
38	10" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
		-/lf	-/IF	-/lf	-#	£
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$
39	12" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
		<u>-</u> /#	-/lf	-/lf	· / /	4
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ _
40	15" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
- 1		_/lf	-/4f	-/If	-/ #	•
		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	-\$
41	18" Ø	Clay Repair.	Clay Ropair	Clay Repair	Clay Repair	
١.		/If	/lf	-/ 4f	I	· ·
		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$
42	21" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
		-/lf		-/ f		4
		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	-\$
43	24" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
		/#	, , , ,			
44	27" Ø	For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$
44	21 22	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
		For 1000 LF	For 1000 LF	-/#	l	
45	30" Ø	Clay Repair	Clay Ropair	For 1000 LF Clay Repair	For 100 LF Clay Repair	*
19	30 X	olay Ropali	Jay Ropar	ышу керан - //f	, ,	
- 1		For 1000 LF	For 1000 LF	For 1000 LF	## For-100 LF	
46	33" Ø	Clay Repair	Clay Repair	Clay-Repair	Clay Repair	\$
70	50 2 .	-/If		olay-repa⊪ -/#f		
1		For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF	
47	36" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
"		-/If		/#		
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	•
48	39" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	*
- '-	~	_/If	_/JE	-/if		·.
Į.		For 1000-LF	For 1000 LF	For 1000 LF	For 1000 LF	\$
49	42° Ø	Clay Repair	Clay Ropair	Clay Repair	Clay Repair	
			-/#	-/If		· ·
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$
50	48" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
ļ		-/#F	/If	-/ f		
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$
					Open Cut Clay Subtotal:	\$

					(Rev. 07/23/202	21)	
	·	Α	В	С	D		
item	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1	· .	Extended Total
		Open Cut pipe Repair	Open Cut pipe Repair	Open Cut pipe Repair	Open Cut pip	e Repair	(Sum of unit price * number of LF for each of categories A - D)
51	6" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		each Orcategories A - D)
l		\$72.00/lf				\$160.50/lf	
- 1		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	Ψ100.50/11	\$ 1,577,750.00
52	8" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	· · · · · · · · · · · · · · · · · · ·	1,37 7,730.00
-		\$81.35/lf				\$169.85/lf	
	*	For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	φ 109.63/II	\$ 1,723,425,00
53	10" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		\$ 1,723,425.00
		\$94.30/lf				\$181.65/lf	
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	Φ101.00/II	\$ 1,930,075,00
54	12" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		\$1,930,075.00
Ϋ́	12 2	\$105.25/lf				#400 000	
- 1		For 5000 LF	For 5000 LF	For 5000 LF		\$192.60/lf	
55	15" Ø	DIP Repair	DIP Repair		For 500 LF		\$ 2,099,550.00
33	13 20	\$136.30/lf		DIP Repair	DIP Repair		•
		For 1000 LF	\$164.20/lf	\$186.55/if		\$223.60/lf	
56	18" Ø		For 1000 LF	For 1000 LF	For 1000 LF	<u> </u>	\$710,650.00
ן מכ	18 10	DIP Repair	DIP Repair	DIP Repair	DIP Repair		
		\$134./lf	\$153.00/lf	\$173.00/lf		\$210.00/lf	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF		\$ 670,000.00
57	21" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		
		\$195.00/lf	\$224.00/lf		1	\$282.00/lf	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF		\$954,000.00
58	24" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	-	44
		\$254.00/lf	\$254.00/lf	\$254.00/lf		\$288.00/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF		\$ 105,000.00
59	27" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		
- 1		\$328.00/lf	. \$328.00/lf	\$340.00/lf		\$389.00/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF		\$ 138,500.00
60	30" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	-	
İ		\$328.00/lf	\$328.00/lf	\$341.00/lf		\$376.00/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	40,0000	\$ 137,300.00
61	33" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		107,000.00
		\$409.00/lf	\$409.00/lf	\$433.00/lf		\$496.00/lf	
		For 100 LF	For 100 LF	For 108 LF .	For 100 LF	\$ 100.00/11	\$ 174,700.00
62	36" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		174,700.00
-		\$409.00/lf	\$410.00/lf	\$433.00/lf	Dii Nopali	\$482.00/if	
		1 ' 1	For 100 LF	For 100 LF	For 100 LF	Ψ402.00/11	\$ 173,400.00
63	39" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		<u> </u>
-		\$720.00/lf	\$733.00/lf	\$769.00/if	Dii Kepali	\$821.00/lf	
- 1		For 100 LF	For 100 LF	For 100 LF	For 100 LF	φ021.00/II	\$ 304,300.00
64	42" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair		\$304,300.00
٦	42 D	\$818.00/lf	\$819.00/lf	\$819,00/lf	ог керап	#884 00 III	
		For 50 LF	For 50 LF	For 50 LF	Ear FOLE	\$834.00/lf	
65	48° Ø	DIP Repair	DIP Repair	DIP Repair	For 50 LF	_	\$ 164,500.00
٦ ١	70 D	\$1,006,00/lf			DIP Repair	#4 000 point	
			\$1,006.00/lf	\$1,006.00/lf	E 50.5	\$1,023.00/lf	_
66	54° Ø	For 50 LF		For 50 LF	For 50 LF		\$ 202,050.00
ا ۳	3 4 12	DIP Repair		DIP Repair	DIP Repair		
		\$1,225.00/lf	\$1,225.00/lf	\$1,225.00/lf		\$1,277.00/lf	
	001 =			For 50 LF	For 50 LF		\$ 247,600.00
67	60" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	, 7	
- 1		\$1,392.00/lf	\$1,392.00/lf	\$1,444,00/lf		\$1,497.00/if	
		For 50 LF	For 50 LF	For 50 LF	For 50 LF		\$ 286,250.00
		•			Open Cut DIP 9	Subtotal:	\$ 11,599,050,00

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		Α	В	С	D	
Item	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1'	Extended Total
			Open Cut pipe		Open Cut pipe Repair	(Sum of unit price * number of LF for
		Repair	Repair	Repair		each of categories A - D)
68	6" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	
		\$51.00/lf	\$76.00/lf	\$99.00/lf	\$128,00/lf	•
- 1	,	For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,194,000.00
69	B° Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	
		\$62.00/lf				
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,359,500.00
70	10" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	1,000,000.00
		\$78,00/lf				
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,612,000.00
71	12" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	1,012,003.00
- 1		\$93.00/lf			,	
- 1		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 528,000,00
72	14" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	520,000.00
		\$117.00/lf				
. !		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 623,000.00
73	16" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	920,000.00
ŀ		· '	l '		oos , topaii	*
.		\$141.00/lf			+	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 698,000.00
74	18" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
		\$140,00/lf			\$216.00/lf	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 695,000.00
75	20" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
		\$174.00/lf			\$262.00/lf	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 873,000.00
76	24" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
		\$286.00/if	7-777	\$286.00/lf	\$320.00/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$117,800.00
77	30" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
		\$392.00/lf	\$392.00/lf	\$404.00/lf	\$439.00/lf	
		For 100 LF	For 100 L.F	For 100 LF	For 100 LF	\$ 162,700.00
78	36" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
		\$459.00/lf	\$458.00/lf	\$483.00/lf	\$532.00/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 193,200.00
79	42" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
		\$588.00/lf	\$588.00/lf	\$588.00/if	\$604.00/lf	
		For 50 LF	For 50 LF	For 50 LF	For 50 LF	\$ 118,400.00
80	48" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
.		\$642.00/lf	\$642.00/lf	\$642.00/lf		*
		For 50 LF	For 50 LF	For 50 LF	For 50 LF	\$ 129,200.00
			<u></u>		Open Cut C900 Subtotal:	\$ 8.303 800 00

	-	A	В	С	D	
Item	Host Pipe	<=5' Cover	5.1' Cover to	10.1' Cover to 15'	>15.1'	Extended Total
			10'			
		Open Cut pipe	Open Cut pipe	Open Cut pipe	Open Cut pipe Repair	(Sum of unit price * number of LF for
		Repair	Repair	Repair		each of categories A - D)
81	60" Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	
		\$1,017.00/lf	\$1,125.00/lf	\$1,233.00/lf	\$1,342.00/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 471,700.00
82	66" Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	·
		\$1,158.00/lf	\$1,267.00/lf	\$1,375.00/lf	\$1,483,00/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 528,300.00
83	72" Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	*
.]		\$1,307.00/lf	\$1,416.00/lf	\$1,524.00/lf	\$1,633.00/lf	and the second s
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 588,000.00
84	78" Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	
		\$1,437.00/lf	\$1,545.00/lf	\$1,653.00/lf	\$1,762.00/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 639,700.00
					Open Cut RCP Subtotal:	\$ 2,227,700.00

		A	В	С	D	
Item	Host Pipe	<=5' Cover	5.1' Cover to	10.1' Cover to 15'	>15.1'	Extended Total
			10'			
		Open Cut pipe	Open Cut pipe	Open Cut pipe	Open Cut pipe Repair	(Sum of unit price* number of LF for
	÷	Repair	Repair	Repair		each of categories A - D)
85	20" Ø	Steel Casing	Steel Casing	Steel Casing	Steel Casing Repair	
				Repair		
		\$241.00/lf	\$241.00/lf	\$241.00/lf	\$275.00	/If
				For 100 LF	For 100 LF	\$ 99,800.00
86	24" Ø	Steel Casing	Steel Casing	Steel Casing	Steel Casing Repair	,
.			Repair	Repair		**
		\$268.00/lf		\$268.00/lf	\$302,00	/if
				For 100 LF	For 100 LF	\$ 110,600.00
87	28" Ø	Steel Casing	Steel Casing		Steel Casing Repair	
-				Repair	· · ·	•
1 1		\$305.00/lf			\$352.00	
					For 100 LF	\$ 127,900.00
88	32" Ø				Steel Casing Repair	
				Repair	٠	
1				\$331.00/lf		
					For 100 LF	\$ 132,500.00
89	36" Ø				Steel Casing Repair	
]			Repair	Repair		
		\$425.00/lf	\$425.00/lf	\$425.00/lf		
	451 6				For 50 LF	\$ 85,800.00
90	42" Ø				Steel Casing Repair	·
				Repair		
			\$473.00/lf			4
	401.0				For 50 LF	\$ 95,350.00
91	48" Ø				Steel Casing Repair	
	•		Repair	Repair		
·		\$512.00/lf	*			
ш		For 50 LF	For 50 LF		For 50 LF	\$ 103,150.00
				Open Cut Steel		\$ 755,100.00
				Casing Subtotal:	-	_L

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		Α	В	C	D	
item	Host Pipe	<=5' Cover	5.1' Cover to	10.1' Cover to 15'	>15.1'	Extended Total
			10'			· .
		Open Cut pipe	Open Cut pipe	Open Cut pipe	Open Cut pipe Repair	(Sum of unit price * number of LF for
		Repair	Repair	Repair		each of categories A - D)
92	4″ Ø	HCS PVC	HCS PVC	HCS PVC Repair	HCS PVC Repair	
		Repair	Repair			
		\$69.60/lf	\$69.60/lf	\$97.95/lf	\$136.45/lf	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 373,600.00
93	4" Ø	HCS VCP	HCS VCP	HCS VCP Repair	HCS VCP Repair	
		Repair	Repair	·		
		\$69.25/lf	\$69.25/lf	\$97,65/lf	\$136.15/lf	
	-	For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 37,230.00
94	4° Ø	HCS DIP	HCS DIP	HCS DIP Repair	HCS DIP Repair	
- 1		Repair	Repair		·	
		\$101.20/lf	\$101.20/lf	\$129.60/lf	\$168.10/lf	
·		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 50,010.00
95	4" Ø	HCS HDPE	HCS HDPE .	HCS HDPE Repair	HCS HDPE Repair	
- 1		Repair	Repair	•	i i	
i		\$64.00/lf	1 '	\$89.00/lf	\$140.56/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 33,756.00
		•			Open Cut HCS Subtotal:	\$ 496,596.00

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Item	Qty	Unit	Description	Unit Price	Total Amount
96	200	EA	6" Ø Point Repair Couplings	\$ 511.00	\$ 102,200.00
97	200	EA	8" Ø Point Repair Couplings	\$ 634.00	\$ 126,800.00
98	20	EA	10" Ø Point Repair Couplings	\$ 634.00	\$ 12,680.00
99	20	EA	12" Ø Point Repair Couplings	\$ 868.00	\$ 17,360.00
100	12	EA EA	15" Ø Point Repair Couplings	\$ 1,578.00	\$ 18,936.00
101	10	EA EA	18" Ø Point Repair Couplings		\$ 22,420.00
102	6	EA EA	21" Ø Point Repair Couplings	\$ 4,151.00	\$ 24,906.00
103	6	EA EA	24" Ø Point Repair Couplings 27" Ø Point Repair Couplings	\$ 4,151.00 \$ 4,151.00	\$ 24,906.00 \$ 24,906.00
105	6	EA	30" Ø Point Repair Couplings	\$ 2,937.00	\$ 17,622.00
106	6	EA .	33" Ø Point Repair Couplings	\$ 2,938.00	\$ 17,628.00
107	6	EA	36" Ø Point Repair Couplings	\$ 3,239.00	\$ 19,434.00
108	6	EA .	39" Ø Point Repair Couplings	\$ 3,239.00	\$ 19,434.00
109	6	EA	42" Ø Point Repair Couplings	\$ 3,913.00	\$ 23,478.00
110	. 6	EA	48" Ø Point Repair Couplings	\$ 4,491.00	\$ 26,946.00
111	1000	EA	HCS Reinstatement for CIPP, Mechanized robot	\$ 334.35	\$ 334,350.00
112	10	EA	HCS Reinstatement for CIPP, Open cut	\$ 1,439.00	\$. 14,390.00
113	250	EA	HCS Reinstatement for Open cut repairs or replacements	\$ 1,582.00	\$ 395,500.00
114	100	EA	CIPP Mobilization for 6" Ø through 12" Ø	\$ 13,160.00	\$ 1,316,000.00
115	100	EA	CIPP Mobilization for 15" Ø through 24" Ø	\$ 13,160.00	\$ 1,316,000 00
116	25	EA	CIPP Mobilization for 27" Ø :through 42" Ø	\$ 13,160.00	\$ 329,000.00
117	25	EA .	CIPP Mobilization for 48" Ø through 66" Ø	\$ 20,451.00	\$ 511,275.00
118	25	EA	CIPP Mobilization for 72" Ø through 78" Ø	\$ 22,702.00	\$ 567,550.00
119	20	EA	Point Repair Mobilization for 6" Ø through 12" Ø	\$ 9,625.00	\$ 192,500.00
120	50	EA	Point Repair Mobilization for 15" Ø through 24" Ø	\$ 13,142.00	\$ 657,100.00
121	50	EA	Point Repair Mobilization for 27" Ø through 42" Ø	\$ 15,724.00	\$. 786,200.00
122	. 20	EA	Point Repair Mobilization for 48" Ø through 66" Ø	\$ 16,329.00	\$ 326,580.00
123	: 20	EA	Point Repair Mobilization for 72" Ø through 78" Ø	\$ 18,598.00	\$ 371,960.00
124	1000	EA	Manhole-Clean Out Adjustment Mobilization	\$ 795.00	\$ 795,000.00
125	1000	EA	Manhole-Clean Out Reconstruction Mobilization	\$ 795.00	\$ 795,000.00
126	1000	EA	New Manhole Mobilization	\$. 795.00	\$ 795,000.00
			Flow Management Mobilization of 4" Pumps, Aproximatellygpm		
127	200.	EA	expected from this pump size	\$ 4,595.00	\$ 919,000.00
128	50	EA	Flow Management Mobilization of 6" Pumps, Aproximatellygpm expected from this pump size	\$ 4,595.00	\$ 229,750.00
129	25	EA	Flow Management Mobilization of 8" Pumps, Aproximatellygpm expected from this pump size	\$ 6,300.00	\$ 157,500.00
130	5	EA	Flow Management Mobilization of 12" Pumps, Aproximatelly gpm expected from this pump size	\$ 10,075.00	\$ 50,375.00
131	. 5	EA	Flow Management Mobilization of 14" Pumps, Aproximatelly gpm expected from this pump size	\$ 9,580.00	\$ 47,900.00
132a	500	HR	Flow Management with a 4" Pump, per hour	\$ 89.40	\$. 44,700.00
132b	200	EA	Flow Management with a 4" Pump, per day	\$ 2,100.00	\$ 420,000.00
132c	200	EA	Flow Management with a 4" Pump, per week	\$ 15,000.00	\$ 3,000,000.00
133a	500	HR	Flow Management with a 6" Pump, per hour	\$ 121.00	\$ 60,500.00
133b	100	EA	Flow Management with a 6" Pump, per day	\$ 2,900.00	\$ 290,000.00
133c	100	EA	Flow Management with a 6" Pump, per week	\$ 20,300.00	\$ 2,030,000.00
134a	500	HR	Flow Management with a 8" Pump, per hour	\$140.00	\$ 70,000.00

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134b	50	EA	Flow Management with a 8" Pump, per day	\$ 3,345.00	\$ 167,250.00
134c	50	EA	Flow Management with a 8" Pump, per week	\$23,415.00	\$ 1,170,750.00
135a	500	HR	Flow Management with a 12" Pump, per hour	\$ 223.00	\$ 111,500.00
135b	25	EA	Flow Management with a 12" Pump, per day	\$ 5,350.00	\$ 133,750.00
135c	25	EA	Flow Management with a 12" Pump, per week	\$ 37,450.00	\$ 936,250.00
136a	500	HR	Flow Management with a 16" Pump, per hour	\$ 356.00	\$ 178,000.00
136b	25	EA	Flow Management with a 16" Pump, per day	\$ 8,544.00	\$ 213,600.00
136c	25	EA	Flow Management with a 16" Pump, per week	\$ 59,809.00	\$ 1,495,225.00
137	200	HR	Vactor Truck Monitoring for Flow Management	\$ 295.00	\$ 59,000.00
			138-141 Blank		
142	50000	EA	Flow Management 4" HDPE piping and materials, per ft installed	\$ 8.90	\$ 445,000.00
143	50000	EA	Flow Management 6" HDPE piping and materials, per ft installed		\$ 517,500.00
144	30000	EA	Flow Management 8" HDPE piping and materials, per ft installed		\$ 405,000.00
145	30000	EA	Flow Management 12" HDPE piping and materials, per ft installed	\$ 15.20	\$ 456,000.00
146	20000	LF	Flow Management 16" HDPE piping and materials, per ft installed	\$ 28.00	\$ 560,000.00
147	20000	LF	Flow Management 4" Aluminum piping and materials, per ft installed	\$ 3.00	\$ 60,000.00
148	20000	LF	Flow Management 6" Aluminum piping and materials, per ft installed	\$ 5.00	\$ 100,000.00
149	20000	LF	Flow Management 8" Aluminum piping and materials, per ft installed	\$ 8.00	\$ 160,000.00
110	20000		Utility Trench Pavement Patch TYPE 1, provide and install materials, with 2-inch thick asphaltic concrete layer, in accordance	0.00	Ψ 100,000.00
150	500	SY	with PC/COT Std Dtl 216 and the plans and specifications,	\$ 174.00	\$ 87,000.00
130		- 31	Utility Trench Pavement Patch TYPE 2, provide and install	\$ 174.00	φ. αγ,υυυ.υυ
454	100	PV	materials, with 2- inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and specifications,	474.00	47.400.00
151	100	SY	complete. Utility Trench Pavement Patch TYPE 3, provide and install	\$ 174.00	\$ 17,400.00
450		014	materials, with 2- inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and specifications,		
152	100	SY	complete.	\$ 198.00	\$ 19,800.00
		0.4	Chip Seal coat, in accordance with Section 404 of PC/COT Std		
153	100	SY	Specs and the plans and specifications, complete. Asphaltic Concrete Finish Course (Mix #3), 2-inch thick layer	\$ 24.50	\$ 2,450.00
			incremental adjustment to the thickness stated in bid items 45, 46, 47, per Section 406 of PC/COT Std Specs, and the plans and		
154	300	SY	specifications, complete. Furnish and Install Temporary Traffic Metal Plate (8'x10'x1"),	\$ 70.10	\$ 21,030.00
155	500	DAY	complete. Daily rate Furnish and Install Temporary Traffic Metal Plate (8'x10'x1"),	\$ 109,35	\$ 54,675.00
156	500	WK	complete. Weekly rate Furnish and install New 4 ft Diameter non Reinforced Concrete	\$. 137.60	\$ 68,800.00
			Manhole Base for 6" diameter to 10" diameter pipe, per PCWMD		
157a	25	EA	Std. Dtl. 201, and accordance with the plans and specifications, complete.	\$ 2,900.00	\$ 72,500.00
			Furnish and install New 4 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 10" diameter pipe, per PCWMD		
157b	25	EA .	Std. Dtl. 201, and accordance with the plans and specifications, complete.	\$ 9,071.00	\$ 226,775.00
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158a	25	EA	Furnish and install New 5 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 2,360.00	\$ 59,000.00
158b	25	EA	Furnish and install New 5 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 13,627.00	\$ 340,675.00
159a	25	EA	Furnish and install New 4 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the pians and specifications, complete.	\$ 3,215.00	\$ 80,375.00
159b	25	EA	Furnish and install New 4 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.		
159c	25		Furnish and install New 5 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and		
		EA	specifications, complete. Furnish and install New 5 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and	3,593.00	\$ 89,825.00
159d	. 25	EA	specifications, complete. Furnish and install New 4 ft Diameter Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and	\$ 16,178.00	\$ 404,450.00
160a	25	EA	specifications, complete. Furnish and install New 4 ft Diameter Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and	\$ 3,484.00	\$ 87,100.00
160b	25	EA	specifications, complete. Furnish and install New 5 ft Diameter Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and	\$ 10,773.00	\$ 269,325.00
161a	25	EA	specifications, complete. Furnish and install New 5 ft Diameter Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep,	\$ 3,863.00	\$ 96,575.00
161b	25	EA .	per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 16,180.00	\$ 404,500.00
			162-163 Blank		
164a	100	VF	Furnish and install New 30" Diameter Reinforced Concrete Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plans and specifications, complete.	40400	0.40440000
1574		÷	Furnish and install New 30" Diameter Fiberglass Manhole Material	\$ 1,241.00	\$ 124,100.00
164b	100	VF	for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plans and specifications, complete.	\$ 2,068.00	\$ 206,800.00
164c	100 ·	VF	Furnish and install New 30" Diameter Polymer Concrete Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plans and specifications,		
1040	100	VF.	complete	\$ 3,516.00	\$ 351,600.00

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		ļ	Furnish and install New 4 ft Diameter Concrete Manhole per			1	
			RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps			1	
ŀ			and 24" frame and cover per County Standards and Specs and in	·		1	
1 .	İ		accordance with the plans and specifications, 3 ft to 6 ft deep,			1	
1850	100	\ \/E		1		١.	
165a	100	VF	complete.	\$	1,092.00	\$	109,200.00
			·				
	· ·		,			1.	
			Furnish and install New 4 ft Diameter Concrete Manhole per			1	
			RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps			1	
1 .	1		Trevito du. Du. 200, including mannole shait, grade migs, steps			1	
· [1 1		and 24" frame and cover per County Standards and Specs and in				
1 .			accordance with the plans and specifications, 6.1 ft to 12 ft deep,			ſ	
165b	100	VF	complete.	\$	1,024.00	\$	102,400.00
					.,	Ť	,
i :		*	·			1	
			Francish and install No. 14 G Bit 1 G A 18 A 14			l	
			Furnish and install New 4 ft Diameter Concrete Manhole per			l	
			RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps	Į.		l	
	1 '		and 24" frame and cover per County Standards and Specs and in			l	
	ļ	1	accordance with the plans and specifications, 12.1 ft to 19 ft deep,	1		l .	
165c	100	\ \r				١.	
1650	100	VF	complete.	\$	1,084.00	\$	108,400.00
		l		•			
[-		I				I	
	l		Furnish and install New 4 ft Diameter Concrete Manhole per			I	
		i		*		I	
			RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps			I	
			and 24" frame and cover per County Standards and Specs and in			.	
			accordance with the plans and specifications, 19.1 ft to 25 ft deep,			I	
165d	100	VF .	complete	\$	1,070.00	8	107,000.00
				<u> </u>	1,070.00	٣	101,000.00
	**			2			
l .						i	
			Furnish and install New 4 ft Diameter Fiberglass Manhole per			İ	
			RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps		*		
		[and 24" frame and cover per County Standards and Specs and in			i	
1	· ·					!	
1,00	400	l	accordance with the plans and specifications, 3 ft to 6 ft deep,				
166a	100	VF	complete.	\$	2,002.00	\$	200,200.00
				·			
		ļ	Furnish and install New 4 ft Diameter Fiberglass Manhole per			l .	
							'
			RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps				,
		· .:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in	· .	• :		
			RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps		• :		
166b	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep.	\$	1.875.00	s	187.500.00
166b	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in	\$	1,875.00	\$	187,500.00
166b	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep.	\$	1,875.00	\$	187,500.00
166b	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$	1,875.00	\$	187,500.00
166b	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per	\$	1,875.00	\$	187,500.00
166b	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps	\$	1,875.00	\$	187,500.00
166b	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per	\$	1,875.00	\$	187,500.00
166b	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in	\$	1,875.00	\$	187,500.00
		:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep,				
166b	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in	\$	1,875.00 2,241.00		187,500.00
		:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep,				
		:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.				
		:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per				
		:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.				
		:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps				
		:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in				
166c	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep,	\$	2,241.00	\$	224,100.00
		:	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in			\$	
166c	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep,	\$	2,241.00	\$	224,100.00
166c	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep,	\$	2,241.00	\$	224,100.00
166c	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$	2,241.00	\$	224,100.00
166c	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per	\$	2,241.00	\$	224,100.00
166c	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps	\$	2,241.00	\$	224,100.00
166c	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in	\$	2,241.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep,	\$	2,241.00	\$	224,100.00
166c	100	VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in	\$	2,241.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep,	\$	2,241.00 2,450.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep,	\$	2,241.00 2,450.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$	2,241.00 2,450.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$	2,241.00 2,450.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps	\$	2,241.00 2,450.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$	2,241.00 2,450.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in	\$	2,241.00 2,450.00	\$	224,100.00
166c	100	VF VF	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete. Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps	\$	2,241.00 2,450.00	\$	224,100.00

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167c	100	VF	Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,804.00	\$ 180,400.00
	-	1		1,004.00	\$ 100,400.00
167d	100	VF .	Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 1.710.00	\$ 171,000.00
				1,7 30.00	Ψ 11 1,000.00
168a	100	VF	Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.		
1000	100		complete.	\$ 3,093.00	\$ 309,300.00
168b	100	VF	Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.		
1000	100	- - • • • • • • • • • • • • • • • • • •	complete.	\$ 2,303.00	\$ 230,300.00
168c	100	VF	Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 2,050.00	\$ 205,000.00
		-			
168d	100	VF	Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.		
			complete.	\$ 1,915.00	\$ 191,500.00
169a	100	VF	Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 1.104.00	
		,	sompote.	\$ 1,104.00	\$ 110,400.00
169b	100	VF	Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 1,036.00	\$ 103,600.00
169c	100	VF	Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,096.00	\$ 109,600.00
169 d	100	VF	Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.		\$ 108,200.00
			-	1,002.00	Ψ 100,200.00

r . 1		,	(Rev. 07/23/2021)	<u> </u>	
170a	100	VF	Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the pians and specifications, 3 ft to 6 ft deep, complete.	\$ 1.885.00	4.400.500.50
	,,,,,	 '' -	complete.	\$ 1,885.00	\$ 188,500.00
170b	100	VF	Furnish and install New 5 ft Diameter: Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 2,181.00	\$ 218.100.00
				2,181.00	Ψ 210,100.00
170c	100	, VF	Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep complete.	\$ 2,623.00	\$ 262,300.00
				2,023.00	\$ 202,300.00
1700	100	VE	Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 208, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep,		,
170c	100	VF ·	complete.	\$ 2,956.00	\$ 295,600.00
171a	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 2,408.00	\$ 240,600.00
171b	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.		
,,,,,	100		Complete.	\$ 1,967.00	\$ 196,700.00
171c	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtf. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,884.00	\$ 188,400.00
171d	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.		
				\$ 1,834.00	\$ 183,400.00
172a	100	VF	Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 4,699.00	\$ 469,900.00
172b.	100	VF	Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	9,400.00	
		**	Tagenbiora:	\$ 3,193.00	\$ 319,300.00

(Rev. 07/23/2021)

			(Rev. 07/23/2021)	<u> </u>	
			Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 208, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep,		
172c	100	VF	complete.	\$ 2,644.00	\$ 264,400.00
			Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep.		
172d	100	VF	complete.	\$ 2,387.00	\$ 238,700.00
173	100	EA	Rehabilitate and install coating on existing manhole base for 4 ft diameter manhole, in accordance with Master Agreement Sub Appendix "F", and the plans and specifications, complete.	\$ 2,945.00	\$ 294,500.00
174	100	EA	Rehabilitate and install coating on existing manhole base for 5 ft diameter manhole, in accordance with Master Agreement Sub	2.045.00	¢ 204 500 00
1/4	100		Appendix "F", and the plans and specifications, complete.	\$ 2,945.00	\$ 294,500.00
175	25	EA	Rehabilitate and install coating on existing manhole base for 5 ft diameter manhole, in accordance with Master Agreement Sub Appendix "F", and the plans and specifications, complete.	\$ 2,945.00	\$ 73,625.00
''			Provide protective coating on existing manhole or structures walls,	2,943.00	\$ 73,025.00
470	FOODO	, n	ceiling, and riser sections, in accordance with plans and		
176	50000	SF _	specifications, complete.	\$ 29.40	\$ 1,470,000.00
			Provide protective coating on new or existing manhole ring and		
177	2000	SF_	cover, in accordance with plans and specifications, complete.	\$ 29.40	\$ 58,800.00
			Furnish and install a New 14" cleanout frame and cover, as per Sub Appendix N and in accordance with the plans and specifications,		
178	100	EA	complete.	\$ 660.00	\$ 66,000.00
			Furnish and install a New 24" manhole frame and cover per Std Dtls 213.1, in accordance with the plans and specifications,		
179a	250	EA	complete.	\$ 840.00	\$ 210,000.00
			Furnish and install a New 24" composite manhole frame and cover		
179b	100	EA	per Std Dtls 213.1, in accordance with the plans and specifications, complete.	\$ 1,245.00	\$ 124,500.00
			Furnish and install a New 30" manhole frame and cover per Std	1,2 (8.85	12,,000,00
180a	50	EA	Dtls 214.0, in accordance with the plans and specifications, complete.	\$ 050.00	¢ 47.500.00
1000			Furnish and install a New 30" composite manhote frame and cover	\$ 950.00	\$ 47,500.00
400		.	per Std Dtls 214.0, in accordance with the plans and specifications,		
180b	50	EA	complete. Furnish and install a New 24" Waterproof manhote cover and frame	\$ 1,515.00	\$ 75,750.00
			per Std Dtls 213.2, in accordance with the plans and specifications,		
181a	100	EA	complete.	\$ 1,068.00	\$ 106,800.00
			Furnish and install a New 24" Waterproof composite manhole cover and frame per Std Dtls 213.2, in accordance with the plans and		
181Ь	50	EA	specifications, complete.	\$ 1,305.00	\$ 65,250.00
			Furnish and install a New 30" Waterproof manhole cover and frame per Std Dtls 214.1, in accordance with the plans and specifications.		
182a	100	EA	complete.	\$ 1,130.00	\$ 113,000.00
			Furnish and install a New 30" Waterproof composite manhole cover		
182b	50	EA .	and frame per Std Dtls 214.1, in accordance with the plans and specifications, complete.	\$ 1,515.00	\$ 75,750.00
				.,= 10.00	
			Furnish and install a New 24" Bolted Waterproof manhole cover and frame per Std Dtls 213.3, in accordance with the plans and		
183a	50	EA	specifications, complete.	\$ 1,010.00	\$ 50,500.00
			Furnish and install a New 24" Bolted Waterproof composite manhole cover and frame per Std Dtls 213.3, in accordance with		
183b	25	EA	the plans and specifications, complete.	\$1,245.00	\$ 31,125.00
			Furnish and install a New 30" Bolted Waterproof manhole cover and frame per Std Dtls 214.2, in accordance with the plans and		
184a	50	EA	specifications, complete.	\$ 1,185.00	\$ 59,250.00

(Rev. 07/23/2021) Furnish and install a New 30" Bolted Waterproof composite manhole cover and frame per Std Dtls 214.2, in accordance with 184b 25 EΑ the plans and specifications, complete. 1,515.00 37,875.00 Provide concrete collar for manhole per RWRD Std Dtl 211, in 500 EΑ 185 accordance with plans and specifications, complete. 699.00 \$ 349,500.00 Provide concrete collar for manhole per RWRD Std Dtl 212, in 186 300 EΑ accordance with plans and specifications, complete. \$ 209,700.00 699.00 Adjust Existing 24" Diameter Frame and Cover on a Brick manhote, 1000 187 ËΑ to the finished grade specified, complete. 699.00 \$ 699,000.00 Adjust Existing 30" Diameter Frame and Cover on a Brick manhole 188 500 EΑ to the finished grade specified, complete. 699.00 \$ 349,500.00 Adjust Existing 24" Diameter Frame and Cover on a Reinforced Concrete manhole, to the finished grade specified, complete 189 1000 ĒΑ 699.00 \$ 699,000.00 Adjust Existing 30" Diameter Frame and Cover on a Reinforced 190 500 EΑ Concrete manhole, to the finished grade specified, complete. 699.00 \$ 349,500.00 Reconstruct Existing Cleanout to the finished grade specified 191 250 EΑ \$ 376,500.00 (regardless of height adjustment), complete. 1.506.00 Reconstruct Existing 4 ft Diameter Manhole Barrel/Cone Section or ۷F 2000 192 a Brick manhole, to the finished grade specified, complete. 1,178.00 | \$ 2,356,000.00 Reconstruct Existing 5 ft Diameter Manhole Barrel/Cone Section. 193 1000 ۷F on a Brick manhole, to the finished grade specified, complete. \$1,300,000.00 1,300,00 Reconstruct Existing 4 ft Diameter Manhole Barrel/Cone Section, on a Reinforced Concrete manhole, to the finished grade, ٧F 194 500 complete 1,178.00 \$ 589,000.00 Reconstruct Existing 5 ft Diameter Manhole Barrel/Cone Section. on a Reinforced Concrete manhole, to the finished grade specified, 195 500 VĖ complete 1,300.00 \$ 650,000.00 Provide Bench Rehabilitation for a 4 ft Diameter Manhole, per the 196 500 EΑ Special Provisions, complete. 2,700.00 \$1,350,000.00 Provide Bench Rehabilitation for a 5 ft Diameter Manhole, per the 197 500 EΑ Special Provisions, complete. 2,700.00 \$1,350,000.00 198 2000 VF Provide Pot-holing Services for PCRWRD, as requested. \$ 200,000.00 100.00 Provide Excavation & Backfill using Native Material, as per the 199 500 CY Special Provisions, 0 ft to 4 ft deep CY=(Width*Length*Depth)/27 39.80 19,900.00 Provide Excavation & Backfill using Native Material, as per the Special Provisions, 4.1 ft to 10 ft deep 200 1000 CY CY=(Width*Length*Depth)/27 39.80 | \$ 39,800.00 Provide Excavation & Backfill using Native Material, as per the Special Provisions, 10.1 ft to 15 ft deep 201 2000 CY CY=(Width*Length*Depth)/27 49.65 \$ 99,300.00 Provide Excavation & Backfill using AB Material, as per the Special 202 500 CY Provisions, 0 ft to 4 ft deep CY=(Width*Length*Depth)/27 83.10 \$ 41.550.00 Provide Excavation & Backfill using AB Material, as per the Special 1000 203 CY Provisions, 4.1 ft to 10 ft deep CY=(Width*Length*Depth)/27 83,10 \$ 83,100.00 Provide Excavation & Backfill using AB Material, as per the Special 204 2000 CY Provisions, 10.1 ft to 15 ft deep CY=(Width*Length*Depth)/27 103.10 \$ 206,200.00 Concrete Sidewalk Removal and Replacement, per Pima County/City of Tucson Standard Specifications and Dtls. 200 and 1000 CY 205 203, complete. Φ. 74.50 \$ 74,500.00 206 150 CY PCCP Concrete Removal and Replacement 4" thick 1,170.00 \$ 175,500.00

(Rev. 07/23/2021) 207 CY PCCP Concrete Removal and Replacement 6" thick 1,204.00 \$ 240,800.00 200 \$ 208 200 CY PCCP Concrete Removal and Replacement 8" thick 1,238.00 \$ 247,600.00 Concrete Curb Removal and Replacement, Per Pima County/City 2000 CY 209 of Tucson Standard Specifications and Details 54.25 \$ 108,500.00 1-Sack Low Strength Slurry Per Pima County/City of Tucson 210 250 CY Standard Specifications and Details Section 501. 128.60 \$ 32,150,00 2-Sack Low Strength Slurry Per Pima County/City of Tucson CY 211 250 Standard Specifications and Details Section 501. 118.00 \$ 29,500.00 200 EΑ 212 Porta Potties, per week \$ 176.50 35,300,00 200 213 EΑ Porta Potties, per day \$ 58.85 \$ 11,770.00 Grouting of Cavities. Installed in place. Per PCRWRD 214 500 CY Specifications \$ 454.00 \$ 227,000.00 215 50000 LF CCTV of line 6" to 10" 1.75 я. 87,500.00 \$ LF 216 50000 CCTV of line 12" to 15" 1.75 87,500.00 50000 LF CCTV of line 18" and larger 217 1.75 87,500.00 Sewer cleaning of lines 6" to 10" with hydro cleaning equipment. 50000 LF 218a Debris removed with vacuum. 5.10 \$ 255,000.00 Sewer cleaning of DIP lines 6" to 10" with chain flailing cleaning 218b 1000 LF equipment. Debris removed with vacuum. 21.35 \$ 21,350.00 Sewer cleaning of lines 12" to 15" with hydro cleaning equipment. 219a 50000 ĻЕ \$ 5.10 \$ 255,000.00 Debris removed with vacuum. Sewer cleaning of DIP lines 12" to 15" with chain flailing cleaning LF 219b 1000 equipment. Debris removed with vacuum. 21.35 21,350.00 Sewer cleaning of lines 18" and larger with hydro cleaning 50000 LΕ 220a 6.40 \$ 320,000.00 equipment. Debris removed with vacuum. Sewer cleaning of DIP lines 18" and larger with chain flailing LF 220b 100 cleaning equipment. Debris removed with vacuum. 28.50 \$ 2,850.00 Provide As-Built documents, in accordance with the plans and 221 100 SHT specifications, complete. 1,015.00 \$ 101,500.00 Provide construction staking, in accordance with the plans and LF 222 50000 3.00 \$ 150,000.00 specifications, complete. \$ 223 10 TON Asbestos Cement Pipe (ACP) Removal and Proper Disposal 1,674.00 16,740.00 LF 224 200 Remove and dispose security fencing (6' to 8' fence with barb wire) 10.00 2.000.00 LF 225 200 Install new security fencing (6' to 8' fence with barb wire) \$ 24.00 \$ 4,800.00 226 500 LF \$ Remove and dispose security fencing (6' chain link) 8.00 | \$ 4,000.00 227 500 ĿF 8,000.00 Install new security fencing (6' chain link) \$ 16.00 ls: EΑ 228 10 Remove and dispose existing 20' security gate 430.00 4,300.00 10 EΑ 229 Install new 20' security gate 663.00 6,630.00 230 1500 SF \$ Remove and replace 6' CMU Wall 29.00 43,500.00 231 1000 SF Remove and replace 8' CMU Wall 36.00 36,000.00 HR Archaeological Monitoring 232 500 \$ 153,00 76,500.00 233 10 ACRE Hydroseeding 25,580.00 2.558.00 234 100 SHT Shop/Engineering Drawings \$ 767.00 76,700.00 235 2000 SY Rip-Rap (D50.6") - Delivered and Installed. 44.00 \$ 88,000.00 EΑ install Survey Monument per Standard Detail WWM 507 256.00 \$ 6,400.00

(Rev. 07/23/2021) Provide miscellaneous services, construction materials and installation by Force Account, in accordance with the plans and 500,000 specifications, complete.

	229		Grand	d Total Repair Line Items:	\$	111,446,359.00	\$
	230 231						
			e. De				
	232	ROPOSAL OF:	-	ACHEN GARDNER CONSTRUC	CTIONILC		
	233 234			Company Name			
Г	235 236 237	SIGNATURE:	fins	Kevin J Nunez, Vice Presi Name & Title of authorized		· .	
		DATE:	August 9, 2021	•			

^{*} Line items shall include mobilization costs
** For Emergency response jobs the contractor will receive a 15% increase to all line items.

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

KNOW ALL MEN BY THESE PRESENTS THAT: Achen-Gardner Construction	on, LLC
(hereinafter "Principal"), as Principal, and Liberty Mutual Insurance Company	
(hereinafter "Surety"), a corporation organized and existing under the laws of	the State of Massachusetts,
with its principal offices in the City of, holding a	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 Pima	County, Arizona
(hereinafter "Obligee"), in the sum equal to that stated in the request for prop	osal for the work described
below, for the payment of which sum, the Principal and Surety bind themselve	es, and their heirs,
administrators, executors, successors and assigns, jointly and severally, firm *One Million Eight Hundred Thousand and 00/100thsDollars (\$1,800,0	
WHEREAS, the Principal has submitted a bid for the work titled:	· ·
SFQ-PO-2100017 - Job Order Master Agreement: Wastewater Conve	eyance System and
Related Facilities Repair, Rehabilitation and Construction	Services
NOW, THEREFORE, if the Obligee shall accept the proposal of the Principal	and the Principal shall enter
into a contract with the Obligee in accordance with the terms of the proposal	and give the bonds and
certificates of insurance as specified in the standard specifications with good	and sufficient surety for the
faithful performance of the contract and for the prompt payment of labor and	materials furnished in the
prosecution of the contract, or in the event of the failure of the Principal to ent	ter into the contract and give
the bonds and certificates of insurance, if the Principal pays to the Obligee th	e difference not to exceed
the penalty of the bond between the amount specified in the proposal and su	ch 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 provide	led, however, that this bond
is executed pursuant to the provisions of Section 34-608, Arizona Revised St	atutes, and all liabilities on
this bond shall be determined in accordance with the provisions of that section	π to the extent as if it were
copied at length herein.	
Witness our hands this 26th day of July , 20_2	<u>1</u>
	en en en en en en en en en en en en en e
Achen-Gardner Construction, LLC By:	
Principal	
Liberty Mutual Insurance Company Surety By: Stephane L.B	Corpora Attournay in State State of
Surety Stephane L. B	Tucholz, Altomey-in-Fact



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

> Liberty Mutual Insurance Company The Ohio Casualty Insurance Company West American Insurance Company

Certificate No: 8200472-975281

on any business day

EST

alidity of the between

the √2 -8240

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS:	: That The Ohio Casually Insurance Company is a corporation duly organized under the laws of the State of New Hampsh	ire tha
	duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly or	
	tively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint. Stephy	
Bucholz, Andrew A. Farr, Barry R. Farr, Grego	pry P. Griffith, Debra K. Williams	

all of the city of state of each individually if there be more than one named, its true and lawful attorney-in-fact to make, Arizona execute, seal, acknowledge and deliver, for and on its behalf as surely and as its act and deed, any and all undertakings, bonds, recognizances and other surely obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duty signed by the president and attested by the secretary of the Companies in their own proper

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of February 2019





Liberty Mutual Insurance Company The Ohio Casualty Insurance Company West American Insurance Company

State of PENNSYLVANIA County of MONTGOMERY ss

2019 before me personally appeared David M. Carey, who acknowledged hirmself to be the Assistant Secretary of Liberty Mutual Insurance On this 7th day of February , 2019 before me personally appeared David M. Carey, who acknowledge in rise in to be the Assistant Secretary of Liberty induced in Society and Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania; on the day and year first above written,



COMMONWEALTH OF PENNSYLVANIA Teresa Pasiella, Notary Public

Upper Merion Two., Montgomery County My Commission Expires Merch 26, 2021 ambur Phinmertonnia Ascariativa at Statusta

this Power of Attorney 9:00 am and 4:30 pm This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutua Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys in fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seat of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under this provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe; shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surely any and all undertakings, bonds, recognizances and other surely obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Devid M. Carey, Assistant Secretary to appoint such attorneys-infact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surely any and all undertakings bonds, recognizances and other surely obligations

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surely bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mulual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foragoing is a full, true and correct copy of the Power of Altomey executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 26th



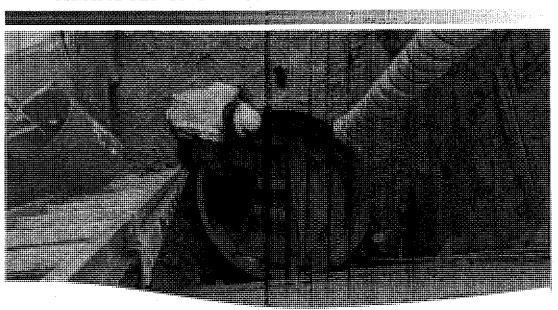


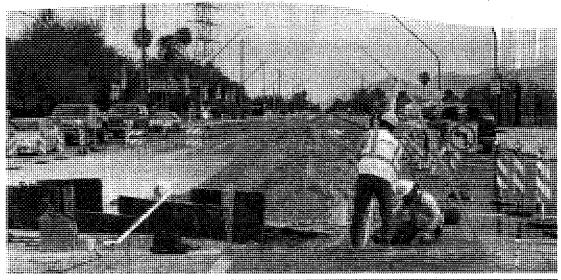




JOB ORDER MASTER AGREEMENT:

WASTEWATER CONVEYANCE SYSTEM AND RELATED FACILITIES REPAIR, REHABILITATION & CONSTRUCTION SERVICES





RFP ATTACHMENT B: PRICE PROPOSAL

August 9, 2021



TRUST - PERFORMANCE - PARINER SHIP

(Rev. 07/23/2021) 10' Cover Item Host Pipe 5' Cover 15' Cover 20' Cover Extended Total CIPP Liner **CIPP Liner** CIPP Liner CIPP Liner (Sum of unit price * number of LF for each of categories A - D) 1 6" Ø 6.0 mm thk 6.0 mm thk 6.0 mm thk 6.0 mm thi \$65,07/lf \$71,5/lf \$82.03/lf \$102,99/ff For 5000 LF For 5000 LF For 1000 LF For 100 LF 775,179,00 8" Ø 2 6.0 mm thi 6.0 mm thk 6.0 mm thk 6.0 mm thk \$54.4/If \$57.85/lf \$71.36/lf \$92.32/lf For 5000 LF For 5000 LF For 1000 LF For 100 LF 641,842.00 3 10" Ø 6.0 mm thk 6.0 mm thk 6.0 mm thk 6.6 mm th \$64.05/11 \$62 12/lf \$64.6/lf \$100.61/lf For 2000 LF For 2000 LF For 1000 LF For 100 LF 327,001.00 4 12" Ø 6.0 mm thk 6.0 mm thk 7.1 mm thk 7,9 mm thk \$65.14/lf \$66,66/lf \$71,63/lf \$82 91/lf For 2000 LF For 2000 LF: For 2000 LF For 200 LF 423,442.00 5 15" Ø 6.1 mm thk 7.4 mm thk 8.9 mm thk 9.9 mm thk \$84.11/lf \$88.95/lf \$94.16/lf \$108.36/lf For 2000 LF For 2000 LF For 2000 LF For 200 LF 556,112.00 6 18" Ø 7.4 mm thk 8.9 mm thk 10.7 mm thk 11,9 mm thk \$101.38/lf \$106.38/lf \$117.95/lf \$132.89/lf For 1000 LF For 1000 LF For 1000 LF For 200 LF 352,288.00 21" Ø 8.6 mm thk 10.4 mm thk 12.4 mm thk 14.0 mm thk \$150.14/lf \$158.06/lf \$167.3/lf \$187.42/lf For 1000 LF For 1000 LF For 1000 LF For 200 LF 512,984.00 8 24" Ø 9.9 mm thk 11.9 mm thk 14.2 mm thk 16.0 mm thk \$176.66/lf \$182.96/[6] \$194.1/lf \$214.69/1 For 1000 LF For 1000 LF For 1000 LF For 200 LF 596,658.00 9 27" Ø 11.2 mm thk 13.2 mm thk 16.0 mm thk 18.0 mm thk \$151.33/lf \$164.5/lf \$175.13/lf \$194.33/8 For 1000 LF For 1000 LF For 1000 LF For 500 LF 588,125.00 10 30" Ø 12.4 mm thk 14.7 mm thk 17.8 mm thk 20.1 mm thi \$162.27/lf \$184.15/lf \$200.03/lf \$221.59/1 For 1000 LF For 1000 LF For 1000 LF For 500 LF 657,245.00 11 33" Ø 13.7 mm thk 16.5 mm thk 19.6 mm thk 22.1 mm thk \$184.79/lf \$207.86/lf \$224 92/If \$255.97/lf For 1000 LF For 1000 LF For 1000 LF For 500 LF 745,555.00 12 36" Ø 14.7 mm thk 17.8 mm thk 21.1 mm thk 23.9 mm thk \$210.87/lf \$232.75/lf \$252.19/If \$286.8/lf For 1000 LF For 1000 LF For 1000 LF For 500 LF 839,210.00 13 39" Ø 15.7 mm thk 19.3 mm thk 25.9 mm thk 22.9 mm thk \$199.02/15 \$223 27/If \$242.7/If \$383.04/lf For 1000 LF For 1000 LF For 1000 LF For 200 LF 741,598.00 14 42" Ø 17,3 mm thk 20.8 mm thk 24,6 mm thk 28.2 mm thk \$222.95/lf \$247.42/lf \$281.08/lf \$419.97/lf For 1000 LF For 1000 LF For 1000 LF For 200 LF 835,444.00 48" Ø 15 19.6 mm thk 23.6 mm thk 28.2 mm thk 32.0 mm thk \$263.25/lf \$301.95/lf \$337.98/lf \$672.78/lf For 1000 LF For 1000 LF For 1000 LF For 100 LF 970,458.00 16 54" Ø 21.8 mm thk 26.7 mm thk 31.8 mm thk 36.1 mm thk \$314.23/lf \$361.23/lf \$403.19/if \$791.33/lf For 1000 LF For 1000 LF For 1000 LF For 100 LF 1,157,783.00 17 60" Ø 24.1 mm thk 29.7 mm thk 35.3 mm thk 39.9 mm thk \$360.47/lf \$425.24/If \$483.8/lf \$907.51/lf For 1000 LF For 1000 LF For 1000 LF For 100 LF 1,360;261.00 18 66" Ø 26.4 mm thk 32,5 mm thk 38.9 mm thk 43.9 mm thk \$428.04/If \$495.19/ff \$562.05/lf \$1030.8/lf For 1000 LF For 1000 LF For 1000 LF For 100 LF 1,588,360.00 19 72" Ø 28.7 mm thk 35,6 mm thk 42.4 mm thk 48.0 mm thk \$431.6/lf \$511.79/lf \$572.72/1 \$1058.07/lf For 1000 LF For 1000 LF For 1000 LF For 100 LF 1,621,917.00 20 78" Ø 31.0 mm thk 38.4 mm thk 46.0 mm thk 52.1 mm thk \$574.62/lf \$492.01/lf \$658,07/lf \$1170.69/1 For 1000 LF For 1000 LF For 1000 LF For 100 LF 1,841,769.00 CIPP Liner Items Subtotal: \$ 17,133,231.00

			,		Rev. 07/23/2021)	
		Α -	В	С	D	
Item	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1'	Extended Total
		Open Cut pipe	Open Cut pipe	Open Cut pipe	Open Cut pipe Repair	(Sum of unit price * number of LF for
		Repair	Repair	Repair		each of categories A - D)
21	6"Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	
		\$67.95/If	\$79.81/lf			f
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,420,335.00
22	8" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	
		\$73.39/lf	\$85.26/lf	\$137.14/lf		f
		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 2,273,000.00
23.	10" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	-
		\$80.01/lf	\$91.87/lf	\$143.75/lf		F
- 1		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 2,504,550.00
24	12" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	-,,
ŀ		\$89.81/lf	\$101.68/lf	\$153.56/lf		F
-		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 2,738,050.00
25	15" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	4
		\$98.92/lf				
		For 2000 LF	For 2000 LF	For 2000 LF	For 2000 LF	\$ 1,147,120.00
26	18" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	1,111,120.00
		\$102,71/lf				
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 557,330.00
27	21° Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	331,300.00
		\$120.63/lf				'
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 651,500.00
28	24" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	CO 1,000.00
	•	\$148.93/lf	\$162.16/lf	\$222.25/lf		
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 795,560,00
29	27" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	7 50,050.00
- 1		\$202.09/lf	\$208.43/lf			·
1		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 933,200.00
30	30" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	000,200.00
		\$237.24/if				1
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 1,081,050.00
31	33" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	1,001,000,00
•		\$310,78/lf				
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 1,375,240.00
32	36" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	1,37 5,240.00
		\$311,51/lf	\$317.85/lf			·
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 1,378,140.00
33	39" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	1,376,140.00
		\$460.47/If				
		1	For 1000 LF	For 1000 LF	For 1000 LF	
34	42" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	\$ 1,973,980.00
7	75.27	\$510.26/lf		\$553.16/\f	\$593.14/If	·
.		For 1000 LF	For 1000 LF	\$553.16/11 For 1000 LF		1
35	48" Ø	PVC Repair	PVC Repair	PVC Repair	For 1000 LF PVC Repair	\$ 2,173,160.00
~~	-0 K	\$514.83/lf	\$521.17/ff			
			For 1000 LF	For 1000 LF	5597.7/lf For 1000 LF	
		11 OF 1000 E	I OI TOOU LE	101 1000 LF	Open Cut PVC Subtotal:	\$ 2,191,420.00 \$ 23,193,635,00
					i Open Gut PVG Subtotal:	13 23.193.635.001

		Α	В		Rev. 07/23/2021)	
item	Host Pipe	<=5' Cover	5.1' Cover to 10'		D	
		0 00101	ALL POARL TO IA	10.1' Cover to 15	<u>→15.1′</u>	Extended Total
ĺ		Open Cut pipe	Open Cut pipe	0		
.		Repair	Repair	Open Cut pipe	Open Cut pipe Repair	(Sum of unit price * number of LF fo
36	6" Ø	Clay Repair	Clay Repair	Repair Clay Repair		each of categories A - D)
		_#F			Clay Repair	
	_	For 5000 LF	For 5000 LE	F or 5000 LE	"	-/If
37	8" Ø	Clay Repair	Clay Repair	Clay Repair	For 500 LE	\$
- 1		/#			Clay Repair	
		For 5000 LF	For 5000 LF	For 5000 LF	7 For 500 LE	/ _
38	10" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
1.		/lf	-/ 1			At
		For 5000 LF	For 5000 LF	For 5000 LE	For 500 LE	""
39	12" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	-
ĺ	•	-/If	-/lf	-4	.1	AF
_ _+		For 5000 LF	For 5000 LF	For 5000 LF	For 500-LF	· · · · · · · · · · · · · · · · · · ·
40	15" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
		/lf	-/ f 	 - //	1	/If
41	18" Ø	1		For 1000 LF	For 500 LF	<u> </u>
**	+6 1/2	Clay Repair		Clay Repair	Clay Repair	· · · · · · · · · · · · · · · · · · ·
- 1		- 4555 - ^{-/#}	·	-/If		44
42	21" Ø			For 1000 LF	For 500 LF	\$
TE (2 10	leian Kebait		Clay Repair	Clay Repair	
		For 1000 LE	-/If	/lt	7	lt
43	24" Ø			For 1000 LF	For 500 LF	\$
· ·	21-0	-/#		Clay Repair	Clay Repair	
ĺ		fI	## For 1000 LF	/ f	1	lf
44	27" Ø			For 1000 LF	For 500 LF	<u> </u>
ſ	_ _	/If	July Repair		Clay Repair	
		_		-/If For 1000 LE	- 10-1-	I f
45	30" Ø			Clay Repair	For 100 LF	\$
J		-/If	-/I£	-/ff	Clay Repair	
[_		For 1000 LF			<i>∔</i> For 100 L F	1
16	33" Ø				Clay Repair	
		-/If	-/ lf	-/If	-#	
_	· · ·	For 1000 LF F	or 1000 LF		For 100 LE	†† _{\$\dagger\$}
17	36" Ø		Hay Repair €		Clay Repair	
		_ 4	/1 f			fi .
18				or 1000 LF	For 1000 LE	1
₩	39" Ø	Clay Repair C		lay Repair	Clay Repair	*
[.	ļ	// f _	/ f 	-/If	-4	
9					or 1000 LF	<u>-</u>
_	12 20				Clay Repair	
	·	-//f	400 L 5	-/lf	-#	<u> </u>
<u>-</u>					or 100 LF	\$
- I	10 -00 	⊳lay Kepair U			Clay Repair	
ĺ	را	_ ' '''}	or 100 LF /E	-/#	#I	
		A MATH	UI IUU LE. E	or 100 LF	or 100 LF	 \$ _
					Open Cut Clay Subtotal:	\$

(Rev. 07/23/2021) Item Host Pipe <=5' Cover 5.1' Cover to 10' 10.1' Cover to 15' Extended Total Open Cut pipe Open Cut pipe Open Cut pipe (Sum of unit price * number of LF for Open Cut pipe Repair Repair Repair Repair each of categories A - D) 51 DIP Repair DIP Repair 6" Ø DIP Repair DIP Repair \$99.45/lf \$112 63/lf \$170.28/16 \$216.42/1 For 5000 LF For 5000 LF For 5000 LF For 500 LF 2,020,010.00 52 8" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$108,58/[\$121.76/ \$179.4/ \$225,55/if For 5000 LF For 5000 LF For 5000 LF For 500 LF 2,161,475.00 53 10" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$175.31/16 \$195.09/8 \$225.24/ \$299.32/lf For 5000 LF For 5000 LF For 5000 LF For 500 LF 3,127,860.00 54 12" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$204.35/lf \$210,42/ \$268.07/6 \$322.51/ft For 5000 LF For 5000 LF For 5000 LF For 500 LF 3,575,455.00 55 DIP Repair 15" Ø DIP Repair DIP Repair DIP Repair \$257.93/ \$271.11/1 \$328.75/ \$383.2/1 For 1000 LF For 1000 LF For 1000 LF For 1000 LF 1,240,990.00 56 18" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$268,6/lf \$281.78/lf \$339.42/lf \$438.18/8 For 1000 LF For 1000 LF For 1000 LF For 1000 LF 1,327,980.00 57 21" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$385.79/lf \$388.03/ \$410.02/1 \$500.12/If For 1000 LF For 1000 LF For 1000 LF For 1000 LF 1,683,960.00 58 24" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$464.43/[[\$444.44/ \$484.65/1 \$548.88/lf For 100 LF For 100 LF For 100 LF For 100 LF 194,240.00 59 27" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$519.43/H \$532,79/ \$592.96/8 \$661,5/lf For 100 LF For 100 LF For 100 LF For 100 LF 230,668,00 60 30" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$508.44/1 \$517.49/ \$569.71/8 \$626.83/lf For 100 LF For 100 LF For 100 LF For 100 LF 222,247.00 61 33" Ø OIP Repair DIP Repair DIP Repair DIP Repair \$518.66/1 \$527.72/ \$579,94/lf \$637.05/lf For 100 LF For 100 LF For 100 LF For 100 LF 226,337.00 62 36" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$572.98/1 \$703.2/lf \$582.94/ \$640.38/If For 100 LF For 100 LF For 100 LF For 100 LF 249,950.00 63 39" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$733.69/lf \$742.74/ \$794.97/1 \$852.08/lf For 100 LF For 100 LF For 100 LF For 100 LF 312,348.00 64 42" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$921/lf \$930.06/8 \$982,28/lf \$1039.39/1 For 50 LF For 50 L.F For 50 LF For 50 LF 193,636.50 65 48" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$1185.37/ \$1197.15 \$1233.02/ \$1290.13/lf or 50 LF For 50 LF For 50 LF 245,283.50 66 54" Ø DIP Repair DIP Repair DIP Repair DIP Repair \$1197,82/lf \$1451 45/1 \$1658.8/If \$1544.42/lf For 50 LF For 50 LF For 50 LF For 50 LF 292,624.50 60" Ø 67 DIP Repair DIP Repair DIP Repair DIP Repair \$1668.18/lf \$1679.96/ \$1715.82/ \$1772.93/lf For 50 LF For 50 LF For 50 LF For 50 LF 341,844.50 Open Cut DIP Subtotal: 17,646,909.00

				(R	lev. 07/23/2021)	
	•	Α	В	С	D	
ltem	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1′	Extended Total
-		Open Cut pipe	Open Cut pipe	Open Cut pipe	Open Cut pipe Repair	(Surn of unit price * number of LF for
		Repair	Repair	Repair		each of categories A - D)
68	6" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	
		\$86.88/If	\$100.06/lf	\$157.71/lf	\$203.85	/If
ļ		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$1,825,175.00
69	8" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	•
- 1		\$79.99/lf	\$86.17/lf	\$136.69/lf	\$217.01	
		For 5000 LF	For 5000 LF		For 500 LF	\$ 1,622,755.00
70	10" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	•
		\$93.88/lf			\$234.32	
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,861,410.00
71	12° Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	
		\$112.84/lf			\$213.06	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 618,780.00
72	14" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
1		\$138.62/lf			· ·	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 721,920.00
73	16" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
		\$142.04/if	\$151.27/¶	\$191.62/lf	\$229.73	/16
	-	For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 714,660.00
74	18" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
٠. ا		\$144.53/lf	'	,	l '	/lf
			For 1000 LF	For 1000 LF	For 1000 LF	\$ 724,620.00
75	20″ Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
ĺ		\$166.11/lf		\$311.24/lf	\$365.68	/if
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 1,020,540.00
76	24" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	-
		\$189.11/(f				
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 92,773,00
77	30" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
	1.0	\$297.68/lf				
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 130,262.00
78	36" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	
- 1		\$348.1/lf			1	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 150,562.00
79	42" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	ns.
		\$437.37/\				
		For 50 LF	For 50 LF	For 50 LF	For 50 LF	\$ 93,135.00
80	48" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair	ne
		\$449.46/lf				
		For 50 LF	For 50 LF	For 50 LF	For 50 LF	\$ 98,848.00 \$ 9,675,440.00
					Open Cut C900 Subtotal:	ja 9,675,44U.U

		Α	В	С	D .	
Item	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1'	Extended Total
		Open Cut pipe Repair	Open Cut pipe Repair	Open Cut pipe Repair	Open Cut pipe Repair	(Sum of unit price * number of LF for each of categories A - D)
81	60°Ø				RCP Repair	
		\$519.89/lf	\$541.13/lf	\$587.38/lf	\$729.66/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 237,806.00
82	66°Ø	RCP Repair	RCP Repair ·	RCP Repair	RCP Repair	
		\$607.29/lf	\$628.54/lf	\$674.78/lf	\$817.07/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 272,768.00
83	72" Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	
		\$701.69/lf	\$722,93/lf	\$769.18/lf	\$911.47/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 310,527.00
84	78" Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	
		\$837.88/lf	\$900.61/lf	\$946.86/lf	\$1089.15/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 377,450.00
					Open Cut RCP Subtotal:	\$ 1,198,551.00

		Α ·	В	· C	D		
ltem	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1′		Extended Total
				Open Cut pipe	Open Cut pipe R	-	(Sum of unit price * number of LF fo
		Repair	Repair	Repair			each of categories A - D)
85	20" Ø				Steel Casing Repair		
		Repair	Repair	Repair	=		
<i>'</i>				\$363,52/lf		\$428.52/lf	
		4	For 100 LF		For 100 LF		\$ 137,214.00
86	24" Ø				Steel Casing Repair		
				Repair			
ł		\$366.77/lf		\$441.5/lf		509.16/lf	
	*		For 100 LF		For 100 LF		\$ 170,060.00
87	28" Ø				Steel Casing Repair		
				Repair			
Ì				. \$500.77/lf		5568.44/lf	
			For 100 LF		For 100 LF		\$ 193,296.00
- 88	32° Ø				Steel Casing Repair		
- 1		Repair		Repair			
				\$508.33/lf		\$576/lf	
			For 100 LF	For 100 LF	For 100 LF		\$ 196,112.00
89	36" Ø	Steel Casing			Steel Casing Repair		
1				Repair			
				\$531.9/lf		\$546.81/lf	
	÷		For 50 LF		For 50 LF		\$ 100,131.00
90	42" Ø				Steel Casing Repair		
		Repair		Repair			
		\$520.59/lf	\$534.92/lf	\$597.7/lf		\$612.6/lf	
		For 50 LF	For 50 LF .		For 50 LF		\$ 113,290.50
91	48" Ø	Steel Casing		Steel Casing	Steel Casing Repair		
				Repair			
		\$559.42/lf	\$602.86/lf	\$649.27/lf	1	716.93/lf	,
		For 50 LF	For 50 LF	For 50 LF	For 50 LF		\$ 126,424.00
				Open Cut Steel			\$ 1,036,527.50
				Casing Subtotal:			

				(F	Rev. 07/23/2021)	
		Α	В	C	D	
ltem	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1'	Extended Total
		Open Cut pipe	Open Cut pipe	Open Cut pipe	Open Cut pipe Repair	(Sum of unit price * number of LF fo
		Repair	Repair	Repair	,	each of categories A - D)
92	4" Ø	HCS PVC	HCS PVC Repair	HCS PVC Repair	HCS PVC Repair	·.
		Repair			, i	
	• •	\$129.03/lf	\$140.9/lf	\$158,41/lf	\$207.43/lf	
		For 1000 LF	For 1000 LF	For 1000 LF	· · · · · · · · · · · · · · · · · · ·	
93	4" Ø	HCS VCP	HCS VCP Repair	HCS VCP Repair	HCS VCP Repair	
		Repair	'	.'	· · · · · · · · · · · · · · · · · ·	
-		\$148,63/lf	\$153,45/lf	\$155.8/lf	\$236.07/lf	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	
94	4" Ø	HC\$ DIP	HCS DIP Repair	HCS DIP Repair	HCS DIP Repair	,
		Repair		, i	·	
- 1		\$174.24/lf	\$195.15/lf	\$212.66/lf	\$261.68/If	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	
95	4" Ø	HCS HDPE	HCS HDPE	HCS HDPE Repair	HCS HDPE Repair	
1	•	Repair	Repair		•	
		\$178.08/lf		\$210.1/lf	\$265.52/lf	
.	•	For 100 LF	For 100 LF	For 100 LF	For 100 LF	
				, stm.	Open Cut HCS Subtotal:	\$ 1,014,643,00

Item	Qty	Unit	December 1	Link Drive	Total Amount
96	200	EA	B" Ø Point Repair Couplings	Unit Price \$ 480.13	\$ 96,026.00
97	200	EA	8" Ø Point Repair Couplings		\$ 118,552.00
98	20	ĒΑ	10" Ø Point Repair Couplings		\$ 16,123.00
99	20	EA	12" Ø Point Repair Couplings	\$ 954.34	
100	12	EA	15" Ø Point Repair Couplings	\$ 1,458.19	
101	10 6	EA EA	18" Ø Point Repair Couplings	\$ 2,394.74	
102	6	EA	21" Ø Point Repair Couplings 24" Ø Point Repair Couplings	\$ 4,504.96 \$ 4,504.96	
103	6	EA	27" Ø Point Repair Couplings	\$ 4,386.41	
105	6	. EA	30" Ø Point Repair Couplings	\$ 3,200.89	
106	6	EA	33" Ø Point Repair Couplings	\$ 3,438.00	
107	6	EA	36" Ø Point Repair Couplings	\$ 3,556.55	
108	6	EA	39" Ø Point Repair Couplings	\$ 4,149.31	
109	6	EA EA	42" Ø Point Repair Couplings	\$ 4,267.86	
110	6	EA	48" Ø Point Repair Couplings	\$ 4,860.62	\$ 29,163.72
111	1000	EA	HCS Reinstatement for CIPP, Mechanized robot	\$ 2,264.34	\$ 2,264,340.00
112	10	EA	HCS Reinstatement for CIPP, Open cut	\$3,556.55	\$ 35,565.50
113	250	EA .	HCS Reinstatement for Open cut repairs or replacements	\$ 1,778.27	\$ 444,567.50
114	100	EA	CIPP Mobilization for 6" Ø through 12" Ø	\$ 7,484.40	\$ 748,440.00
115	100	EA .	CIPP Mobilization for 15" Ø through 24" Ø	\$	\$ 749,033.00
116	25	EA	CIPP Mobilization for 27" Ø through 42" Ø	\$ 10,599.94	\$ 264,998.50
117	25	EA	CIPP Mobilization for 48" Ø through 66" Ø	\$ 11,251.97	\$ 281,299.25
118	25	EA	CIPP Mobilization for 72" Ø through 78" Ø	\$ 14,413.98	\$ 360,349.50
119	20	EA	Point Repair Mobilization for 6" Ø through 12" Ø	\$ 7,945.33	\$ 158,906.60
120	50	EA	Point Repair Mobilization for 15" Ø through 24" Ø	\$ 9,197.24	\$ 459,862.00
121	50	EA	Point Repair Mobilization for 27" Ø through 42" Ø	\$ 9,827.93	\$ 491,396.50
122	20	EA	Point Repair Mobilization for 48" Ø through 66" Ø	\$ 11,827.66	\$ 236,553.20
123	20	EA .	Point Repair Mobilization for 72" Ø through 78" Ø	\$ 17,058.16	\$ 341,163.20
124	1,000	EA	Manhote-Clean Out Adjustment Mobilization	\$ 652.58	\$ 652,580.00
125	1000	· EA	Manhole-Clean Out Reconstruction Mobilization	\$ 1,476.68	\$ 1,476,680.00
126	1000	EA	New Manhole Mobilization Flow Management Mobilization of 4" Pumps, Aproximately 750gpm	\$ 2,780.75	\$ 2,780,750.00
127	200	EA ,	expected from this pump size Flow Management Mobilization of 6" Pumps, Aproximatelly 1,500gpm	\$ 1,600.45	\$ 320,090.00
128	50	EA ·	expected from this pump size Flow Management Mobilization of 8" Pumps, Aproximatelly 2,500gpm	\$ 1,600.45	\$ 80,022.50
129	25	EA	expected from this pump size Flow Management Mobilization of 12" Pumps, Aproximatelly	\$ 1,719.00	\$ 42,975.00
130	5 .	EA	5,000gpm expected from this pump size Flow Management Mobilization of 14" Pumps, Aproximatelly	\$ 5,500.80	\$ 27,504.00
131	. 5	EA .	7,500gpm expected from this pump size	\$ 6,449.21	\$ 32,246,05
132a	500	HR	Flow Management with a 4" Pump, per hour	\$ 231.18	\$ 115,590.00
132b	200	EA	Flow Management with a 4" Pump, per day	\$ 1,837.55	\$ 367,510.00
132c	200	EA	Flow Management with a 4" Pump, per week	\$ 10,551.10	\$ 2,110,220.00
133a	500	HR	Flow Management with a 6" Pump, per hour	\$ 258.44	\$ 129,220.00
133b	100	EA	Flow Management with a 6" Pump, per day	\$ 2,074.65	\$ 207,465.00
133c	100	EA	Flow Management with a 6" Pump, per week	\$ 11,262.41	\$ 1,126,241.00
134a	500	HR	Flow Management with a 8" Pump, per hour	\$ 303,49	\$ 151,745.00

	· · · · · · · · · · · · · · · · · · ·	т	(Rev. 07/23/2021)			
134b	50	EA	Flow Management with a 8" Pump, per day	\$ 2,430.31	\$	121,515.50
134c	50	EA	Flow Management with a 8" Pump, per week	\$ 13,396.34	! \$	669,817.00
135a	500	HR	Flow Management with a 12" Pump, per hour	with a 12" Pump, per hour \$ 448.13 \$		
135b	25	EA	Flow Management with a 12" Pump, per day	\$ 3,586.19	\$	89,654.75
135c	25	EA	Flow Management with a 12" Pump, per week	\$ 18,648.17	5	466,204.25
136a	500	HR	Flow Management with a 16" Pump, per hour	\$ 540.60	\$	270,300.00
136b	25	. EA	Flow Management with a 16" Pump, per day	\$ 4,327.14	\$	108,178.50
136c	25	EA	Flow Management with a 16" Pump, per week	\$ 21,357.08	\$	533,927.00
137	200	HR	Vactor Truck Monitoring for Flow Management	\$ 272.67	\$	54,534.00
			138-141 Blank			
142	50000	EA	Flow Management 4" HDPE piping and materials, per ft installed	\$ 5.93	\$	296,500.00
143	50000	EA	Flow Management 6" HDPE piping and materials, per ft installed	\$ 7.41	\$	370,500.00
144	30000	EA	Flow Management 8" HDPE piping and materials, per ft installed	\$ 11.86	\$	355,800.00
145	30000	EA	Flow Management 12" HDPE piping and materials, per ft installed	\$ 13.04	\$	391,200.00
146	20000	LF	Flow Management 16" HDPE piping and materials, per ft installed	\$ 14.23	\$	284,600.00
147	20000	LF	Flow Management 4" Aluminum piping and materials, per ft installed	\$ 6.52	\$	130,400.00
148	20000	LF	Flow Management 6" Aluminum piping and materials, per ft installed	\$ 7.71	\$	154,200.00
149	20000	LF	Flow Management 8" Aluminum piping and materials, per ft installed			249,000.00
150	500	sy	Utility Trench Pavement Patch TYPE 1, provide and install materials, with 2-inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and specifications, complete.	\$ 253.88	\$	126,940.00
151	100	SY	Utility Trench Pavement Patch TYPE 2, provide and install materials, with 2- inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and specifications, complete.	\$ 253.94	\$	25,394.00
152	100	sy	Utility Trench Pavement Patch TYPE 3, provide and install materials, with 2- inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and specifications, complete.	\$ 300.27		30,027.00
153	100	SY	Chip Seal coat, in accordance with Section 404 of PC/COT Std Specs and the plans and specifications, complete. Asphaltic Concrete Finish Course (Mix #3), 2-inch thick layer	\$ 124.81	\$	12,481.00
154	300	SY	incremental adjustment to the thickness stated in bid items 45, 46, 47, per Section 406 of PC/COT Std Specs, and the plans and specifications, complete.	\$ 193.88	\$	58,164.00
155	500	DAY	Furnish and Install Temporary Traffic Metal Plate (8'x10'x1"), complete. Daily rate	\$ 176.61	\$	88,305.00
156	500	WK	Furnish and Install Temporary Traffic Metal Plate (8'x10'x1"), complete. Weekly rate	\$ 467.06	\$	233,530.00
457-			Furnish and install New 4 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 10" diameter pipe, per PCWMD Std.			
157a 157b	25	ΕA .	Dtl. 201, and accordance with the plans and specifications, complete. Furnish and install New 4 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 10" diameter pipe, per PCWMD Std.	\$ 5,573.03		139,325.75
157B	25	EA EA	Dtl. 201, and accordance with the plans and specifications, complete. Furnish and install New 5 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe, per Std. Dtl. 201, and in accordance with the plane and accord	8,835.57		220,889.25
			and in accordance with the plans and specifications, complete.	\$ 6,284.34	\$	157,108,50

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158b	25	EA	Furnish and install New 5 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 10,160.98	s	254,024.50
159a	25	EA	Furnish and install New 4 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 8,499.76		212,494.00
159Ь	25	EA	Furnish and install New 4 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 11,077.08	\$	276,927.00
159c	25	EA	Furnish and install New 5 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 8,529.40	· •	213,235.00
159d	25	EA	Furnish and install New 5 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 12,257.85		306,446.25
160a	25	EA	Furnish and install New 4 ft Diameter Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications,			
160b	25	EA	complete. Furnish and install New 4 ft Diameter Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications,	\$ 8,499.76		212,494.00.
161a	25	EA EA	complete. Furnish and install New 5 ft Diameter Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.			276,927.00 213,235.00
161b	25	EA	Furnish and install New 5 ft Diameter Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.			306,446.25
10.10	25		162-163 Blank	. (2,237.00	9	300,440.23
164a	100	VF	Furnish and install New 30" Diameter Reinforced Concrete Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plans and specifications, complete.	\$ 2,460.50	\$	246,050.00
4046	100		Furnish and install New 30" Diameter Fiberglass Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in			
164b	100	VF	Furnish and install New 30" Diameter Polymer Concrete Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 &	\$ 2,640.27		264,027.00
1640	100	VF .	214.2, and in accordance with the plans and specifications, complete. Furnish and install New 4 ft Diameter Concrete Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance.			246,050.00
165a	100	VF	with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 1,045.34	\$	104,534.00

		· ·	(Rev. 07/23/2021)				
	•		Furnish and install New 4 ft Diameter Concrete Manhole per RWRD	•			
!			Std. Dtl. 205, including manhole shaft, grade rings, steps and 24"				
		ŀ	frame and cover per County Standards and Specs and in accordance				
165b	100	VF	with the plans and specifications, 6.1 ft to 12 ft deep, complete.	s	1,073,94	\$	107,394.00
				·		 	
			·				territoria de la compansión de la compan
			Furnish and install New 4 ft Diameter Concrete Manhole per RWRD			į	
			Std. Dtl. 205, including manhole shaft, grade rings, steps and 24"				
			frame and cover per County Standards and Specs and in accordance				
165c	100	VF	with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$	834,10	\$	83,410,00
			Firmish and install black of A Disputes Consent Market In the Black				
:		l . '	Furnish and install New 4 ft Diameter Concrete Manhole per RWRD				
		-	Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance				
165d	100	VF	with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$	810.84	ا و	81,084.00
-1004	700	***	with the plans and specifications, 19.1 It to 25 it deep, complete.		010.04	۰	01,004.00
	·						
			Furnish and install New 4 ft Diamater Fiberglass Manhole per				
"			RWRD Std. Dtf. 205, including manhole shaft, grade rings, steps and				
		· .	24" frame and cover per County Standards and Specs and in	*			
			accordance with the plans and specifications, 3 ft to 6 ft deep,				
166a	100	VF	complete.	\$	1,875.45	\$	187,545.00
						<u> </u>	
		'					
			Furnish and install New 4 ft Diameter Fiberglass Manhole per				
		·	RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and				
			24" frame and cover per County Standards and Specs and in	•			
			accordance with the plans and specifications, 6.1 ft to 12 ft deep,	<u> </u>			
166b	100	VF	complete.	\$	1,755.51	\$	175,551.00
	•		Furnish and install New 4 ft Diameter Fiberglass Manhole per				
li	•		RWRD Std. Dtl. 205, including manhote shaft, grade rings, steps and				
ŀi			24" frame and cover per County Standards and Specs and in	•			
166c	100	VF.	accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$	1,643.62	e	164,362.00
,,,,,	100	**-	complete.	3	1,043.02	•	104,302.00
'							
l i			Furnish and install New 4 ft Diameter Fiberglass Manhole per				
	•		RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and				
	4		24" frame and cover per County Standards and Specs and in	•			
			accordance with the plans and specifications, 19.1 ft to 25 ft deep,				
166d	100	VF	complete.	\$	1,582.32	s	158,232.00
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				· · · · · · · · · · · · · · · · · · ·			-
			Furnish and install New 4 ft Diameter Polymer Manhole per RWRD	,			
	•		Std. Dtl. 205, including manhole shaft, grade rings, steps and 24"			١.	
			frame and cover per County Standards and Specs and in accordance				
167a	100	VF	with the plans and specifications, 3 ft to 6 ft deep, complete.	\$	3,198.10	\$	319,810.00
.	÷ ,	l .					
			Eurnich and install New 4 5 Diameter Believes 14-14-14-15-15-15-15-15-15-15-15-15-15-15-15-15-				
		· ·	Furnish and install New 4 ft Diameter Polymer Manhole per RWRD				
			Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance	* *		-	
167b	100	V.F	with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$	2 007 71	\$	200 771 00
1010	. 100	4.1	with the plans and specifications, o. Fit to 12 it deep, complete.	Ψ	2,007.71	4	200,771.00
		· ·			•		
				,			
			Furnish and install New 4 ft Diameter Polymer Manhole per RWRD	·			
			Std. Dtl. 205, including manhole shaft, grade rings, steps and 24"	,			
		l . '	frame and cover per County Standards and Specs and in accordance		•	ŀ	
167c	100	VF .	with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$.	1,700.94	\$	170,094.00
		L	The state of the s	<u> </u>	.,		,50 ,,00

(Rev. 07/23/2021) Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24". frame and cover per County Standards and Specs and in accordance 167d 100 VF with the plans and specifications, 19.1 ft to 25 ft deep, complete. 1 849 21 184 921 00 Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with 168a 100 VF the plans and specifications, 3 ft to 6 ft deep, complete. 2,425.14 242,514.00 Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with 168b 100 VF the plans and specifications, 6.1 ft to 12 ft deep, complete. 1,667,46 166,746.00 Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete. 168c 100 VF 1,388.92 138,892.00 Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Ott. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with 168d 100 VF the plans and specifications, 19.1 ft to 25 ft deep, complete. 1,305.20 \$ 130,520.00 Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance 169a 100 VF with the plans and specifications, 3 ft to 6 ft deep, complete 1,226,75 122,675.00 Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance 169b 100 ۷F with the plans and specifications, 6.1 ft to 12 ft deep, complete. 1,071.15 107,115.00 Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance 169c 100 with the plans and specifications, 12.1 ft to 19 ft deep, complete. 863.74 86,374.00 Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance 169d 100 ۷F with the plans and specifications, 19.1 ft to 25 ft deep, complete. 810.84 Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, VF 170a 100 complete 2,497.03 \$ 249,703.00

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1705			Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep,			
170b	100	VF.	complete.	\$ 2,340.38	\$	234,038.00
170c	100	VE	Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep,		:	5
1700	100	VF	complete.	\$ 2,241.64	\$	224,164,00
170d	100	VF	Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	2 009 70		202 872 00
<u> </u>	,,,,	<u> </u>	complete.	\$ 2,028.72	\$	202,872.00
171a	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the place and specifications. In the place and specifications.			
	100	<u>`</u>	with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 3,001.72	\$	300,172.00
171b	100	VF	Furnish and install New 5 ft Diameter Polymer Manhote per RWRD Std. Dtl. 206, including manhote shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance			· .
17 15	100	. VF	with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 2,617.66	\$	261,766.00
			Furnish and install New 5 ft Diameter Polymer Manhole per RWRD			
171c	100	VF	Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in eccordance			•
-		¥1.	with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 2,206.36	·\$	220,636.00
171d	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 2,081.38	\$	208,138.00
172a	100	VF	Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 3,831.16	\$	383,116.00
				2,50111	- :	,
172b	100	VF	Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 2,550.54	s	255,054.00
			Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std.	2,000.04	<u>*</u>	
172c	100	VF	Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,908.18	\$	190,818.00

(Rev. 07/23/2021) Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with 172d 100 VF the plans and specifications, 19.1 ft to 25 ft deep, complete. 1,718.94 171,894.00 Rehabilitate and install coating on existing manhole base for 4 ft diameter manhole, in accordance with Master Agreement Sub-173 100 EΑ Appendix "F", and the plans and specifications, complete. 3,810.25 381,025.00 Rehabilitate and install coating on existing manhole base for 5 ft diameter manhole, in accordance with Master Agreement Sub-174 100 EΑ Appendix "F", and the plans and specifications, complete. 4,507,33 450,733,00 Rehabilitate and install coating on existing manhole base for 5 ft diameter manhole, in accordance with Master Agreement Sub-175 25 EΑ Appendix "F", and the plans and specifications, complete. 4.507.33 112,683.25 Provide protective coating on existing manhole or structures walls, ceiling, and riser sections, in accordance with plans and 176 50000 SF specifications, complete. 90.34 4,517,000.00 Provide protective coating on new or existing manhole ring and cover, 177 in accordance with plans and specifications, complete. 2000 SF 119.44 238.880.00 Furnish and install a New 14" cleanout frame and cover, as per Sub Appendix N and in accordance with the plans and specifications, 178 100 EΑ complete. 989.54 \$ 98,954.00 Furnish and install a New 24" manhole frame and cover per Std Dtls 179a 250 EΑ 213.1, in accordance with the plans and specifications, complete. 1,181.32 \$ 295,330,00 Furnish and install a New 24" composite manhole frame and cover per Std Dtls 213.1, in accordance with the plans and specifications, 179b 100 EΑ 2,070.46 \$ 207,046.00 Furnish and install a New 30" manhole frame and cover per Std Dtls 180a 50 EΑ 214.0, in accordance with the plans and specifications, complete. 1.536.97 76,848,50 Furnish and install a New 30" composite manhole frame and cover per Std Dtls 214.0, in accordance with the plans and specifications, 180b 50 EΑ complete. 2,900.32 145,016.00 Furnish and install a New 24" Waterproof manhole cover and frame per Std Dtls 213.2, in accordance with the plans and specifications, 181a 100 EΑ 1,210,96 | \$ 121.096.00 Furnish and install a New 24" Waterproof composite manhole cover and frame per Std Dtls 213.2, in accordance with the plans and 181b 50 specifications, complete 2,070.46 \$ 103,523.00 Furnish and install a New 30" Waterproof manhole cover and frame per Std Dtls 214.1, in accordance with the plans and specifications, 182a 100 EΑ 1.536.97 153,697.00 Furnish and install a New 30" Waterproof composite manhole cover and frame per Std Dtls 214.1, in accordance with the plans and 182Ь 50 EΑ specifications, complete. 2,900.32 145,016.00 Furnish and install a New 24" Bolted Waterproof manhole cover and frame per Std Dtls 213.3, in accordance with the plans and 183a 50 EΑ specifications, complete. 1.181.32 59.066.00 Furnish and install a New 24" Bolted Waterproof composite manhole cover and frame per Std Dtls 213.3, in accordance with the plans and 183b 25 EΑ specifications, complete. 2,070.46 51,761.50 Furnish and install a New 30" Bolted Waterproof manhole cover and frame per Std Dtls 214.2, in accordance with the plans and 184a 50 EΑ specifications, complete. 1,536.97 76.848.50 Furnish and install a New 30" Bolted Waterproof composite manhole cover and frame per Std Dtls 214.2, in accordance with the plans and 184b 25 EΑ specifications, complete, 2,900.32 72,508.00 Provide concrete collar for manhole per RWRD Std Dtl 211, in 185 accordance with plans and specifications, complete. 500 EΑ 355,450.00 Provide concrete collar for manhole per RWRD Std Dtl 212, in 186 300 EΑ accordance with plans and specifications, complete. 915,09 274,527.00

(Rev. 07/23/2021)

			(Rev. 07/23/2021)			
187	1000	EA	Adjust Existing 24" Diameter Frame and Cover on a Brick manhole, to the finished grade specified, complete.	\$ 703.97	\$	703,970.00
188	500	EA	Adjust Existing 30" Diameter Frame and Cover on a Brick manhote, to the finished grade specified, complete.	\$ 703.97	\$	351,985.00
189	1000	EA	Adjust Existing 24" Diameter Frame and Cover on a Reinforced Concrete manhole, to the finished grade specified, complete.	\$ 703.97	\$	703,970.00
190	500	EΑ	Adjust Existing 30" Diameter Frame and Cover on a Reinforced Concrete manhole, to the finished grade specified, complete.	\$ 703.97	\$	351,985.00
191	250	EA	Reconstruct Existing Cleanout to the finished grade specified (regardless of height adjustment), complete.	\$ 884.77	\$	221,192.50
192	2000	.VF	Reconstruct Existing 4 ft Diameter Manhole Barrel/Cone Section on a Brick manhole, to the finished grade specified, complete.	\$ 2,110.05	\$	4,220,100.00
193	1000	. VF	Reconstruct Existing 5 ft Diameter Manhole Barrel/Cone Section, on a Brick manhole, to the finished grade specified, complete.	\$ 2,477.96	\$	2,477,960.00
194	500	VF	Reconstruct Existing 4 ft Diameter Manhole Barrel/Cone Section, on a Reinforced Concrete manhole, to the finished grade, complete. Reconstruct Existing 5 ft Diameter Manhole Barrel/Cone Section, on a	\$ 1,877.39	\$	938,695.00
195	500	VF	Reinforced Concrete manhole, to the finished grade specified, complete.	\$ 2,096.71	\$	1,048,355.00
196	500	EA	Provide Bench Rehabilitation for a 4 ft Diameter Manhole, per the Special Provisions, complete.	\$ 1,575.55	\$	787,775.00
197	500	EA	Provide Bench Rehabilitation for a 5 ft Diameter Manhole, per the Special Provisions, complete.	\$ 1,978.63	\$. 989,315.00
198	2000	VF	Provide Pot-holing Services for PCRWRD, as requested.	\$ 120.49	\$	240,980.00
199	500	CY	Provide Excavation & Backfill using Native Material, as per the Special Provisions, 0 ft to 4 ft deep CY=(Width*Length*Depth)/27	\$ 31.37	\$	15,685.00
			Provide Excavation & Backfill using Native Material, as per the			
200	1000	CY	Special Provisions, 4.1 ft to 10 ft deep CY=(Width*Length*Depth)/27	\$ 34.68	\$	34,680.00
201	2000	CY	Provide Excavation & Backfill using Native Material, as per the Special Provisions, 10.1 ft to 15 ft deep CY=(Width*Length*Depth)/27	\$ 35.83	\$_	71,660.00
.						
202	500	CY	Provide Excavation & Backfill using AB Material, as per the Special Provisions, 0 ft to 4 ft deep CY=(Width*Length*Depth)/27	\$ 65.90	\$	32,950.00
203	1000	CY	Provide Excavation & Backfill using AB Material, as per the Special Provisions, 4.1 ft to 10 ft deep CY=(Width*Length*Depth)/27	\$ 69.20	\$	69,200.00
204	2000	CY	Provide Excavation & Backfill using A8 Material, as per the Special Provisions, 10.1 ft to 15 ft deep CY=(Width*Length*Depth)/27	\$ 70.35	\$	140,700.00
			Concrete Sidewalk Removal and Replacement, per Pirna County/City			
205	1000	CY	of Tucson Standard Specifications and Dtls. 200 and 203, complete.	\$ 892.86	\$	892,860.00
206	150	CY	PCCP Concrete Removal and Replacement 4" thick	\$ 933.94	\$	140,091.00
207	200 .	CY	PCCP Concrete Removal and Replacement 6" thick	\$ 793.63	\$	158,726.00
208	200	CY	PCCP Concrete Removal and Replacement 8" thick	\$ 731.88	\$	146,376.00
209	2000	CY	Concrete Curb Removal and Replacement, Per Pima County/City of Tucson Standard Specifications and Details	\$ 734.86	\$	1,469,720.00
210	250	CY -	1-Sack Low Strength Slurry Per Pima County/City of Tucson Standard Specifications and Details Section 501.	\$ 228.33	\$	57 ,082.50

_	T	· · ·	(Rev. 07/23/2021)			
211	250	CY -	2-Sack Low Strength Slurry Per Pima County/City of Tucson Standard Specifications and Details Section 501.	334.26	\$	58,565.00
212	200_	EA	Porta Potties, per week	\$ 142.26		28,452.00
213	200	· EA	Porta Potties, per day	\$ 118.55	\$	23,710.00
214	500	CY	Grouting of Cavities. Installed in place. Per PCRWRD Specifications.	\$ 450.47	\$	225,235,00
215	50000	LF	CCTV of line 6" to 10"	\$ 4.46	\$	223,000,00
216	50000	LF .	CCTV of line 12" to 15"	\$ 4.46	\$	223,000.00
217	50000	LF	CCTV of line 18" and larger Sewer cleaning of lines 6" to 10" with hydro cleaning equipment.	\$ 4.95	\$	247,500.00
218a	50000	LF	Debris removed with vacuum.	\$ 3.10	\$	155,000.00
218b	1000	LF	Sewer cleaning of DIP lines 6" to 10" with chain flailing cleaning equipment. Debris removed with vacuum.	\$ 36.54	\$	36,540.00
219a	50000	LF	Sewer cleaning of lines 12" to 15" with hydro cleaning equipment. Debris removed with vacuum.	\$ 3.73	\$	186,500.00
219b	1000	LF	Sewer cleaning of DIP lines 12" to 15" with chain flailing cleaning equipment. Debris removed with vacuum.	\$ 43.45	\$	43,450.00
220a	50000	LF	Sewer cleaning of lines 18" and larger with hydro cleaning equipment. Debris removed with vacuum.	\$ 8.33	\$	416,500.00
220b	100	LF	Sewer cleaning of DIP lines 18" and larger with chain flailing cleaning equipment. Debris removed with vacuum.	\$ 54.82	\$	5,482.00
221	100	SHT	Provide As-Built documents, in accordance with the plans and specifications, complete.	\$ 1,541.17	\$	154,117.00
222	50000	LF	Provide construction staking, in accordance with the plans and specifications, complete.	\$ 5.93	\$	296,500.00
223	10	TON	Asbestos Cement Pipe (ACP) Removal and Proper Disposal	\$ 3,235.39	\$	32,353.90
224	200	LF	Remove and dispose security fencing (6' to 8' fence with barb wire)	\$ 16.67	\$	3,334.00
225	200	LF	Install new security fencing (6' to 8' fence with barb wire)	\$ 59.35	\$	11,870.00
226	500	LF.	Remove and dispose security fencing (6' chain link)	\$ 15.76	\$	7,880.00
227	500	LF	Install new security fencing (6' chain link)	\$ 49.37	\$	24,685.00
228	10	EA	Remove and dispose existing 20' security gate	\$ 645.87	\$	6,458.70
229	10	EA	Install new 20' security gate	\$ 2,301.32	•	23,013.20
230	1500	SF	Remove and replace 6' CMU Wall	\$ 37.96	\$.	56,940.00
231	1000	SF	Remove and replace 8' CMU Wail	\$ 62.01		62,010.00
232	500	HR	Archaeological Monitoring	\$ 189.68		94,840.00
233	10	ACRE	Hydroseeding	\$ 4,763.69		47,636.90
234	100	SHT	Shop/Engineering Drawings	\$ 2,371.03		237,103.00
235	2000	SY	Rip-Rap (D50 6") - Delivered and Installed.	\$ 50.45		100,900.00
236	. 25	EA	Install Survey Monument per Standard Detail WWM 507.	\$ 322.46		8,061.50
		• .	Provide miscellaneous services, construction materials and			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
237		FA	installation by Force Account, in accordance with the plans and specifications, complete.		\$	500,000.00
229			Company of the Compan			
230			Grand Total Repair Line Items:		\$ 130	,419,275.09

(Rev. 07/23/2021)

231	, ,	
232 ROPOSAL OF:	Borderland Construction Company, Inc.	÷
233. 234	Company Name	
235 SIGNATURE:	Todd Adams, Vice President	
236 237	Name & Title of authorized signer	_
DATE	August 9, 2024	

^{*} Line items shall include mobilization costs
** For Emergency response jobs the contractor will receive a 15% increase to all line items.

ARIZONA STATUTORY BID BOND

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

KNOW ALL MEN BY THESE PRESENTS THAT: Borderland Construction Company, Inc.
(hereinafter "Principal"), as Principal, andTravelers Casualty and Surety Company of America
(hereinafter "Surety"), a corporation organized and existing under the laws of the State of Connecticut,
with its principal offices in the City of
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 Pima County, Arizona
(hereinafter "Obligee"), in the sum equal to that stated in the request for proposal for the work described
below, for the 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.
* \$1,800,000 = Ten Percent (10%) of estimated combined Constructions costs over the first year of agreement
WHEREAS, the Principal has submitted a bid for the work titled:
SFQ-PO-2100017 - Job Order Master Agreement: Wastewater Conveyance System and
Related Facilities Repair, Rehabilitation and Construction Services
NOW, THEREFORE, if the Obligee shall accept the proposal of the Principal and the Principal shall ente
into a contract with the Obligee in accordance with the terms of the proposal and give the bonds and
certificates of insurance as specified in the standard specifications with good and sufficient surety for the
faithful performance of the contract and for the prompt payment of labor and materials furnished in the
prosecution of the contract, or in the event of the failure of the Principal to enter into the contract and give
the bonds and certificates of insurance, if the Principal pays to the Obligee the difference not to exceed
the penalty of the bond between the amount specified in the proposal and such larger amount for which
the Obligee may in good faith contract with another party to perform the work covered by the proposal
then this obligation is void. Otherwise, it remains in full force and effect provided, however, that this bond
is executed pursuant to the provisions of Section 34-608, 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 22nd day of July , 20 21
A AM
Borderland Construction Company, Inc. By: Description:
Principal
Travelers Casualty and Surety Company of America By 12016
Tipo Maria Darking Attornay in East



Travelers Casualty and Surety Company of America Travelers Casualty and Surety Company St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Tina Marie Perkins of TUCSON Arizona, their true and lawful Attomey(s)-in-Fact to sign, execute, seal and

Arizona , their true and tawin Anomey(s)-in-ract to sign, execution, seed and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 21st day of April, 2021.







State of Connecticut

City of Hartford ss.

On this the 21st day of April, 2021, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2026



Anna P. Nowik, Notary Public

Robert L. Raney-Senior Vice President

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Senior Vice President, any Senior Vice President, any Senior Vice President, any Senior Vice President, any Senior Vice President, any Senior Vice President, any Senior Vice President, any Senior Vice President, any Vice President, any Senior Vice President, any Vice President, any Senior Vice President, any Vice President, any Senior Vice President, any Vice President, any Senior Vice President, any Vice President, any Senior Vice President, any Vice President, any Senior Vice President, any Vice President, any Senior Vice President, any Vice President, a

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

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

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

I, Kevin E. Hughes, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 22nd day of

ViuL

2021







Ha F. Huntan Kevin E. Hughes, Assistant Secretary

ORIGINAL

PRICE PROPOSAL

Submitted in Response to Solicitation No. SFQ-PO-2100017 August 9, 2021

JOB ORDER MASTER AGREEMENT:
WASTEWATER CONVEYANCE SYSTEM AND RELATED FACILITIES
REPAIR, REHABILITATION & CONSTRUCTION SERVICES

ltem	Host Pipe	5' Cover	B 10' Cover	C 15' Cover	D 20' Cover	Extended Total
iceiti	nustripe	CIPP Liner	CIPP Liner	CIPP Liner	CIPP Lines	(Sum of unit price * number of LF for each of categories A - D)
1	6" Ø	6.0 mm thk \$ 76.00	\$ 76.00	\$ 76,00	\$ 81.00	and the desired to the second
2	8" Ø	For 5000 LF 6.0 mm thk	For 5000 LF 6.0 mm thk			\$ 844,100,00
	* .	\$ 54.00 For 5000 LF	\$ 54.00 For 5000 LF	\$ 54.00	\$ 76.00	\$ 601,600.00
3	10° Ø	6.0 mm thk \$ 62.00	6.0 mm thk		6.6 mm thk	BO 1,000.00
4	12° Ø	For 2000 LF	For 2000 LF	For 1000 LF	For 100 LF	\$ 318,200.00
4	12: 23	6.0 mm thk \$ 69.00	6.0 mm thk \$ 69.00	\$ 71.00	\$ 101.00	
5	15" Ø	For 2000 LF 6.1 mm thk		8.9 mm thk	9.9 mm thk	\$ 438,200.00
		\$ 88.00 For 2000 LF	For 2000 LF	For 2000 LF	For 200 LF	\$ 564,800.00
6	18" Ø	7.4 mm thk \$ 114.90	8.9 mm thk \$ 119.00	\$ 123.00		manas sansas pan amin'i dee gamaana seks manas sikeen sansas seesaan sansas sansas sansas sansas sansas sansas s
7	21″ Ø	For 1000 LF 8.6 mm thk	For 1000 LF 10.4 mm thk	For 1000 LF 12.4 mm thk		\$ 386,400.00
		\$ 137,00 For 1000 LF	\$ 142.00 For 1000 LF	\$ 147.00 For 1000 LF	\$ 163.00 For 200 LF	\$ 462,600,00
8	24ª Ø	9.9 mm thk \$ 160.00	11.9 mm thk \$ 165.00	14.2 mm thk		
9	27* Ø	For 1000 LF 11.2 mm thk	For 1000 LF 13.2 mm thk	For 1000 LF	For 200 LF	\$ 539,800.00
· ·		\$ 160.00 For 1000 LF	\$ 167.00 For 1000 LF	\$ 181.00 For 1000 LF	\$ 196.00	\$ 606,000.00
10	30" Ø	12.4 mm thk \$ 198.00	14.7 mm thk \$ 200.00			3 000,000
		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$ 729,500.00
11	33° Ø	13.7 mm thk \$ 206.00	16.5 mm thk \$ 224.00	19.6 mm thk \$ 240.00	\$ 268.00	
12	36" Ø	For 1000 LF 14.7 mm thk	For 1000 LF 17.8 mm thk			\$ 804,000.00
		\$ 233.00 For 1000 LF	For 1000 LF	\$ 268.00 For 1000 LF	For 500 LF	\$ 900,500.00
13	38° Ø	15.7 mm thk \$ 221.00	19.3 mm thk \$ 240.00	\$ 258.00		
14	42° Ø	For 1000 LF 17.3 mm thk	For 1000 LF 20.8 mm thk	For 1000 LF 24.6 mm thk		\$ 796,000.00
етрегористический		\$ 245.00 For 1000 LF	\$. 264.00. For 1000 LF	\$ 297.00 For 1000 LF	\$ 431.00 For 200 LF	\$ 892,200.00
15	48" Ø	19.6 mm thk \$ 316.00	23.6 mm thk \$ 350.00	28.2 mm thk \$ 385.00		
16	54° Ø	For 1000 LF 21.8 mm thk	For 1000 LF 26.7 mm thk	For 1000 LF 31.8 mm thk		\$ 1,120,500.00
THE PROPERTY OF THE PARTY OF TH		\$ 392.00 For 1000 LF	\$ 434.00 For 1000 LF	\$ 475.00 For 1000 LF	\$ 840.00	\$ 1,385,000.00
17	60° Ø	24.1 mm thk	29.7 mm thk \$ 499.00	35.3 mm thk	39.9 mm thk	Activities and a comment of the comm
18	: 66" Ø	For 1000 LF 26.4 mm thk	For 1000 LF 32.5 mm thk	For 1000 LF	For 100 LF	8 1,590,800.00
i i i i i i i i i i i i i i i i i i i			\$ 571.00 For 1000 LF	\$ 637.00 For 1000 LF		4 204 400 00
19	72* Ø	28.7 mm thk	35.6 mm thk \$ 587.00	42.4 mm thk	48.0 mm thk	\$ 1,824,400.00
20	701 (7	For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF	\$ 1,857,200.00
20	78" Ø		38.4 mm thk \$ 651.00		\$ 1,226.00	
		For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF CIPP Liner Items Subtotal:	

····	en un santante en la companya de la companya de la companya de la companya de la companya de la companya de la	A	В	C	D	
tem	Host Pipe	<=5' Cover	5.1' Cover to	10.1' Cover to 15'	>15.1'	Extended Total
		10' Open Cut pipe Open Cut pi Repair Repair		Repair	Open Cut pipe Repair	(Sum of unit price * number of LF for each of categories A - D)
21	6°Ø	PVC Repair \$ 49.00 For 5000 LF	PVC Repair \$ 70.00 For 5000 LF	PVC Repair \$ 89.00 For 5000 LF	PVC Repair \$ 132.00 For 500 LF	\$ 1,106,000.00
22	8" Ø	PVC Repair \$ 55.00 For 5000 LF	PVC Repair \$ 76.00 For 5000 LF	PVC Repair \$ 95.00 For 5000 LF	FVC Repair \$ 137.00 For 5000 LF	
23	10" Ø	PVC Repair \$ 62.00	PVC Repair \$ 84.00	PVC Repair \$ 103.00	PVC Repair \$ 145.00	
24	12°Ø	For 5000 LF PVC Repair \$ 71,00	For 5000 LF PVC Repair \$ 92.00	For 5000 LF PVC Repair \$ 111.00	For 5000 LF PVC Repair \$ 154.00	
25	15°Ø	For 5000 LF PVC Repair \$ 97.00	For 5000 LF PVC Repair \$ 105.00	For 5000 LF PVC Repair \$ 124.00	For 5000 LF PVC Repair \$ 162.00	\$ 2,140,000.00
26	18° Ø	For 2000 LF PVC Repair \$ 115.00	\$ 122.00	For 2000 LF PVC Repair \$ 141.00	For 2000 LF PVC Repair \$ 184.00	\$ 976,000.00
27	21' Ø	For 1000 LF PVC Repair \$ 143.00	For 1000 LF PVC Repair \$ 151.00	For 1000 LF PVC Repair \$ 170.00	For 1000 LF PVC Repair \$ 213.00	L
28	24' Ø	PVC Repair \$ 188.00	\$ 192.00	For 1000 LF PVC Repair \$ 211.00	For 1000 LF PVC Repair \$ 254.00	\$ 677,000.00
29	27" Ø	PVC Repair \$ 183.00	For 1000 LF PVC Repair \$ 188.00	For 1000 LF PVC Repair \$ 207.00	For 1000 LF PVC Repair \$ 250.00	\$ 845,000.00
30	30° Ø	FVC Repair \$ 223.00	\$ 228.00	For 1000 LF PVC Repair \$ 247.00	For 1000 LF PVC Repair \$ 290.00	\$ 828,000.00
31	33" Ø	PVC Repair \$ 307.00	For 1000 LF PVC Repair \$ 312.00	For 1000 LF PVC Repair \$ 331.00	For 1000 LF. PVC Repair \$ 374.00	\$ 988,000.00
32	36° Ø	\$ 323.00	\$ 330.00	For 1000 LF PVC Repair \$ 350.00	For 1000 LF PVC Repair \$ 400.00	\$ 1,324,000.00
33	39" Ø	PVC Repair \$ 410.00	For 1000 LF PVC Repair \$ 418.00	For 1000 LF PVC Repair \$ 437.00	For 1000 LF PVC Repair \$ 490.00	\$ 1,403,000.00
34	42"Ø .	PVC Repair \$ 410.00	PVC Repair \$ 418.00	For 1000 LF PVC Repair \$ 437.00	For 1000 LF PVC Repair \$ 490.00	\$ 1,755,000.00
35	48" Ø	PVC Repair \$ 495.00	PVC Repair \$ 502.00	For 1000 LF PVC Repair \$ 522.00	For 1000 LF PVC Repair \$ 574.00	\$ 1,755,000.00
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF Open Cut PVC Subtotal:	\$ 2,093,000.00 \$ 20,237,000.00

(Rev. 07/23/2021)

			حصين فيتمان في المناسبة المناس		Conference of the control of the con	<u> </u>
		A	8	<u>,</u>	D	
item	Host Pipe	<=5'Cover	5.1' Cover to	40.1' Cover to 15'	≥46.4°	Extended Total
			Open Cut pipe		Open Cut pipe Repair	(Sum of unit price * number of LF fo
		L Repair	Repair	Repair		each of categories A-D)
36	<u>6° Ø</u>	Clay Repair	Clay Ropair	Clay Repair	Clay Repair	
1		For 5000 LF	For 5000-LF	For 5000 LF	For 500 LF	4
37	8° Ø	Clay Repair	Glay Repair	Clay Repair	Clay Repair	
		-44	AI	· All		
	10°-Ø	For 5000 LF	For 5000 LF	For 5000 LE	For 500 LF	Section of the sectio
38	10-69	Clay Repair	Clay Repair	Clay Repair	Cley Repair	
		For 5000 LF	For 6000 LF	For 6000 LF	For 500 LF	
30	12° Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
		For 5000 LF	## Fer 5000 LF	For 5000 LF	For 500 LF	S
40	1 5 ″ Ø	Clay Repair	Clay Ropair	Clay Repair	Clay Ropair	and the state of t
		al	44	-А	Giay riopan . All	
			For 1000 LE	For 1000 LF	For 500 LF	Switzer warmen
41	18" Ø	Clay Repair	Clay Repair	Clay Repair	Cla y Repair	
		For 1000 LF	For 1000 LF		For 500 LF	
42	21" Ø		Clay Repair	Clay Repair	Clay Repair	Sensitive of the sense of the s
7.		City / topen	и и	All All	Jiay (capas	•
				For 1000 LF	For 500 LF	Supplied of human is common a page.
43	24" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	-
in in its		For 1000 LF	For 1000-LF	For 1000 LF	For 500 LF	The second secon
44	27°Ø	Clay Repair	Clay Ropair	Ciay Repair	Glay-Repair	
-		л	4	-41	A	•
- 1				For 1000 LF	For 100 LF	2
45	39- 6	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
		For 1000 LF	For 1000 LE	For 1000 LF	For 100 LF	A *
46	33° Ø		Clay Ropair	Clay Repair	Clay Repair	***************************************
70		way repair	Alf	und respons	į. – -	
			For 1000 LF	For 1000 LF	For 100 LF	s & condition
47	36° Ø	Clay Repair	Clay Ropair	Clay Repair	Clay Repair	
Ì		For 1000 LF	For 1000 LF	# For 1000 LF	## For 1000 LF	
48	30* 25			Clay Repair	Clay Repair	(20 <u>1890) </u>
10	00 2	Old y Tropell	olay riopan -#	JII	-#	
				For 1000 LF	For 1000 LF	**************************************
48	42' Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	
a di di		For 100 LF	For 100 LF	For 100 LF	For 100 LF	3
50	48°-28			Clay Repair	Clay Repair	
opposition of the same of the			-48 	## ###################################	## ##	
9:		For 100 LF	For 100 LF	For 100 LF	For 100 LF	

		A	В	C		
ltem	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'		Extended Total
		Repair	Open Cut pipe Repair	Repair	Open Cut pipe Repair	(Sum of unit price * number of LF for each of categories A - D)
51	6° Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	
		\$ 96.00	\$ 117.00	\$ 136.00	\$ 178.00	i.
mang rayani ang kita		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,834,000.00
52	8" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	
		\$ 103.00 For 5000 LF	\$ 124.00 For 5000 LF	\$ 143.00 For 5000 LF	\$ 186,00	1
53	10° Ø	DIP Repair	DIP Repair	DIP Repair	For 500 LF DIP Repair	\$ 1,943,000.00
	,0 5	\$ 11B.00	\$ 139.00	\$ 150.00	\$ 200.00	1
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 2,175,000.00
54	12" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	
TOWARD TO THE TOWARD TOWARD TO THE TOWARD TOWARD TO THE TOWARD TO	•	\$ 136.00	\$ 157.00	\$ 176.00	\$ 241.00	
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 2,465,500.00
55	15° Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	
		3 .		\$ 219.00	\$ 262.00	
		For 1000 LF.		For 1000 LF	For 1000 LF	\$ 879,000.00
56	18" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	
		\$ 216.00 For 1000 LF	3 .	\$ 240,00	\$ 283.00	
57	21° Ø	DIP Repair		For 1000 LF DIP Repair	For 1000 LF DIP Repair	\$ 963,000.00
31	21 10	\$ 239.00	\$ 247.00	\$ 263.00	\$ 306.00	and the second s
		For 1000 LF	1 '	For 1000 LF	For 1000 LF	\$ 1,055,000.00
58	24" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	1,000,000,00
		\$ 293.00	\$ 298.00		\$ 357.00	A CONTRACTOR OF THE CONTRACTOR
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 126,200:00
59	27° Ø	DIP Repair		DIP Repair	OIP Repair	
-		\$ 438.00			\$ 502.00	
		For 100 LF			For 100 LF	\$ 184,300.00
60	30° Ø			DIP Repair	DIP Repair	
i.			\$ 445.00 For 100 LF	\$ 462.00	\$ 504.00	
61	33° Ø	For 100 LF DIP Repair	DIP Repair	For 100 LF DIP Repair	For 100 LF DIP Repair	\$ 185,100.00
21	333 87			\$ 579.00	\$ 622.00	
		1		For 100 LF	For 100 LF	\$ 232,200.00
62	36° Ø	DIP Repair		DIP Repair	DIP Repair	y kwajastev
		\$ 571.00		\$ 598.00	\$ 649.00	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 239,600.00
63	39° Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	
	,	\$ 737.00	\$ 745.00	\$ 766,00	\$ 823.00	
		For 100 LF		For 100 LF	For 100 LF	\$ 307,100.00
64	42" Ø	DIP Repair \$ 754.00	DIP Repair \$ 759,00	DIP Repair \$ 783.00	DIP Repair \$ 846.00	
ľ				For 50 LF	For 50 LF	\$ 157,100.00
65	48' Ø			DIP Repair	DIP Repair	157,100,00
	70 £		\$ 949.00	\$ 973.00	\$ 1,036.00	
		9		For 50 LF	For 50 LF	\$ 195,100,00
66	54° Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	The second secon
Water or a		\$ 1,144.00	\$ 1,149.00	\$ 1,174.00	\$ 1,236.00	L
	40000 TO THE REAL PROPERTY THROUGH	For 50 LF		For 50 LF	For 50 LF	\$ 235,150.00
67	60° Ø	DIP Repair		DIP Repair	DIP Repair	
ran-Avere		3		\$ 1,366.00	\$ 1,429.00	Lucia de la companya della companya della companya della companya de la companya della companya
	·	For 50 LF	For 50 LF	For 50 LF	For 50 LF	\$ 273,700.00
					Open Cut DIP Subtotal:	\$ 13.450,050.00

Host Pipe 6" Ø	Repair C900 Repair	5.1' Cover to 10' Open Cut pips Repair	C 10.1' Cover to 15' Open Cut pipe	>15. 1 '	Extended Total
6 ″ Ø	Open Cut pipe Repair C900 Repair	10' Open Cut pips			EXTERIORG IDEA
	Repair C900 Repair	Open Cut pipe	Open Cut nine	ľ	
	Repair C900 Repair			Open Cut pipe Repai	r (Sum of unit price * number of LF fo
	C900 Repair		Repair	Opon Out hipe Kepai	each of categories A - D
8" Ø	1	C900 Repair	C900 Repair	C900 Repair	each of catedonies A - D ;
8" Ø	f # 57.00 1		•		
8" Ø		\$ 79.00	;		0.00
6"10		For 5000 LF	For 5000 LF	For 500 LF	\$ 1,240,000.00
~ -	C900 Repair \$ 69.00	C900 Repair \$ 90.00	C900 Repair	C900 Repair	Company of the compan
				t. "	
10'0					\$ 1,416,000.00
יש טו					
		€.			
12ª Ø					\$ 1,648,500.00
12.12					
-	1	3		* **	
14" (3)					\$ 548,000.00
14 10					00
					to the second se
16" (3)					\$ 654,000.00
10 D		Cado Mehali	Cano Kebali	Cana Keban	
		\$ 170.00	\$ 189.00	\$ 232	00
			For 1000 LF	For 1000 LF	\$ 753,000.00
18"Ø				C905 Repair	
	1.		y •	11.K	.00
·····					\$ 774,000.00
20°Ø					
			r -		
					\$ 947,000.00
24" Ø					
	2				
					\$ 114,800.00
30° Ø					
					\$ 158,600.00
36" Ø		C905 Repair			
	3 '				
				For 100 LF	\$ 195,700.00
42" Ø					
					\$ 124,150.00
48" Ø					
	[]				
<u>. 1544 4</u>	For 50 LF	FOR SULF	FOR 50 LF		\$ 141,250.00 at: \$ 8,715,000,00
	10° Ø 12° Ø 14° Ø 16° Ø 20° Ø 24° Ø 36° Ø 42° Ø 48° Ø	For 5000 LF 10° Ø C900 Repair \$ 84.00 For 5000 LF 12° Ø C900 Repair \$ 101.00 For 1000 LF 14° Ø C905 Repair \$ 138.00 For 1000 LF 16° Ø C905 Repair \$ 162.00 For 1000 LF 20° Ø C905 Repair \$ 211.00 For 1000 LF 20° Ø C905 Repair \$ 211.00 For 1000 LF 20° Ø C905 Repair \$ 21.00 For 100 LF 24° Ø C905 Repair \$ 264.00 For 100 LF 30° Ø C905 Repair \$ 372.00 For 100 LF 36° Ø C905 Repair \$ 372.00 For 100 LF 20° Ø C905 Repair \$ 372.00 For 100 LF 30° Ø C905 Repair \$ 372.00 For 100 LF 30° Ø C905 Repair \$ 372.00 For 100 LF 30° Ø C905 Repair \$ 369.00 For 50 LF 48° Ø C905 Repair \$ 589.00 For 50 LF 48° Ø C905 Repair \$ 684.00	For 5000 LF	For 5000 LF	For 5000 LF

		A	В	C	D	
item	Host Pipe	1	6.1' Cover to 10'	5.1' Cover to 10.1' Cover to 15'	>15.1'	Extended Total
1	100	Open Cut pipe	Open Cut pipe	Open Cut pipe	Open Cut pipe Repair	(Sum of unit pylce * number of LF for
		Repair	Repair	Recair		each of categories A - D)
81	60° Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	
		\$ 539,00	\$ 539.00	\$ 539.00	\$ 548.00	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 216,500.00
82	66' Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	
l.		\$ 582.00	\$ 582.00	\$ 582.00	\$ 592.00	
Monthalin		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 233,800.00
83	72° Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	
		\$ 690.00	\$ 690.00	\$ 690.00	\$ 699.00	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 276,900.00
84	78° Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair	
		\$ 956.00	\$ 956.00	\$ 956.00	\$ 965.00	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 383,300.00
2011/100202	AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	(1.201.101.101.101.101.101.101.101.101.10	***************************************		Open Cut RCP Subtotal:	\$ 1,110,500,00

	s 5	Α	8	C	D	***********	
ltem	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1'		Extended Total
		Open Cut pipe	Open Cut pipe	Open Cut pipe	Open Cut pipe Re	pair	(Sum of unit price * number of LF for
· ·		Repair	Repair	Repair		•	each of categories A - D
85	20° Ø	Steel Casing	Steel Casing	Steel Casing	Steel Casing Repair		
u.		Repair	Repair	Repair		•	
		1.1		\$ 365.00	\$	393.00	
			For 100 LF	For 100 LF	For 100 LF		\$ 125,600.00
86	24° Ø	Steel Casing	Steel Casing	Steel Casing	Steel Casing Repair		
-		Repair	Repair	Repair			
1		\$ 263.00	\$ 263.00	\$ 382.00	5	417.00	
		For 100 LF		For 100 LF	For 100 LF		\$ 132,500.00
87	28°Ø	Steel Casing	Steel Casing	Steel Casing	Steel Casing Repair		
ļ		Repair		Repair			
1		\$ 399.00	\$ 399.00	\$ 518.00	ł	553.00	
		For 100 LF	CONTRACTOR DESCRIPTION OF THE PROPERTY OF THE		For 100 LF		\$ 186,900.00
88	32°Ø				Steel Casing Repair		
30				Repair			
4		1		\$ 536.00	1 T	572.00	
				For 100 LF	For 100 LF		\$ 194,400.00
89	36° Ø	, -	3		Steel Casing Repair		
CORRESPONDE				Repair	_		
07400400		\$ 341.00	\$ 341.00	\$ 369.00	3 "	428.00	
	anniale de della companyone anno consessor	For 50 LF			For 50 LF	en vanicamo násici-	\$ 73,950.00
90	42" Ø				Steel Casing Repair		
i i		Repair		Repair			
		\$ 391,00	\$ 381.00	\$ 409.00	, -	467.00	
		A CONTRACTOR OF THE PROPERTY O		AMARIA AND AND AND AND AND AND AND AND AND AN	Far 50 LF	~>4>4×	\$ 81,900,00
91	48" Ø				Steel Casing Repair		
100				Repair	•	E40.00	
		\$ 426.00	\$ 426.00	\$ 454.00	{ ·	513.00	Marie Commence of the commence
1		For 50 LF	For 50 LF		For 50 LF		\$ 90,950.00
				Open Cut Steel			\$ 886,200.00
				Casing Subtotal:			

				·y	(Rev. 07/23/2021)	
		A	В	С	D	
Item	Host Pipe	<=5' Cover	5.1' Cover to 10'	10.1' Cover to 15'	>15.1'	Extended Total
en en en en en en en en en en en en en e		Open Cut pipe Repair	Open Cut pipe Repair	Open Cut pipe Repair	Open Cut pipe Repair	(Sum of unit price * number of LF for each of categories A - D)
92	4" Ø	HCS PVC			HCS PVC Repair	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Metable Modeline Abronius		Repair \$ 73.00 For 1000 LF	,	\$ 104.00 For 1000 LF	1	\$ 389,000.00
93	4"Ø	HCS VCP	HCS VCP	HCS VCP Repair	HCS VCP Repair	-
		Repair	Repair			4.14
. [\$ 108.00	\$ 239.00	\$ 2 52.00	\$ 313.00	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 91,200.00
94	4" Ø	HCS DIP Repair	HCS DIP Repair	HCS DIP Repair	HCS DIP Repair	
200		\$ 104.00	\$ 239.00	\$ 284.00	\$ 361.00	
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 98,800.00
95	4° Ø	HCS HDPE	HCS HDPE	HCS HDPE Repair	HCS HDPE Repair	the state of the s
		Repair \$ 105.00	Repair \$ 251.00	\$ 301.00	\$ 362.00	
		For 100 LF	For 10D LF	For 100 LF		
T					Open Cut HCS Subtotal:	\$ 680,900.00

Item	Qıy	Unit	Description	Unit Price	Total Amount
96	200	EA EA	6" Ø Point Repair Couplings	327.00	3
97 98	200 20	EA	8° Ø Point Repair Couplings 10° Ø Point Repair Couplings	\$	
99	20	EA	12" Ø Point Repair Couplings	3 400.00	
100	12	LA	15° Ø Point Repair Couplings	\$ 2,737,00	
101	10	EA	18" Ø Point Repair Couplings	\$ 2,849,00	
102	6	EA.	21* Ø Point Repair Couplings	3,194.00	
103	6	EA -	24° Ø Point Repair Couplings	3,905,00	£ :
104 105	6 6	EA	27" Ø Point Repair Couplings	3,0000	
106	6	+	30" Ø Point Repair Couplings 33" Ø Point Repair Couplings	3,92 6 ,00 4,291,00	
107	6	† EA	36° Ø Point Repair Couplings	4,492.00	_ Links and a second of the se
108	6	EA	39° Ø Point Repair Couplings	\$ 5,215,00	
109	6	I EA	42° Ø Point Repair Couplings	\$ 5,215.00	F
110	6	EA	48* Ø Point Repair Couplings	229.00	37,722.00
111	1000	EA	HC\$ Reinstatement for CIPP, Mechanized robot	\$ 664.00	\$ 664,000.00
112	10	EA	HCS Reinstatement for CIPP, Open cut	\$ 1,208.00	\$ 12,080.00
113	250	EA	HCS Reinstätement for Open cut repairs or replacements	\$ 981.00	\$ 240,250.00
114	100	EA	CIPP Mobilization for 6" Ø through 12" Ø	\$ 6,182.00	\$ 618,200.00
115	. 100	EA	CIPP Mobilization for 15" Ø through 24" Ø	\$ 7,389.00	\$ 738,900.00
116	25	EA	CIPP Mobilization for 27" Ø through 42" Ø	\$ 9,443.00	\$ 236,075.00
117	25	EA	CIPP Mobilization for 48* Ø through 66* Ø	\$ 10,651.00	\$ 266,275.00
118	25	EA:	CIPP Mobilization for 72° Ø through 78° Ø	\$ 12,824.00	\$ 320,600.00
119	20	EA	Point Repair Mobilization for 6" Ø through 12" Ø	\$ 6,019.00	\$ 120,380.00
120	50	EA'	Point Repair Mobilization for 15" Ø through 24" Ø	\$ 7,227.00	\$ 361,350.00
121	50	EA	Point Repair Mobilization for 27" Ø through 42" Ø	\$ 8,435.00	\$ 421,750.00
122	20	EA	Point Repair Mobilization for 48" Ø through 86" Ø	\$ 12,964.00	\$ 259,280.00
123	20	EA	Point Repair Mobilization for 72" Ø through 78" Ø	\$ 22,626.00	\$ 452,520.00
124	1000	EA	Manhole-Clean Out Adjustment Mobilization	\$ 1,072.00	\$ 1,072,000.00
125	1000	EA	Manhole-Clean Out Reconstruction Mobilization	\$ 1,200,00	\$ 1,200,000.00
126	1000	EA	New Manhole Mobilization Flow Management Mobilization of 4" Pumps, Aproximatelly	\$ 1,200.00	\$ 1,200,000.00
127	200	EA	gpm expected from this pump size Flow Management Mobilization of 6" Pumps, Aproximately	\$ 1,541.00	\$ 308,200.00
128	50	EA	gpm expected from this pump size Flow Management Mobilization of 8° Pumps, Aproximately	\$ 1,541.00	\$ 77,050.00
129	25	EA	gpm expected from this pump size	\$ 2,777.00	\$ 69,425.00
130	5	EA	gpm expected from this pump size	\$ 4,591.00	\$ 22,955.00
131	5	EA	gpm expected from this pump size	\$ 5,799.00	\$ 28,995.00
132a	500	HR	Flow Management with a 4" Pump, per hour	\$ 289.00	\$ 144,500.00
132b	200	EA	Flow Management with a 4* Pump, per day	\$ 2,249.00	\$ 449,800.00
132c	200	EA	Flow Management with a 4* Pump, per week	\$ 12,210.00	\$ 2,442,000.00
133a	500	HR	Flow Management with a 6" Pump, per hour	\$ 313.00	\$ 156,500.00
133b	100	EA	Flow Management with a 6" Pump, per day	\$ 2,345.00	\$ 234,500.00
133c	100	EA	Flow Management with a 6" Pump, per week	\$ 12,573.00	\$ 1,257,300.00
134a	. 500	HR	Flow Management with a 8" Pump, per hour	\$ 402.00	\$ 201,000.00
1346	50	EA	Flow Management with a 8" Pump, per day	\$ 3,861.00	\$ 193,050.00
134c	50	EA.	Flow Management with a 8" Pump, per week	\$ 15,468.00	\$ 773,300.00

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135a	500	HR	Flow Management with a 12" Pump, per hour	S	, 595.00	\$	297,500.00
135b	25	EA	Flow Management with a 12" Pump, per day	\$	4,465.00	\$	111,625.00
135c	25	EA	Flow Management with a 12° Pump, per week \$ 20,816.00				520,400.00
136a	500	HR	Flow Management with a 16" Pump, per hour	\$	894.00	\$	347,000.00
136b	25	EA	Flow Management with a 16" Pump, per day	\$	6,035.00	\$	150,875.00
136c	25	EA	Flow Management with a 16" Pump, per week	\$	23,576.00	\$	589,400.00
137	200	HR	Vactor Truck Monitoring for Flow Management	\$	248,00	\$	49,600.00
			138-141 Blank	1.27.27.27			
142	50000	EA	Flow Management 4" HDPE piping and materials, per ft installed	\$	5.00	\$	250,000.00
143	50000	EA	Flow Management 6" HDPE piping and materials, per ft installed	\$	6.00	\$	300,000.00
144	30000	EA	Flow Management 8" HDPE piping and materials, per ft installed	\$	14.00	\$	420,000.00
145	30000	EA	Flow Management 12" HDPE piping and materials, per it installed	\$	15.00	\$	450,000.00
146	20000	LF	Flow Management 16" HDPE piping and materials, per ft installed	\$	16.00	\$	320,000.00
147	20000	LF	Flow Management 4" Aluminum piping and materials, per It installed	\$	5.00	S	100,000.00
148	20000	LF	Flow Management & Aluminum piping and materials, per it installed	\$	6.00	\$	120,000.00
149	20000	LF	Flow Management 8" Aluminum piping and materials, per tt installed	\$	14,00	\$	280,000.00
150	500	SY.	Utility frence Pavement Petch TYPE 1, provide and install materials, with 2-inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and specifications, complete.	\$	173.00	\$	86,500.00
151	100	SY	Utility Trench Pavement Patch TYPE 2, provide and thetal materials, with 2- inch thick asphaltic concrete layer, in accordance with PC/COT Std Dil 218 and the plans and specifications, complete.	\$	173.00	\$	17,300.00
152	100	SY	Utility Frence Pavement Patch TYPE 3, provide and Install materials, with 2- inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and specifications, complete.	\$	225.00	\$	22,500.00
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153	100	SY	Chip Seal coat, in accordence with Section 404 of PC/COT Std Specs and the plans and specifications, complete.	\$	50.00	\$	5,000.00
154	300	SY	Asphaltic Concrete Finish Course (Mix #3), 2-inch (hick layer incremental adjustment to the thickness stated in bid items 45, 46, 47, per Section 406 of PC/COT Std Specs, and the plans and specifications, complete.	\$	92.00	\$	27,600.00
155	500	DAY	Furnish and install Temporary Traffic Metal Plate (5x10x1); complete. Daily rate	S	150.00	s	75,000.00
156	500	wĸ	Furnish and Install Temporary Traffic Metal Plate (8x10x11), complete. Weekly rate	\$	241,00	\$	120,500.00
157a	25	EA	Furnish and install New 4 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 10" diameter pipe, per PCWMD Std. Dtl. 201, and accordance with the plans and specifications,	\$	3,331.00		83,275.00
157b	25	EA	Furnish and install New 4 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 10" diameter pipe, per PCWMD Std. Dtl. 201, and accordance with the plans and specifications, complete.	s	7,974.00		199,350.00
15 8a	25	EA	Furnish and install New 5 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$	4,137.00	:	103,425.00
158b	25	EA	Furnish and install New 5 ft Diameter non Reinforcad Polymer Manhole Base for 6" diameter to 15" diameter pipe, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$	9,324.00	\$	233,100.00

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159a	25	EA	Furnish and install New 4 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pige greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and epecifications, complete.	\$ 3,995.00	\$ 99,875.00
159b	25	EA	Furnish and install New 4 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 8,571.00	\$ 214,275.00
159c	25	TEA	Furnish and install New 5 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plane and specifications, complete.	\$ 4,798.00	\$ 119,950.00
159d	25	EA	Furnish and inetall New 5 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 9,774.00	\$ 244.350,00
160a	25	EA	Furnish and install New 4 ft Diameter Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	in the control	
160b	25	· EA	Furnish and inetall New 4 ft Diameter Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.		
161a	25	ĖA	Furnish and instell New 5 ft Diameter Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 if deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 4,980.00	
161b	25	EA	Furnish and instell New 5 ft Diameter Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 9,774.00	\$ 244,350.00
The state of the s			162-163 Blank		
164a	100	· VF	Furnish and Install New 30° Diameter Reinforced Concrete Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30° frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plane and specifications, complete.	\$ 1,409.00	\$ 140,900.00
164b	100	VF	Furnish and Install New 30" Diarrieter Fibergless Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plans and specifications, complete.	\$ 2,699.00	\$ 269,900,00
ANAMASAN ANA		a de la compania del compania de la compania de la compania del compania de la compania del la compania del la compania de la compania de la compania de la compania de la compania de la compania de la compania de la compania de la compania del la compania del la compania de la compania del la com	Furnish and install New 30" Diameter Polymer Concrete Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, Including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plans and specifications.		
164c	100	VF	complete.	\$ 2,005.00	\$ 200,500.00
165a	100	VF	Furnish and install New 4 ft Diameter Concrete Manhole per RWRD Std. Dtl. 205, including menhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 731.00	\$ 73,100,00
The state of the s	A SECTION AND ADDRESS OF THE PARTY OF THE PA		Furnish and install New 4 ft Diameter Concrete Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps	731.30	φ / 2, 100.00
Market Conjust of	100	VF	and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 768.00	\$ 76,800.00

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165c	100.	VF	Furnish and install New 4 ft Diameter Concrete Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 829.00	\$ 82,900.00
165d	100	VF	Furnish and install New 4 ft Diameter Concrete Manhole per RWRO Std. Dtf. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 931.00	\$ 93,100.00
166a	100	VF	Furnish and instell New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtf. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 1,275.00	\$ 127,500.00
166b	100	VF	Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 1,150.00	\$ 115,000.00
166c	100	VF	Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtf. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs end in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,164.00	\$ 115,400,00
166d	100	VF	Furnish and install New 4 ft Diameter Fiberglass Manhole per RWRD Std. Dtf. 205, including manhole shaft, grade rings, steps and 24* frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19:1 ft to 25 ft deep, complete.	\$ 1,232.00	\$ 123,200.00
167a	100	VF	Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 1,641.00	\$ 164,100.00
167b	100	VF	Furnish and install New 4 ft Diarneter Polymer Manhole per RWRD Std. Dil. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 1,841.00	\$ 164,100.00
1670	100	VF	Furnish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,754.00	\$ 175,400.00
167d	100	VF	Fumish and install New 4 ft Diameter Polymer Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 1,678.00	
168a	100	VF	Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dll. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 2,307.00	\$ 230,700.00

	,	·	(Rev. 07/23/2021)		
168b	100	VF	Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24° frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 1,903.00	\$ 190,300.00
1 68c	100	VF	Furnish and install New 4 ft Diameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,720.00	\$ 172,000.00
168d	100	VF	Furnish and install New 4 ft Diameter PVC Menhole per RWRD Std. Dtl. 205, including manhole shaft, grade rings, steps and 24° frame and cover per County Standards and Specs and in accordance with the plans and specifications; 19.1 ft to 25 ft deep, complete.	\$ 1,598.00	\$ 159,800.00
169a	100	VF.	Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24* frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 926.00	\$ 92,600.00
1 69 b	180	· VF	Furnish and Install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 882,00	\$ 88,200.00
169c	100	VF	Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Stendards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 883.00	
169d	100	VF	Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade ringa, steps and 24" frame and cover per County Standards and Specs and in accordance with the piana and specifications, 19.1 ft to 25 ft deep, complete.	\$ 860.00	
170a	100	VF	Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grada rings, steps and 24" frame and cover per County Standards end Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 1,731.00	
470L	100		Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, staps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep,		
170b	100	VF VF	Furnish and install New 5 ft Diameter Fiberglass Manhole per RWRD Std. Dtl. 206, including manhole sheft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep. complete.	\$ 1,558.00	\$ 155,800.00 \$ 147,400.00
170c	180	VF	Furnish and install New 5 ft Diameter Fibergless Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 1,429.00	

in the many	<u> </u>	i.	(Rev. 0/123/2021)		
171a	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtl. 208, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Spacs and in accordance with the plans and specifications, 3 ft to 8 ft deep, complete.	\$ 2,051.00	\$ 205,100.00
1716	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 2,051.00	\$ 205,100.00
		ļ	CONTINUES.	2,001.00	200,100,00
171c	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtt. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,836.00	\$ 183,600.00
171d	100	VF	Furnish and install New 5 ft Diameter Polymer Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24* frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 1,836.00	\$ 183,800.00
e e e e e e e e e e e e e e e e e e e			Fumish and Install New 5 ft Diameter PVC Menhole per RWRD Std. Dtl. 206, Including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep.		And the state of t
172a	100	VF	completé.	\$ 3,740.00	\$ 374,000.00
172Ь	100	VF	Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$ 2,699.00	\$ 269,900.00
172c	100	VF	Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including menhole shaft, grade rings, staps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 2,245.00	\$ 224,500.00
172d	100	VF	Furnish and install New 5 ft Dlameter PVC Manhole per RWRD Std. Dtl. 205, including manhole shaft, grada rings, staps and 24" frame and cover per County Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 2,019.00	\$ 201,900.00
173	100	EA	Rehabilitate and install coating on existing manhole base for 4 ft diameter manhole, in accordance with Master Agreement Sub Appendix "F", and the plans and specifications, complete.	\$ 4.541.00	9 AFA 400 00
174	100	EA .	Rehabilitate and install coating on existing manhole base for 5 ft diameter manhole, in accordance with Master Agreement Sub Appendix "F", and the plans and specifications, complete.		\$ 454,100.00 \$ 454,100.00
175	25	EA	Rehabilitate and install coating on existing menhole base for 5 ft diameter manhole, in accordance with Mester Agreement Sub Appendix "F", and the plans and specifications, complete.	\$ 5,265.00	
176	50000	SF	Provide projective coaling on existing manhole or structures walls, ceiling, and riser sections, in accordance with plans and specifications, complete.	\$ 71.00	\$ 3,550,000.00
177	2000	SF	Provide protective coating on new or existing manhole ring and cover, in accordance with plans and specifications, complete:	\$ 119.00	\$ 238,000,00
178	100	EA	Furnish and Install a New 14' cleanout frame and cover, as per Sub Appendix N and in accordance with the plans and specifications, complete.	\$ 515.00	\$ 51,500.00

وبستنسا	,	~~~~~~	(Rev. 07723/2021) Furnish and install a New 24 manhole frame and cover per 5td	way and the second seco	
179a	250	EA	Otts 213.1, in accordance with the plans and specifications, complete.	\$ 494.00	\$ 123,500.00
179b	100	F.A.	Furnish and install a New 24" composite manhole frame and cove per Std Dtls 213.1, in accordance with the plans and		
1/90	100	EA	specifications, complete. Furnish and install a New 30 manhole frame and cover per Std	\$ 1,202.00	\$ 120,200.00
180a	50	EA	Otla 214.0, in accordance with the plans and specifications, complete	\$ 732.00	\$ 36,600.00
	·		Furnish and install a New 30° composite mannole frame and cove per Std Dtls 214.0, in accordance with the plans and		
180b	50	EA	specifications, complete.	\$ 1,396.00	\$ 69,800.00
181a	100	EA	Furnish and install a New 24. Waterproof mannole cover and frame per Std Dtls 213.2, in accordance with the plans and specifications, complete.	\$ 494.00	\$ 49,400.00
181b	50	EA	Furnish and install a New 24 Waterproof composite mannote cover and frame per Std Dtls 213.2, in accordance with the plane		
1010		En	and specifications, complete. Furnish and install a New 33 Waterproof mannote cover and	\$ 1,202,00	\$ 60,100.00
182a	100	EA	frame per Std Dtis 214.1, in accordance with the plans and specifications, complete.	\$ 732,00	\$ 73,200.00
182b	50	EA	Furnish and Install a New 30 Waterproof composite mannote cover and frame per Std Dtls 214.1, in accordance with the plans and specifications, complete.	\$ 1,396.00	\$ 69,800.00
183a	50	EA	Furnish and install a New 24" Bolted Waterproof manhole cover and frame per Std Dtls 213.3, in accordance with the plans and specifications, complete.	\$ 494.00	\$ 24,700.00
			Furnish and install a New 24° Bolted Waterproof composite		
183b	25	EA	manhole cover and frame per Std Dtls 213.3, In accordance with the plans and specifications, complete.	\$ 1,202.00	\$ 30,050.00
184a	50	EA	Furnish and install a New 30" Bolted Waterproof manhole cover and frame per Std Dtls 214.2, in accordance with the plens and specifications, complete.	\$ 732.00	\$ 36,600.00
40.41	05		Furnish and install a New 30° Bolted Waterproof composite menhole cover and frame per Std Dtla 214.2, in accordance with		
184b	25	EA	the plans and specifications, complete.	\$ 1,396.00	\$ 34,900.00
185	500	EA	Provide concrete collar for manhole per RWRD Std Dtl 211, in accordance with plans and specifications, complete.	\$ 641.00	\$ 320,500.00
186	300	EA	Provide concrete collar for manhole per RWRD Std Dtl 212, in accordance with plans and specifications, complete.	\$ 810.00	\$ 243,000.00
167	1000	EA	Adjust Existing 24" Diameter Frame and Cover on a Brick manhole, to the finished grade specified, complete.	\$ 641.00	\$ 641,000.00
188	500	EA	Adjust Existing 30" Diameter Frame and Cover on a Brick manhole, to the finished grade specified, complete.	\$ 641.00	\$ 320,500.00
189	1000	EA	Adjust Existing 24" Diameter Frame and Cover on a Reinforced Concrete manhole, to the finished grade specified, complete.	\$ 641.00	\$ 641,000.00
190	500	EA	Adjust Existing 30" Diameter Frame and Cover on a Reinforced Concrete manhole, to the finished grade specified, complete.	\$ 641.00	\$ 320,500.00
191	250	EA	Reconstruct Existing Cleanout to the finished grade specified (regardless of height adjustment), complete.	\$ 686.00	\$ 171,500.00
192	2000	VF	Reconstruct Existing 4 ft Diameter Manhole Barrel/Cone Section on a Brick manhole, to the finished grade specified, complete.	\$ 829.00	\$ 1,658,000.00
193	1000	VF	Reconstruct Existing 5 ft Diameter Manhole Barrel/Cone Section, on a Brick manhole, to the finished grade specified, complete.	\$ 883.00	\$ 883,000.00
194	500	VF	Reconstruct Existing 4 N-Diameter Manhole BarresCone Section, on a Reinforced Concrete manhole, to the finished grade, complete:	\$ 829.00	\$ 414,500.00
195	500	VF	Reconstruct existing 5 it Claimeter Manhole Barre/Cone Section, on a Reinforced Concreta manhole, to the finished grade specified, complete.	\$ 883.00	\$ 441,500.00
196	500	EA	Provide Bench Rehabilitation for a 4 to Diameter Manhole, per the Special Provisions, complete.	\$ 1,883.00	\$ 941,500.00
197	500	EA	Provide Sench Rehabilitation for a 5 # Diameter Manhole, per the Special Provisions, complete.	\$ 2,294.00	\$ 1,147,000,00
198	2000	VF	Provide Pot-holing Services for PCRWRD, as requested.	\$ 81,00	\$ 162,000.00
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المستنفقي			(rev. 07/23/2021)		·
199	500	CY	Provide Excavation & Backfill using Native Matanal, as per the Special Provisions, 0 ft to 4 ft deep CY=(Width*Length*Depth)/27	\$ 36.00	\$ 18,000.00
200	1000	CY	Provide Excavation & Backfill using Native Material, as per the Special Provisions, 4.1 ft to 10 ft deep CY=(Width*Length*Depth)/27	\$ 36.00	\$ 36,000.00
201	2000	CY	Provide Excavation & Backfill using Native Material, as per the Special Provisions, 10.1 ft to 15 ft deep CY=(Width*Length*Depth)/27	\$ 36.00	\$ 72,000.00
202	500	CY	Provide Excavation & Backfill using AB Material, as per the Special Provisions, 0 ft to 4 ft deep CY≈(Width*Length*Depth)/27	\$ 69.00	\$ 34,500.00
203	1000	CY	Provide Excavation & Backfill using AB Material, as per the Special Provisions, 4.1 ft to 10 ft deep CY=(Width*Length*Depth)/27	\$ 89.00	\$ 69,000.00
204	2000	CY	Provide Excavation & Backfill using AB Material, as per the Special Provisions, 10.1 ft to 15 ft deep CY=(Width*Length*Depth)/27	\$ 89.00	
205	1000	CY	Concrete Sidewalk Removal and Replacement, per Pima County/City of Tucson Standard Specifications and Dtls. 200 and 203, complete.	\$ 583.00	\$ 583,000.00
206	150	CY	PCCP Concrete Removal and Replacement 4" thick	\$ 583.00	\$ 87,450.00
207	200	CY	PCCP Concrete Removal and Replacement 6" thick	\$ 583.00	***************************************
208	200 .	СУ	PCCP Concrete Removal and Replacement 8* thick	\$ 583.00	****
209	2000	CY	Concrete Curb Removal and Replacement, Per Pima County/City of Tucson Standard Specifications and Details	\$ 583.00	
210	250	CY	1-Sack Low Strength Slurry Per Pima County/City of Tucson Standard Specifications and Details Section 501.	\$ 181.00	\$ 45,250.00
211	250 .	CY	2-Sack Low Strength Slurry Per Pima County/City of Tucson Standard Specifications and Details Section 501.	\$ 181.00	\$ 45,250.00
212	200	EA	Porta Potties, per week	\$ 151.00	\$ 30,200.00
213	200	EA	Porta Potties, per day	\$ 54.00	\$ 10,800.00
214	500	CY	Grouting of Cavilles. Installed in place, Per PCRWRD Specifications.	\$ 395.00	\$ 197,500.00
215	50000	LF	CCTV of line 8° to 10°	\$ 2.05	\$ 102,500.00
216	50000	LF	CCTV of line 12" to 15"	\$ 2.05	\$ 102,500.00
217	50000	LF	CCTV of line 18" and larger	\$ 2.05	\$ 102,500.00
218a	50000	LF	Sewer cleaning of lines 5 to 10 with hydro cleaning equipment. Debris removed with vacuum.	\$ 2.90	\$ 145,000.00
218b	1000	LF	Sewer cleaning of OIP lines 6" to 10" with chain failing cleaning equipment. Debris removed with vacuum.	\$ 6.04	
219a	50000	LF	Sewer cleaning of lines 12 to 15 with trydro cleaning equipment. Debris removed with vacuum.	\$ 3.26	***************************************
219b	1000	LF	Sewer cleaning of DIF lines 12 to 15 with chain flatting cleaning equipment. Debris removed with vacuum.	\$ 12.08	
220a	50000	LF	Sewer cleaning of lines 35" and larger with hydro cleaning equipment. Debris removed with vacuum.	\$ 7.85	
220b	100	LF	Sewer cleaning of DIP lines 18" and larger with chain hailing cleaning equipment. Debris removed with vacuum.	\$ 45.89	
221	100	SHT	Provide As-Built gocuments, in accordance with the plans and specifications, complete.	\$ 1,027.00	
222	50000	LF	Provide construction staking, in accordance with the plans and specifications, complete.	\$ 4.00	\$ 200,000.00
223	10	TON	Asbestos Cement Pipe (ACP) Removal and Proper Disposal	\$ 1,993.00	***************************************
224	200	LF	Remove and dispose security lending (5" to 5" lence with barb wire)	\$ 5.00	
225	. 200	LF .	Install new security fencing (6' to 8' fence with barb wire)	\$ 30.00	

500	LF	Remove and dispose security fencing (6' chain link)	\$ 5.00	S 2,500.00
500	LF	Install new security fencing (6' chain link)	\$ 24.00	S 12,000.00
10	EA	Remove and dispose existing 20' security gate	\$ 434.00	\$ 4,340.00

10	EA	Install new 20' security gate	\$ 1,147.00	S 11,470.00
1500	SF	Remove and replace 6' CMU Wall	\$ 54.00	S 81,000.00
1000	SF ·	Remove and replace 8' CMU Wall	\$ 96.00	S 96,000.00
500	HR	Archaeological Monitoring	\$ 163.00	\$ 81,500.00
10	ACRE	Hydroseeding	\$ 4,227.00	\$ 42,270.00
100	SHT	Shop/Engineering Drawings	\$ 1,027.00	\$ 102,700.00
2000	SY	Rip-Rap (D50 6") - Delivered and Installed.	\$ 39.00	\$ 78,000.00
25	EA	Install Survey Monument per Standard Detail WWM 507.	\$ 906.00	\$ 22,650.00
	FA	Provide miscellaneous services, construction materials and installation by Force Account, in accordance with the plans and specifications, complete.		\$ 500,000
		Grand Total Repair Line Items:		\$ 110,203,048.00
: !:			· · · · · · · · · · · · · · · · · · ·	:
PROPOSAL OF:		ELLISON-MILLS CONSTRUC	CTION	
		Company Name		
SIGNATURE:		Jason DeCarlo - Co-Owner	gner	
	500 10 10 1500 1000 500 10 100 2000 25	500 LF 10 EA 10 EA 110 SF 1000 SF 500 HR 10 ACRE 100 SHT 2000 SY 25 EA PROPOSAL OF:	500 LF Install new security fencing (6' chain link) 10 EA Remove and dispose existing 20' security gate 10 EA Install new 20' security gate 1500 SF Remove and replace 6' CMU Wall 1000 SF Remove and replace 8' CMU Wall 500 HR Archaeological Monitoring 10 ACRE Hydroseeding 100 SHT Shop/Engineering Drawings 2000 SY Rip-Rap (Dso 6') - Delivered and Installed. 25 EA Install Survey Monument per Standard Detail WWM 507. Provide miscellaneous services, construction materiels and installation by Force Account, in accordance with the plans and specifications, complete. Grand Total Repair Line Items: PROPOSAL OF: ELLISON-MILLS CONSTRUCTION Company Name	Solid LF

^{*} Line items shall include mobilization costs
** For Emergency response jobs the contractor will receive a 15% increese to all line items.

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

KNOW ALL MEN BY THESE PRESENTS THAT: Ellison Mills Construction, LLC
(hereinafter "Principal"), as Principal, andCasualty and Surety Company of America
(hereinafter "Surety"), a corporation organized and existing under the laws of the State of Connecticut
, with its principal offices in the City of Hartford 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 Pima County, Arizona (hereinafter
"Obligee"), in the sum equal to that stated in the request for proposal for the work described below, for the 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.
*One Million Eight Hundred Thousand and 00/100thsDollars (\$1,800,000.00)
WHEREAS, the Principal has submitted a bid for the work titled:
SFQ-PO-2100017 - Job Order Master Agreement: Wastewater Conveyance System and
Related Facilities Repair, Rehabilitation and Construction Services
NOW, THEREFORE, if the Obligee shall accept the proposal of the Principal and the Principal shall enter
into a contract with the Obligee in accordance with the terms of the proposal and give the bonds and
certificates of insurance as specified in the standard specifications with good and sufficient surety for the
faithful performance of the contract and for the prompt payment of labor and materials furnished in the
prosecution of the contract, or in the event of the failure of the Principal to enter into the contract and give
the bonds and certificates of insurance, if the Principal pays to the Obligee the difference not to exceed
the penalty of the bond between the amount specified in the proposal and such larger amount for which
the Obligee may in good faith contract with another party to perform the work covered by the proposal
then this obligation is void. Otherwise, it remains in full force and effect provided, however, that this bond
is executed pursuant to the provisions of Section 34-608, Anzona 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 <u>26th</u> day of <u>July</u> , 20_21
Ellison Mills Construction, LLC By:
Principal
Travelers Casualty and Surety Company of America By:
Surety Stephanie L. Bucholz, Attorney-in-Fact



SURETY BOND SEAL ADDENDUM TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

Due to logistical issues associated with the use of traditional seals during the COVID-19 pandemic, Travelers Casualty and Surety Company of America ("Travelers") has authorized its Attorneys-in-Fact to affix Travelers' corporate seal to any bond executed on behalf of Travelers by any such Attorney-in-Fact by attaching this Addendum to said bond.

To the extent this Addendum is attached to a bond that is executed on behalf of Travelers by its Attorney-in-Fact, Travelers hereby agrees that the seal below shall be deemed affixed to said bond to the same extent as if its raised corporate seal was physically affixed to the face of the bond.

Dated this 16th day of March, 2020.

Travelers Casualty and Surety Company of America



Robert L. Raney, Senior Vice President



Travelers Casualty and Surety Company of America Travelers Casualty and Surety Company St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine insurance Company are corporations duty organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint STEPHANIE L BUCHOLZ of MESA , Arizona , their true and lawful Altorney(s)-in-Fact to sign, execute, seal and

acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto stiffixed, this 21st day of April, 2021.







State of Connecticut

City of Hartford ss.

On this the 21st day of April, 2021, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2026



Anna P. Nowik, Notary Public

Robert L. Rane Senior Vice President

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

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

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

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

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

Kevin E. Hughes, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a
true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 26th day of July

luly , 2021







Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880. Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.

1 2 3	Host Pipe	6.0 mm thk	10' Cover CIPP Liner	C 15' Cover CIPP Liner	20' Cover CIPP Liner	Extended Total	
2		6.0 mm thk \$46.00/lf	CIPP Liner				
2		\$46.00/lf	ł		Corr Lines	(Sum of unit price * number of LF	I
2		\$46.00/lf				for each of categories A - D)	
	8" Ø		6.0 mm thk	6.0 mm thk	6.0 mm thk		
	8" Ø		\$46.00/lf	\$46.00/lf	\$46.00/lf		
	8" Ø	For 5000 LF		For 1000 LF	For 100 LF	\$ 510,600.00	
3			6.0 mm thk	6.0 mm thk	6.0 mm thk		
3		\$40.00/lf	\$40.00/lf	\$41.00/lf	\$40.00/lf		
	10" Ø	For 5000 LF		For 1000 LF	For 100 LF	\$ 445,000.00	
	10 20	6.0 mm thk \$48.00/lf	6.0 mm thk \$48.00/lf	6.0 mm thk \$48,00/lf	6.6 mm thk \$49.00/lf	<u> </u>	
 			For 2000 LF	For 1000 LF	For 100 LF	\$ 244,900.00	
4	12" Ø		6.0 mm thk	7.1 mm thk	7.9 mm thk	244,900.00	-
	_	\$54.00/lf	\$54.00/lf	\$56.00/lf	\$57.00/lf	 -	
		For 2000 LF	For 2000 LF	For 2000 LF	For 200 LF	\$ 339,400.00	
5	15" Ø		7.4 mm thk	8.9 mm thk	9.9 mm thk		
		\$67.00/lf	\$71.00/lf	\$74.00/lf	\$79.00/lf		-
	400 ~		For 2000 LF	For 2000 LF	For 200 LF	\$ 439,800.00	
6	18" Ø		8.9 mm thk	10.7 mm thk	11.9 mm thk		
-		\$85.00/lf For 1000 LF	\$87.00/lf	\$93.00/lf	\$92.00/lf		
7	21" Ø	8.6 mm thk		For 1000 LF 12.4 mm thk	For 200 LF 14.0 mm thk	\$ 283,400.00	
	2		\$111.00/lf	\$115.00/lf	\$142.00/lf	ļ .	7
		For 1000 LF		For 1000 LF	For 200 LF	\$ 361,400.00	<u></u>
8	24" Ø		11.9 mm thk	14.2 mm thk	16.0 mm thk	₩ 30 1,400.00	
		\$127.00/lf	\$131.00/lf	\$137.00/lf	\$180.00/lf		
		For 1000 LF	For 1000 LF	For 1000 LF	For 200 LF	\$ 431,000.00	
9	27" Ø	11.2 mm thk		16.0 mm thk	18.0 mm thk		
			\$134.00/lf	\$145.00/lf	\$159.00/lf		
10	30" Ø	For 1000 LF		For 1000 LF	For 500 LF	\$ 485,500.00	
10	_3U W	12.4 mm thk \$140.00/lf	14.7 mm thk \$155.00/lf	17.8 mm thk \$168.00/lf	20.1 mm thk		
		For 1000 LF		For 1000 LF	\$184.00/lf For 500 LF	\$ 555,000,00	
11	33" Ø	13.7 mm thk		19.6 mm thk	22.1 mm thk	\$ 555,000.00	
				\$191.00/if	\$215.00/lf		
		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$ 636,500.00	
12	36" Ø	14.7 mm thk		21.1 mm thk	23.9 mm thk		
				\$215.00/lf	\$243.00/lf		
40	201.0	For 1000 LF			For 500 LF	\$ 719,500.00	
13	39" Ø	15.7 mm thk \$173.00/lf		22.9 mm thk	25.9 mm thk		
		For 1000 LF		\$207.00/lf For 1000 LF	\$320.00/lf For 200 LF		
14	42" Ø	17.3 mm thk		24.6 mm thk	28.2 mm thk	\$ 635,000.00	
				\$241.00/lf	\$361.00/lf		
		For 1000 LF	For 1000 LF	For 1000 LF	For 200 LF	\$ 720,200.00	
15	48" Ø	19.6 mm thk	23.6 mm thk	28.2 mm thk	32.0 mm thk	7.20,200.00	
					\$570.00/lf		
40	541.2	For 1000 LF			For 100 LF	\$ 844,000.00	
16	54" Ø	21.8 mm thk			36.1 mm thk		
	 +	\$278.00/lf For 1000 LF			\$678.00/lf		
17	60" Ø	24.1 mm thk	29.7 mm thb		For 100 LF 39.9 mm thk	\$ 1,013,800.00	
					\$783.00/lf		
		For 1000 LF			For 100 LF	\$ 1,198,300.00	
18	66" Ø	26.4 mm thk			43.9 mm thk	1,100,000.00	
				\$497.00/lf	\$895.00/lf		
10	70.0	For 1000 LF			For 100 LF	\$ 1,404,500.00	
19	72" Ø	28.7 mm thk			48.0 mm thk		
					\$920 00/lf		
20	78" Ø	For 1000 LF			For 100 LF	\$ 1,435,000.00	
	וש טו				52.1 mm thk \$1022.00/lf		
- 					For 100 LF	\$ 1,632,200,00	*
		2, 1000 E	. 5, 1550 L1		CIPP Liner Items Subtotal:		
						+ 14,000,000.00	

		A	B 5.1' Cover to	C 10.1 Cover to	D		
ltem	Host Pipe	<=5' Cover	10'	15'	>15.1'	Extended Total	. •
	i iose i ipe	Open Cut	Open Cut	Open Cut	Open Cut pipe Repair	(Sum of unit price* number of LF	
		pipe Repair	pipe Repair	pipe Repair	Open out pipe Repair	for each of categories A - D)	
21	6" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	In each of categories A - D)	
		\$40.00/lf	\$52.00/lf	\$54.00/lf	\$55.00/lf		
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 757,500.00	
22	8" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	107,000.00	
		\$46.00/lf	\$57.00/lf	\$59.00/lf	\$60.00/lf		
		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 1,110,000.00	
23	10" Ø	PVC Repair	PVC Repair	PVC Repair	PV.C Repair	1,110,000.00	
		\$52.00/lf	\$63.00/lf	\$65.00/lf	\$66.00/lf		
		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 1,230,000.00	
24	12" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair	1,255,555.15	
		\$59.00/lf	\$71.00/lf	\$72.00/lf	\$73.00/lf		
		For 5000 LF	For 5000 LF	For 5000 LF	For 5000 LF	\$ 1,375,000.00	,
25	15" Ø	PVC Repair		PVC Repair	PVC Repair		
	<u> </u>	\$72.00/lf	\$84.00/lf	\$85.00/lf	\$86.00/lf		
			For 2000 LF	For 2000 LF	For 2000 LF	\$ 654,000.00	
26	18" Ø	PVC Repair		PVC Repair	PVC Repair		
		\$92.00/lf	\$104.00/lf	\$105.00/lf	\$106.00/lf		
		For 1000 LF		For 1000 LF	For 1000 LF	\$ 407,000.00	
27	21" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair		
		\$125.00/lf	\$125.00/lf	\$126.00/lf	\$127.00/lf		
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 503,000,00	<u> </u>
28	24" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair		
		\$149.00/lf	\$149.00/lf	\$150.00/lf	\$1.50.00/lf		
		For 1000 LF		For 1000 LF	For 1000 LF	\$ 598,000.00	
29	27" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair		
		\$155.00/lf	\$156.00/lf	\$157.00/lf	\$157.00/lf		
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 625,000.00	
30	30" Ø		PVC Repair	PVC Repair	PVC Repair		
		\$189.00/lf	\$189.00/lf	\$190.00/lf	\$190.00/lf		
			For 1000 LF	For 1000 LF	For 1000 LF	\$ 758,000.00	
31	33" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair		
		\$261.00/lf	\$261.00/lf	\$262.00/lf	\$262.00/lf	·	
	·		For 1000 LF	For 1000 LF	For 1000 LF	\$ 1,046,000.00	
32	36" Ø		PVC Repair	PVC Repair	PVC Repair	·	
		\$275.00/lf	\$277.00/lf	\$277.00/lf	\$277.00/lf		
			For 1000 LF	For 1000 LF	For 1000 LF	\$ 1,106,000.00	
33_	39" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair		
		\$553.00/lf	\$554.00/lf	\$554.00/lf	\$554.00/lf		
		For 1000 LF		For 1000 LF	For 1000 LF	\$ 2,215,000.00	
34	42" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair		
	ļ .	\$553.00/lf	\$555.00/lf	\$555.00/if	\$555.00/lf		
0.5	487.6	For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 2,218,000.00	
35	48" Ø	PVC Repair	PVC Repair	PVC Repair	PVC Repair		
		\$759.00/lf	\$761.00/lf	\$761.00/lf	\$761.00/lf	<u></u>	
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 3,042,000.00	
					Open Cut PVC Subtotal:	\$ 17,644,500.00	

		A	В	С	D		
ltem	Host Pipe	<=5' Cover	5.1' Cover to	10.1' Cover to	>15.12	Extended Total	
		Open Cut	Open Cut	Open Cut	Open Cut pipe Repair	(Sum of unit price * number of LF	
		pipe Repair	pipe Repair	pipe Repair	Open out pipe Repuii	for each of categories A D)	
36	6° Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair		•
		Af	Af	Af	Af	 	
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$	
37	8" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	<u>Ψ</u>	
		Af ·	Af	Af	Af		
		For 5000-LF	For 5000 LF	For 6000 LF	For 500 LF	\$	
38	10" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair		
		Af	4f	Af	A#		
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$	
39	12" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair		
		#f	Af	Af	Af		
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$	
40	15" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	*	
	~~	Af	Af	Af	A#		
		For 1000-LF	For 1000 LF	For 1000 LF	For 500 LF	\$	
41	18" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair		•
		Af	Af	Af	Af	· · · · · · · · · · · · · · · · · · ·	
		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$	
42	21" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	<u> </u>	
		Af	Af	Af	4f		
\neg		For 1000 LF	For 1000 LF	For 1000 LF	For 500 LF	\$	
43	24" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	Ψ	
	~	Af	Af	A#	Af		
		For-1000 LF	For 1000 LF	For 1000 LF	For 600 LF	\$	
44	27" Ø	Clay Repair	Clay Repair	Clay Repair	Clay-Repair	Ψ	
		Af	Af	Af	Af		
		For 1000 LF	For 1000 LF	For 1000 LF	For 100 LF	\$	
45	30" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	Ψ	
-		. Af	Af	Af	#		
		For 1000 LF	For 1000-LF	For 1000 LF	For 100 LF	\$	
46	33" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair		
		Af .	#	Af	##		
		For 1000-LF	For 1000 LE	For 1000 LF	For 100 LF	\$	
47	36" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair	*	
· · ·		Af	#f	Af	##	•	
	<u> </u>	For 1000 LF			For 1000 LF	\$	
48	39" Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair		
	,-	Æ	Дf	Af	A#		
		For 1000 LF	For 1000-LF	For 1000 LF	For 1000 LF	\$	
49	42° Ø	Clay Repair	Clay Repair	Clay Repair	Clay Repair		
		Af	Af	Af	#f		1.
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$	
50	48" Ø	Clay Repair	Clay Repair		Clay Repair	-	
		Af	##	Af	Af		
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$	
		, , , , , , , , , , , , , , , , , , , ,			Open Cut Clay Subtotal:	\$	

					(Rev. 07/23/2021)		
		A	В	С	D		
.,	[7		5.1' Cover to	10.1' Cover to			
tem	Host Pipe		10'	15'	>15.1	Extended Total	
	i i	Open Cut	Open Cut	Open Cut	T	(Sum of unit price * number of LF	<u> </u>
		pipe Repair	pipe Repair	pipe Repair	Open Cut pipe Repair	for each of categories A - D)	
51	6" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	ior each or categories A - D)	
		\$56.00/lf	\$56.00/lf	\$57.00/lf	\$58.00/lf	-	
	L	For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 874,000,00	
52_	8" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	\$ 874,000.00	
		\$64.00/lf	\$64.00/lf	\$65.00/lf	\$66.00/lf		<u> </u>
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 998,000.00	
53	10" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	930,000.00	
		\$70.00/lf	\$70.00/lf	\$71.00/lf	\$72.00/lf		
F 4	101.0	For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,091,000.00	
54	12" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	7,031,000.00	
		\$81.00/lf	\$81.00/lf	\$82.00/lf	\$83.00/lf		
66	45" 6	For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,261,500.00	
55	15" Ø	DIP Repair	DIP Repair	DIP Repair	DIP Repair	1,201,300.00	
		\$118.00/lf	\$118.00/lf	\$118.00/lf	\$119.00/lf	<u> </u>	<u> </u>
56	10" 0	For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 473,000.00	
20	18" Ø	DIP Repair		DIP Repair	DIP Repair	17 5,000.00	
		\$118.00/lf	\$118.00/lf	\$118.00/If	\$119.00/lf		
57	21" Ø		For 1000 LF	For 1000 LF	For 1000 LF	\$ 473,000.00	
37	21 10		DIP Repair	DIP Repair	DIP Repair		·
	-+				\$168.00/lf		
58	24" Ø			For 1000 LF	For 1000 LF	\$ 669,000.00	
30	24 × +				DIP Repair		· · · · · · · · · · · · · · · · · · ·
					\$170.00/lf		
59	27" Ø				For 100 LF	\$ 67,800.00	
-	- 		DIP Repair		DIP Repair		
					\$240.00/lf		· · · · · · · · · · · · · · · · · · ·
60	30" Ø		DIP Repair		For 100 LF	\$ 95,800.00	
-	~~~		\$238.00/lf	DIP Repair	DIP Repair		
\dashv					\$239.00/lf		
61	33" Ø			For 100 LF DIP Repair	For 100 LF	\$ 95,400.00	
1					DIP Repair		
					\$313.00/if		
32	36" Ø		DIP Repair		For 100 LF	\$ 125,000.00	
\neg	. 1				DIP Repair \$323.00/lf		
3	39" Ø				For 100 LF DIP Repair	\$ 128,000.00	
					613.00/lf		
		For 100 LF			or 100 LF	<u> </u>	
34	42" Ø		DIP Repair [OIP Repair	\$ 245,000.00	
\Box		\$612.00/lf		613.00/lf 8	6613.00/lf	·	
$-\mathbb{I}$				or 50 LF	or 50 LF	\$ 122,550,00	
55	48" Ø				OIP Repair	\$ 122,550.00	
		\$784.00/lf \$	\$785.00/lf \$		3785.00/lf		
			or 50 LF F		or 50 LF	\$ 156,950,00	
6	54" Ø	DIP Repair [OIP Repair D		DIP Repair	\$ 156,950.00	
		\$975.00/lf	976.00/lf \$	976.00/lf \$	976.00/lf		
			or 50 LF F		or 50 LF	\$ 195,150.00	<u> </u>
7		DIP Repair [DIP Repair D	IP Repair D	IP Repair	195, 150.00	
\dashv			\$1132.00/lf \$		1132.00/lf		
_		For 50 LF F	or 50 LF F		or 50 LF	\$ 226,350.00	
					pen Cut DIP Subtotal:	\$ 7,297,500,00	
						1,231,000.00	

	i	Α	В	С	D	<u> </u>	
Item	Host Pipe		5.1' Cover to	10.1' Cover to	>15.1'	Extended Total	
		Open Cut	Open Cut	Open Cut	Open Cut pipe Repair	(Sum of unit price * number of LF	
		pipe Repair	pipe Repair	pipe Repair	open out pipe Repair	for each of categories A - D)	
68	6" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	to Eddit of Categories A - D)	
		\$50.00/if	\$62.00/lf	\$63.00/lf	\$65.00/lf		
			For 5000 LF	For 5000 LF	For 500 LF	\$ 907,500.00	
69	8" Ø	C900 Repair		C900 Repair	C900 Repair	507,000.00	
		\$62.00/lf	\$73.00/lf	\$75.00/lf	\$76.00/lf		
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,088,000.00	
70	10" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	1,000,000.00	
		\$76.00/lf	\$87.00/lf	\$89.00/lf	\$90.00/lf	-	
		For 5000 LF	For 5000 LF	For 5000 LF	For 500 LF	\$ 1,305,000.00	
71	12" Ø	C900 Repair	C900 Repair	C900 Repair	C900 Repair	1,123,000,00	
		\$104.00/lf	\$104.00/lf	\$105.00/lf	\$107.00/lf		· · · · · · · · · · · · · · · · · · ·
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 420,000.00	
72	14" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair		
		\$129.00/lf	\$129.00/lf	\$131.00/lf	\$132,00/lf		
		For 1000 LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 521,000.00	
73_	16" Ø	C905 Repair	C905 Repair	C905 Repair	C905 Repair		
					\$142.00/lf	. **	
		For 1000 LF		For 1000 LF	For 1000 LF	\$ 563,000.00	
74	18" Ø	C905 Repair		C905 Repair	C905 Repair		
		\$140.00/lf			\$142.00/lf		
		For 1000.LF	For 1000 LF	For 1000 LF	For 1000 LF	\$ 563,000.00	
75	20" Ø	C905 Repair			C905 Repair		
		\$161.00/lf	\$161.00/lf		\$163.00/lf		
		For 1000 LF	For 1000 LF		For 1000 LF	\$ 647,000.00	
76	24" Ø	C905 Repair			C905 Repair	<u> </u>	
		\$214.00/lf	\$214.00/lf	\$215.00/lf	\$215.00/lf	-	
			For 100 LF		For 100 LF	\$ 85,800.00	
77	30" Ø	C905 Repair		C905 Repair	C905 Repair		
		\$315.00/lf			\$316.00/if		
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 126,200.00	
78	36" Ø	C905 Repair			C905 Repair		
		\$391.00/lf			\$393.00/lf		
					For 100 LF	\$ 157,000.00	
79	42" Ø	C905 Repair	C905 Repair		C905 Repair		
		\$624.00/lf			\$626.00/lf	·	
					For 50 LF	\$ 125,100.00	
80	48" Ø				C905 Repair		
					\$813.00/if		
		For 50 LF	For 50 LF		For 50 LF	\$ 162,500.00	
					Open Cut C900 Subtotal:	\$ 6,671,100.00	

		Α	В	С	D .		
Item	Host Pipe	<=5' Cover	5.1' Cover to	10.1' Cover to	>15.1'	Extended Total	
		Open Cut	Open Cut	Open Cut	Open Cut pipe Repair	(Sum of unit price * number of LF	
	,	pipe Repair	pipe Repair	pipe Repair	opon out pipe napan	for each of categories A - D)	
81	60" Ø		RCP Repair		RCP Repair	in the second se	
			\$265.00/lf	\$283.00/lf	\$324.00/lf		
			For 100 LF	For 100 LF	For 100 LF	\$ 113,500.00	
82	66" Ø		RCP Repair	RCP Repair	RCP Repair	-	
			\$302.00/lf	\$320.00/lf	\$363.00/lf		
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 128,500.00	
83	72" Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair		
-			\$402.00/lf	\$419.00/lf	\$466.00/lf		
		For 100 LF	For 100 LF		For 100 LF	\$ 168,700.00	
84	78" Ø	RCP Repair	RCP Repair	RCP Repair	RCP Repair		
			\$657.00/lf	\$709.00/lf	\$709.00/lf		
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 272,900.00	
				-	Open Cut RCP Subtotal:	\$ 683,600.00	
						i	
		Α	В	С	D		
Item	Host Pipe	<=5' Cover	5.1' Cover to	10.1' Cover to	>15.1'	Extended Total	
		Open Cut	Open Cut	Open Cut	Open Cut pipe Repair	(Sum of unit price * number of LF	
		pipe Repair	pipe Repair	pipe Repair		for each of categories A - D)	
85	20" Ø				Steel Casing Repair	· ·	·
			\$177.00/lf		\$179.00/lf		
			For 100 LF		For 100 LF	\$ 71,100.00	
86	24" Ø				Steel Casing Repair		
			\$241.00/lf	\$242.00/lf	\$242.00/lf		
			For 100 LF	For 100 LF	For 100 LF	\$ 96,600.00	
87	28" Ø				Steel Casing Repair		
	·		\$263.00/lf		\$265.00/lf	· .	
			For 100 LF	For 100 LF	For 100 LF	\$ 105,600.00	
88	32" Ø				Steel Casing Repair		
	ļ <u></u>		\$262.00/lf	\$263.00/lf	\$263.00/lf		
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 105,000.00	
89							
89	36" Ø	eel Casing Rep	Steel Casing R	Steel Casing R	Steel Casing Repair		
89	36" Ø	eel Casing Rep \$267.00/lf	Steel Casing R \$268.00/lf	Steel Casing Ri \$268.00/lf	Steel Casing Repair \$268.00/lf		
		eel Casing Rep \$267.00/lf For 50 LF	Steel Casing R \$268.00/lf For 50 LF	Steel Casing Ri \$268.00/lf For 50 LF	Steel Casing Repair \$268.00/lf For 50 LF	\$ 53,550.00	
90		eel Casing Rep \$267.00/lf For 50 LF eel Casing Rep	Steel Casing R \$268.00/lf For 50 LF Steel Casing R	Steel Casing Ri \$268.00/lf For 50 LF Steel Casing Ri	Steel Casing Repair \$268.00/lf For 50 LF Steel Casing Repair	\$ 53,550.00	
		eel Casing Rep \$267.00/lf For 50 LF eel Casing Rep \$305.00/lf	Steel Casing R \$268.00/lf For 50 LF Steel Casing R \$307.00/lf	Steel Casing Ri \$268.00/lf For 50 LF Steel Casing Ri \$307.00/lf	Steel Casing Repair \$268.00/lf For 50 LF Steel Casing Repair \$307.00/lf		
90	42" Ø	eel Casing Rep \$267.00/lf For 50 LF eel Casing Rep \$305.00/lf For 50 LF	Steel Casing R \$268.00/lf For 50 LF Steel Casing R \$307.00/lf For 50 LF	Steel Casing Ri \$268.00/lf For 50 LF Steel Casing Ri \$307.00/lf For 50 LF	Steel Casing Repair \$268.00/lf For 50 LF Steel Casing Repair \$307.00/lf For 50 LF	\$ 53,550.00 \$ 61,300.00	
	42" Ø	eel Casing Rep \$267.00/lf. For 50 LF eel Casing Rep \$305.00/lf For 50 LF eel Casing Rep	Steel Casing R \$268.00/lf For 50 LF Steel Casing R \$307.00/lf For 50 LF Steel Casing R	Steel Casing Ri \$268.00/lf For 50 LF Steel Casing Ri \$307.00/lf For 50 LF Steel Casing Ri	Steel Casing Repair \$268.00/lf For 50 LF Steel Casing Repair \$307.00/lf For 50 LF Steel Casing Repair		
90	42" Ø	eel Casing Rep \$267.00/lf. For 50 LF eel Casing Rep \$305.00/lf For 50 LF eel Casing Rep \$338.00/lf	Steel Casing R \$268.00/lf For 50 LF Steel Casing R \$307.00/lf For 50 LF Steel Casing R \$340.00/lf	Steel Casing Ri \$268.00/lf For 50 LF Steel Casing Ri \$307.00/lf For 50 LF Steel Casing Ri \$340.00/lf	Steel Casing Repair \$268.00/lf For 50 LF Steel Casing Repair \$307.00/lf For 50 LF Steel Casing Repair \$340.00/lf	\$ 61,300.00	
90	42" Ø	eel Casing Rep \$267.00/lf. For 50 LF eel Casing Rep \$305.00/lf For 50 LF eel Casing Rep \$338.00/lf	Steel Casing R \$268.00/lf For 50 LF Steel Casing R \$307.00/lf For 50 LF Steel Casing R	Steel Casing Ri \$268.00/lf For 50 LF Steel Casing Ri \$307.00/lf For 50 LF Steel Casing Ri \$340.00/lf For 50 LF	Steel Casing Repair \$268.00/lf For 50 LF Steel Casing Repair \$307.00/lf For 50 LF Steel Casing Repair		

		Α	В	С	D		
item	Host Pipe	<=5' Cover	5.1' Cover to	10.1' Cover to	>15.1'	Extended Total	
		Open Cut	Open Cut	Open Cut	Open Cut pipe Repair	(Sum of unit price * number of LF	
		pipe Repair	pipe Repair	pipe Repair		for each of categories A - D)	•
92	4" Ø	ICS PVC Repai	HCS PVC Repa	HCS PVC Repa	HCS PVC Repair		·
			\$91.00/lf	\$94.00/lf	\$97.00/lf		
					For 1000 LF	\$ 373,000.00	
93	4" Ø	ICS VCP Repai	HCS VCP Repa	HCS VCP Repa	HCS VCP Repair		
		\$91.00/lf			\$97.00/lf		
					For 100 LF	\$ 37,300.00	
94	4" Ø	ICS DIP Repair	HCS DIP Repa	HCS DIP Repa	HCS DIP Repair		
	· ·	\$109.00/lf			\$1.15.00/lf		
				For 100 LF	For 100 LF	\$ 44,500.00	
95	4" Ø	CS HDPE Repa	HCS HDPE Re	HCS HDPE Re	HCS HDPE Repair		
		\$85 00 / LF	\$85.00/LF	\$88.00 / LF	\$91.00 /LF		
		For 100 LF	For 100 LF	For 100 LF	For 100 LF	\$ 34,900.00	
					Open Cut HCS Subtotal:	\$ 489,700.00	

Item	Qty	Unit	Description	Unit Price	Total Amount
96	200	EA	6" Ø Point Repair Couplings	\$ 909.00	\$ 181,800.00
97	200	EΑ	8" Ø Point Repair Couplings	\$ 1,250.00	\$ 250,000.00
98	20	EA	10" Ø Point Repair Couplings	\$ 1,250.00	\$ 25,000.00
99	20 -	EA	12" Ø Point Repair Couplings	\$ 1,377.00	\$ 27,540.00
100	12	EA	15" Ø Point Repair Couplings	\$ 1,882.00	\$ 22,584.00
101	10	EA	18" Ø Point Repair Couplings	\$ 2,795.00	\$ 27,950.00
102	6	EA	21" Ø Point Repair Couplings	\$ 3,684.00	\$ 22,104.00
103	6	EA	24" Ø Point Repair Couplings	\$ 5,239.00	\$ 31,434.00
104	6	EA	27" Ø Point Repair Couplings	\$ 6,000.00	\$ 36,000.00
105	6	EA	30" Ø Point Repair Couplings	\$ 6,000.00	\$ 36,000.00
106	6	· EA	33" Ø Point Repair Couplings	\$ 6,000.00	\$ 36,000.00
107	6	EA	36" Ø Point Repair Couplings	\$ 6,000.00	\$ 36,000.00
108	6	EA	39" Ø Point Repair Couplings	\$ 6,000.00	\$ 36,000.00
109	6	EA .	42" Ø Point Repair Couplings	\$ 6,000.00	\$ 36,000.00
110	6	EA	48" Ø Point Repair Couplings	\$ 6,000.00	\$ 36,000.00
111	1000	EA	HCS Reinstatement for CIPP, Mechanized robot	\$ 775.00	\$ 775,000.00
112	10	EA	HCS Reinstatement for CIPP, Open cut	\$ 1,848.00	\$ 18,480.00
113	250	EA	HCS Reinstatement for Open cut repairs or replacements	\$ 1,554.00	\$ 388,500.00
114	100	EA	CIPP Mobilization for 6" Ø through 12" Ø	\$ 8,059.00	\$ 805,900.00
115	100	EA	CIPP Mobilization for 15" Ø through 24" Ø	\$ 8,059.00	\$ 805,900.00
116	25	EA	CIPP Mobilization for 27" Ø through 42" Ø	\$ 12,491.00	\$ 312,275.00
117	25	; EA	CIPP Mobilization for 48" Ø through 66" Ø	\$ 13,671.00	\$ 341,775.00
118	25	EA	CIPP Mobilization for 72" Ø through 78" Ø	\$ 11,804.00	\$ 295,100.00
119	20	EA	Point Repair Mobilization for 6" Ø through 12" Ø	\$ 9,853.00	\$ 197,060.00
120	50	EA	Point Repair Mobilization for 15" Ø through 24" Ø	\$ 9,712.00	\$ 485,600.00
121	50	EA	Point Repair Mobilization for 27" Ø through 42" Ø	\$ 9,712.00	\$ 485,600.00
122	20	EA	Point Repair Mobilization for 48" Ø through 66" Ø	\$ 9,712.00	\$ 194,240.00
123	20	EA	Point Repair Mobilization for 72" Ø through 78" Ø	\$ 9,712.00	\$ 194,240.00
124	1000	EA	Manhole-Clean Out Adjustment Mobilization	\$ 475.00	\$ 475,000.00
125	1000	EA.	Manhole-Clean Out Reconstruction Mobilization	\$ 475.00	\$ 475,000.00
126	1000	EA	New Manhole Mobilization	\$ 300.00	\$ 300,000.00
.127	200	EA	Flow Management Mobilization of 4" Pumps, Aproximatelly 750 gpm expected from this pump size	\$ 2,711.00	\$ 542,200.00
128	50	EA	Flow Management Mobilization of 6" Pumps, Aproximatelly 1500 gpm expected from this pump size	\$ 2,748.00	\$ 137,400.00
129	25	EÁ	Flow Management Mobilization of 8" Pumps, Aproximatelly 2500 gpm expected from this pump size	\$ 3,250.00	\$ 81,250.00
130	5	EA	Flow Management Mobilization of 12" Pumps, Aproximatelly 5000 gpm expected from this pump size	\$ 7,909.00	\$ 39,545.00
131	5	EA	Flow Management Mobilization of 14" Pumps, Aproximatelly 7000 gpm expected from this pump size	\$ 8,730.00	\$ 43,650.00
132a	500	HR	Flow Management with a 4" Pump, per hour	\$ 214.00	\$ 107,000.00
132b	. 200	. EA	Flow Management with a 4" Pump, per day	\$ 2,595.00	\$ 519,000.00
132c	200	EA	Flow Management with a 4" Pump, per week	\$ 7,214.00	\$ 1,442,800.00
133a	500	HR	Flow Management with a 6" Pump, per hour	\$ 232.00	\$ 116,000.00
133b	100	EA ·	Flow Management with a 6" Pump, per day	\$ 2,886.00	\$ 288,600.00

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133c	100	EA	Flow Management with a 6" Pump, per week	\$ 10,896.00	\$	1,089,600.00
134a	500	HR	Flow Management with a 8" Pump, per hour	\$ 223.00	\$	111,500.00
134b	50	EA	Flow Management with a 8" Pump, per day	\$ 2,740.00	\$	137,000.00
134c	. 50	EA	Flow Management with a 8" Pump, per week	\$ 17,604.00	\$	880,200.00
135a	500	HR	Flow Management with a 12" Pump, per hour	\$ 318.00	\$	159,000.00
135b	25	EA	Flow Management with a 12" Pump, per day	\$ 3,881.00	\$	97,025.00
135c	25	EA	Flow Management with a 12" Pump, per week	\$ 23,957.00	\$	598,925.00
136a	500	HR	Flow Management with a 16" Pump, per hour	\$ 365.00	\$	182,500.00
136b	25	EA	Flow Management with a 16" Pump, per day	\$ 4,896.00	\$	122,400.00
136c	25	EA	Flow Management with a 16" Pump, per week	\$ 32,260.00	\$	806,500.00
137	200	HR	Vactor Truck Monitoring for Flow Management	\$ 354.00	\$	70,800.00
			138-141 Blank	\$		74,844.00
142	50000	ΈA	Flow Management 4" HDPE piping and materials, per ft installed		\$	-
143	50000	EA ·	Flow Management 6" HDPE piping and materials, per ft installed	\$ 5.90	\$	295,000.00
144	30000	EA	Flow Management 8" HDPE piping and materials, per ft	\$ 7.40	\$	370,000.00
145	30000		installed Flow Management 12" HDPE piping and materials, per ft	\$ 12.00	\$	360,000.00
		EA .	installed Flow Management 16" HDPE piping and materials, per ft	\$ 13.00	\$	390,000.00
146	20000	LF	installed Flow Management 4" Aluminum piping and materials, per	\$ 14.00	\$	280,000.00
147	20000	LF _	ft installed Flow Management 6" Aluminum piping and materials, per	\$ 2.00	\$	40,000.00
148	20000	LF :	ft installed Flow Management 8" Aluminum piping and materials, per	\$ 2.30	\$	46,000.00
149	20000	<u>L</u> F	ft installed Utility Trench Pavement Patch TYPE 1, provide and install	\$ 2.90	\$	58,000.00
ľ			materials, with 2-inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and			
150	500_	SY	specifications, complete. Utility Trench Pavement Patch TYPE 2, provide and install	\$ 166.00	\$	83,000.00
		٠	materials, with 2- inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and			
151	100	SY	specifications, complete. Utility Trench Pavement Patch TYPE 3, provide and install	\$ 246.00	\$	24,600.00
			materials, with 2- inch thick asphaltic concrete layer, in accordance with PC/COT Std Dtl 216 and the plans and			
152	100	SY	specifications, complete.	\$ 278.00	\$	27,800.00
			Chip Seal coat, in accordance with Section 404 of PC/COT		,	
153	100	SY	Std Specs and the plans and specifications, complete. Asphaltic Concrete Finish Course (Mix #3), 2-inch thick	\$ 482.00	\$	48,200.00
			layer incremental adjustment to the thickness stated in bid items 45, 46, 47, per Section 406 of PC/COT Std Specs,			
154	300	SY	and the plans and specifications, complete. Furnish and Install Temporary Traffic Metal Plate	\$ 79.00	\$	23,700.00
155	500	DAY	(8'x10'x1"), complete. Daily rate Furnish and Install Temporary Traffic Metal Plate	\$ 650.00	\$	325,000.00
156	500	wĸ	(8'x10'x1"), complete. Weekly rate	\$ 945.00	.\$	472,500.00
			Furnish and install New 4 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 10" diameter			ļ
157a	25		pipe, per PCWMD Std. Dtl. 201, and accordance with the plans and specifications, complete.	\$ 8,452.00	\$	211,300.00
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1575	25	EA	Furnish and install New 4 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 10" diameter pipe, per PCWMD Std. Dtl. 201, and accordance with the plans and specifications, complete.	l .	0.40.570.00
158a	25	EA	Furnish and install New 5 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 13,742.00 \$ 8,984.00	\$ 343,550.00 \$ 224,600.00
158b	25	EA	Furnish and install New 5 ft Diarneter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.		
159a	25	EA	Furnish and install New 4 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in	\$ 15,061.00	\$ 376,525.00
159b	25	EA	accordance with the plans and specifications, complete. Furnish and install New 4 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in	\$ 8,707.00	\$ 217,675.00
159c	25	EA	accordance with the plans and specifications, complete. Furnish and install New 5 ft Diameter non Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in	\$ 13,886.00	\$ 347,150.00
159d	25	EA	accordance with the plans and specifications, complete. Furnish and install New 5 ft Diameter non Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.	\$ 9,239.00	\$ 230,975.00
160a	25	EA	Furnish and install New 4 ft Diameter Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.		\$ 376,525.00
160ы	25	EA	Furnish and install New 4 ft Diameter Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with the plans and specifications, complete.		\$ 215,350.00
			Furnish and install New 5 ft Diameter Reinforced Concrete Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with	\$ 13,886.00	\$ 347,150.00
161a	<u>25</u>	<u>EA</u>	the plans and specifications, complete. Furnish and install New 5 ft Diameter Reinforced Polymer Manhole Base for 6" diameter to 15" diameter pipe greater than 20 ft deep, per Std. Dtl. 201, and in accordance with	\$ 9,024.00	\$ 225,600.00
161b	25	EA_	the plans and specifications, complete.	\$ 15,061.00	\$ 376,525.00
		·	162-163 Blank	\$ -	\$
164a	100	VF	Furnish and install New 30" Diameter Reinforced Concrete Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plans and specifications, complete.		
			Furnish and install New 30" Diameter Fiberglass Manhole Material for Shallow Manhole per PCWMD Std. Dtl. 207, including grade rings and 30" frame and cover per Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the plans	\$ 428.00	\$ 42,800.00
164b	100	VF	and specifications, complete.	\$ 656.00	\$ 65,600.00

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					1	-
			Furnish and install New 30" Diameter Polymer Concrete	'		
		1	Manhole Material for Shallow Manhole per PCWMD Std.			
		1	Dtl. 207, including grade rings and 30" frame and cover per	. 		
			Std. Dtl.214.0, 214.1 & 214.2, and in accordance with the		1.	
164c	100	VF	plans and specifications, complete.	\$ 780.00	\$	78,000.00
		!	Furnish and install New 4 ft Diameter Concrete Manhole			
			per RWRD Std. Dti. 205, including manhole shaft, grade		1	
			rings, steps and 24" frame and cover per County	•	l	
1			Standards and Specs and in accordance with the plans		ŀ	
165a.	100	VF	and specifications, 3 ft to 6 ft deep, complete.	\$ 450.00	\$	45,000.00
					Ť	
		İ				
			Furnish and install New 4 ft Diameter Concrete Manhole		i	
			per RWRD Std. Dtl. 205, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County			
			Standards and Specs and in accordance with the plans	1		
165b	100	VF	and specifications, 6.1 ft to 12 ft deep, complete.	\$ 372.00	\$	37,200.00
			and the state of t	572.00		07,200.00
					l	•
1		I	Furnish and install New 4 ft Diameter Concrete Manhole	+ .		
1 1		1	per RWRD Std. Dtl. 205, including manhole shaft, grade	1		
			rings, steps and 24" frame and cover per County			
		}	Standards and Specs and in accordance with the plans			
165c	100 -	VF .	and specifications, 12.1 ft to 19 ft deep, complete.	940.00	,	24 000 00
		'	and approximations, 12.1 lit to 15 it deep, complete.	\$ 340.00	\$	34,000.00
		1	Furnish and install New 4 ft Diameter Concrete Manhole			
			per RWRD Std. Dtl. 205, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County			
			Standards and Specs and in accordance with the plans			
165d	100	VF	and provide the secondarios with the plans	<u> </u>		
1030	100	VF.	and specifications, 19.1 ft to 25 ft deep, complete.	\$ 361.00	\$	36,100.00
		i .				
			Francisco - discolator de Br			
			Furnish and install New 4 ft Diameter Fiberglass Manhole	,		
			per RWRD Std. Dtl. 205, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County			
400-	400		Standards and Specs and in accordance with the plans	*		
166a	100	VF	and specifications, 3 ft to 6 ft deep, complete.	\$ 770.00	\$	77,000.00
1				·		
			Furnish and install New 4 ft Diameter Fiberglass Manhole	•		
			per RWRD Std. Dtl. 205, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County	.		
1005	400	,	Standards and Specs and in accordance with the plans			
166b	100	VF	and specifications, 6.1 ft to 12 ft deep, complete	\$ 734.00	\$	73,400.00
j						
			Furnish and install New 4 ft Diameter Fiberglass Manhole	·		
			per RWRD Std. Dtl. 205, including manhole shaft, grade	·		
			rings, steps and 24" frame and cover per County			
11			Standards and Specs and in accordance with the plans	_		
166c	100	VF	and specifications, 12.1 ft to 19 ft deep, complete	\$ 759.00	\$	75,900.00
[Furnish and install New 4 ft Diameter Fiberglass Manhole	·		
			per RWRD Std. Dtl. 205, including manhole shaft, grade			
		•	rings, steps and 24" frame and cover per County			
			Standards and Specs and in accordance with the plans			. 1
166d	100	VF	and specifications, 19.1 ft to 25 ft deep, complete.	\$ 717.00	\$	71,700.00
				,,,,,,,,	*	1 1,7 00.00
				·		
			Furnish and install New 4 ft Diameter Polymer Manhole			
1			per RWRD Std. Dtl. 205, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County			l
			Standards and Specs and in accordance with the plans	,		l
167a	100	VF	and specifications, 3 ft to 6 ft deep, complete.	\$ 1,128.00	\$	112,800.00
				+ 1,120.00	Ψ	112,000.00

		1.			
			Furnish and install New 4 ft Diameter Polymer Manhole		
f			per RWRD Std. Dtl. 205, including manhole shaft, grade		
			rings, steps and 24" frame and cover per County	·	
1676	400	\	Standards and Specs and in accordance with the plans	<u> </u> · · ·	
167b	100	VF VF	and specifications, 6.1 ft to 12 ft deep, complete.	\$ 1,162.00	\$ 116,200.00
			Furnish and install New 4 ft Diameter Polymer Manhole		
ì]		per RWRD Std. Dtl. 205, including manhole shaft, grade	1	
			rings, steps and 24" frame and cover per County		
167c	100	\ \(\(\)	Standards and Specs and in accordance with the plans		
1070	100	VF	and specifications, 12:1 ft to 19 ft deep, complete.	\$ 1,195.00	\$ 119,500.00
		İ .			
			Furnish and install New 4 ft Diameter Polymer Manhole		
		Ì	per RWRD Std. Dtl. 205, including manhole shaft, grade	1	
ĺ.,		1	rings, steps and 24" frame and cover per County		
167d	100	VF .	Standards and Specs and in accordance with the plans		
1070	100	VF :	and specifications, 19.1 ft to 25 ft deep, complete.	\$ 1,155.00	\$ 115,500.00
		1	•		
	÷		Furnish and install New 4 ft Diameter PVC Manhole per		
']	RWRD Std. Dtl. 205, including manhole shaft, grade rings.		
			steps and 24" frame and cover per County Standards and	·	*
168a	100	VF	Specs and in accordance with the plans and specifications,		-
100a	100	V V	3 ft to 6 ft deep, complete.	\$ 2,072.00	\$ 207,200.00
1.			Furnish and install New 4 ft Diameter PVC Manhole per		
			RWRD Std. Dtl. 205, including manhole shaft, grade rings.		
			steps and 24" frame and cover per County Standards and	·	
168b	100) VF	Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.		
1000	. 100	41	o. 11 to 12 it deep, complete.	\$ 1,414.00	\$ <u>141,400.00</u>
			Furnish and install New 4 ft Diameter PVC Manhole per	<u> </u>	
] [RWRD Std. Dtl. 205, including manhole shaft, grade rings.		
1			steps and 24" frame and cover per County Standards and		
168c	100	VF ·	Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.		
11111			12.11 to 13 tt deep, complete.	\$ 1,158.00	\$ <u>115,</u> 800.00
			Furnish and install New 4 ft Diameter PVC Manhole per		
1 1		·	RWRD Std. Dtl. 205, including manhole shaft, grade rings,		
		·	steps and 24" frame and cover per County Standards and		
168d	100	VF	Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 1.071.00	
			to 20 it doop, complete.	\$ 1,071.00	<u>\$ 107,100.00</u>
			Furnish and install New 5 ft Diameter Concrete Manhole		` . . <u>}</u>
Į			per RWRD Std. Dtf. 206, including manhole shaft, grade	·	. 1
			rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans		
169a	100	VF	and specifications, 3 ft to 6 ft deep, complete.	\$ 498.00	\$ 49.800.00
			, Title 1 1200b; comprise.	490.00	\$ 49,800.00
			Furnish and install New 5 ft Diameter Concrete Manhole		ļ
		.	per RWRD Std. Dtl. 206, including manhole shaft, grade		
			rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans		
169b	100	VF	and specifications, 6.1 ft to 12 ft deep, complete.	\$ 428.00	\$ 42,800.00
		-	The state of the s	420.00	<u>⊬ 42,000.00</u>
				1	
		. [Furnish and install New 5 ft Diameter Concrete Manhole		
	j		per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County		
		[Standards and Specs and in accordance with the plans	.	1
169c	100 .	VF;	and specifications, 12.1 ft to 19 ft deep, complete	\$ 409.00	40,900.00
			F. F		, 40,000.00

		T	· · · · · · · · · · · · · · · · · · ·			
	ľ				Τ.	
			Furnish and install New 5 ft Diameter Concrete Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans			
169d	100	VF	and specifications, 19.1 ft to 25 ft deep, complete.	\$ 421.00	\$	42,100.00
					Т	
1	1		Furnish and install New 5 ft Diameter Fiberglass Manhole	·		
			per RWRD Std. Dtl. 206, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans			
170a	100	VF	and specifications, 3 ft to 6 ft deep, complete.	\$ 904.00	s	90,400.00
			Furnish and install New 5 ft Diameter Fiberglass Manhole			
			per RWRD Std. Dtl. 206, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County Standards and Specs and in accordance with the plans	·		
170b	100	VF	and specifications, 6.1 ft to 12 ft deep, complete.	\$ 947.00	\$.	94,700.00
				311.00		,,
			Furnish and install New 5 ft Diameter Fiberglass Manhole		1	•
			per RWRD Std. Dtl. 206, including manhole shaft, grade			
1			rings, steps and 24" frame and cover per County			
170c	100	VF	Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	 	\$	97.700.00
					1	01,100.00
			Furnish and install New 5 ft Diameter Fiberglass Manhole]	١.	
			per RWRD Std. Dtl. 206, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County			
170c	100	· VF	Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 903.00	8	90,300.00
	Ü	* .		303.00	۳	90,300.00
			Furnish and install New 5 ft Diameter Polymer Manhole			
			per RWRD Std. Dtl. 206, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County			4.0
171a	100	VF .	Standards and Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$ 1,529.00	\$	152,900.00
				1,323.00	 	132,300.00
			Furnish and install New 5 ft Diameter Polymer Manhole		ŀ	
			per RWRD Std. Dtl. 206, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County			
171b	100	VF	Standards and Specs and in accordance with the plans and specifications, 6.1 ft to 12 ft deep, complete.	\$1,563.00	, \$	156,300.00
			, somptoo.	1,000.00	۳	100,000.00
			Furnish and install New 5 ft Diameter Polymer Manhole			· .
			per RWRD Std. Dtl. 206, including manhole shaft, grade			
			rings, steps and 24" frame and cover per County			
171c	100	VF	Standards and Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	\$ 1,367.00	\$	136,700.00
		· · ·	, and the second section of the section of the s	(,007.00	۴	130,700.00
			Furnish and install New 5 # Diameter Delimeter			
]			Furnish and install New 5 ft Diameter Polymer Manhole. per RWRD Std. Dtl. 206, including manhole shaft, grade			
-		İ	rings, steps and 24" frame and cover per County			
171d	100	VF	Standards and Specs and in accordance with the plans and specifications, 19.1 ft to 25 ft deep, complete.	\$ 1.309.00	l or	120,000,00
		• •		\$ 1,309.00	\$	130,900.00
]	-	Furnish and install Nov. 5 & Diseases - CVO			
	Ī		Furnish and install New 5 ft Diameter PVC Manhole per RWRD Std. Dtl. 206, including manhole shaft, grade rings.			·
			steps and 24" frame and cover per County Standards and			
172a	100	VF ,	Specs and in accordance with the plans and specifications, 3 ft to 6 ft deep, complete.	\$		247 400 00
		7.	o it to o it doop, complete.	3,471.00	\$	347,100.00

				·		
				<u> </u>		
				i i		
			Furnish and install New 5 ft Diameter PVC Manhole per			
			RWRD Std. Dtl. 206, including manhole shaft, grade rings,			
			steps and 24" frame and cover per County Standards and		1	
1706	400	\ \ (=	Specs and in accordance with the plans and specifications,		Ι.	,
172ь	100	VF	6.1 ft to 12 ft deep, complete.	\$	\$	219,300.00
1						•
			French and install No. 5 ft Disease Property			•
		i	Furnish and install New 5 ft Diameter PVC Manhole per			
			RWRD Std. Dtl. 206, including manhole shaft, grade rings,			
-			steps and 24" frame and cover per County Standards and		1	
172c	100	VF	Specs and in accordance with the plans and specifications, 12.1 ft to 19 ft deep, complete.	4.075.00	١,	407 500 00
11.20	,00	· ''	12.1 It to 19 It deep, complete.	\$ 1,675.00	\$	167,500.00
1			*			
/			Furnish and install New 5 ft Diameter PVC Manhole per	·		
			RWRD Std. Dtl. 206, including manhole shaft, grade rings,	1		
			steps and 24" frame and cover per County Standards and]	
			Specs and in accordance with the plans and specifications,	·	l	-
172d	100	VF ·	19.1 ft to 25 ft deep, complete.	\$ 1,484.00	\$	148,400.00
			Rehabilitate and install coating on existing manhole base	Ι,-04.00	۳	140,400.00
	4.		for 4 ft diameter manhole, in accordance with Master			
173	100	ĒΑ	Agreement Sub Appendix "F" , and the plans and	\$ 3,413.00	\$	341,300.00
			Rehabilitate and install coating on existing manhole base	5,413.00	٣	34 1,000.00
		.	for 5 ft diameter manhole, in accordance with Master			
174	100	EA	Agreement Sub Appendix "F", and the plans and	\$ 4,710.00	\$	471,000.00
			Rehabilitate and install coating on existing manhole base	1,7 1 0.00	 	11,000.00
			for 5 ft diameter manhole, in accordance with Master		Į	
175	25	EA	Agreement Sub Appendix "F", and the plans and	\$ 4,710.00	s	117,750.00
			Provide protective coating on existing manhole or	Ţ	Ť	,
1			structures walls, ceiling, and riser sections, in accordance			
176	50000	SF	with plans and specifications, complete.	\$ 53.00	s:	2,650,000.00
			Provide protective coating on new or existing manhole ring			
			and cover, in accordance with plans and specifications,		i	
177	2000	SF	complete.	\$ 112.00	 \$	224,000.00
			Furnish and install a New 14" cleanout frame and cover, as			
1 1			per Sub Appendix N and in accordance with the plans and	·		
178	100		specifications, complete.	\$.472.00	\$	47,200.00
			Furnish and install a New 24" manhole frame and cover		-	
1.70	050		per Std Dtls 213.1, in accordance with the plans and			1
179a	250		specifications, complete.	\$ 457.00	\$	114,250.00
	i		Furnish and install a New 24" composite manhole frame			I
1706	400		and cover per Std Dtls 213.1, in accordance with the plans		١.	. <u></u>
179b	100		and specifications, complete.	\$ 1,677.00	\$	167,700.00
			Furnish and install a New 30" manhole frame and cover			·
180a	50		per Std Dtls 214.0, in accordance with the plans and	m	_	
Tuva	30		specifications, complete.	\$ 681.00	\$	34,050.00
1			Furnish and install a New 30" composite manhole frame and cover per Std Dtls 214.0, in accordance with the plans			
180b	50		and cover per Std Dtls 214.0, in accordance with the plans and specifications, complete.	¢	. ا	92,000,00
1.505			Furnish and install a New 24" Waterproof manhole cover	\$ 1,676.00.	\$	83,800.00
			and frame per Std Dtls 213.2, in accordance with the plans			. [
181a	100		and frame per Std Dils 213.2, in accordance with the plans and specifications, complete.	\$ 457.00	,	45 700 00
13,4			Furnish and install a New 24° Waterproof composite	\$ 457.00	\$	45,700.00
			manhole cover and frame per Std Dtls 213.2, in			
181b	50		accordance with the plans and specifications, complete.	\$ 1,676.00	\$	83,800.00
			Furnish and install a New 30" Waterproof manhole cover	1,070.00	Ψ	. 00,000.00
		T T	and frame per Std Dtls 214.1, in accordance with the plans			
182a	100		and specifications, complete.	\$ 681.00	\$	68,100.00
			Furnish and install a New 30" Waterproof composite		Ψ	00,100.00
			manhole cover and frame per Std Dtls 214.1, in	·		
182b	50		accordance with the plans and specifications, complete.	\$ 1,676.00	\$	83,800.00
				1,0,0.00	_	55,550.55
1			Furnish and install a New 24" Bolted Waterproof manhole	·		•
	ı		cover and frame per Std Dtls 213.3, in accordance with the			·
183a	50		plans and specifications, complete.	\$	\$	35,450.00
			· · · · · · · · · · · · · · · · · · ·		<u> </u>	55, 55.55

	1 -	T	(Nev. 01/23/2021)			
			Furnish and install a New 24" Bolted Waterproof composite manhole cover and frame per Std Dtis 213.3, in	3		
183b	25	EA	accordance with the plans and specifications, complete.	\$1,676.00	\$	41,900.00
			Furnish and install a New 30" Bolted Waterproof manhole cover and frame per Std Dtls 214.2, in accordance with the			
184a	50	EA	plans and specifications, complete.	\$ 856.00	\$	42,800.00
ļ.			Cursish and in Add a November 2011 O. (c. com)		Ť	
-			Furnish and install a New 30" Bolted Waterproof composite manhole cover and frame per Std Dtls 214.2, in	1.		
184b	25	<u>EA</u>	accordance with the plans and specifications, complete.	\$ _ 1,676.00	\$	41,900.00
1			Provide concrete collar for manhole per RWRD Std Dtl 211, in accordance with plans and specifications,			
185	500	EA	complete.	\$ 886.00	\$	443,000.00
-			Provide concrete collar for manhole per RWRD Std Dtl	500.00	۲	443,000.00
186	300	EA	212, in accordance with plans and specifications, complete.			
	000	 	complete.	\$ 1,299.00	\$	389,700.00
		İ	Adjust Existing 24" Diameter Frame and Cover on a Brick			
187	1000	EA	manhole, to the finished grade specified, complete.	\$561.00	\$	561,000.00
			Adjust Existing 30" Diameter Frame and Cover on a Brick			
188	500	EA	manhole, to the finished grade specified, complete.	\$ 561.00	\$	280,500.00
1			Adjust Existing 24" Diameter Frame and Cover on a	301.35	۲	250,000.00
189	1000	EA	Reinforced Concrete manhole, to the finished grade specified, complete.			
.00	1000	<u> </u>	Adjust Existing 30" Diameter Frame and Cover on a	\$ 561.00	\$	561,000.00
			Reinforced Concrete manhole, to the finished grade			
190	500	EA	specified, complete.	\$ 561.00	\$	280,500.00
			Reconstruct Existing Cleanout to the finished grade			
191	250	EA	specified (regardless of height adjustment), complete.	\$ 1,125.00	\$	281,250.00
			Reconstruct Existing 4 ft Diameter Manhole Barrel/Cone	1,123.00	۳	261,230.00
192	2000	VF	Section on a Brick manhole, to the finished grade		1	
132	2000	VF	specified, complete. Reconstruct Existing 5 ft Diameter Manhole Barrel/Cone	\$ 625.00	\$	1,250,000.00
		İ	Section, on a Brick manhole, to the finished grade	·		-
193	1000	VF	specified, complete.	\$ 662.00	\$	662,000.00
			Reconstruct Existing 4 ft Diameter Manhole Barrel/Cone Section, on a Reinforced Concrete manhole, to the finished			
194	500	. VF	grade, complete.	\$ 625,00	\$	312 500 00
			Reconstruct Existing 5 ft Diameter Manhole Barrel/Cone	020.00	Ψ_	312,500.00
195	500	VF	Section, on a Reinforced Concrete manhole, to the finished			
133	300		grade specified, complete.	\$ 662.00	\$	331,000.00
		[Provide Bench Rehabilitation for a 4 ft Diameter Manhole,			
196	500	EA	per the Special Provisions, complete.	\$ 1,299.00	\$	649;500.00
			Provide Bench Rehabilitation for a 5 ft Diameter Manhole,			·
197	500	EA	per the Special Provisions, complete.	\$ 1,476.00	\$	738,000.00
				1,470.00	Ψ_	738,000.00
198	2000	\ \/E	Braids But helica Occión de Branco			
196	2000	VF	Provide Pot-holing Services for PCRWRD, as requested. Provide Excavation & Backfill using Native Material, as per	\$ 354.00	\$	708,000.00
			the Special Provisions, 0 ft to 4 ft deep			
199	500	CY	CY=(Width*Length*Depth)/27	\$ 66.00	\$	33,000.00
200	1000	CY	Provide Excavation & Backfill using Native Material, as per			
200	1000	C1	the Special Provisions, 4.1 ft to 10 ft deep Provide Excavation & Backfill using Native Material, as per	\$ 47.00	\$	47,000.00
201	2000	CY	the Special Provisions, 10.1 ft to 15 ft deep	\$ 35.00	\$	70,000.00
200	F05		Provide Excavation & Backfill using AB Material, as per the	55.00	*	10,000.00
202	500	CY	Special Provisions, 0 ft to 4 ft deep	\$ 97.00	\$	48,500.00
203	1000	CY ·	Provide Excavation & Backfill using AB Material, as per the Special Provisions, 4.1 ft to 10 ft deep	\$ 80.00	p.	90 000 00
			Provide Excavation & Backfill using AB Material, as per the	\$ 80.00	\$	80,000.00
204	2000	CY	Special Provisions, 10.1 ft to 15 ft deep	\$ 69.00	\$	_138,000.00
205	1000	CY	Concrete Sidewalk Removal and Replacement, per Pima County/City of Tucson Standard Specifications and Dtls.			
			journal of russon standard specifications and Utls.	\$ 867.00	\$	867,000.00

						
206	150	CY	PCCP Concrete Removal and Replacement 4" thick	\$ 867.00	\$	130,050.00
207	200	CY	PCCP Concrete Removal and Replacement 6" thick	\$ 845.00	\$	169,000.00
208	200	CY	PCCP Concrete Removal and Replacement 8" thick	\$ 688.00	Ť	137,600.00
209	2000	CY	Concrete Curb Removal and Replacement, Per Pima County/City of Tucson Standard Specifications and Details	\$ 509.00		1,018,000.00
210	250	CY	1-Sack Low Strength Slurry Per Pima County/City of Tucson Standard Specifications and Details Section 501.			
211	250	CY	2-Sack Low Strength Slurry Per Pima County/City of	\$ 129.00		32,250.00
			Tucson Standard Specifications and Details Section 501.	\$ 139.00	\$	34,750.00
212	200	EA .	Porta Potties, per week	\$ 148.00	\$	29,600.00
213	200	<u>EA</u>	Porta Potties, per day Grouting of Cavities. Installed in place. Per PCRWRD	\$ 148.00	\$	29,600.00
214	500	CY .	Specifications.	\$. 395.00	\$	197,500.00
215	50000	LF	CCTV of line 6" to 10"	\$ 1.70	\$	85,000.00
216	50000	LF	CCTV of line 12" to 15"	\$ 1.70	\$	85,000.00
217	50000	LF	CCTV of line 18" and larger	\$ 1.70	\$	85,000.00
218a	50000	LF	Sewer cleaning of lines 6" to 10" with hydro cleaning equipment. Debris removed with vacuum.	\$ 2.60	\$	130,000.00
218b	1000	LF	Sewer cleaning of DIP lines 6" to 10" with chain flailing cleaning equipment. Debris removed with vacuum.	\$ 35.00	\$	35,000.00
219a	50000	LF.	Sewer cleaning of lines 12" to 15" with hydro cleaning equipment. Debris removed with vacuum.			
219b	1000	LF	Sewer cleaning of DIP lines 12" to 15" with chain flailing		\$	160,000.00
			cleaning equipment. Debris removed with vacuum. Sewer cleaning of lines 18" and larger with hydro cleaning	\$ 41.00	\$	41,000.00
220a	50000	LF	equipment. Debris removed with vacuum. Sewer cleaning of DIP lines 18" and larger with chain	\$ 7.30	\$	365,000.00
220b	100	LF	flailing cleaning equipment. Debris removed with vacuum. Provide As-Built documents, in accordance with the plans	\$ 45.00	\$	4,500.00
221	100	SHT _	and specifications, complete. Provide construction staking, in accordance with the plans	\$ 886.00	\$	88,600.00
222	50000	LF	and specifications, complete.	\$ 4.70	\$	235,000.00
223	10	TON	Asbestos Cement Pipe (ACP) Removal and Proper Disposal	\$ 2,146.00	\$	21,460.00
224	200	LF	Remove and dispose security fencing (6' to 8' fence with barb wire)	\$ 28.80	\$	5,760.00
225	200	LF	Install new security fencing (6' to 8' fence with barb wire)	\$ 103.00	\$	20,600.00
226	500	LF	Remove and dispose security fencing (6' chain link)	\$ 29.00	\$	14,500.00
227	500	LF	Install new security fencing (6' chain link)	\$ 74.00	\$	37,000.00
228	10	EA	Remove and dispose existing 20' security gate	\$ 23,548.00	\$	235,480.00
229	10	EA	Install new 20' security gate			
230	1500	SF	Remove and replace 6' CMU Wall		\$ 	39,740.00
231	1000	SF			\$	54,000.00
		· · · · · ·	Remove and replace 8' CMU Wall	\$ 32.00	\$	32,000.00
232	500	HR	Archaeological Monitoring	\$ 177.00	\$	88,500.00
233	10	ACRE	Hydroseeding	\$ 4,427.00	\$	44,270.00
234	_100	SHT	Shop/Engineering Drawings	\$ 886.00	\$	88,600.00
235	2000	SY	Rip-Rap (D50 6") - Delivered and Installed.	\$ 73.00.	\$	146,000.00
236	25	EA	Install Survey Monument per Standard Detail WWM 507.	\$ 472.00	\$	11,800.00
			•			

237		Provide miscellaneous services, construction materials and installation by Force Account, in accordance with the plans and specifications, complete.	\$ 500,000.00
		Grand Total Repair Line Items:	\$ \$90,520,262.00

We acknowledge addendum one

PROPOSAL OF:

Hunter Contracting Co.

Company Name

SIGNATURE;

Name & Title of authorized signer Robert S Carlson, Vice President

DATE:

8/9/2021

^{*} Line items shall include mobilization costs

^{**} For Emergency response jobs the contractor will receive a 15% increase to all line items.



CERTIFICATE OF LIABILITY INSURANCE

4/1/2022

DATE (MM/DD/YYYY).

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

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

and destinated about not contain rights to the destinate notice in near of such endorsement(s).				
PRODUÇER	Lockton Companies	CONTACT NAME:		
	444 W. 47th Street, Suite 900	PHONE FAX (A/C, No, Ext): (A/C, No):		
	Kansas City MO 64112-1906 (816) 960-9000	E-MAIL ADDRESS;		
	(0.0) 300 3000	INSURER(S) AFFORDING COVERAGE	NAIC#	
		INSURER A: Travelers Property Casualty Co of America	25674	
1341209	ACHEN-GARDNER CONSTRUCTION, LLC	INSURER B: Farmington Casualty Company	.0041483	
	550 SOUTH 79TH STREET	INSURER C: XL Insurance America, Inc.	ე,00 24554	
	CHANDLER AZ 85226	INSURER D: Allied World National Assurance Company	10690	
		INSURER E :		
	•	INSURER F :		

COVERAGES

CERTIFICATE NUMBER: 17803849

REVISION NUMBER: XXXXXXX

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

ADDL SÜBR INSD WVD POLICY EFF (MM/DD/YYYY) POLICY EXP TYPE OF INSURANCE POLICY NUMBER COMMERCIAL GENERAL LIABILITY X \$ 2,000,000 EACH OCCURRENCE VTC2J-CO-2793C296-TIL-21 4/1/2021 4/1/2022 DAMAGE TO RENTED PREMISES (Ea occurrence) CLAIMS-MADE | X OCCUR \$ 300,000 \$50,000 PD & BI DED. MED EXP (Any one person) \$ 10,000 \$ 2,000,000 OFF PRODUCTS-COMP/OP X PERSONAL & ADV INJURY GEN'L AGGREGATE LIMIT APPLIES PER: GENERAL AGGREGATE \$ 4,000,000 POLICY X PRO-PRODUCTS - COMP/OP AGG \$ 4,000,000 OTHER: COMBINED SINGLE LIMIT **AUTOMOBILE LIABILITY** VTJ-CAP-2793C303-TIL-21 4/1/2021 4/1/2/022 \$ 2,000,000 (Ea accident) ANY AUTO BODILY INJURY (Per person) \$ XXXXXXX SCHEDULED AUTOS NON-OWNED AUTOS ONLY OWNED BODILY INJURY (Per accident) AUTOS ONLY HIRED AUTOS ONLY \$ XXXXXXX PROPERTY DAMAGE X \$ XXXXXXX MCS90 \$ XXXXXXX UMBRELLA LIAB Y Υ ZUP81M9623821NF 4/1/2021 4/1/2/022 OCCUR EACH OCCURRENCE \$ 15,000,000 US00099201L121A 4/1/2021 4/1/2021 4/1/2.022 **EXCESS LIAB** X \$ 15,000,000 CLAIMS-MADE AGGREGATE 0312-2956 4/1/2.022 DED RETENTION \$ \$ XXXXXXX WORKERS COMPENSATION X STATUTE UB-0S404662-21-25-G 4/1/2021 4/1/2022 AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) E.L. EACH ACCIDENT \$ 1,000,000 E.I. DISEASE - EA EMPLOYEE \$ 1,000,000 ORE N/A If yes, describe under DESCRIPTION OF OPERATIONS below E.L. DISEASE - POLICY LIMIT | \$ 1,000,000 BUILDERS RISK BASIC LIMIT: \$10,000,000; QT6608B166151TJL21 N N 4/1/2021 4/1/2 022 DEDUCTIBLE: \$5,000 TEMPORARY STORAGE LIMIT:

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORO 101, Additional Remarks Schedule, may be attached if more space is required)
RE: WASTEWATER CONVEYANCE SYSTEM AND RELATED FACILITIES REPAIR, REHABILITATION AND CONSTRUCTION SERVICES, SOLICITATION
#SFQ-PO-2100017. CERTIFICATE HOLDER IS ADDITIONAL INSURED ON GENERAL, AUTO AND UMBRELLA LIABILITY COVERAGE, ON A PRIMARY,
NON-CONTRIBUTORY BASIS, IF REQUIRED BY WRITTEN CONTRACT. WAIVER OF SUBROGATION IN FAVOR OF THE ADDITIONAL INSURED APPLIES ON WC,
GL, AUTO AND UMBRELLA LIABILITY COVERAGE, IF REQUIRED BY WRITTEN CONTRACT AND WHERE ALLOWED BY LAW. COVERAGE IS SUBJECT TO THE
TERMS AND CONDITIONS OF THE POLICY.

CERTIFICATE HOLDER	CANCELLATION See Attachments
17803849 PIMA COUNTY PROCUREMENT DEPARTMENT 150 WEST CONGRESS STREET, FIFTH FLOOR TUCSON AZ 85701	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
• 6 # ENTE	AUTHORIZED REPRESENTATIVES JOHN M Agnelle
	@ 1099/1045 ACORD CORROBATION All sights recorded

POLICY NUMBER: VTC2J-CO-2793C296-TIL-21

COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or organization(s):

WHERE REQUIRED BY WRITTEN CONTRACT. BUT ONLY WHERE THE CG 2010 AND CG 2037 07/04 OR ITS EQUIVALENT IS SPECIFICALLY IN THE CONTRACT.

Location(s) Of Covered Operations:

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

A. Section II - Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

- 1. Your acts or omissions; or
- The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- 1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

POLICY NUMBER: VTC2J-CO-2793C296-TIL-21



COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s)
Or Organization(s):

WHERE REQUIRED BY WRITTEN CONTRACT. BUT ONLY WHERE THE CG 2010 AND CG 2037 07/04 OR ITS EQUIVALENT IS SPECIFICALLY IN THE CONTRACT.

Location And Description Of Completed Operations:

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

Section II - Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

POLICY NUMBER: VTJ-CAP-2793C303-TIL-21

COMMERCIAL AUTO

THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY.

BUSINESS AUTO EXTENSION ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

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

GENERAL DESCRIPTION OF COVERAGE - This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to the Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Limitations and exclusions may apply to these coverages. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- A. BROAD FORM NAMED INSURED
- **B. BLANKET ADDITIONAL INSURED**
- C. EMPLOYEE HIRED AUTO
- D. EMPLOYEES AS INSURED
- E. SUPPLEMENTARY PAYMENTS INCREASED LIMITS
- F. HIRED AUTO LIMITED WORLDWIDE COVERAGE INDEMNITY BASIS
- G. WAIVER OF DEDUCTIBLE GLASS
- H. HIRED AUTO PHYSICAL DAMAGE LOSS OF USE INCREASED LIMIT
- I. PHYSICAL DAMAGE TRANSPORTATION EXPENSES INCREASED LIMIT
- J. PERSONAL EFFECTS
- K. AIRBAGS
- L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS
- M. BLANKET WAIVER OF SUBROGATION
- N. UNINTENTIONAL ERRORS OR OMISSIONS

Attachment Code: D562500 Certificate ID: 17803849

A. BROAD FORM NAMED INSURED

The following is added to Paragraph A.1., Who is An Insured, of SECTION II – LIABILITY COVERAGE: Any organization you newly acquire or form during the policy period over which you maintain 50% or more ownership interest and that is not separately insured for Business Auto Coverage. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

B. BLANKET ADDITIONAL INSURED

The following is added to Paragraph c. in A.1., Who Is An Insured, of SECTION II - LIABILITY COVERAGE:

This includes any person or organization who you are required under a written contract or agreement between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to be named as an additional insured for Liability Coverage, but only for damages to which this insurance applies and only to the extent that person or organization qualifies as an "insured".

C. EMPLOYEE HIRED AUTO

1. The following is added to Paragraph A.1., Who Is An Insured, of SECTION II ~ LIABILITY COVERAGE:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

- 2. The following replaces Paragraph b. in B.5., Other Insurance, of SECTION IV BUSINESS AUTO CONDITIONS:
 - **b.** For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:
 - (1) Any covered "auto" you lease, hire, rent or borrow; and
 - (2) Any covered "auto" hired or rented by your "employee" under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business. However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

D. EMPLOYEES AS INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – LIABILITY COVERAGE: Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

E. SUPPLEMENTARY PAYMENTS - INCREASED LIMITS

- The following replaces Paragraph A.2.a.(2), of SECTION II LIABILITY COVERAGE:
 (2) Up to \$3,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.
- The following replaces Paragraph A.2.a.(4), of SECTION II LIABILITY COVERAGE:
 (4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

F. HIRED AUTO --- LIMITED WORLDWIDE COVERAGE - INDEMNITY BASIS

The following replaces Subparagraph (5) in Paragraph B.7., Policy Period, Coverage Territory, of SECTION IV - BUSINESS AUTO CONDITIONS:

- e. Anywhere in the world, except any country or jurisdiction while any trade sanction, embargo, or similar regulation imposed by the United States of America applies to and prohibits the transaction of business with or within such country or jurisdiction, for Liability Coverage for any covered "auto" that you lease, hire, rent or borrow without a driver for a period of 30 days or less and that is not an "auto" you lease, hire, rent or borrow from any of your "employees", partners (if you are a partnership), members (if you are a limited liability company) or members of their households.
 - (1) With respect to any claim made or "suit" brought outside the United States of America, the territories and possessions of the United States of America, Puerto Rico and Canada:
 - (a) You must arrange to defend the "insured" against, and investigate or settle any such claim or "suit" and keep us advised of all proceedings and actions.
 - (b) Neither you nor any other involved "insured" will make any settlement without our consent.
 - (c) We may, at our discretion, participate in defending the "insured" against, or in the settlement of, any claim or "suit".
 - (d) We will reimburse the "insured":
 - (i) For sums that the "insured" legally must pay as damages because of "bodily injury" or "property damage" to which this insurance applies, that the "insured" pays with our consent, but only up to the limit described in Paragraph C., Limit Of Insurance, of SECTION II LIABILITY COVERAGE.
 - (ii) For the reasonable expenses incurred with our consent for your investigation of such claims and your defense of the "insured" against any such "suit", but only up to and included within the limit described in Paragraph C., Limit Of Insurance, of SECTION II LIABILITY COVERAGE, and not in addition to such limit. Our duty to make such payments ends when we have used up the applicable limit of insurance in payments for damages, settlements or defense expenses.
 - (2) This insurance is excess over any valid and collectible other insurance available to the "insured" whether primary, excess contingent or on any other basis.
 - (3) This insurance is not a substitute for required or compulsory insurance in any country outside the United States, its territories and possessions, Puerto Rico and Canada.
 - You agree to maintain all required or compulsory insurance in any such country up to the minimum limits required by local law. Your failure to comply with compulsory insurance requirements will not invalidate the coverage afforded by this policy, but we will only be liable to the same extent we would have been liable had you complied with the compulsory insurance requirements.
 - (4) It is understood that we are not an admitted or authorized insurer outside the United States of America, its territories and possessions, Puerto Rico and Canada. We assume no responsibility for the furnishing of certificates of insurance, or for compliance in any way with the laws of other countries relating to insurance.

G. WAIVER OF DEDUCTIBLE -- GLASS

The following is added to Paragraph **D.**, **Deductible**, of **SECTION III – PHYSICAL DAMAGE COVERAGE**:

No deductible for a covered "auto" will apply to glass damage if the glass is repaired rather than replaced.

H. HIRED AUTO PHYSICAL DAMAGE - LOSS OF USE - INCREASED LIMIT

The following replaces the last sentence of Paragraph A.4.b., Loss Of Use Expenses, of SECTION III – PHYSICAL DAMAGE COVERAGE:

However, the most we will pay for any expenses for loss of use is \$65 per day, to a maximum of \$750 for any one "accident".

I. PHYSICAL DAMAGE — TRANSPORTATION EXPENSES – INCREASED LIMIT

The following replaces the first sentence in Paragraph A.4.a., Transportation Expenses, of SECTION III – PHYSICAL DAMAGE COVERAGE:

We will pay up to \$50 per day to a maximum of \$1,500 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type.

J. PERSONAL EFFECTS

The following is added to Paragraph A.4., Coverage Extensions, of SECTION III – PHYSICAL DAMAGE COVERAGE:

Personal Effects

We will pay up to \$400 for "loss" to wearing apparel and other personal effects which are:

- (1) Owned by an "insured"; and
- (2) in or on your covered "auto".

This coverage applies only in the event of a total theft of your covered "auto". No deductibles apply to this Personal Effects coverage.

K. AIRBAGS

The following is added to Paragraph **B.3.**, **Exclusions**, of **SECTION III - PHYSICAL DAMAGE COVERAGE**:

Exclusion 3.a. does not apply to "loss" to one or more airbags in a covered "auto" you own that inflate due to a cause other than a cause of "loss" set forth in Paragraphs A.1.b. and A.1.c., but only:

- a. If that "auto" is a covered "auto" for Comprehensive Coverage under this policy;
- b. The airbags are not covered under any warranty; and
- c. The airbags were not intentionally inflated.

We will pay up to a maximum of \$1,000 for any one "loss".

L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS

The following is added to Paragraph A.2.a., of SECTION IV - BUSINESS AUTO CONDITIONS:

Your duty to give us or our authorized representative prompt notice of the "accident" or "loss" applies only when the "accident" or "loss" is known to:

- (a) You (if you are an individual);
- (b) A partner (if you are a partnership);
- (c) A member (if you are a limited liability company);
- (d) An executive officer, director or insurance manager (if you are a corporation or other organization); or
- (e) Any "employee" authorized by you to give notice of the "accident" or "loss".

M. BLANKET WAIVER OF SUBROGATION

The following replaces Paragraph A.5., Transfer Of Rights Of Recovery Against Others To Us, of SECTION IV – BUSINESS AUTO CONDITIONS:

Attachment Code: D562500 Certificate ID: 17803849

5. Transfer Of Rights Of Recovery Against Others To Us

We waive any right of recovery we may have against any person or organization to the extent required of you by a written contract signed and executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. The waiver applies only to the person or organization designated in such contract.

N. UNINTENTIONAL ERRORS OR OMISSIONS

The following is added to Paragraph B.2., Concealment, Misrepresentation, Or Fraud, of SECTION IV – BUSINESS AUTO CONDITIONS:

The unintentional omission of, or unintentional error in, any information given by you shall not prejudice your rights under this insurance. However this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.

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POLICY NUMBER: VTJ-CAP-2793C303-TIL-21

COMMERCIAL AUTO 16-02-0316 Ed. 10 14

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NON-CONTRIBUTORY LIABILITY **INSURANCE**

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

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

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

Named Insured:	ė.
Endorsement Effective Date:	

SCHEDULE

Name(s) Of Person(s) Or Organization(s):

WHERE REQUIRED BY WRITTEN CONTRACT

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

The following is added to Item 5. - "Other Insurance" of Item B. - "General Conditions" under Section IV - "Business Auto Conditions":

e. Regardless of the provisions of Paragraph 5.a. through d. above, for any liability arising out of the ownership, maintenance, use, rental, lease, loan, hire or borrowing by an "insured" of a covered "auto" for which an "insured" is contractually obligated to provide primary insurance coverage to a client, this Coverage Form will be primary and non-contributory with respect to the Persons or Organizations in the schedule, regardless of the availability or existence of other collectible insurance under any other Coverage Form or policy that applies on a primary basis.

Policy: VTC2J-CO-2793C296-TIL-21 LIABILITY

COMMERCIAL GENERAL

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY. XTEND ENDORSEMENT FOR CONTRACTORS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

GENERAL DESCRIPTION OF COVERAGE — This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to this Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- A. Who Is An Insured Unnamed Subsidiaries
- B. Blanket Additional Insured Governmental Entities Permits Or Authorizations Relating To Operations
- C. Incidental Medical Malpractice
- D. Blanket Waiver Of Subrogation
- E. Contractual Liability Railroads
- F. Damage To Premises Rented To You

PROVISIONS

A. WHO IS AN INSURED — UNNAMED SUBSIDIARIES

The following is added to SECTION II — WHO IS AN INSURED:

Any of your subsidiaries, other than a partnership, joint venture or limited liability company, that is not shown as a Named Insured in the Declarations is a Named Insured if:

- a. You are the sole owner of, or maintain an ownership interest of more than 50% in, such subsidiary on the first day of the policy period; and
- b. Such subsidiary is not an insured under similar other insurance.

No such subsidiary is an insured for "bodily injury' or "property damage" that occurred, or "personal and advertising injury" caused by an offense committed:

- a. Before you maintained an ownership interest of more than 50% in such subsidiary; or
- b. After the date, if any, during the policy period that you no longer maintain an ownership interest of more than 50% in such subsidiary.

For purposes of Paragraph 1. of Section II — Who Is An Insured, each such subsidiary will be deemed to be designated in the Declarations as:

a. An organization other than a partnership, joint venture or limited liability company; or

b. A trust:

as indicated in its name or the documents that govern its structure.

B. BLANKET ADDITIONAL INSURED
—GOVERNMENTAL ENTITIES — PERMITS OR
AUTHORIZATIONS RELATING TO OPERATIONS
The following is added to SECTION II — WHO IS AN
INSURED:

Any governmental entity that has issued a permit or authorization with respect to operations performed by you or on your behalf and that you are required by any ordinance, law, building code or written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" arising out of such operations.

The insurance provided to such governmental entity does not apply to:

- a. Any "bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the governmental entity, or
- b. Any "bodily injury' or "property damage" included in the "products-completed operations hazard".

COMMERCIAL GENERAL LIABILITY

- C. INCIDENTAL MEDICAL MALPRACTICE
- The following replaces Paragraph b. of the definition of "occurrence" in the DEFINITIONS Section:
 An act or omission committed in providing or failing to provide "incidental medical services", first aid or "Good Samaritan services" to a person, unless you are in the business or occupation of providing professional health care services.
- 2. The following replaces the last paragraph of Paragraph 2.a.(1) of SECTION II WHO IS AN INSURED:

Unless you are in the business or occupation of providing professional health care services, Paragraphs (1)(a), (b), (c) and (d) above do not apply to "bodily injury" arising out of providing or failing to provide:

- (a) "Incidental medical services" by any of your "employees" who is a nurse, nurse assistant, emergency medical technician or paramedic; or
- (b) First aid or "Good Samaritan services" by any of your "employees" or "volunteer workers", other than an employed or volunteer doctor. Any such "employees" or "volunteer workers" providing or failing to provide first aid or "Good Samaritan services" during their work hours for you will be deemed to be acting within the scope of their employment by you or performing duties related to the conduct of your business.
- 3. The following replaces the last sentence of Paragraph 5. of SECTION III LIMITS OF INSURANCE:

For the purposes of determining the applicable Each Occurrence Limit, all related acts or omissions committed in providing or failing to provide "incidental medical services", first aid or "Good Samaritan services" to any one person will be deemed to be one "occurrence".

4. The following exclusion is added to Paragraph 2., Exclusions, of SECTION I—COVERAGES—COVERAGE A—BODILY INJURY AND PROPERTY DAMAGE LIABILITY:

Sale Of Pharmaceuticals

"Bodily injury' or "property damage" arising out of the violation of a penal statute or ordinance relating to the sale of

pharmaceuticals committed by, or with the knowledge or consent of, the insured.

5. The following is added to the DEFINITIONS Section: "Incidental medical services" means:

- a. Medical, surgical, dental, laboratory, x-ray or nursing service or treatment, advice or instruction, or the related furnishing of food or beverages; or
- b. The furnishing or dispensing of drugs or medical, dental, or surgical supplies or appliances.
 6. The following is added to Paragraph 4.b., Excess Insurance, of SECTION IV—COMMERCIAL GENERAL LIABILITY CONDITIONS:

This insurance is excess over any valid and collectible other insurance, whether primary, excess, contingent or on any other basis, that is available to any of your "employees" for "bodily injury" that arises out of providing or failing to provide "incidental medical services" to any person to the extent not subject to Paragraph 2.a.(1) of Section II — Who Is An Insured. D. BLANKET WAIVER OF SUBROGATION The following is added to Paragraph 8., Transfer Of Rights Of Recovery Against Others To Us, of SECTION IV — COMMERCIAL GENERAL LIABILITY CONDITIONS:

If the insured has agreed in a contract or agreement to waive that insured's right of recovery against any person or organization, we waive our right of recovery against such person or organization, but only for payments we make because of:

- a. "Bodily injury" or "property damage" that occurs;
- or
 b. "Personal and advertising injury" caused by an offense that is committed; subsequent to the execution of the contract or agreement.
- E. CONTRACTUAL LIABILITY RAILROADS
- 1. The following replaces Paragraph c. of the definition of "insured contract" in the DEFINITIONS Section:
- c. Any easement or license agreement;

Attachment Code: D563041 Certificate ID: 17803849

COMMERCIAL GENERAL LIABILITY

- 2. Paragraph f.(1) of the definition of "insured contract" in the DEFINITIONS Section is deleted.
 F. DAMAGE TO PREMISES RENTED TO YOU The following replaces the definition of "premises damage" in the DEFINITIONS Section:
 "Premises damage" means "property damage" to:
- a. Any premises while rented to you or temporarily occupied by you with permission of the owner; or
 b. The contents of any premises while such premises is rented to you, if you rent such premises for a period of seven or fewer consecutive days.

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Attachment Code: D562350 Certificate ID: 17803849

POLICY NUMBER: VTC2J-CO-2793C296-TIL-21

COMMERCIAL GENERAL LIABILITY

c. Method Of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also.

Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

- d. Primary And Non-Contributory Insurance If Required By Written Contract If you specifically agree in a written contract or agreement that the insurance afforded to an insured under this Coverage Part must apply on a primary basis, or a primary and noncontributory basis, this insurance is primary to other insurance that is available to such insured which covers such insured as a named insured, and we will not share with that other insurance, provided that:
- (1) The "bodily injury" or "property damage" for which coverage is sought occurs; and
- (2) The "personal and advertising injury" for which coverage is sought is caused by an offense that is committed; subsequent to the signing of that contract or agreement by you.

5. Premium Audit

- a. We will compute all premiums for this Coverage Part in accordance with our rules and rates.
- b. Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the first Named Insured. The due date for audit and retrospective premiums is the date shown as the due date on the bill. If the sum of the advance and audit premiums paid for the policy period is greater than the earned premium, we will return the excess to the first Named Insured.
- c. The first Named Insured must keep records of the information we need for premium computation, and send us copies at such times as we may request.

6. Representations

By accepting this policy, you agree:

- a. The statements in the Declarations are accurate and complete;
- b. Those statements are based upon representations you made to us; and
- c. We have issued this policy in reliance upon your representations.

The unintentional omission of, or unintentional error in, any information provided by you which we relied upon in issuing this policy will not prejudice your rights under this insurance. However, this provision does not affect our right to collect additional premium or to exercise our rights of cancellation or nonrenewal in accordance with applicable insurance laws or regulations.

7. Separation Of Insureds

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

- a. As if each Named Insured were the only Named Insured; and
- b. Separately to each insured against whom claim is made or "suit" is brought.

8. Transfer Of Rights Of Recovery Against Others To Us

If the insured has rights to recover all or part of any payment we have made under this Coverage Part, those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

9. When We Do Not Renew

If we decide not to renew this Coverage Part, we will

mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date. If notice is mailed, proof of mailing will be sufficient proof of notice.

SECTION V - DEFINITIONS

1. "Advertisement" means a notice that is broadcast or published to the general public or specific market segments about your goods, products or services

for the purpose of attracting customers or supporters. For the purposes of this definition;

a. Notices that are published include material placed on the Internet or on similar electronic

Attachment Code: D562350 Certificate ID: 17803849

means of communication; and

b. Regarding websites, only that part of a website that is about your goods, products or services for the purposes of attracting customers or supporters is considered an advertisement.

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Miscellaneous Attachment: M464793 Certificate ID: 17803849

POLICY NUMBER: UB-0S404662-21-25-G

WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE POLICY

WC 00 03 13 Ed. 4-84

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

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

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

Schedule

WHERE REQUIRED BY WRITTEN CONTRACT.



PROCUREMENT DEPARTMENT DESIGN & CONSTRUCTION DIVISION • 150 W. CONGRESS STREET, 5th FLOOR • TUCSON, ARIZONA 85701-1317 TELEPHONE (520) 724-8221

INSURANCE CARRIER VERIFIES PIMA COUNTY IS NAMED AS ADDITIONAL INSURED TO THE COMPREHENSIVE COMMERCIAL GENERAL LIABILITY POLICY AND THE COMPREHENSIVE AUTOMOBILE LIABILITY POLICY REFERENCED BELOW, THE COUNTY BEING ADDED BY ENDORSEMENT TO THE POLICIES.

Achen – Gardner Construction, LLC		
Insured Firm	 •	
	*	
VTC2J-CO-2793C296-TIL-21		
Policy Number		
Travelers		
Insurance Carrier	· · · · · · · · · · · · · · · · · · ·	
She What	Bryan	Norton
Authorized Broker Signature	Printed N	lame
09/02/2021		
Date of Signature		

NOTE: This document must be included with Insurance Certificates at time of signing contract or renewing contract.

ARIZONA STATUTORY PERFORMANCE BOND

PURSUANT TO TITLE 34, ARIZONA REVISED STATUTES

(Penalty of this bond must be 100% of the Contract amount)

BOND NO. 609204656

KNOW ALL MEN BY THESE PRESENTS THAT:

Achen - Gardner Construction, LLC

(hereinafter "Principal"), as Principal, and Liberty Mutual Insurance Company

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the 21st of September, 2021 for:

Job Order Master Agreement: Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services

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

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of the contract during the original term of the contract and any extension of the contract, with or without notice 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 of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copies at length in this Contract.

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

Witness our hands this 21st day of September, 2021.

Witness our hands this 21st day of September, 20 21.

Achen-Gardner Construction, LLC
Principal

Kevin J. Nunez / Vice President

Liberty Mutual Insurance Company
Surety

Stephanie L. Bucholz
Attorney-in-Fact

Seal No. 583

ARIZONA STATUTORY PAYMENT BOND

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

BOND NO. 609204656

KNOW ALL MEN BY THESE PRESENTS THAT:

firmly by these presents.

Achen -	- Gardner	Construction	LLC
ACIICII -	- Oalulei	OUIISH UCHUII	

(hereinafter "Surety"), a corporation organized and existing under the laws of the State of <u>Massachusetts</u>, with its principal office in the City of <u>Boston</u>, holding a certificate of authority to transact surety business in Arizona issued by the Director of Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto Pima County (hereinafter "Obligee") in the amount of **Three Million and 00/100ths------Dollars (\$3,000,000.00)**, for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally,

(hereinafter "Principal"), as Principal, and Liberty Mutual Insurance Company

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the, <u>21st</u> of <u>September</u> , 20 <u>21</u> for:
Job Order Master Agreement: Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services
which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.
NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal promptly pays all monies due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in the contract, this obligation is void. Otherwise it remains in full force and effect.
PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Contract.
The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by a judge in the court.
Witness our hands this 21st day of September, 2021.
Achen-Gardner Construction, LLC Principal Liberty Mutual Insurance Company Surety Stephanie L Buchol 1912
Strety Stephanie L'Bucholz 1912 of Attorney-in-Fact Seal No. 5831

rantees guar etter of credit value loan, note, ៦ mortgage, e, interest ณ for m rate, Not valid currency r



Liberty Mutual Insurance Company The Ohio Casualty Insurance Company West American Insurance Company

Certificate No: 8200472-975281

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a co	propration duly organized under the laws of the Sta	te of New Hampshire, that
Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massach	rusetts, and West American Insurance Company is a	comporation duly proapized
under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by auth	ority herein set forth, does hereby name, constitute a	nd appoint. Stephanie L.
Bucholz, Andrew A. Farr, Barry R. Farr, Gregory P. Griffith, Dehra K. Williams		

all of the city of Mesa state of Arizona each individually if there be more than one named, its true and lawful attorney-in-fact to make. execute, seal, acknowledge and deliver, for and on its behalf as surely and as its act and deed, any and all undertakings, bonds, recognizances and other surely obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of February 2019.





Liberty Mutural Insurance Company The Ohio Casualty Insurance Company West American Insurance Company

David M. Carey, Assistant Secretary

State of PENNSYLVANIA County of MONTGOMERY SS

validity of this Power of Attorney call 0 between 9:00 am and 4:30 pm EST on any business day 7th day of February, 2019 before me personally appeared David M. Carey, who acknowledged hirnself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA

Notatial Seal esa Pastella, Notary Public Upper Merion Twp., Montgomery County My Commission Expires March 28, 2021

This Power of Attomey is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety the va -8240 I any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe shall appoint such attorneys in fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-infact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 21st day of September







Renee C. Llewellyn, Assistant Secretary



CERTIFICATE OF LIABILITY INSURANCE

B/31/2021

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

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

and destined adds not come	ights to the certificate holder in lied of 8	ucn engorsement(s).		
PRODUCER Carstin Insurance Partners, LLC		CONTACT NAME: Steve Carvajal		
20 E. White Mountain Blvd #A5 301 Lakeside AZ 85929		PHONE (A/C, No, Ext); 480-659-4927	FAX (A/C, No): 480-659-4315	
		ADDRESS: Stevec@carstin.com		
		INSURER(\$) AFFORDING COVERAGE	NAIC#	
INSURED Borderland Construction Company, Inc. 400 E. 38th St.	<u>License#; 859</u> 0477		10690	
	nv Inc	INSURER B: Travelers Indemnity Company	25666	
	,	INSURER c : Travelers Property & Casualty	36161	
Tucson AZ		INSURER D: Westchester Surplus Lines Insu	10172	
		INSURER E: Allied World Assurance Company	19489	
		INSURER F:		
COVERAGES	CERTIFICATE NUMBER: 2131242429	REVISION NU	MBER:	

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

INSR	TYPE OF INSURANCE	ADDL	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP	LIMITS	
Α	X COMMERCIAL GENERAL LIABILITY	Y	Υ	AWAC 6004-0078	11/1/2020	11/1/2021		· _
			•	7.117.10 0004-0010	1 1/ 1/2020	117 1/2021	EACH OCCURRENCE DAMAGE TO RENTED	\$ 1,000,000
	CLAIMS-MADE X OCCUR						PREMISES (Ea occurrence)	\$ 300,000
								\$
							` · · · · · · · · · · · · · · · · · · ·	
	GEN'L AGGREGATE LIMIT APPLIES PER:							\$ 1,000,000
							GENE RAL AGGREGATE	\$ 2,000,000
	POLICY X PRO-						PRODUCTS - COMP/OP AGG	\$ 2,000,000
	OTHER:							\$
B	AUTOMOBILE LIABILITY	Y	Y	VTC2K-CAP-3K990386-IND-20	11/1/2020	11/1/2021	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	X ANY AUTO							\$
	OWNED SCHEDULED AUTOS		-			'	BODILY INJURY (Per accident)	\$
	X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	\$
								\$
E	X UMBRELLA LIAB X OCCUR		ĺ	AWAC 0309-8309	11/1/2020	11/1/2021	EACH OCCURRENCE	\$ 15,000,000
1 .	EXCESS LIAB CLAIMS-MADE						AGGREGATE	\$
	DED X RETENTION \$ 10,000							\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N		Y	UB-3R234190-20-25-D	11/1/2020	11/1/2021	X PER OTH-	
	ANYPROPRIETOR/PARTNER/EXECUTIVE	N/A					E.L. EACH ACCIDENT	\$ 1,000,000
	(Mandatory in NH) If yes, describe under						E.L. DISEASE - EA EMPLOYEE	\$1,000,000
	DESCRIPTION OF OPERATIONS below					i	E.L. DISEASE - POLICY LIMIT	\$1,000,000
	Pollution Liability Contractors Equipment	N		G71193317 001 QT-630-3R068632-TIL-20	12/22/2019 11/1/2020	11/1/2021 11/1/2021	3,000,000 As Per Schedule	6,000,000
						.,, .,,,,,,,		
	CRIPTION OF ORTHATIONS (1 COATIONS (1)			<u></u>		_		

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Pima County, Pima County Department of Transportion, its departments, districts, boards, commissions,

Umbrella Liability policies when required by written contract. Waiver of subrogation infloreds, and any/all others as their interests may appear, are additional insureds as regards the General, Automobile, and Umbrella Liability policies when required by written contract. Waiver of subrogation in favor of Pima County, Pima County Department of Transportion, its departments, districts, boards, commissions, officials, agents, and employees, and any/all others as their interests may appear, applies with regard to the General, Automobile, and Umbrella policies, and to the Workers Compensation policy when required by written contract. All coverages are primary and non-contributory when required by written contract. 30 day notice of cancellation with notice to certificate holder applies in accordance with State law.

Project: Job Order Master Agreement: Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services

CERTIFICATE HOLDER	CANCELLATION
Pima County Procurement Design & Construction 150 W. Congress	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
5th Floor Tucson AZ 85701 USA	AUTHORIZEO REPRESENTATIVE

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Location(s) Of Covered Operations
and all projects performed by, or on behalf he insured for the certificate holder.

- A. Section II Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
 - 1. Your acts or omissions; or
 - 2. The acts or omissions of those acting on your behalf:

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

- The insurance afforded to such additional insured only applies to the extent permitted by law; and
- 2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of 'your work' out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

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

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
Where Required by Written Contract	
Pima County and its officers, officials and	Any and all projects performed by, or on behalf
employees are named as additional insureds with	of, the insured for the certificate holder.
respect to liability arising out of the activities	
performed by or on behalf of the Contractor	
,	
<i>'</i>	
	· ·
Information required to complete this Schedule, if not sh	own above, will be shown in the Declarations

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

- The insurance afforded to such additional insured only applies to the extent permitted by law; and
- 2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

- 1. Required by the contract or agreement; or
- Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

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

SCHEDULE

Name Of Person Or Organization: Any person or organization against whom you have agreed to waive your right of recovery in a written contract, proved such contract was executed prior to the date of loss. Including Pima County, and its officers, officials, and employees for losses arising from Work performed by or on behalf of the Contractor.

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

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

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

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BLANKET ADDITIONAL INSURED - PRIMARY AND NON-CONTRIBUTORY WITH OTHER INSURANCE - CONTRACTORS

This endorsement modifies insurance provided under the following:
BUSINESS AUTO COVERAGE FORM

PROVISIONS

 The following is added to Paragraph c. in A.1., Who Is An Insured, of SECTION II – COVERED AUTOS LIABILITY COVERAGE:

This includes any person or organization who you are required under a written contract or agreement, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to name as an additional insured for Covered Autos Liability Coverage, but only for damages to which this insurance applies and only to the extent of that person's or organization's liability for the conduct of another "insured".

 The following is added to Paragraph B.5., Other Insurance of SECTION IV – BUSINESS AUTO CONDITIONS:

Regardless of the provisions of paragraph a. and paragraph d. of this part 5. Other Insurance, this insurance is primary to and non-contributory with applicable other insurance under which an additional insured person or organization is a named insured when a written contract or agreement with you, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, requires this insurance to be primary and non-contributory.

THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY.

BUSINESS AUTO EXTENSION ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

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

GENERAL DESCRIPTION OF COVERAGE – This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to the Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Limitations and exclusions may apply to these coverages. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- A. BROAD FORM NAMED INSURED
- B. BLANKET ADDITIONAL INSURED
- C. EMPLOYEE HIRED AUTO
- D. EMPLOYEES AS INSURED
- E. SUPPLEMENTARY PAYMENTS INCREASED LIMITS
- F. HIRED AUTO LIMITED WORLDWIDE COVERAGE INDEMNITY BASIS
- G. WAIVER OF DEDUCTIBLE GLASS

PROVISIONS

A. BROAD FORM NAMED INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – LIABILITY COVERAGE:

Any organization you newly acquire or form during the policy period over which you maintain 50% or more ownership interest and that is not separately insured for Business Auto Coverage. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

B. BLANKET ADDITIONAL INSURED

The following is added to Paragraph c. in A.1., Who is An Insured, of SECTION II – LIABILITY COVERAGE:

This includes any person or organization who you are required under a written contract or agreement between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to name

- H. HIRED AUTO PHYSICAL DAMAGE LOSS OF USE INCREASED LIMIT
- I. PHYSICAL DAMAGE TRANSPORTATION EXPENSES INCREASED LIMIT
- J. PERSONAL EFFECTS
- K. AIRBAGS
- L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS
- M. BLANKET WAIVER OF SUBROGATION
- N. UNINTENTIONAL ERRORS OR OMISSIONS

as an additional insured for Liability Coverage, but only for damages to which this insurance applies and only to the extent of that person's or organization's liability for the conduct of another "insured".

C. EMPLOYEE HIRED AUTO

 The following is added to Paragraph A.1.,
 Who Is An Insured, of SECTION II – LIABILITY COVERAGE:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

- The following replaces Paragraph b. in B.5.,
 Other Insurance, of SECTION IV –
 BUSINESS AUTO CONDITIONS:
 - b. For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

- (1) Any covered "auto" you lease, hire, rent or borrow; and
- (2) Any covered "auto" hired or rented by your "employee" under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

D. EMPLOYEES AS INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – LIABILITY COVERAGE:

Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

E. SUPPLEMENTARY PAYMENTS - INCREASED LIMITS

- The following replaces Paragraph A.2.a.(2), of SECTION II – LIABILITY COVERAGE:
 - (2) Up to \$3,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.
- The following replaces Paragraph A.2.a.(4), of SECTION II – LIABILITY COVERAGE:
 - (4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

F. HIRED AUTO - LIMITED WORLDWIDE COVERAGE - INDEMNITY BASIS

The following replaces Subparagraph e. in Paragraph B.7., Policy Term, Coverage Territory, of SECTION IV – BUSINESS AUTO CONDITIONS:

e. Anywhere in the world, except any country or junsdiction while any trade sanction, embargo, or similar regulation imposed by the United States of America applies to and prohibits the transaction of business with or within such country or jurisdiction, for Liability Coverage for any covered "auto" that you lease, hire, rent or borrow without a driver for a period of 30 days or less and that is not an "auto" you lease, hire, rent or borrow from any of your "employees", partners (if you are a partnership), members (if you are a limited

liability company) or members of their households.

- (1) With respect to any claim made or "suit" brought outside the United States of America, the territories and possessions of the United States of America, Puerto Rico and Canada:
 - (a) You must arrange to defend the "insured" against, and investigate or settle any such claim or "suit" and keep us advised of all proceedings and actions.
 - (b) Neither you nor any other involved "insured" will make any settlement without our consent.
 - (c) We may, at our discretion, participate in defending the "insured" against, or in the settlement of, any claim or "suit".
 - (d) We will reimburse the "insured":
 - (i) For sums that the "insured" legally must pay as damages because of "bodily injury" or "property damage" to which this insurance applies, that the "insured" pays with our consent, but only up to the limit described in Paragraph C., Limit Of Insurance, of SECTION II LIABILITY COVERAGE:
 - (ii) For the reasonable expenses incurred with our consent for your investigation of such claims and your defense of the "insured" against any such "suit", but only up to and included within the limit described in Paragraph C., Limit Of Insurance, of SECTION II -LIABILITY COVERAGE, and not in addition to such limit. Our duty to make such payments ends when we have used up the applicable limit of insurance in payments for damages, settlements or defense expenses.
- (2) This insurance is excess over any valid and collectible other insurance available to the "insured" whether primary, excess contingent or on any other basis.
- (3) This insurance is not a substitute for required or compulsory insurance in any country outside the United States, its

territories and possessions, Puerto Rico and Canada.

You agree to maintain all required or compulsory insurance in any such country up to the minimum limits required by local law. Your failure to comply with compulsory insurance requirements will not invalidate the coverage afforded by this policy, but we will only be liable to the same extent we would have been liable had you complied with the compulsory insurance requirements.

(4) It is understood that we are not an admitted or authorized insurer outside the United States of America, its territories and possessions, Puerto Rico and Canada. We assume no responsibility for the furnishing of certificates of insurance, or for compliance in any way with the laws of other countries relating to insurance.

G. WAIVER OF DEDUCTIBLE - GLASS

The following is added to Paragraph D., Deductible, of SECTION III - PHYSICAL DAMAGE COVERAGE:

No deductible for a covered "auto" will apply to glass damage if the glass is repaired rather than replaced.

H. HIRED AUTO PHYSICAL DAMAGE - LOSS OF USE - INCREASED LIMIT

The following replaces the last sentence of Paragraph A.4.b., Loss Of Use Expenses, of SECTION III – PHYSICAL DAMAGE COVERAGE:

However, the most we will pay for any expenses for loss of use is \$65 per day, to a maximum of \$750 for any one "accident".

1. PHYSICAL DAMAGE - TRANSPORTATION EXPENSES - INCREASED LIMIT

The following replaces the first sentence in Paragraph A.4.a., Transportation Expenses, of SECTION III – PHYSICAL DAMAGE COVERAGE:

We will pay up to \$50 per day to a maximum of \$1,500 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type.

J. PERSONAL EFFECTS

The following is added to Paragraph A.4., Coverage Extensions, of SECTION III – PHYSICAL DAMAGE COVERAGE:

Personal Effects

We will pay up to \$400 for "loss" to wearing apparel and other personal effects which are:

- (1) Owned by an "insured"; and
- (2) In or on your covered "auto".

This coverage applies only in the event of a total theft of your covered "auto".

No deductibles apply to this Personal Effects coverage.

K. AIRBAGS

The following is added to Paragraph B.3., Exclusions, of SECTION III – PHYSICAL DAMAGE COVERAGE:

Exclusion 3.a. does not apply to "loss" to one or more airbags in a covered "auto" you own that inflate due to a cause other than a cause of "loss" set forth in Paragraphs A.1.b. and A.1.c., but only:

- a. If that "auto" is a covered "auto" for Comprehensive Coverage under this policy;
- **b.** The airbags are not covered under any warranty; and
- c. The airbags were not intentionally inflated.

We will pay up to a maximum of \$1,000 for any one "loss".

L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS

The following is added to Paragraph A.2.a., of SECTION IV — BUSINESS AUTO CONDITIONS:

Your duty to give us or our authorized representative prompt notice of the "accident" or "loss" applies only when the "accident" or "loss" is known to:

- (a) You (if you are an individual);
- (b) A partner (if you are a partnership),
- (c) A member (if you are a limited liability company);
- (d) An executive officer, director or insurance manager (if you are a corporation or other organization), or
- (e) Any "employee" authorized by you to give notice of the "accident" or "loss".

M. BLANKETWAIVER OF SUBROGATION

The following replaces Paragraph A.5., Transfer Of Rights Of Recovery Against Others To Us, of SECTION IV – BUSINESS AUTO CONDITIONS:

5. Transfer Of Rights Of Recovery Against Others To Us

We waive any right of recovery we may have against any person or organization to the extent required of you by a written contract signed and executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. The waiver applies only to the person or organization designated in such contract.

N. UNINTENTIONAL ERRORS OR OMISSIONS

The following is added to Paragraph B.2., Concealment, Misrepresentation, Or Fraud, of SECTION IV – BUSINESS AUTO CONDITIONS:

The unintentional omission of, or unintentional error in, any information given by you shall not prejudice your rights under this insurance. However this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.



WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 00 03 13 (00) -

POLICY NUMBER: UB-3R234190-20-25-D

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

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

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

SCHEDULE

DESIGNATED PERSON:

Any person or organization for which the insured has agreed by written contract executed prior to loss to furnish this waiver.

Pima County Procurement

DESIGNATED ORGANIZATION:

Any person or organization for which the insured has agreed by written contract executed prior to loss to furnish this waiver.

8/31/2021

DATE OF ISSUE:

ST ASSIGN:



PROCUREMENT DEPARTMENT

DESIGN & CONSTRUCTION DIVISION • 150 W. CONGRESS STREET, 5th FLOOR • TUCSON, ARIZONA 85701-1317 TELEPHONE (520) 724-8221

INSURANCE CARRIER VERIFIES PIMA COUNTY IS NAMED AS ADDITIONAL INSURED TO THE COMPREHENSIVE COMMERCIAL GENERAL LIABILITY POLICY <u>AND</u> THE COMPREHENSIVE AUTOMOBILE LIABILITY POLICY REFERENCED BELOW, THE COUNTY BEING ADDED BY <u>ENDORSEMENT</u> TO THE POLICIES.

	•
Insured Firm	
General Liability - AWAC 6004-0078 Automobile Liability - VTC2K-CAP-3K990386-IND-20	
Policy Number	
General Liability - Allied World National Assurance Automobile Liability - Travelers Indemnity Company	
Insurance Carrier	
Steve Carvajal	Steve Carvajal
Authorized Carrier Signature	Printed Name
08-31-2021	
Date of Signature	
NOTE THE LOCAL PROPERTY OF THE	

Borderland Construction Company Inc.

NOTE: This document must be included with Insurance Certificates at time of signing contract or renewing contract.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 8/31/2021

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

REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on

this certificate does not comer rights to the certificate holder in fled of such endorsement(s).					
PRODUCER Carstin Insurance Partners, LLC		CONTACT NAME: Steve Carvajal			
20 E. White Mountain Blvd #A5 301		PHONE (A/C, No, Ext): 480-659-4927	FAX (A/C, No): 480-659-4315		
Lakeside AZ 85929		E-MAIL ADDRESS: Stevec@carstin.com			
		INSURER(S) AFFORDING COVERAGE	NAIC#		
<u> </u>	License#: 8590477	INSURER A : Allied World National Assuranc	10690		
Borderland Construction Company, Inc. 400 E. 38th St. Tucson AZ	BORDCON-01	INSURER B: Travelers Indemnity Company	25666		
		insurer c : Travelers Property & Casualty	36161		
		INSURER D : Westchester Surplus Lines Insu	. 10172		
•		INSURER E : Allied World Assurance Company	19489		
		INSURER F:			
400 E. 38th St.		INSURER D: Westchester Surplus Lines Insu INSURER E: Allied World Assurance Company	10172		

COVERAGES

CERTIFICATE NUMBER: 2131242429

REVISION NUMBER:

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

INSR LTR		TYPE OF INSURANCE		SUBR WVD		POLICY EFF (MM/DD/YYYY)	POLICY EXP	LÍMIT	·
Α	Х	COMMERCIAL GENERAL LIABILITY	Υ	Y	AWAC 6004-0078	11/1/2020	11/1/2021	EACH OCCURRENCE	\$1,000,000
	<u> </u>	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000
					·			MED EXP (Any one person)	\$
İ		·			. •			PERSONAL & ADV INJURY	\$ 1,000,000
	GEN	N'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$ 2,000,000
		POLICY X PRO-			·			PRODUCTS - COMP/OP AGG	\$2,000,000
		OTHER:					L.,		\$.
В	_	OMOBILE LIABILITY	Y	Y	VTC2K-CAP-3K990386-IND-20	11/1/2020	11/1/2021	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	Х	ANY AUTO						BODILY INJURY (Per person)	\$
		OWNED SCHEDULED AUTOS ONLY AUTOS			•		٠.,	BODILY INJURY (Per accident)	\$
	Х	HIRED X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	\$
									\$ -
Е	Х	UMBRELLA LIAB X OCCUR			AWAC 0309-8309	11/1/2020	11/1/2021	EACH OCCURRENCE	\$ 15,000,000
		EXCESS LIAB CLAIMS-MADE					+	AGGREGATE	\$
		DED X RETENTION \$ 10 000							\$
С		RKERS COMPENSATION EMPLOYERS' LIABILITY Y / N		Υ	UB-3R234190-20-25-D	11/1/2020	11/1/2021	X PER OTH- STATUTE ER	
		PROPRIETOR/PARTNER/EXECUTIVE CER/MEMBER EXCLUDED?	N/A					E.L. EACH ACCIDENT	\$1,000,000
	(Man	idatory in NH)	,					E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
	DES	CRIPTION OF OPERATIONS below			<u>.</u>			E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
DC		ution Liability tractors Equipment	· N		G71193317 001 QT-630-3R068632-TIL-20	12/22/2019 11/1/2020	11/1/2021 11/1/2021	3,000,000 As Per Schedule	6,000,000
C	Buile	ders Risk			QT-660-1R575450-TIL-21	10-01-21	10-01-22		\$4,500,000
L		ION OF OPERATIONS II SOATIONS WE							

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

DESCRIPTION of OPERATIONS/LOCATIONS/VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Pima County, Pima County Department of Transportion, its departments, districts, boards, commissions,
officers, officials, agents, and employees, and any/all others as their interests may appear, are additional insureds as regards the General, Automobile, and
Umbrella Liability policies when required by written contract. Waiver of subrogation in favor of Pima County, Pima County Department of Transportion, its
departments, districts, boards, commissions officers, officials, agents, and employees, and any/all others as their interests may appear, applies with regard to
the General, Automobile, and Umbrella policies, and to the Workers Compensation policy when required by written contract. All coverages are primary and
non-contributory when required by written contract. 30 day notice of cancellation with notice to certificate holder applies in accordance with State law.

Project: Job Order Master Agreement: Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services

CERTIFICATE HOLDER	CANCELLATION		
Pima County Procurement Design & Construction 150 W. Congress	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.		
5th Floor Tucson AZ 85701 USA	AUTHORIZED REPRESENTATIVE		

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location(s) Of Covered Operations
Where Required by Written Contract	
Pima County and its officers, officials and employees are named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor	Any and all projects performed by, or on behalf of, the insured for the certificate holder.
Information required to complete this Schedule, if not show	n above, will be shown in the Declarations

- A. Section II Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
 - 1. Your acts or omissions; or
 - The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above

However:

- The insurance afforded to such additional insured only applies to the extent permitted by law; and
- 2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

- 1. Required by the contract or agreement; or
- 2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

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

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations			
Where Required by Written Contract Pima County and its officers, officials and employees are named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor	Any and all projects performed by, or on behalf of, the insured for the certificate holder.			
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.				

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodify injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

- The insurance afforded to such additional insured only applies to the extent permitted by law; and
- If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

- 1. Required by the contract or agreement; or
- 2. Available under the applicable Limits of Insurance shown in the Declarations:

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

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

SCHEDULE

Name Of Person Or Organization: Any person or organization against whom you have agreed to waive your right of recovery in a written contract, proved such contract was executed prior to the date of loss. Including Pima County, and its officers, officials, and employees for losses arising from Work performed by or on behalf of the Contractor.

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

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

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

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BLANKET ADDITIONAL INSURED - PRIMARY AND NON-CONTRIBUTORY WITH OTHER INSURANCE - CONTRACTORS

This endorsement modifies insurance provided under the following: BUSINESS AUTO COVERAGE FORM

PROVISIONS

 The following is added to Paragraph c. in A.1., Who Is An Insured, of SECTION II – COVERED AUTOS LIABILITY COVERAGE:

This includes any person or organization who you are required under a written contract or agreement, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to name as an additional insured for Covered Autos Liability Coverage, but only for damages to which this insurance applies and only to the extent of that person's or organization's liability for the conduct of another "insured".

 The following is added to Paragraph B.5., Other Insurance of SECTION IV – BUSINESS AUTO CONDITIONS:

Regardless of the provisions of paragraph a. and paragraph d. of this part 5. Other Insurance, this insurance is primary to and non-contributory with applicable other insurance under which an additional insured person or organization is a named insured when a written contract or agreement with you, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, requires this insurance to be primary and non-contributory.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BUSINESS AUTO EXTENSION ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

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

GENERAL DESCRIPTION OF COVERAGE – This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to the Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Limitations and exclusions may apply to these coverages. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- A. BROAD FORM NAMED INSURED
- B. BLANKET ADDITIONAL INSURED
- C. EMPLOYEE HIRED AUTO
- D. EMPLOYEES AS INSURED
- E. SUPPLEMENTARY PAYMENTS INCREASED LIMITS
- F. HIRED AUTO LIMITED WORLDWIDE COVERAGE INDEMNITY BASIS
- G. WAIVER OF DEDUCTIBLE GLASS

PROVISIONS

A. BROAD FORM NAMED INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – LIABILITY COVERAGE:

Any organization you newly acquire or form during the policy period over which you maintain 50% or more ownership interest and that is not separately insured for Business Auto Coverage. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

B. BLANKET ADDITIONAL INSURED

The following is added to Paragraph c. in A.1., Who Is An Insured, of SECTION II – LIABILITY COVERAGE:

This includes any person or organization who you are required under a written contract or agreement between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to name

- H. HIRED AUTO PHYSICAL DAMAGE LOSS OF USE INCREASED LIMIT
- PHYSICAL DAMAGE TRANSPORTATION EXPENSES - INCREASED LIMIT
- J. PERSONAL EFFECTS
- K. AIRBAGS
- L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS
- M. BLANKET WAIVER OF SUBROGATION
- N. UNINTENTIONAL ERRORS OR OMISSIONS

as an additional insured for Liability Coverage, but only for damages to which this insurance applies and only to the extent of that person's or organization's liability for the conduct of another "insured".

C. EMPLOYEE HIRED AUTO

The following is added to Paragraph A.1.,
 Who is An insured, of SECTION II –
 LIABILITY COVERAGE:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

- The following replaces Paragraph b. in B.5.,
 Other Insurance, of SECTION IV –
 BUSINESS AUTO CONDITIONS:
 - b. For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

- (1) Any covered "auto" you lease, hire, rent or borrow; and
- (2) Any covered "auto" hired or rented by your "employee" under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

D. EMPLOYEES AS INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – LIABILITY COVERAGE:

Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

E. SUPPLEMENTARY PAYMENTS - INCREASED LIMITS

- The following replaces Paragraph A.2.a.(2), of SECTION II – LIABILITY COVERAGE:
 - (2) Up to \$3,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.
- The following replaces Paragraph A.2.a.(4), of SECTION II LIABILITY COVERAGE:
 - (4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

F. HIRED AUTO - LIMITED WORLDWIDE COVERAGE - INDEMNITY BASIS

The following replaces Subparagraph e. in Paragraph B.7., Policy Term, Coverage Territory, of SECTION IV – BUSINESS AUTO CONDITIONS:

e. Anywhere in the world, except any country or jurisdiction while any trade sanction, embargo, or similar regulation imposed by the United States of America applies to and prohibits the transaction of business with or within such country or jurisdiction, for Liability Coverage for any covered "auto" that you lease, hire, rent or borrow without a driver for a period of 30 days or less and that is not an "auto" you lease, hire, rent or borrow from any of your "employees", partners (if you are a partnership), members (if you are a limited

liability company) or members of their households.

- (1) With respect to any claim made or "suit" brought outside the United States of America, the territories and possessions of the United States of America, Puerto Rico and Canada:
 - (a) You must arrange to defend the "insured" against, and investigate or settle any such claim or "suit" and keep us advised of all proceedings and actions.
 - (b) Neither you nor any other involved "insured" will make any settlement without our consent.
 - (c) We may, at our discretion, participate in defending the "insured" against, or in the settlement of, any claim or "suit".
 - (d) We will reimburse the "insured":
 - (i) For sums that the "insured" legally must pay as damages because of "bodily injury" or "property damage" to which this insurance applies, that the "insured" pays with our consent, but only up to the limit described in Paragraph C., Limit Of Insurance, of SECTION II LIABILITY COVERAGE:
 - (ii) For the reasonable expenses incurred with our consent for your investigation of such claims and your defense of the "insured" against any such "suit", but only up to and included within the limit described in Paragraph C., Limit Of Insurance, of SECTION II -LIABILITY COVERAGE, and not in addition to such limit. Our duty to make such payments ends when we have used up the applicable limit of insurance in payments for damages, settlements or defense expenses.
- (2) This insurance is excess over any valid and collectible other insurance available to the "insured" whether primary, excess contingent or on any other basis.
- (3) This insurance is not a substitute for required or compulsory insurance in any country outside the United States, its

territories and possessions, Puerto Rico and Canada.

You agree to maintain all required or compulsory insurance in any such country up to the minimum limits required by local law. Your failure to comply with compulsory insurance requirements will not invalidate the coverage afforded by this policy, but we will only be liable to the same extent we would have been liable had you complied with the compulsory insurance requirements.

(4) It is understood that we are not an admitted or authorized insurer outside the United States of America, its territories and possessions, Puerto Rico and Canada. We assume no responsibility for the furnishing of certificates of insurance, or for compliance in any way with the laws of other countries relating to insurance.

G. WAIVER OF DEDUCTIBLE - GLASS

The following is added to Paragraph D., Deductible, of SECTION III - PHYSICAL DAMAGE COVERAGE:

No deductible for a covered "auto" will apply to glass damage if the glass is repaired rather than replaced.

H. HIRED AUTO PHYSICAL DAMAGE – LOSS OF USE – INCREASED LIMIT

The following replaces the last sentence of Paragraph A.4.b., Loss Of Use Expenses, of SECTION III - PHYSICAL DAMAGE COVERAGE:

However, the most we will pay for any expenses for loss of use is \$65 per day, to a maximum of \$750 for any one "accident".

I. PHYSICAL DAMAGE - TRANSPORTATION EXPENSES - INCREASED LIMIT

The following replaces the first sentence in Paragraph A.4.a., Transportation Expenses, of SECTION III - PHYSICAL DAMAGE COVERAGE:

We will pay up to \$50 per day to a maximum of \$1,500 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type.

J. PERSONAL EFFECTS

The following is added to Paragraph A.4., Coverage Extensions, of SECTION III – PHYSICAL DAMAGE COVERAGE:

Personal Effects

We will pay up to \$400 for "loss" to wearing apparel and other personal effects which are:

- (1) Owned by an "insured"; and
- (2) In or on your covered "auto".

This coverage applies only in the event of a total theft of your covered "auto".

No deductibles apply to this Personal Effects coverage.

K. AIRBAGS

The following is added to Paragraph B.3., Exclusions, of SECTION III - PHYSICAL DAMAGE COVERAGE:

Exclusion 3.a. does not apply to "loss" to one or more airbags in a covered "auto" you own that inflate due to a cause other than a cause of "loss" set forth in Paragraphs A.1.b. and A.1.c., but only:

- a. If that "auto" is a covered "auto" for Comprehensive Coverage under this policy;
- The airbags are not covered under any warranty; and
- c. The airbags were not intentionally inflated.

We will pay up to a maximum of \$1,000 for any one "loss".

L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS

The following is added to Paragraph A.2.a., of SECTION IV – BUSINESS AUTO CONDITIONS:

Your duty to give us or our authorized representative prompt notice of the "accident" or "loss" applies only when the "accident" or "loss" is known to:

- (a) You (if you are an individual);
- (b) A partner (if you are a partnership);
- (c) A member (if you are a limited liability company);
- (d) An executive officer, director or insurance manager (if you are a corporation or other organization); or
- (e) Any "employee" authorized by you to give notice of the "accident" or "loss".

M. BLANKET WAIVER OF SUBROGATION

The following replaces Paragraph A.5., Transfer Of Rights Of Recovery Against Others To Us, of SECTION IV — BUSINESS AUTO CONDITIONS:

5. Transfer Of Rights Of Recovery Against Others To Us

We waive any right of recovery we may have against any person or organization to the extent required of you by a written contract signed and executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. The waiver applies only to the person or organization designated in such contract.

N. UNINTENTIONAL ERRORS OR OMISSIONS

The following is added to Paragraph B.2., Concealment, Misrepresentation, Or Fraud, of SECTIONIV – BUSINESS AUTO CONDITIONS:

The unintentional omission of, or unintentional error in, any information given by you shall not prejudice your rights under this insurance. However this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.



WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 00 03 13 (00)-

POLICY NUMBER: UB-3R234190-20-25-D

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

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

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

SCHEDULE

DESIGNATED PERSON:

Any person or organization for which the insured has agreed by written contract executed prior to loss to furnish this waiver.

Pima County Procurement

DESIGNATED ORGANIZATION:

Any person or organization for which the insured has agreed by written contract executed prior to loss to furnish this waiver.

8/31/2021

DATE OF ISSUE:

ST ASSIGN:

Bond No. 107500779

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

KNOW ALL MEN BY THESE PRESENTS THAT:

Borderland Construction Company, Inc.

(hereinafter "Principal"), as Principal, and <u>Travelers Casualty and Surety Company of America</u> (hereinafter "Surety"), a corporation organized and existing under the laws of the State of <u>Connecticut</u> with its principal office in the City of <u>Hartford, CT</u> , holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto Pima County, Arizona (hereinafter "Obligee") in the amount of One Million and 00/100 Dollars (\$1,000,000.00) for the payment where Principal and Surety
bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and sever ally, firmly by these presents.
WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the of, for:
Job Order Master Agreement: Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services
which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.
NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of the contract during the original term of the contract and any extension of the contract, with or without notice 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 of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copies at length in this Contract.
The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.
Witness our hands this <u>2nd</u> day of <u>September</u> , 2021
Borderland Construction Company, Inc. By:
Travelers Casualty and Surety Company of America By: Debbie, Clayton, Attomey in Fract
Debbie, Gayton, Sittyrney-pyracting

ARIZONA STATUTORY PAYMENT BOND

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

KNOW ALL MEN BY THESE PRESENTS THAT:

Borderland Construction Company, Inc.

(hereinafter "Principal"), as Principal, andTravelers Casu	
(hereinafter "Surety"), a corporation organized and existing with its principal office in the City of Hartford, CT surety business in Arizona issued by the Director of Depart 2, Article 1, as Surety, are held and firmly bound unto Pim of One Million and 00/100 Dollars (\$1,000,000.00) for themselves, and their heirs, administrators, executors, sfirmly by these presents.	_, holding a certificate of authority to transact tment of Insurance pursuant to Title 20, Chapter na County (hereinafter "Obligee") in the amount he payment whereof Principal and Surety bind
WHEREAS, the Principal has entered into a certain writte, for:	n contract with the Obligee, dated the of
Job Order Master Agreement: Wastewater Conveyar Rehabilitation & Construc	nce System and Related Facilities Repair, ction Services
which contract is hereby referred to and made a part here at length herein.	eof as fully and to the same extent as if copied
NOW, THEREFORE, THE CONDITION OF THE OBLIGATION OF THE OBLIGATION OF THE OBLIGATION OF THE OBLIGATION OF THE WORK PROVIDED FOR IT IS THE WORK PROVIDED FOR IT IS THE WORK PROVIDED FOR IT IS THE WORK PROVIDED FOR IT IS NOW.	materials to the Principal or the Principal's
PROVIDED, HOWEVER, that this bond is executed purs Article 2, Arizona Revised Statutes, and all liabilities on thi the provisions, conditions and limitations of Title 34, Cha the same extent as if it were copied at length in this Contr	s bond shall be determined in accordance with pter 2, Article 2, Arizona Revised Statutes, to
The prevailing party in a suit on this bond shall recover as that may be fixed by a judge in the court.	part of the judgment reasonable attorney fees
Witness our hands this <u>2nd</u> day of <u>September</u> , 20	$\mathcal{A}_{\mathcal{A}}}}}}}}}}$
Borderland Construction Company, Inc.	y 1000)
Principal	Ann A Manna
Travelers Casualty and Surety Company of America B	y hillre (layton)
Surety	Debbie Clayton, Attorney-n-Fact
	To Engraphical Co
	1 (1) (2) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4



Travelers Casualty and Surety Company of America Travelers Casualty and Surety Company St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint DEBBIE CLAYTON of TEMPE.

Arizona, their true and lawful Attomey(s)-in-Fact to sign, execute, seal and controlled the state of the sign of the state of the sign of the state of the sign of the state of the sign of the sign of the state of the sign of the state of the sign of the sign of the state of the sign of the state of the sign of the state of the sign of the sign of the state of the sign of the sign of the state of the sign of the s

acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 21st day of April, 2021.







State of Connecticut

City of Hartford ss.

On this the 21st day of April, 2021, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2026



Anna P. Nowik, Notary Public

Senior Vice President

This Power of Attomey is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

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

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

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

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

I, Kevin E. Hughes, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 2nd day of September , 2021









Kevin E. Hughes, Assistant Secretary

KWINSLOW

ACORD

CERTIFICATE OF LIABILITY INSURANCE

9/1/2021

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

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

	is certificate does not confer rights	to the	e cerí	inicate nolder in lieu of su							
-	DUCER				CONTA NAME:		<u></u>	····			
Hill & Usher Insurance & Surety 3033 N 44th St Ste 300 PHONE (A/C, No, Ext)											
	enix, AZ 85018				E-MAIL ADDRE	ss. doccont	rol@hillusl	ner.com			
								RDING COVERAGE		NAIC#	
	•			,	INCIDE			y Casualty Co		25674	
INSURED						RB: Charter			-	25615	
						25658					
Ellison Mills Construction LLC 3152 North Lear #2						INSURER C : Travelers Indemnity Company					
	Casa Grande, AZ 85122-814			INSURE	-						
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INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP	LIMI	TS		
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						i		MED EXP (Any one person)	\$	· · · · · ·	
		-	'					PERSONAL & ADV INJURY	\$	1,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE	\$	2,000,000	
	POLICY X LEGT LOC							PRODUCTS - COMP/OP AGG	\$	2,000,000	
В	OTHER: AUTOMOBILE LIABILITY	-						COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000	
	X ANY AUTO			810-1L664790		12/31/2020	12/3 1/20 21	\	1	, .	
	OWNED SCHEDULED AUTOS ONLY AUTOS					12/01/2020	120 1/2021	BODILY INJURY (Perperson)	\$		
	HIRED NON-OWNED AUTOS ONLY							BODILY INJURY (Per accident PROPERTY DAMAGE (Per accident)			
	AUTOS ONLY AUTOS ONLY							(Per accident)	\$		
	UMEDIE LA LIAD	+	+				- :		\$		
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		-						AGGREGATE	\$		
С	DED RETENTION \$	-	ļ			,		N/ DER OTH	\$		
•	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			UB-8J493223		40/24/2000	40/04/00/04	X PER STATUTE OTH-	<u> </u>		
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N/A		UD-0J493223		12/31/2020	12/31/2021	E.L EACH ACCIDENT	\$	1,000,000	
	(Mandatory in NH) If yes, describe under	'		·				E.L. DISEASE - EA EMPLOYE	<u>=</u> \$	1,000,000	
	DESCRIPTION OF OPERATIONS below		ļ.,					E.L DISEASE - POLICY LIMIT	\$	1,000,000	
	Equipment Floater			6606096X643		12/31/2020		LEASED/RENTED		1,000,000	
В	Equipment Floater			6606096X643		12/31/2020	12/31/2021	DED		2,500	
	CRIPTION OF OPERATIONS / LOCATIONS / VEHICL WASTEWATER CONVEYANCE SYSTEM	LES (A	ACORE	 101, Additional Remarks Schedul TED FACILITIES REPAIR, R	le, may b EHABI	e attached if mon LITATION & C	e space is requir CONSTRUCT	red) NON SERVICES. ADDITIC	NAL IN	ISURED .	
υr	MS CGD 246 & CAT 353 ATTACHED.				-						
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CEI	RTIFICATE HOLDER				CANC	ELLATION					
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	PIMA COUNTY 150 W CONGRESS ST, 5TH Tucson, AZ 85701	FLO	OR		THE	EXPIRATION	DATE TH	ESCRIBED POLICIES BE C IEREOF, NOTICE WILL Y PROVISIONS.			
	1 445011, 112 00101				AUTHORIZED REPRESENTATIVE						
					-						
					Tel	and Blesker		•			

THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY.

BLANKET ADDITIONAL INSURED

(Includes Products-Completed Operations If Required By Contract)

This endorsement modifies insurance provided under the following: COMMERCIAL GENERAL LIABILITY COVERAGE PART

PROVISIONS

The following is added to **SECTION II – WHO IS AN INSURED**:

Any person or organization that you agree in a written contract or agreement to include as an additional insured on this Coverage Part is an insured but only:

- a. With respect to liability for "bodily injury" or "property damage" that occurs, or for "personal injury" caused by an offense that is committed, subsequent to the signing of that contract or agreement and while that part of the contract or agreement is in effect; and
- b. If, and only to the extent that, such injury or damage is caused by acts or omissions of you or your subcontractor in the performance of "your work" to which the written contract or agreement applies. Such person or organization does not qualify as an additional insured with respect to the independent acts or omissions of such person or organization.

The insurance provided to such additional insured is subject to the following provisions:

- a. If the Limits of Insurance of this Coverage Part shown in the Declarations exceed the minimum limits required by the written contract or agreement, the insurance provided to the additional insured will be limited to such minimum required limits. For the purposes of determining whether this limitation applies, the minimum limits required by the written contract or agreement will be considered to include the minimum limits of any Umbrella or Excess liability coverage required for the additional insured by that written contract or agreement. This provision will not increase the limits of insurance described in Section III Limits Of Insurance:
- **b.** The insurance provided to such additional insured does not apply to:

- (1) Any "bodily injury", "property damage" or "personal injury" arising out of the providing, or failure to provide, any professional architectural, engineering or surveying services, including:
 - (a) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders or change orders, or the preparing, approving, or failing to prepare or approve, drawings and specifications; and
 - (b) Supervisory, inspection, architectural or engineering activities.
- (2) Any "bodily injury" or "property damage" caused by "your work" and included in the "products-completed operations hazard" unless the written contract or agreement specifically requires you to provide such coverage for that additional insured during the policy period.
- c. The additional insured must comply with the following duties:
 - (1) Give us written notice as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, such notice should include:
 - (a) How, when and where the "occurrence" or offense took place;
 - (b) The names and addresses of any injured persons and witnesses; and
 - (c) The nature and location of any injury or damage arising out of the "occurrence" or offense.
 - (2) If a claim is made or "suit" is brought against the additional insured:

COMMERCIAL GENERAL LIABILITY

- (a) Immediately record the specifics of the claim or "suit" and the date received, and
- (b) Notify us as soon as practicable and see to it that we receive written notice of the claim or "suit" as soon as practicable.
- (3) Immediately send us copies of all legal papers received in connection with the claim or "suit", cooperate with us in the investigation or settlement of the claim or defense against the "suit", and otherwise comply with all policy conditions.
- (4) Tender the defense and indemnity of any claim or "suit" to any provider of other insurance which would cover such additional insured for a loss we cover. However, this condition does not affect whether the insurance provided to such additional insured is primary to other insurance available to such additional insured which covers that person or organization as a named insured as described in Paragraph 4., Other Insurance, of Section IV Commercial General Liability Conditions.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BUSINESS AUTO EXTENSION ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

GENERAL DESCRIPTION OF COVERAGE – This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to the Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Limitations and exclusions may apply to these coverages. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- A. BROAD FORM NAMED INSURED
- B. BLANKET ADDITIONAL INSURED
- C. EMPLOYEE HIRED AUTO
- D. EMPLOYEES AS INSURED
- E. SUPPLEMENTARY PAYMENTS INCREASED LIMITS
- F. HIRED AUTO LIMITED WORLDWIDE COV-ERAGE – INDEMNITY BASIS
- G. WAIVER OF DEDUCTIBLE GLASS

PROVISIONS

A. BROAD FORM NAMED INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – COVERED AUTOS LIABILITY COVERAGE:

Any organization you newly acquire or form during the policy period over which you maintain 50% or more ownership interest and that is not separately insured for Business Auto Coverage. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

B. BLANKET ADDITIONAL INSURED

The following is added to Paragraph c. in A.1., Who Is An Insured, of SECTION II – COVERED AUTOS LIABILITY COVERAGE:

Any person or organization who is required under a written contract or agreement between you and that person or organization, that is signed and executed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to be named as an additional insured is an "insured" for Covered Autos Liability Coverage, but only for damages to which

- H. HIRED AUTO PHYSICAL DAMAGE LOSS OF USE INCREASED LIMIT
- I. PHYSICAL DAMAGE TRANSPORTATION EXPENSES INCREASED LIMIT
- J. PERSONAL PROPERTY
- K. AIRBAGS
- L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS
- M. BLANKET WAIVER OF SUBROGATION
- N. UNINTENTIONAL ERRORS OR OMISSIONS

this insurance applies and only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Section II.

C. EMPLOYEE HIRED AUTO

 The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – COV-ERED AUTOS LIABILITY COVERAGE:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business.

- The following replaces Paragraph b. in B.S., Other Insurance, of SECTION IV – BUSI-NESS AUTO CONDITIONS:
 - b. For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:
 - (1) Any covered "auto" you lease, hire, rent or borrow; and
 - (2) Any covered "auto" hired or rented by your "employee" under a contract in an "employee's" name, with your

COMMERCIAL AUTO

permission, while performing duties related to the conduct of your business.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

D. EMPLOYEES AS INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – COVERED AUTOS LIABILITY COVERAGE:

Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

E. SUPPLEMENTARY PAYMENTS - INCREASED LIMITS

- The following replaces Paragraph A.2.a.(2), of SECTION II – COVERED AUTOS LIABIL-ITY COVERAGE:
 - (2) Up to \$3,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.
- The following replaces Paragraph A.2.a.(4), of SECTION II – COVERED AUTOS LIABIL-ITY COVERAGE:
 - (4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

F. HIRED AUTO – LIMITED WORLDWIDE COV-ERAGE – INDEMNITY BASIS

The following replaces Subparagraph (5) in Paragraph B.7., Policy Period, Coverage Territory, of SECTION IV – BUSINESS AUTO CONDITIONS:

(5) Anywhere in the world, except any country or jurisdiction while any trade sanction, embargo, or similar regulation imposed by the United States of America applies to and prohibits the transaction of business with or within such country or jurisdiction, for Covered Autos Liability Coverage for any covered "auto" that you lease, hire, rent or borrow without a driver for a period of 30 days or less and that is not an "auto" you lease, hire, rent or borrow from any of your "employees", partners (if you are a partnership), members (if you are a limited liability company) or members of their households.

- (a) With respect to any claim made or "suit" brought outside the United States of America, the territories and possessions of the United States of America, Puerto Rico and Canada;
 - (i) You must arrange to defend the "insured" against, and investigate or settle any such claim or "suit" and keep us advised of all proceedings and actions.
 - (ii) Nether you nor any other involved "insured" will make any settlement without our consent.
 - (iii) We may, at our discretion, participate in defending the "insured" against, or in the settlement of, any claim or "suit".
 - (iv) We will reimburse the "insured" for sums that the "insured" legally must pay as damages because of "bodily injury" or "property damage" to which this insurance applies, that the "insured" pays with our consent, but only up to the limit described in Paragraph C., Limits Of Insurance, of SECTION II COVERED AUTOS LIABILITY COVERAGE.
 - (v) We will reimburse the "insured" for the reasonable expenses incurred with our consent for your investigation of such claims and your defense of the "insured" against any such "suit", but only up to and included within the limit described in Paragraph C., Limits Of Insurance, of SECTION II COVERED AUTOS LIABILITY COVERAGE, and not in addition to such limit. Our duty to make such payments ends when we have used up the applicable limit of insurance in payments for damages, settlements or defense expenses.
- (b) This insurance is excess over any valid and collectible other insurance available to the "insured" whether primary, excess, contingent or on any other basis.
- (c) This insurance is not a substitute for required or compulsory insurance in any country outside the United States, its territories and possessions, Puerto Rico and Canada.

You agree to maintain all required or compulsory insurance in any such country up to the minimum limits required by local law. Your failure to comply with compulsory insurance requirements will not invalidate the coverage afforded by this policy, but we will only be liable to the same extent we would have been liable had you complied with the compulsory insurance requirements.

(d) It is understood that we are not an admitted or authorized insurer outside the United States of America, its territories and possessions, Puerto Rico and Canada. We assume no responsibility for the furnishing of certificates of insurance, or for compliance in any way with the laws of other countries relating to insurance.

G. WAIVER OF DEDUCTIBLE - GLASS

The following is added to Paragraph D., Deductible, of SECTION III – PHYSICAL DAMAGE COVERAGE:

No deductible for a covered "auto" will apply to glass damage if the glass is repaired rather than replaced.

H. HIRED AUTO PHYSICAL DAMAGE – LOSS OF USE – INCREASED LIMIT

The following replaces the last sentence of Paragraph A.4.b., Loss Of Use Expenses, of SECTION III – PHYSICAL DAMAGE COVERAGE:

However, the most we will pay for any expenses for loss of use is \$65 per day, to a maximum of \$750 for any one "accident".

I. PHYSICAL DAMAGE - TRANSPORTATION EXPENSES - INCREASED LIMIT

The following replaces the first sentence in Paragraph A.4.a., Transportation Expenses, of SECTION III – PHYSICAL DAMAGE COVERAGE:

We will pay up to \$50 per day to a maximum of \$1,500 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type.

J. PERSONAL PROPERTY

The following is added to Paragraph A.4., Coverage Extensions, of SECTION III – PHYSICAL DAMAGE COVERAGE:

Personal Property

We will pay up to \$400 for "loss" to wearing apparel and other personal property which is:

(1) Owned by an "insured"; and

(2) In or on your covered "auto".

This coverage applies only in the event of a total theft of your covered "auto".

No deductibles apply to this Personal Property coverage.

K. AIRBAGS

The following is added to Paragraph B.3., Exclusions, of SECTION III – PHYSICAL DAMAGE COVERAGE:

Exclusion **3.a.** does not apply to "loss" to one or more airbags in a covered "auto" you own that inflate due to a cause other than a cause of "loss" set forth in Paragraphs **A.1.b.** and **A.1.c.**, but only:

- **a.** If that "auto" is a covered "auto" for Comprehensive Coverage under this policy;
- The airbags are not covered under any warranty; and
- **c.** The airbags were not intentionally inflated. We will pay up to a maximum of \$1,000 for any one "loss".

L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS

The following is added to Paragraph A.2.a., of SECTION IV — BUSINESS AUTO CONDITIONS:

Your duty to give us or our authorized representative prompt notice of the "accident" or "loss" applies only when the "accident" or "loss" is known to

- (a) You (if you are an individual):
- (b) A partner (if you are a partnership);
- (c) A member (if you are a limited liability company);
- (d) An executive officer, director or insurance manager (if you are a corporation or other organization); or
- (e) Any "employee" authorized by you to give notice of the "accident" or "loss".

M. BLANKET WAIVER OF SUBROGATION

The following replaces Paragraph A.S., Transfer Of Rights Of Recovery Against Others To Us, of SECTION IV - BUSINESS AUTO CONDITIONS:

5. Transfer Of Rights Of Recovery Against Others To Us

We waive any right of recovery we may have against any person or organization to the extent required of you by a written contract signed and executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by

COMMERCIAL AUTO

such contract. The waiver applies only to the person or organization designated in such contract.

N. UNINTENTIONAL ERRORS OR OMISSIONS
The following is added to Paragraph B.2., Concealment, Misrepresentation, Or Fraud, of SECTION IV – BUSINESS AUTO CONDITIONS:

The unintentional omission of, or unintentional error in, any information given by you shall not prejudice your rights under this insurance. However this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.



EVIDENCE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY) 9/7/2021

ADDITIONAL INTERES COVERAGE AFFORDS	PROPERTY INSURANCE IS ISSUED AS A N ST NAMED BELOW. THIS EVIDENCE DOES ED BY THE POLICIES BELOW. THIS EVIDE AUTHORIZED REPRESENTATIVE OR PRODUC	NOT AFFIRMATIVELY OF	R NEGATIVELY A ESNOT CONSTITU	MEND, EXTEND (OR ALTER THE
AGENCY	PHONE (A/C, No, Ext): (800) 956-4220	COMPANY			
Hill & Usher Insurance & 3033 N 44th St Ste 300 Phoenix, AZ 85018		The Hanover Insuran	ce Company		
FAX (A/C, No): (602) 956-4418	E-MAIL ADDRESS: doccontrol@hillusher.com		·		
CODE: 2301640	SUB CODE:			٠	
AGENCY CUSTOMER ID #: ELLIMIL-0'	1				
	Construction LLC	LOAN NUMBER		POLICY NUMBER	
3152 N Lear Casa Grande	Ave Ste 2 e, AZ 85122-8146			HAU09072021	:
- January	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	EFFECTIVE DATE	EXPIRATION DAT		ED LINE
		9/7/2021	9/7/2022	TERMINA	ED UNTIL FED IF CHECKED
	•	THIS REPLACES PRIOR EVI	DENCE DATED:		
PROPERTY INFORMATI	ON			••	
LOCATION/DESCRIPTION					
Multiple- Sewer Ma	uintenance for Pima County, AZ				
NOTWITHSTANDING AN EVIDENCE OF PROPER SUBJECT TO ALL THE TE	JRANCE LISTED BELOW HAVE BEEN ISSUED IY REQUIREMENT, TERM OR CONDITION OF ITY INSURANCE MAY BE ISSUED OR MAY PER ERMS, EXCLUSIONS AND CONDITIONS OF SUC	ANY CONTRACT OR OT RTAIN, THE INSURANCE A CH POLICIES, LIMITS SHOW	HER DOCUMENT	WITH RESPECT T	O WHICH THIS
COVERAGE INFORMAT	ION PERILS INSURED BASIC COVERAGE / PERILS / FORMS	BROAD X SPECIA		OUNT OF INSURANCE	DEDUCTIBLE
Builders Risk- Covered Pro	pay for all "Loss" in any one occurrence, includir		pplicable)	\$500,000 \$1,000,000 \$100,000 \$100,000	2,500
4.5				• *	
REMARKS (Including S	pecial Conditions)		1	-	
CANCELLATION					
SHOULD ANY OF T	HE ABOVE DESCRIBED POLICIES BE CA DANCE WITH THE POLICY PROVISIONS.	NCELLED BEFORE THE	EXPIRATION DAT	TE THEREOF, NO	TICE WILL BE
ADDITIONAL INTEREST					
NAME AND ADDRESS		ADDITIONAL INSURED MORTGAGEE	LENDER'S LOSS PA	AYABLE X LO	SS PAYEE
		LOAN #	<u> </u>		
PIMA CO	NUNTY ONGRESS ST, 5TH FLOOR				
	, AZ 85701	AUTHORIZED REPRESENTAT	WE .	· ·	
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		- CHILLY 17 WHEN			

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

KNOW ALL MEN BY THESE PRESENTS THAT:

BOND NO. 107492492

Ellison-Mills Construction, LLC

(hereinafter "Principal"), as Principal, and <u>Travelers Casualty and Surety Company of America</u>
(hereinafter "Surety"), a corporation organized and existing under the laws of the State of Connecticut with its principal office in the City of Hartford holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto Pima County, Arizona (hereinafter "Obligee") in the amount of \$Two Million and 00/100Dollars (\$2,000,000.00), 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 21st of September, 2021 for:
Job Order Master Agreement: Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services
which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.
NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of the contract during the original term of the contract and any extension of the contract, with or without notice 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 of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copies at length in this Contract.
The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.
Witness our hands this <u>21st</u> day of <u>September</u> , 20 <u>21</u> .
Witness our hands this 21st day of September , 20 21 .
Ellison-Mills Construction, LLC
Principal
Travelers Casualty and Surety Company of America By
Surety Debraik, Williams, Attorney/in-Factive Conn.

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

KNOW ALL MEN BY THESE PRESENTS THAT:

BOND NO. 107492492

Ellison-Mills Construction, LLC

(hereinafter "Principal"), as Principal, andTrave	lers Casualty and Surety Company of America
(hereinafter "Surety"), a corporation organized a <u>Connecticut</u> , with its principal office in the City transact surety business in Arizona issued by the Dir 20, Chapter 2, Article 1, as Surety, are held and firm in the amount of \$Two Million and 00/100Dol Principal and Surety bind themselves, and their heirs, jointly and severally, firmly by these presents.	of <u>Hartford</u> , holding a certificate of authority trector of Department of Insurance pursuant to Titlely bound unto Pima County (hereinafter "Obligee" lars (\$2,000,000.00), for the payment whereo
WHEREAS, the Principal has entered into a certain v September, 2021 for:	written contract with the Obligee, dated the, 21st o
Job Order Master Agreement: Wastewater Conve Rehabilitation & Cons	eyance System and Related Facilities Repair, struction Services
which contract is hereby referred to and made a part at length herein.	hereof as fully and to the same extent as if copie
NOW, THEREFORE, THE CONDITION OF THE OB pays all monies due to all persons supplying labo subcontractors in the prosecution of the work provided it remains in full force and effect.	r or materials to the Principal or the Principal'
PROVIDED, HOWEVER, that this bond is executed Article 2, Arizona Revised Statutes, and all liabilities o the provisions, conditions and limitations of Title 34, the same extent as if it were copied at length in this C	n this bond shall be determined in accordance with Chapter 2, Article 2, Arizona Revised Statutes, to
The prevailing party in a suit on this bond shall recove that may be fixed by a judge in the court.	er as part of the judgment reasonable attorney fee
Witness our hands this <u>21st</u> day of <u>September</u> , 20	21.
Ellison-Mills Construction, LLC	By:
Principal	TO L
<u>Travelers Casualty and Suety Company of America</u> Surety	Debra K. Williams Attorney-in-Fact



Travelers Casualty and Surety Company of America Travelers Casualty and Surety Company St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Debra K. Williams** of **Mesa**

Arizona , their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 3rd day of February, 2017.







State of Connecticut

City of Hartford ss.

By: Robert L. Raney. Selfior Vice President

On this the **3rd** day of **February**, **2017**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021



Marie C. Tetreault, Notary Public

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

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

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

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

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

I, Kevin E. Hughes, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 21st

day of September

2021







Kevin E. Hughes, Assistant Secretary



SURETY BOND SEAL ADDENDUM TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

Due to logistical issues associated with the use of traditional seals during the COVID-19 pandemic, Travelers Casualty and Surety Company of America ("Travelers") has authorized its Attorneys-in-Fact to affix Travelers' corporate seal to any bond executed on behalf of Travelers by any such Attorney-in-Fact by attaching this Addendum to said bond.

To the extent this Addendum is attached to a bond that is executed on behalf of Travelers by its Attorney-in-Fact, Travelers hereby agrees that the seal below shall be deemed affixed to said bond to the same extent as if its raised corporate seal was physically affixed to the face of the bond.

Dated this 16th day of March, 2020.

Travelers Casualty and Surety Company of America



Robert L. Raney, Senior Vice President



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 9/2/2021

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

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

			·	
PRODUCER		•	CONTACT Kori L. Moseley, CISR, CPIW	-
Passey-Bond Co., Inc.			PHONE (480) 969 -22 91 FAX (A/C, No. Ext): (480, No.): (4	801832-4033
28 North Center Street			I E-MAIL 1	707033 4033
D 0 D 010			ADDRESS: KOTIME passeybond. com	•
P. O. Box 819			INSURER(S) AFFORDING COVERAGE	NAIC #
Mesa	AZ	85211-0819	INSURERA: Cincinnati Insurance Co.	10677
INSURED		· · ·		
W		•	INSURER B: Navigators Specialty Insurance Co.	36056
Hunter Contracting Co.			INSURER C: CopperPoint American Insurance Co.	13751
701 N. Cooper Road			more than the state of the stat	13/31
TT III GOODGE IWAG			INSURER D :	
			INSURER E :	
Gilbert	ΑZ	85233	INSURER F :	
COVERAGES		CERTIFICATE NUMBER:	REVISION NUMBER	

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

INSR	ACCUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.								
LTR	TYPE OF INSURANCE	INSD	SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	···.	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR						DAMAGE TO RENTED	\$ 1,000,000 \$ 500,000	
	X GA233/GA4316AZ 0917 X CG2001 0413/GA101 1204	ж.	Y	EPP0574779	5/1/2021	5/1/2022	MED EXP (Any one person)	1 000 000	
	GEN'L AGGREGATE LIMIT APPLIES PER:							1,000,000	
	OTHER:			\$10,000 per occurrence BI & PD deductible				\$ 2,000,000	
A	ANY AUTO ALL OWNED SCHEDULED			EBA0574779	5/1/2021	5/1/2022	BODILY INJURY (Per person)	1,000,000	
	X HIREO AUTOS X AUTOS X AA288 0116 X AA287 0116	х	Y	\$1,000 Comprehensive & Collision deductible			BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident)	B	
В	WMBRELLA LIAB X OCCUR X EXCESS LIAB CLAIMS-MADE DED RETENTION \$			LAZ1EXCZ088PAIC	5/1/2021	5/1/2022	EACH OCCURRENCE SAGGREGATE S	5,000,000	
c ,	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	¥	WC000313 (4-84)	5/1/2021	5/1/2022	X PER OTH- EL. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$	1,000,000	
A A	Builders Risk Excess Liability			EPP0574779	5/1/2021 5/1/2021	5/1/2022 5/1/2022	Limit - Deductible Occurrence/Aggregate	\$10mil/\$10,000 \$5,000,000	
		ــــــــــــــــــــــــــــــــــــــ							

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

Job #21432~00 Pima County Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services Pima County, AZ.

CERTIFICATE HOLDER	04110	
OEKTII TOATE HOLDER	. CANCE	ELLATION

Pima County its departments, districts, boards, commissions, officers, officials, agents and employees 150 W. Congress St 5th Floor Tucson, AZ 85701-1317 SHOULD ANY OF THEABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Bill Passey/KORI

DATION ALL INC

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CinciPlus[®] BUSINESS AUTO XC+[®] (EXPANDED COVERAGE PLUS) ENDORSEMENT

This endorsement modifies insurance provided by the following:

BUSINESS AUTO COVERAGE FORM

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

A. Blanket Waiver of Subrogation

SECTION IV - BUSINESS AUTO CONDITIONS, A. Loss Conditions, 5. Transfer of Rights of Recovery Against Others to Us is amended by the addition of the following:

We waive any right of recovery we may have against any person or organization because of payments we make for "bodily injury" or "property damage" arising out of the operation of a covered "auto" when you have assumed liability for such "bodily injury" or "property damage" under an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution or the "insured contract".

B. Noncontributory Insurance

SECTION IV - BUSINESS AUTO CONDITIONS, B. General Conditions, 5. Other Insurance c. is replaced by the following:

c. Regardless of the provisions of Paragraph a. above, this Coverage Form's Liability Coverage is primary and we will not seek contribution from any other insurance for any liability assumed under an "insured contract" that requires liability to be assumed on a primary noncontributory basis.

C. Additional Insured by Contract

SECTION II - LIABILITY COVERAGE, A. Coverage, I. Who is an Insured is amended to include as an insured any person or organization with which you have agreed in a valid written contract to provide insurance as is afforded by this policy.

This provision is limited to the scope of the valid written contract.

This provision does not apply unless the valid written contract has been:

- Executed prior to the accident causing "bodily injury" or "property damage"; and
- Is still in force at the time of the "accident" causing "bodily injury" or "property damage".

D. Employee Hired Auto

Changes in Liability Coverage

The following is added to the Section II - Liability Coverage, A. Coverage, 1. Who is an Insured:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

2. Changes in General Conditions

SECTION IV - BUSINESS AUTO CON-DITIONS, B. General Conditions, 5. Other Insurance is amended by replacing Paragraph 5.b. with the following:

- b. For Hired Auto Physical Damage Coverage the following are deemed to be covered "autos" you own:
 - (1) Any covered "auto" you lease, hire, rent or borrow; and
 - (2) Any covered "auto" hired or rented by your "employee" under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

E. Audio, Visual and Data Electronic Equipment

SECTION III - PHYSICAL DAMAGE COV-ERAGE, C. Limit of Insurance is amended by adding the following:

- 4. The most we will pay for all "loss" to audio, visual or data electronic equipment and any accessories used with this equipment as a result of any one "accident" is the lesser of:
 - The actual cash value of the damaged or stolen property as of the time of the "accident";
 - The cost of repairing or replacing the damaged or stolen property with other property of like kind and quality; or
 - **c.** \$2,500.

Provided the equipment, at the time of the "loss" is:

- a. Permanently installed in or upon the covered "auto" in a housing, opening or other location that is not normally used by the "auto" manufacturer for the installation of such equipment;
- Removable from a permanently installed housing unit as described in Paragraph 2.a. above; or
- c. An integral part of such equipment.

F. Who is an Insured - Amended

SECTION II - LIABILITY COVERAGE, A. Coverage, 1. Who is an Insured is amended by adding the following:

The following are "insureds":

- Any subsidiary which is a legally incorporated entity of which you own a financial interest of more than 50% of the voting stock on the effective date of this coverage form.
 - However, the insurance afforded by this provision does not apply to any subsidiary that is an "insured" under any other automobile liability policy, or would be an "insured" under such policy but for termination of such policy or the exhaustion of such policy's limits of insurance.
- 2. Any organization that is newly acquired or formed by you and over which you maintain majority ownership. The insurance provided by this provision:

- Is effective on the date of acquisition or formation, and is afforded for 180 days after such date;
- Does not apply to "bodily injury" or "property damage" resulting from an "accident" that occurred before you acquired or formed the organization;
- Does not apply to any newly acquired or formed organization that is a joint venture or partnership; and
- d. Does not apply to an insured under any other automobile liability policy, or would be an insured under such a policy but for the termination of such policy or the exhaustion of such policy's limits of insurance.
- Any of your "employees" while using a covered "auto" in your business or your personal affairs, provided you do not own, hire or borrow that "auto".
- G. Liability Coverage Extensions Supplementary Payments Higher Limits

SECTION II - LIABILITY COVERAGE, A. Coverage, 2. Coverage Extensions, a. Supplementary Payments is amended by:

- Replacing the \$2,000 Limit of Insurance for bail bonds with \$4,000 in (2); and
- 2. Replacing the \$250 Limit of Insurance for reasonable expenses with \$500 in (4).
- H. Amended Fellow Employee Exclusion

SECTION II - LIABILITY COVERAGE, B. Exclusions, 5. Fellow Employee is modified as follows:

Exclusion **5. Fellow Employee** is deleted.

I. Hired Auto - Physical Damage

If hired "autos" are covered "autos" for Liability Coverage, then Comprehensive and Collision Physical Damage Coverages as provided under SECTION III - PHYSICAL DAMAGE COVERAGE of this Coverage Part are extended to "autos" you hire, subject to the following:

- 1. The most we will pay for "loss" to any hired "auto" is \$50,000 or the actual cash value or cost to repair or replace, whichever is the least, minus a deductible.
- 2. The deductible will be equal to the largest deductible applicable to any owned "auto" for that coverage, or \$1,000, whichever is less.
- Hired Auto Physical Damage coverage is excess over any other collectible insurance.

4. Subject to the above limit, deductible, and excess provisions we will provide coverage equal to the broadest coverage applicable to any covered "auto" you own insured under this policy.

Coverage includes loss of use of that hired auto, provided it results from an "accident" for which you are legally liable and as a result of which a monetary loss is sustained by the leasing or rental concern. The most we will pay for any one "accident" is \$3,000.

If a limit for Hired Auto - Physical Damage is shown in the Schedule, then that limit replaces, and is not added to, the \$50,000 limit indicated above.

J. Rental Reimbursement

SECTION III - PHYSICAL DAMAGE is amended by adding the following:

- We will pay for rental reimbursement expenses incurred by you for the rental of an "auto" because of a "loss" to a covered "auto". Payment applies in addition to the otherwise applicable amount of each coverage you have on a covered "auto". No deductible applies to this coverage.
- We will pay only for those expenses incurred during the policy period beginning 24 hours after the "loss" and ending, regardless of the policy's expiration, with the lesser of the following number of days:
 - a. The number of days reasonably required to repair the covered "auto". If "loss" is caused by theft, this number of days is added to the number of days it takes to locate the covered "auto" and return it to you; or
 - **b.** 30 days.
- 3. Our payment is limited to the lesser of the following amounts:
 - **a.** Necessary and actual expenses incurred; or
 - **b.** \$50 per day.
- 4. This coverage does not apply while there are spare or reserve "autos" available to you for your operations.
- We will pay under this coverage only that amount of your rental reimbursement expenses which is not already provided for under SECTION III - PHYSICAL DAM-AGE COVERAGE, A. Coverage, 4. Coverage Extensions.

K. Transportation Expense - Higher Limits

SECTION III - PHYSICAL DAMAGE COV-ERAGE, A. Coverage, 4. Coverage Extensions is amended by replacing \$20 per day with \$50 per day, and \$600 maximum with \$1,500 maximum in Extension a. Transportation Expenses.

L. Airbag Coverage

SECTION III - PHYSICAL DAMAGE COV-ERAGE, B. Exclusions, 3.a. is amended by adding the following:

However, the mechanical and electrical breakdown portion of this exclusion does not apply to the accidental discharge of an airbag. This coverage for airbags is excess over any other collectible insurance or warranty.

M. Loan or Lease Gap Coverage

- SECTION III PHYSICAL DAMAGE COVERAGE, C. Limit of Insurance is deleted in its entirety and replaced by the following, but only for private passenger type "autos" with an original loan or lease, and only in the event of a "total loss" to such a private passenger type "auto":
 - a. The most we will pay for "loss" in any one "accident" is the greater of:
 - (1) The amount due under the terms of the lease or loan to which your covered private passenger type "auto" is subject, but will not include:
 - (a) Overdue lease or loan payments;
 - (b) Financial penalties imposed under the lease due to high mileage, excessive use or abnormal wear and tear;
 - (c) Security deposits not refunded by the lessor;
 - (d) Costs for extended warranties, Credit Life Insurance, Health, Accident or Disability Insurance purchased with the loan or lease; and
 - (e) Carry-over balances from previous loans or leases, or
 - (2) Actual cash value of the stolen or damaged property.
 - b. An adjustment for depreciation and physical condition will be made in determining actual cash value at the time of "loss".

 SECTION V - DEFINITIONS is amended by adding the following, but only for the purposes of this Loan or Lease Gap Coverage:

"Total loss" means a "loss" in which the cost of repairs plus the salvage value exceeds the actual cash value.

N. Glass Repair - Waiver of Deductible

SECTION III - PHYSICAL DAMAGE COV-ERAGE, D. Deductible is amended by adding the following:

No deductible applies to glass damage if the glass is repaired in a manner acceptable to us rather than replaced.

O. Duties in the Event of an Accident, Claim, Suit or Loss - Amended

SECTION IV - BUSINESS AUTO CONDITIONS, A. Loss Conditions, 2. Duties in the Event of Accident, Claim, Suit or Loss, a. is amended by adding the following:

This condition applies only when the "accident" or "loss" is known to:

- 1. You, if you are an individual;
- 2. A partner, if you are a partnership;
- 3. An executive officer or insurance manager, if you are a corporation; or
- **4.** A member or manager, if you are a limited liability company.

P. Unintentional Failure to Disclose Hazards

SECTION IV - BUSINESS AUTO CONDITIONS, B. General Conditions, 2. Concealment, Misrepresentation or Fraud is amended by adding the following:

However, if you unintentionally fail to disclose any hazards existing on the effective date of this Coverage Form, we will not deny coverage under this Coverage Form because of such failure.

Q. Mental Anguish Resulting from Bodily Injury

SECTION V - DEFINITIONS, C. "Bodily injury" is deleted in its entirety and replaced by the following:

"Bodily injury" means bodily injury, sickness or disease sustained by a person, including mental anguish and death sustained by the same person that results from such bodily injury, sickness or disease. "Bodily injury" does not include mental anguish or death that does not result from bodily injury, sickness or disease.

R. Coverage for Certain Operations in Connection with Railroads

With respect to the use of a covered "auto" in operations for or affecting a railroad:

- Section V Definitions, H. "Insured contract". 1.c. is amended to read:
 - c. An easement or license agreement:
- 2. Section V Definitions, H. "Insured contract", 2.a. is deleted.

THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY - OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

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

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

- The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

Various provisions in this Coverage Part restrict this insurance. Read the entire Coverage Part carefully to determine rights, duties and what is and is not covered.

Throughout this Coverage Part the words "you" and "your" refer to the Named Insured shown in the Declarations, and any other person or organization qualifying as a Named Insured under this Coverage Part. The words "we", "us" and "our" refer to the Company providing this insurance.

The word "insured" means any person or organization qualifying as such under **SECTION II - WHO IS AN INSURED**.

Other words and phrases that appear in quotation marks have special meaning. Refer to **SECTION V - DEFINITIONS**,

SECTION I - COVERAGES

COVERAGE A. BODILY INJURY AND PROP-ERTY DAMAGE LIABILITY

1. Insuring Agreement

- a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any "occurrence" and settle any claim or "suit" that may result. But:
 - (1) The amount we will pay for damages is limited as described in SECTION III - LIMITS OF INSURANCE; and
 - (2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements under SECTION I COVERAGES, COVERAGE A, BODILY INJURY AND PROPERTY DAMAGE LIABILITY; SECTION I COVERAGES, COVERAGE B, PERSONAL AND ADVERTISING INJURY LIABILITY; or medical expenses under SECTION I COVERAGES, COVERAGE C. MEDICAL PAYMENTS.

No other obligation or liability to pay sums or perform acts or services is covered unless expressly provided for under

SUPPLEMENTARY PAYMENTS - COV-ERAGES A AND B.

- b. This insurance applies to "bodily injury" and "property damage" only if:
 - (1) The "bodily injury" or "property damage" is caused by an "occurrence" that takes place in the "coverage territory";
 - (2) The "bodily injury" or "property damage" occurs during the policy period; and
 - (3) Prior to the "coverage term" in which "bodily injury" or "property damage" occurs, you did not know, per Paragraph 1.d. below, that the "bodily injury" or "property damage" had occurred or had begun to occur, in whole or in part.
- c. "Bodily injury" or "property damage" which:
 - Occurs during the "coverage term"; and
 - (2) Was not, prior to the "coverage term", known by you, per Paragraph 1.d. below, to have occurred;

includes any continuation, change or resumption of that "bodily injury" or "property damage" after the end of the "coverage term" in which it first became known by you.

- d. You will be deemed to know that "bodily injury" or "property damage" has occurred at the earliest time when any "authorized representative":
 - Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;
 - (2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage";
 - (3) First observes, or reasonably should have first observed, the "bodily injury" or "property damage";
 - (4) Becomes aware, or reasonably should have become aware, by any means other than as described in (3) above, that "bodily injury" or "property damage" had occurred or had begun to occur; or
 - (5) Becomes aware, or reasonably should have become aware, of a

condition from which "bodily injury" or "property damage" is substantially certain to occur.

e. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

2. Exclusions

This insurance does not apply to:

a. Expected or Intended Injury

"Bodily injury" or "property damage" which may reasonably be expected to result from the intentional or criminal acts of the insured or which is in fact expected or intended by the insured, even if the injury or damage is of a different degree or type than actually expected or intended. This exclusion does not apply to "bodily injury" resulting from the use of reasonable force to protect persons or property.

b. Contractual Liability

"Bodily injury" or "property damage" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

- That the insured would have in the absence of the contract or agreement; or
- (2) Assumed in a contract or agreement that is an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the contract or agreement. When a claim for such "bodily injury" or "property damage" is made, we will defend that claim provided the insured has assumed the obligation to defend such claim in the "insured contract". Such defense payments will not reduce the limits of insurance.

c. Liquor Liability

"Bodily injury" or "property damage" for which any insured may be held liable by reason of:

- Causing or contributing to the intoxication of any person;
- (2) The furnishing of alcoholic beverages to a person under the legal drinking age or under the influence of alcohol; or

(3) Any statute, ordinance or regulation relating to the sale, gift, distribution or use of alcoholic beverages.

This exclusion applies only if you are in the business of manufacturing, distributing, selling, serving or furnishing alcoholic beverages.

d. Workers' Compensation and Similar Laws

Any obligation of the insured under a workers' compensation, disability benefits or unemployment compensation law or any similar law.

e. Employer's Liability

"Bodily injury" to:

- (1) An "employee" of the insured sustained in the "workplace";
- (2) An "employee" of the insured arising out of the performance of duties related to the conduct of the insured's business; or
- (3) The spouse, child, parent, brother or sister of that "employee" as a consequence of Paragraphs (1) or (2) above.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

This exclusion does not apply to liability assumed by the insured under an "insured contract".

f. Pollutant

- (1) "Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release, escape or emission of "pollutants":
 - (a) At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. However, Paragraph (a) does not apply to:
 - "Bodily injury" to any person injured while on any premises, site or location owned or occupied by, or rented or loaned to, you provided:

- a) The injury is caused by the inadequate ventilation of vapors;
- b) The person injured is first exposed to such vapors during the policy period; and
- Within 30 days of such first exposure, the person injured is clinically diagnosed or treated by a physician for the medical condition caused by the exposure to such vapors. However, Paragraph c) does not apply if the "bodily injury" is caused by vapors produced by originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use by the building's occupants or their guests.

This exception 1) shall apply only to Named Insureds; we shall have no duty to defend or pay damages for any person or organization that is not a Named Insured. However, this paragraph does not apply if the "bodily injury" is caused by vapors produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests.

For the purpose of the exception granted in Paragraph 1) only, vapors means any gaseous or airborne irritant or airborne contaminant, including smoke, fumes, vapor or soot, but excluding asbestos, which is discharged, dispersed, emitted, leased or escapes from materials, machinery or equipment used in the service or maintenance of the premises. Vapors does not mean any gaseous or

- airborne irritants or contaminants used in a manufacturing process or which is the product or by-product of any manufacturing process;
- "Bodily injury" or "property damage" for which you may be held liable, if you are a contractor, and the owner or lessee of such premises, site or location has been added to this Coverage Part as an additional insured with respect to your ongoing operations or "your work" performed for that additional insured at that premises, site or location and such premises, site or location is not and never was owned or occupied by, or rented or loaned to, any insured, other than that additional insured; or
- "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire";
- (b) At or from any premises, site or location which is or was at any time used by or for any insured or others for the handling, storage, disposal, processing or treatment of waste;
- (c) Which are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for:
 - Any insured; or
 - Any person or organization for whom you may be legally responsible;
- (d) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the premises, site or location in connection with such operations by such insured, contractor or subcontractor. However, Paragraph (d) does not apply to:
 - "Bodily injury" or "property damage" arising out of the discharge, dispersal, seepage, migration, release, es-

cape or emission of fuels, lubricants or other operating fluids, or exhaust gases, which are needed to perform, or are the result of, the normal electrical, hydraulic or mechanical functions necessary for the operation of "mobile equipment" or its parts, if such fuels, lubricants or other operating fluids, or exhaust gases, escape, seep or migrate, or are discharged, dispersed. released emitted from a vehicle part designed to hold, store or receive them. This exception does not apply if the fuels, lubricants or other operating fluids, or exhaust gases, escape, seep or migrate, or are discharged, dispersed. released emitted with the intent to cause "bodily injury" or "property damage" or with the knowledge that "bodily injury" or "property damage" is substantially certain to occur, or if such fuels, lubricants or other operating fluids, or exhaust gases, are brought on or to the premises, site or location with such intent to escape. seep or migrate, or be discharged. dispersed, released or emitted as part of the operations being performed by such insured, contractor or subcontractor;

- 2) "Bodily injury" or "property damage" sustained within a building and caused by the release of gases, fumes or vapors from materials brought into that building in connection with operations being performed by you or on your behalf by a contractor or subcontractor; or
- "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire"; or
- (e) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the op-

erations are to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants".

- (2) Any loss, cost or expense arising out of any:
 - (a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or
 - (b) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

However, Paragraphs (2)(a) and (b) do not apply to liability for damages because of "property damage" that the insured would have in the absence of such request, demand, order or statutory or regulatory requirement, or such claim or "suit" by or on behalf of a governmental authority.

g. Aircraft, Auto or Watercraft

"Bodily injury" or "property damage" arising out of the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft owned or operated by or rented or loaned to any insured. Use includes operation and "loading or unloading".

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft that is owned or operated by or rented or loaned to any insured.

This exclusion does not apply to:

- A watercraft while ashore on premises you own or rent;
- (2) A watercraft you do not own that is:
 - (a) Less than 51 feet long; and

- (b) Not being used to carry persons or property for a charge;
- (3) Parking an "auto" on, or on the ways next to, premises you own or rent, provided the "auto" is not owned by or rented or loaned to you or the insured:
- (4) Liability assumed under any "insured contract" for the ownership, maintenance or use of aircraft or watercraft; or
- (5) "Bodily injury" or "property damage" arising out of:
 - (a) The operation of machinery or equipment that is on, attached to, or part of, a land vehicle that would qualify under the definition of "mobile equipment" if it were not subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged; or
 - (b) The operation of any of the machinery or equipment listed in Paragraph f.(2) or f.(3) of the definition of "mobile equipment".

h. Mobile Equipment

"Bodily injury" or "property damage" arising out of:

- (1) The transportation of "mobile equipment" by an "auto" owned or operated by or rented or loaned to any insured; or
- (2) The use of "mobile equipment" in, or while in practice for, or while being prepared for, any prearranged racing, speed, demolition, or stunting activity.

i. War

"Bodily injury" or "property damage", however caused, arising, directly or indirectly, out of:

- War, including undeclared or civil war;
- (2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- (3) Insurrection, rebellion, revolution, usurped power, or action taken by

governmental authority in hindering or defending against any of these.

j. Damage to Property

"Property damage" to:

- (1) Property you own, rent or occupy, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;
- (2) Premises you sell, give away or abandon, if the "property damage" arises out of any part of those premises:
- (3) Property loaned to you;
- (4) Personal property in the care, custody or control of an insured;
- (5) That particular part of real property on which you or any contractors or subcontractors working directly or indirectly on your behalf are performing operations, if the "property damage" arises out of those operations; or
- (6) That particular part of any property that must be restored, repaired or replaced because "your work" was incorrectly performed on it.

Paragraphs (1), (3) and (4) of this exclusion do not apply to "property damage" (other than damage by fire or explosion) to premises, including the contents of such premises, rented to you for a period of 7 or fewer consecutive days, for which the amount we will pay is limited to the Damage To Premises Rented To You Limit as described in SECTION III - LIMITS OF INSURANCE.

Paragraph (2) of this exclusion does not apply if the premises are "your work" and were never occupied, rented or held for rental by you.

Paragraphs (3), (4), (5) and (6) of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph (6) of this exclusion does not apply to "property damage" included in the "products-completed operations hazard".

k. Damage to Your Product

"Property damage" to "your product" arising out of it or any part of it.

I. Damage to Your Work

"Property damage" to "your work" arising out of it or any part of it and included in the "products-completed operations hazard".

This exclusion does not apply if the damaged work or the work out of which the damage arises was performed on your behalf by a subcontractor.

m. Damage to Impaired Property or Property Not Physically Injured

"Property damage" to "impaired property" or property that has not been physically injured, arising out of:

- A defect, deficiency, inadequacy or dangerous condition in "your product" or "your work"; or
- (2) A delay or failure by you or anyone acting on your behalf to perform a contract or agreement in accordance with its terms.

This exclusion does not apply to the loss of use of other property arising out of sudden and accidental physical injury to "your product" or "your work" after it has been put to its intended use.

n. Recall of Products, Work or Impaired Property

Any liability or damages claimed for any loss, cost or expense incurred by you or others for the loss of use, withdrawal, recall, inspection, repair, replacement, adjustment, removal or disposal of:

- (1) "Your product";
- (2) "Your work"; or
- (3) "Impaired property";

if such product, work or property is withdrawn or recalled from the market or from use by any person or organization because of a known or suspected defect, deficiency, inadequacy or dangerous condition in it.

o. Personal and Advertising Injury

"Bodily injury" arising out of "personal and advertising injury".

p. Asbestos

"Bodily injury" or "property damage" arising out of, attributable to, or any way related to asbestos in any form or transmitted in any manner.

q. Employment-Related Practices

"Bodily injury" to:

- (1) A person arising out of any:
 - (a) Refusal to employ that person;
 - (b) Termination of that person's employment; or
 - (c) Other employment-related practices, policies, acts or omissions including but not limited to coercion, criticism, demotion, evaluation, failure to promote, reassignment, discipline, defamation, harassment, humiliation or discrimination directed at that person; or
- (2) The spouse, child, parent, brother or sister of that person as a consequence of "bodily injury" to that person at whom any of the employmentrelated practices described in Paragraphs (a), (b) or (c) above is directed.

This exclusion applies:

- Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

r. Additional Insured Prior Knowledge

An additional insured added by attachment of an endorsement to this Coverage Part that is seeking coverage for a claim or "suit", if that additional insured knew, per the following paragraph, that "bodily injury" or "property damage" had occurred or had begun to occur, in whole or in part, prior to the "coverage term" in which such "bodily injury" or "property damage" occurs or begins to occur.

An additional insured added by attachment of an endorsement to this Coverage Part will be deemed to have known that "bodily injury" or "property damage" has occurred or has begun to occur at the earliest time when that additional insured, or any one of its owners, members, partners, managers, executive officers, "employees" assigned to manage that additional insured's insurance program, or "employees" assigned to give or receive notice of an "occurrence", "personal and advertising injury" offense, claim or "suit":

- Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;
- (2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage";
- (3) First observes, or reasonably should have first observed, the "bodily injury" or "property damage";
- (4) Becomes aware, or reasonably should have become aware, by any means other than as described in (3) above, that "bodily injury" or "property damage" had occurred or had begun to occur; or
- (5) Becomes aware, or reasonably should have become aware, of a condition from which "bodily injury" or "property damage" is substantially certain to occur.

s. Electronic Data

Damages arising out of the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate electronic data

t. Distribution of Material in Violation of Statutes

Bodily injury or property damage arising directly or indirectly out of any action or omission that violates or is alleged to violate:

- a. The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or
- **b.** The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or
- c. Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003, that prohibits or limits the sending, transmitting, communicating or distribution of material or information.

Exclusions c. through q, do not apply to "property damage" by fire or explosion to premises while rented to you or temporarily occupied by you with permission of the owner, for which the amount we will pay is limited to the Damage to Premises Rented To You Limit as described in SECTION III - LIMITS OF INSURANCE.

COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY

1. Insuring Agreement

- becomes legally obligated to pay as damages because of "personal and advertising injury" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "personal and advertising injury" to which this insurance does not apply. We may, at our discretion, investigate any offense and settle any claim or "suit" that may result, But:
 - (1) The amount we will pay for damages is limited as described in SECTION III - LIMITS OF INSURANCE; and
 - (2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements under SECTION I COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY; SECTION I COVERAGES, COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY; or medical expenses under SECTION I COVERAGES, COVERAGE C. MEDICAL PAYMENTS.

No other obligation or liability to pay sums or perform acts or services is covered unless expressly provided for under SUPPLEMENTARY PAYMENTS - COVERAGES A AND B

- b. This insurance applies to "personal and advertising injury" only if:
 - The "personal and advertising injury" is caused by an offense arising out of your business; and
 - (2) The "personal and advertising injury" offense was committed in the "coverage territory" during the policy period; and
 - (3) Prior to the "coverage term" in which the "personal and advertising injury" offense is committed, you did not know, per Paragraph 1.d, below, that the offense had been committed or had begun to be committed, in whole or in part.
- c. "Personal and advertising injury" caused by an offense which:
 - (1) Was committed during the "coverage term"; and

(2) Was not, prior to the "coverage term", known by you, per Paragraph 1.d. below, to have been committed;

includes any continuation, change or resumption of that offense after the end of the "coverage term" in which it first became known by you.

- d. You will be deemed to know that a "personal and advertising injury" offense has been committed at the earliest time when any "authorized representative":
 - Reports all, or any part, of the "personal and advertising injury" to us or any other insurer;
 - (2) Receives a written or verbal demand or claim for damages because of the "personal and advertising injury";
 - (3) First observes, or reasonably should have first observed, the offense that caused the "personal and advertising injury";
 - (4) Becomes aware, or reasonably should have become aware, by any means, other than as described in (3) above, that the offense had been committed or had begun to be committed; or
 - (5) Becomes aware, or reasonably should have become aware, of a condition from which "personal and advertising injury" is substantially certain to occur.

2. Exclusions

This insurance does not apply to:

a. Knowing Violation of Rights of Another

"Personal and advertising injury" caused by or at the direction of the insured with the knowledge that the act would violate the rights of another and would inflict "personal and advertising injury".

b. Material Published With Knowledge of Falsity

"Personal and advertising injury" arising out of oral or written publication of material, if done by or at the direction of the insured with knowledge of its falsity.

c. Material Published Prior to Coverage Term

"Personal and advertising injury" arising out of oral or written publication of material whose first publication took place before the later of the following:

- (1) The inception of this Coverage Part;
- (2) The "coverage term" in which insurance coverage is sought.

d. Criminal Acts

"Personal and advertising injury" arising out of a criminal act committed by or at the direction of the insured.

e. Contractual Liability

"Personal and advertising injury" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

- (1) That the insured would have in the absence of the contract or agreement; or
- (2) Assumed in a contract or agreement that is an "insured contract", provided the "personal and advertising injury" is caused by or arises out of an offense committed subsequent to the execution of the contract or agreement. When a claim for such "personal and advertising injury" is made, we will defend that claim, provided the insured has assumed the obligation to defend such claim in the "insured contract". Such defense payments will not reduce the limits of insurance.

f. Breach of Contract

"Personal and advertising injury" arising out of a breach of contract, except an implied contract to use another's advertising idea in your "advertisement".

g. Quality or Performance of Goods - Failure to Conform to Statements

"Personal and advertising injury" arising out of the failure of goods, products or services to conform with any statement of quality or performance made in your "advertisement".

h. Wrong Description of Prices

"Personal and advertising injury" arising out of the wrong description of the price of goods, products or services stated in your "advertisement".

i. Infringement of Copyright, Patent, Trademark or Trade Secret

"Personal and advertising injury" arising out of the infringement of copyright, pat-

ent, trademark, trade secret or other intellectual property rights.

However, this exclusion does not apply to infringement, in your "advertisement", of copyright, trade dress or slogan.

j. Insureds in Media and Internet Type Businesses

"Personal and advertising injury" committed by an insured whose business is:

- Advertising, broadcasting, publishing or telecasting;
- (2) Designing or determining content of web-sites for others; or
- (3) An Internet search, access, content or service provider.

However, this exclusion does not apply to Paragraphs 17. a., b. and c. of "personal and advertising injury" under SECTION V - DEFINITIONS

For the purposes of this exclusion, the placing of frames, borders or links, or advertising, for you or others anywhere on the Internet is not, by itself, considered the business of advertising, broadcasting, publishing or telecasting.

k. Electronic Chatrooms or Bulletin Boards

"Personal and advertising injury" arising out of an electronic chatroom or bulletin board any insured hosts, owns, or over which any insured exercises control:

I. Unauthorized Use of Another's Name or Product

"Personal and advertising injury" arising out of the unauthorized use of another's name or product in your e-mail address, domain name or metatag, or any other similar tactics to mislead another's potential customers.

m. Employment Related Practices

"Personal and advertising injury" to:

- (1) A person arising out of any:
 - (a) Refusal to employ that person;
 - (b) Termination of that person's employment; or
 - (c) Other employment-related practices, policies, acts or omissions including but not limited to coercion, criticism, demotion, evaluation, failure to promote, reassignment, discipline, defamation, harassment, humiliation

or discrimination directed at that person; or

(2) The spouse, child, parent, brother or sister of that person as a consequence of "personal and advertising injury" to that person at whom any of the employment-related practices described in Paragraphs (a), (b) or (c) above is directed.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

n. Pollutant

"Personal and advertising injury" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release, escape or emission of "pollutants" at any time.

o. Pollutant-Related

Any loss, cost or expense arising out of any:

- (1) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or
- (2) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, deaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

p. Asbestos

"Personal and advertising injury" arising out of, attributable to, or any way related to asbestos in any form or transmitted in any manner.

q. Additional Insured Prior Knowledge

An additional insured added by attachment of an endorsement to this Coverage Part that is seeking coverage for a claim or "suit", if that additional insured knew, per the following paragraph, that a "personal and advertising injury" offense had been committed or had begun to be committed, in whole or in part, prior to the "coverage term" in which such offense

was committed or began to be committed.

An additional insured added by attachment of an endorsement to this Coverage Part will be deemed to have known that a "personal and advertising injury" offense has been committed or has begun to be committed at the earliest time when that additional insured, or any one of its owners, members, partners, managers, executive officers, "employees" assigned to manage that additional insured's insurance program, or "employees" assigned to give or receive notice of an "occurrence", "personal and advertising injury" offense, claim or "suit":

- Reports all, or any part, of the "personal and advertising injury" to us or any other insurer;
- (2) Receives a written or verbal demand or claim for damages because of the "personal and advertising injury";
- (3) First observes, or reasonably should have first observed, the offense that caused the "personal and advertising injury";
- (4) Becomes aware, or reasonably should have become aware, by any means other than as described in (3) above, that the "personal and advertising injury" offense had been committed or had begun to be committed; or
- (5) Becomes aware, or reasonably should have become aware, of a condition from which "personal and advertising injury" is substantially certain to occur.

r. War

"Personal and advertising injury", however caused, arising, directly or indirectly, out of:

- (1) War, including undeclared or civil war:
- (2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- (3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.
- s. Distribution of Material in Violation of Statutes

"Personal and advertising injury" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

- a. The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or
- The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or
- c. Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003, that prohibits or limits the sending, transmitting, communicating or distribution of material or information.

COVERAGE C. MEDICAL PAYMENTS

1. Insuring Agreement

- a. We will pay medical expenses as described below for "bodily injury" caused by an accident:
 - (1) On premises you own or rent;
 - (2) On ways next to premises you own or rent; or
 - (3) Because of your operations;

provided that:

- (1) The accident takes place in the "coverage territory" and during the policy period;
- (2) The expenses are incurred and reported to us within three years of the date of the accident; and
- (3) The injured person submits to examination, at our expense, by physicians of our choice as often as we reasonably require.
- b. We will make these payments regardless of fault. These payments will not exceed the applicable limit of insurance. We will pay reasonable expenses for:
 - (1) First aid administered at the time of an accident;
 - (2) Necessary medical, surgical, x-ray and dental services, including prosthetic devices; and
 - (3) Necessary ambulance, hospital, professional nursing and funeral services.

2. Exclusions

We will not pay expenses for "bodily injury":

a. Any Insured

To any insured, except "volunteer workers".

b. Hired Person

To a person hired to do work for or on behalf of any insured or a tenant of any insured.

c. Injury on Normally Occupied Premises

To a person injured on that part of premises you own or rent that the person normally occupies.

d. Workers' Compensation and Similar Laws

To a person, whether or not an "employee" of any insured, if benefits for the "bodily injury" are payable or must be provided under a workers' compensation or disability benefits law or a similar law.

e. Athletic Activities

To any person injured while officiating, coaching, practicing for, instructing or participating in any physical exercises or games, sports, or athletic contests or exhibitions of an athletic or sports nature.

f. Products-Completed Operations Hazard

Included within the "products-completed operations hazard".

g. Coverage A Exclusions

Excluded under COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LI-ABILITY.

SUPPLEMENTARY PAYMENTS - COVERAGES A AND B

We will pay, with respect to any claim we investigate or settle, or any "suit" against an insured we defend:

- 1. All expenses we incur.
- Up to \$250 for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds,
- The cost of bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.
- All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", in-

- cluding actual loss of earnings up to \$250 a day because of time off from work.
- All costs taxed against the insured in the "suit".
- 6. Prejudgment interest awarded against the insured on that part of the judgment we become obligated to pay and which falls within the applicable limit of insurance. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.
- 7. All interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

These payments will not reduce the limits of insurance

SECTION II - WHO IS AN INSURED

- 1. If you are designated in the Declarations as:
 - a. An individual, you and your spouse are insureds, but only with respect to the conduct of a business of which you are the sole owner.
 - b. A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds, but only with respect to the conduct of your business.
 - c. A limited liability company, you are an insured. Your members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.
 - d. An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.
 - A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.
- 2. Each of the following is also an insured:
 - a. Your "volunteer workers" only while performing duties related to the conduct of your business, or your "employees", other than either your "executive officers" (if you are an organization other than a partnership, joint venture or limited liability company) or your managers (if you are a limited liability company), but only for acts

within the scope of their employment by you or while performing duties related to the conduct of your business. However, none of these "employees" or "volunteer workers" are insureds for:

- (1) "Bodily injury" or "personal and advertising injury":
 - (a) To you, to your partners or members (if you are a partnership or joint venture), to your members (if you are a limited liability company), to a co-"employee" while in the course of his or her employment or performing duties related to the conduct of your business, or to your other "volunteer workers" while performing duties related to the conduct of your business;
 - (b) To the spouse, child, parent, brother or sister of that co-"employee" or "volunteer worker" as a consequence of Paragraph (1)(a) above;
 - (c) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraphs (1)(a) or (b) above; or
 - (d) Arising out of his or her providing or failing to provide professional health care services.
- (2) "Property damage" to property:
 - (a) Owned, occupied or used by; or
 - (b) Rented to, in the care, custody or control of, or over which physical control is being exercised for any purpose by.

you, any of your "employees", "volunteer workers", any partner or member (if you are a partnership or joint venture), or any member (if you are a limited liability company).

- b. Any person (other than your "employee" or "volunteer worker"), or any organization while acting as your real estate manager.
- c. Any person or organization having proper temporary custody of your property if you die, but only:
 - (1) With respect to liability arising out of the maintenance or use of that property; and

- (2) Until your legal representative has been appointed.
- d. Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.
- 3. Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain ownership or majority interest, will qualify as a Named Insured if there is no other similar insurance available to that organization. However:
 - Insurance under this provision is afforded only until the 90th day after you acquire or form the organization or the end of the policy period, whichever is earlier;
 - b. COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization; and
 - c. COVERAGE B. PERSONAL AND AD-VERTISING INJURY LIABILITY does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

No person or organization is an insured with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a Named Insured in the Declarations.

SECTION III - LIMITS OF INSURANCE

- The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of:
 - a. Insureds;
 - **b.** Claims made or "suits" brought; or
 - c. Persons or organizations making claims or bringing "suits".
- 2. a. The General Aggregate Limit is the most we will pay for the sum of:
 - (1) Medical expenses under COVER-AGE C. MEDICAL PAYMENTS;
 - (2) Damages under COVERAGE A.
 BODILY INJURY AND PROPERTY
 DAMAGE LIABILITY, except damages because of "bodily injury" or
 "property damage" included in the
 "products-completed operations
 hazard"; and

(3) Damages under COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY.

This General Aggregate Limit will not apply if either the Location General Aggregate Limit of Insurance, Paragraph 2.b., or the Construction Project General Aggregate Limit of Insurance, Paragraph 2.c. applies.

- b. A separate Location General Aggregate Limit of Insurance, equal to the amount of the General Aggregate Limit shown in the Declarations, shall apply to each location owned by, or rented or leased to you and is the most we will pay for the sum of:
 - (1) Damages under COVERAGE A.
 BODILY INJURY AND PROPERTY
 DAMAGE LIABILITY, except damages because of "bodily injury" or
 "property damage" included in the
 "products-completed operations
 hazard"; and
 - (2) Medical expenses under COVER-AGE C. MEDICAL PAYMENTS,

which can be attributed to operations at only a single location owned by, or rented or leased to you.

- c. A separate Construction Project General Aggregate Limit of Insurance, equal to the amount of the General Aggregate Limit shown in the Declarations, shall apply to each construction project and is the most we will pay for the sum of:
 - (1) Damages under COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and
 - (2) Medical expenses under COVER-AGE C. MEDICAL PAYMENTS;

which can be attributed only to ongoing operations and only at a single construction project.

- d. Only for the purpose of determining which General Aggregate Limit of Insurance,
 2.a., 2.b., or 2.c., applies:
 - (1) Location means premises involving the same or connecting lots, or premises, whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad.
 - (2) Construction project means a location you do not own, rent or lease

where ongoing improvements, alterations, installation, demolition or maintenance work is performed by you or on your behalf. All connected ongoing improvements, alterations, installation, demolition or maintenance work performed by you or on your behalf at the same location for the same persons or organizations, no matter how often or under how many different contracts, will be deemed to be a single construction project.

- The Products-Completed Operations Aggregate Limit is the most we will pay under COV-ERAGE A. BODILY INJURY AND PROP-ERTY DAMAGE LIABILITY for damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard".
- 4. Subject to 2.a. above, the Personal and Advertising Injury Limit is the most we will pay under COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY for the sum of all damages because of all "personal and advertising injury" sustained by any one person or organization.
- Subject to 2, or 3, above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of:
 - Damages under COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LI-ABILITY; and
 - Medical expenses under COVERAGE C.
 MEDICAL PAYMENTS;

because of all "bodily injury" and "property damage" arising out of any one "occurrence".

- 6. Subject to 5. above, the Damage to Premises Rented to You Limit is the most we will pay under COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY for damages because of "property damage" to any one premises, while rented to you, or in the case of damage by fire or explosion, while rented to you or temporarily occupied by you with permission of the owner.
- Subject to 5. above, the Medical Expense Limit is the most we will pay under COVER-AGE C. MEDICAL PAYMENTS for all medical expenses because of "bodily injury" sustained by any one person.

The Limits of Insurance of this Coverage Part apply separately to each "coverage term".

SECTION IV - COMMERCIAL GENERAL LI-ABILITY CONDITIONS

1. Bankruptcy

Bankruptcy or insolvency of the insured or of the insured's estate will not relieve us of our obligations under this Coverage Part,

Duties in the Event of Occurrence, Offense, Claim or Suit

- You must see to it that we are notified as soon as practicable of an "occurrence" or a "personal and advertising injury" offense which may result in a claim. To the extent possible, notice should include:
 - How, when and where the "occurrence" or offense took place;
 - (2) The names and addresses of any injured persons and witnesses; and
 - (3) The nature and location of any injury or damage arising out of the "occurrence" or offense.
- **b.** If a claim is made or "suit" is brought against any insured, you must:
 - (1) Immediately record the specifics of the claim or "suit" and the date received; and
 - (2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

- **c.** You and any other involved insured must:
 - (1) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";
 - (2) Authorize us to obtain records and other information;
 - (3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit", and
 - (4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.
- d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

3. Legal Action Against Us

No person or organization has a right under this Coverage Part:

- To join us as a party or otherwise bring us into a "suit" asking for damages from an insured; or
- b. To sue us on this Coverage Part unless all of its terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an insured; but we will not be liable for damages that are not payable under the terms of this Coverage Part or that are in excess of the applicable limit of insurance. An agreed settlement means a settlement and release of liability signed by us, the insured and the claimant or the claimant's legal representative.

4. Liberalization

If, within 60 days prior to the beginning of this Coverage Part or during the policy period, we make any changes to any forms or endorsements of this Coverage Part for which there is currently no separate premium charge, and that change provides more coverage than this Coverage Part, the change will automatically apply to this Coverage Part as of the latter of:

- The date we implemented the change in your state; or
- The date this Coverage Part became effective; and

will be considered as included until the end of the current policy period. We will make no additional premium charge for this additional coverage during the interim.

5. Other Insurance

If other valid and collectible insurance is available to the insured for a loss we cover under COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY or COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY of this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

This insurance is primary except when **b**. below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the method described in **c**. below.

b. Excess insurance

This insurance is excess over:

- (1) Any of the other insurance, whether primary, excess, contingent or on any other basis:
 - (a) That is Fire, Extended Coverage, Builder's Risk, Installation Risk or similar insurance for "your work";
 - (b) That is Fire or Explosion insurance for premises rented to you or temporarily occupied by you with permission of the owner;
 - (c) That is insurance purchased by you to cover your liability as a tenant for "property damage" to premises rented to you or temporarily occupied by you with permission of the owner; or
 - (d) If the loss arises out of the maintenance or use of aircraft, "autos" or watercraft to the extent not subject to SECTION I -COVERAGES, COVERAGE A. BODILY INJURY AND PROP-ERTY DAMAGE LIABILITY, 2. Exclusions, g. Aircraft, Auto or Watercraft.
- (2) Any other primary insurance available to the insured covering liability for damages arising out of the premises or operations, or the products and completed operations, for which the insured has been added as an additional insured by attachment of an endorsement.
- (3) Any other insurance:
 - (a) Whether primary, excess, contingent or on any other basis, except when such insurance is written specifically to be excess over this insurance; and
 - (b) That is a consolidated (wrap-up) insurance program which has been provided by the prime contractor/project manager or owner of the consolidated project in which you are involved.

When this insurance is excess, we will have no duty under COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY or COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and selfinsured amounts under all that other insurance

We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

c. Method of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

6. Premium Audit

- We will compute all premiums for this Coverage Part in accordance with our rules and rates.
- b. Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the first Named Insured. The due date for audit and retrospective premiums is the date shown as the due date on the bill. If:
 - The earned premium is less than the deposit premium, we will return the excess to the first Named Insured; or
 - (2) The earned premium is greater than the deposit premium, the difference will be due and payable to us by the first Named Insured upon notice from us.
- c. The first Named Insured must keep records of the information we need for premium computation, and send us copies at such times as we may request.

7. Representations

By accepting this Coverage Part, you agree:

- The statements in the Declarations are accurate and complete;
- **b.** Those statements are based upon representations you made to us; and
- c. We have issued this Coverage Part in reliance upon your representations.

8. Separation of Insureds

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

- As if each Named Insured were the only Named Insured; and
- **b.** Separately to each insured against whom claim is made or "suit" is brought.

9. Transfer of Rights of Recovery Against Others to Us

If the insured has rights to recover all or part of any payment we have made under this Coverage Part, those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

10. Two or More Coverage Forms or Policies Issued by Us

If this Coverage Part and any other Coverage Form, Coverage Part or policy issued to you by us or any company affiliated with us apply to the same "occurrence" or "personal and advertising injury" offense, the aggregate maximum limit of insurance under all the Coverage Forms, Coverage Parts or policies shall not exceed the highest applicable limit of insurance under any one Coverage Form, Coverage Part or policy. This condition does not apply to any Coverage Form, Coverage Part or policy issued by us or an affiliated company specifically to apply as excess insurance over this Coverage Part.

11. When We Do Not Renew

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing will be sufficient proof of notice.

SECTION V - DEFINITIONS

 "Advertisement" means a notice that is broadcast, telecast or published to the general public or specific market segments about your goods, products or services for the purpose of attracting customers or supporters. "Advertisement" includes a publicity article. For purposes of this definition:

- Notices that are published include material placed on the Internet or on similar electronic means of communication; and
- b. Regarding web-sites, only that part of a web-site that is about your goods, products or services for the purposes of attracting customers or supporters is considered an "advertisement".

2. "Authorized representative" means:

- a. If you are designated in the Declarations as:
 - (1) An individual, you and your spouse are "authorized representatives".
 - (2) A partnership or joint venture, your members, your partners, and their spouses are "authorized representatives".
 - (3) A limited liability company, your members and your managers are "authorized representatives".
 - (4) An organization other than a partnership, joint venture or limited liability company, your "executive officers" and directors are "authorized representatives". Provided you are not a publicly traded organization, your stockholders are also "authorized representatives".
 - (5) A trust, your trustees are "authorized representatives".

b. Your "employees":

- Assigned to manage your insurance program; or
- (2) Responsible for giving or receiving notice of an "occurrence", "personal and advertising injury" offense, claim or "suit";

are also "authorized representatives".

3, "Auto" means:

- A land motor vehicle, trailer or semitrailer designed for travel on public roads, including any attached machinery or equipment; or
- b. Any other land vehicle that is subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged.

- However, "auto" does not include "mobile equipment".
- 4. "Bodily injury" means bodily injury, sickness or disease sustained by a person, including death resulting from any of these at any time.
- "Coverage term" means the following individual increment, or if a multi-year policy period, increments, of time, which comprise the policy period of this Coverage Part:
 - Date of this Coverage Part at 12:01 AM standard time at your mailing address shown in the Declarations, and if a multi-year policy period, each consecutive annual period thereafter, or portion thereof if any period is for a period of less than 12 months, constitute individual "coverage terms". The last "coverage term" ends at 12:00 AM standard time at your mailing address shown in the Declarations on the earlier of:
 - (1) The day the policy period shown in the Declarations ends; or
 - (2) The day the policy to which this Coverage Part is attached is terminated or cancelled.
 - b. However, if after the issuance of this Coverage Part, any "coverage term" is extended for an additional period of less than 12 months, that additional period of time will be deemed to be part of the last preceding "coverage term".
- 6. "Coverage territory" means:
 - The United States of America (including its territories and possessions), Puerto Rico and Canada;
 - b. International waters or airspace, but only if the injury or damage occurs in the course of travel or transportation between any places included in a. above; or
 - c. All other parts of the world if the injury or damage arises out of:
 - Goods or products made or sold by you in the territory described in a. above;
 - (2) The activities of a person whose home is in the territory described in a. above, but is away for a short time on your business; or
 - (3) "Personal and advertising injury" offenses that take place through the Internet or similar electronic means of communication.

provided the insured's responsibility to pay damages is determined in a "suit" on

- the merits, in the territory described in a. above or in a settlement to which we agree.
- 7. "Electronic data" means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMs, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.
- 8. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".
- "Executive officer" means a person holding any of the officer positions created by your charter, constitution, by-laws or any other similar governing document.
- "Hostile fire" means one which becomes uncontrollable or breaks out from where it was intended to be.
- 11. "Impaired property" means tangible property, other than "your product" or "your work", that cannot be used or is less useful because:
 - a. It incorporates "your product" or "your work" that is known or thought to be defective, deficient, inadequate or dangerous; or
 - You have failed to fulfill the terms of a contract or agreement;

if such property can be restored to use by:

- The repair, replacement, adjustment or removal of "your product" or "your work"; or
- Your fulfilling the terms of the contract or agreement.
- 12. "Insured contract" means:
 - a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for "property damage" by fire or explosion to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";
 - **b.** A sidetrack agreement:
 - Any easement or license agreement, except in connection with construction or demolition operations on or within 50 feet of a railroad;
 - d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;

- e. An elevator maintenance agreement,
- f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury", "property damage" or "personal and advertising injury" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph f. does not include that part of any contract or agreement:

- (1) That indemnifies a railroad for "bodily injury", "property damage" or "personal and advertising injury" arising out of construction or demolition operations, within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, roadbeds, tunnel, underpass or crossing;
- (2) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:
 - (a) Preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage:
- (3) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in Paragraph (2) above and supervisory, inspection, architectural or engineering activities;
- (4) That indemnifies an advertising, public relations or media consulting firm for "personal and advertising injury" arising out of the planning, execution or failure to execute marketing communications programs. Marketing communications programs include but are not limited to comprehensive marketing campaigns, consumer, trade and corporate advertising for all media; media planning, buying, monitoring and analysis; direct mail; promotion; sales materials; design; presentations; point-of-sale materi-

- als; market research; public relations and new product development;
- (5) Under which the insured, if an advertising, public relations or media consulting firm, assumes liability for "personal and advertising injury" arising out of the insured's rendering or failure to render professional services, including those services listed in Paragraph (4), above:
- (6) That indemnifies a web-site designer or content provider, or Internet search, access, content or service provider for injury or damage arising out of the planning, execution or failure to execute Internet services. Internet services include but are not limited to design, production, distribution, maintenance and administration of web-sites and web-banners; hosting web-sites; registering domain names; registering with search engines; marketing analysis; and providing access to the Internet or other similar networks; or
- (7) Under which the insured, if a website designer or content provider, or Internet search, access, content or service provider, assumes liability for injury or damage arising out of the insured's rendering or failure to render Internet services, including those listed in Paragraph (6), above.
- 13. "Leased worker" means a person leased to you by a labor leasing firm under an agreement between you and the labor leasing firm, to perform duties related to the conduct of your business. "Leased worker" includes supervisors furnished to you by the labor leasing firm. "Leased worker" does not include a "temporary worker".
- **14.** "Loading or unloading" means the handling of property:
 - After it is moved from the place where it is accepted for movement into or onto an aircraft, watercraft or "auto";
 - While it is in or on an aircraft, watercraft or "auto"; or
 - c. While it is being moved from an aircraft, watercraft or "auto" to the place where it is finally delivered;

but "loading or unloading" does not include the movement of property by means of a mechanical device, other than a hand truck, that is not attached to the aircraft, watercraft or "auto".

- 15. "Mobile equipment" means any of the following types of land vehicles, including any attached machinery or equipment:
 - Bulldozers, farm machinery, forklifts and other vehicles designed for use principally off public roads;
 - Vehicles maintained for use solely on or next to premises you own or rent;
 - c. Vehicles that travel on crawler treads:
 - d. Vehicles, whether self-propelled or not, maintained primarily to provide mobility to permanently mounted:
 - Power cranes, shovels, loaders, diggers or drills; or
 - (2) Road construction or resurfacing equipment such as graders, scrapers or rollers;
 - e. Vehicles not described in a., b., c. or d. above that are not self-propelled and are maintained primarily to provide mobility to permanently attached equipment of the following types:
 - (1) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment; or
 - (2) Cherry pickers and similar devices used to raise or lower workers:
 - f. Vehicles not described in a., b., c. or d. above maintained primarily for purposes other than the transportation of persons or cargo.

However, self-propelled vehicles with the following types of permanently attached equipment are not "mobile equipment" but will be considered "autos":

- (1) Equipment designed primarily for:
 - (a) Snow removal;
 - (b) Road maintenance, but not construction or resurfacing; or
 - (c) Street cleaning;
- (2) Cherry pickers and similar devices mounted on automobile or truck chassis and used to raise or lower workers; and
- (3) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment.

However, "mobile equipment" does not include any land vehicles that are subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged. Land vehicles subject to a compulsory or financial responsibility law or other motor vehicle insurance law are considered autos.

- 16. "Occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions.
- "Personal and advertising injury" means injury, including consequential "bodily injury", arising out of one or more of the following offenses:
 - a. False arrest, detention or imprisonment;
 - b. Malicious prosecution;
 - c. The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person occupies, committed by or on behalf of its owner, landlord or lessor;
 - d. Oral or written publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;
 - Oral or written publication, in any manner, of material that violates a person's right of privacy;
 - f. The use of another's advertising idea in your "advertisement"; or
 - g. Infringing upon another's copyright, trade dress or slogan in your "advertisement".
- 18. "Pollutant" means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals, petroleum, petroleum products and petroleum by-products, and waste. Waste includes materials to be recycled, reconditioned or reclaimed. "Pollutants" include but are not limited to substances which are generally recognized in industry or government to be harmful or toxic to persons, property or the environment regardless of whether the injury or damage is caused directly or indirectly by the "pollutants" and whether:
 - The insured is regularly or otherwise engaged in activities which taint or degrade the environment; or
 - **b.** The insured uses, generates or produces the "pollutant".
- 19. "Products-completed operations hazard":
 - a. Includes all "bodily injury" and "property damage" occurring away from premises

you own or rent and arising out of "your product" or "your work" except:

- Products that are still in your physical possession; or
- (2) Work that has not yet been completed or abandoned. However, "your work" will be deemed completed at the earliest of the following times:
 - (a) When all of the work called for in your contract has been completed; or
 - (b) When all of the work to be done at the job site has been completed if your contract calls for work at more than one job site; or
 - (c) When that part of the work done at a job site has been put to its intended use by any person or organization other than another contractor or subcontractor working on the same project.

Work that may need service, maintenance, correction, repair or replacement, but which is otherwise complete, will be treated as completed.

- **b.** Does not include "bodily injury" or "property damage" arising out of:
 - (1) The transportation of property, unless the injury or damage arises out of a condition in or on a vehicle not owned or operated by you, and that condition was created by the "loading or unloading" of that vehicle by any insured;
 - (2) The existence of tools, uninstalled equipment or abandoned or unused materials; or
 - (3) Products or operations for which the classification, listed in the Declarations or in a schedule, states that products-completed operations are included.

20. "Property damage" means:

- a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or
- b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the "occurrence" that caused it.

For the purposes of this insurance, "electronic data" is not tangible property.

- 21. "Suit" means a civil proceeding in which money damages because of "bodily injury", "property damage" or "personal and advertising injury" to which this insurance applies are alleged. "Suit" includes:
 - An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent;
 - Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent; or
 - c. An appeal of a civil proceeding.
- 22. "Temporary worker" means a person who is furnished to you to substitute for a permanent "employee" on leave or to meet seasonal or short-term workload conditions.
- 23. "Volunteer worker" means a person who is not your "employee", and who donates his or her work and acts at the direction of and within the scope of duties determined by you, and is not paid a fee, salary or other compensation by you or anyone else for their work performed for you.
- 24. "Workplace" means that place and during such hours to which the "employee" sustaining "bodily injury" was assigned by you, or any other person or entity acting on your behalf, to work on the date of "occurrence".

25. "Your product":

- a. Means:
 - (1) Any goods or products, other than real properly, manufactured, sold, handled, distributed or disposed of by:
 - (a) You;
 - (b) Others trading under your name;
 - (c) A person or organization whose business or assets you have acquired; and
 - (2) Containers (other than vehicles), materials, parts or equipment furnished in connection with such goods or products.
- **b.** Includes:
 - (1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your product"; and

- (2) The providing of or failure to provide warnings or instructions.
- c. Does not include vending machines or other property rented to or located for the use of others but not sold.

26. "Your work":

- a. Means:
 - (1) Work or operations performed by you or on your behalf; and

(2) Materials, parts or equipment furnished in connection with such work or operations.

b. Includes:

- (1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your work"; and
- (2) The providing of or failure to provide warnings or instructions.

NUCLEAR ENERGY LIABILITY EXCLUSION (Broad Form)

- 1. The insurance does not apply:
 - A. Under any Liability Coverage, to "bodily injury" or "property damage":
 - (1) With respect to which an insured under this Coverage Part is also an insured under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, Nuclear Insurance Association of Canada, or any of their successors, or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or
 - (2) Resulting from the "hazardous properties" of "nuclear material" and with respect to which (a) any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or (b) the insured is, or had this Coverage Part not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization.
 - B. Under any Medical Payments coverage, to expenses incurred with respect to "bodily injury" resulting from the "hazardous properties" of "nuclear material" and arising out of the operation of a "nuclear facility" by any person or organization.
 - C. Under any Liability Coverage, to "bodily injury" or "property damage" resulting from the "hazardous properties" of "nuclear material", if:
 - (1) The "nuclear material" (a) is at any "nuclear facility" owned by, or operated by or on behalf of, an insured, or (b) has been discharged or dispersed therefrom;
 - (2) The "nuclear material" is contained in "spent fuel" or "waste" at any time possessed, handled, used, processed, stored, transported or disposed of, by or on behalf of an insured; or
 - (3) The "bodily injury" or "property damage" arises out of the furnishing by

an insured of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any "nuclear facility", but if such facility is located within the United States of America, its territories or possessions or Canada, this Exclusion (3) applies only to "property damage" to such "nuclear facility" and any property thereat.

2. As used in this exclusion:

"Hazardous properties" includes radioactive, toxic or explosive properties,

"Nuclear material" means "source material", "special nuclear material" or "by-product material".

"Source material", "special nuclear material", and "by-product material" have the meanings given them in the Atomic Energy Act of 1954 or in any lawamendatory thereof.

"Spent fuel" means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a "nuclear reactor".

"Waste" means any waste material (a) containing "by-product material" other than the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its "source material" content, and (b) resulting from the operation by any person or organization of any "nuclear facility" included under the first two paragraphs of the definition of "nuclear facility".

"Nuclear facility" means:

- Any "nuclear reactor";
- B. Any equipment or device designed or used for (1) separating the isotopes of uranium or plutonium, (2) processing or utilizing "spent fuel", or (3) handling, processing or packaging "waste";
- C. Any equipment or device used for the processing, fabricating or alloying of "special nuclear material" if at any time the total amount of such material in the custody of the insured at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;

D. Any structure, basin, excavation, premises or place prepared or used for the storage or disposal of "waste";

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations.

"Nuclear reactor" means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material.

"Property damage" includes all forms of radioactive contamination of property.

CONTRACTORS' COMMERCIAL GENERAL LIABILITY BROADENED ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

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B. Limits Of Insurance:

The Commercial General Liability Limits of Insurance apply to the insurance provided by this endorsement, except as provided below:

1. Employee Benefit Liability Coverage

Each Employee Limit: \$1,000,000 Aggregate Limit: \$3,000,000 Deductible Amount: \$1,000

3. Damage To Premises Rented To You

The lesser of:

- a. The Each Occurrence Limit shown in the Declarations; or
- **b.** \$500,000 unless otherwise stated \$

4. Supplementary Payments

a. Bail Bonds: \$2,500

b. Loss Of Earnings: \$ 500

5. Medical Payments

Medical Expense Limit: \$ 10,000

9. Property Damage To Borrowed Equipment

Each Occurrence Limit: \$10,000 Deductible Amount: \$ 250

16. Voluntary Property Damage Coverage (Coverage a.) And Care, Custody Or Control Liability Coverage (Coverage b.)

Limits Of Insurance

Coverage a. \$1,000 Each Occurrence \$5,000 Aggregate

Coverage b. \$5,000 Each Occurrence unless otherwise stated \$_____

Deductible Amount (Each Occurrence)

Coverage a. \$250

Coverage **b.** \$250 unless otherwise stated \$ _____

	COVERAGE	PREMIUM BASIS	RATE	ADVANCE PREMIUM
		(a) Area(b) Payroll(c) Gross Sales(d) Units(e) Other	(For Limits in Excess of \$5,000)	(For Limits in Excess of \$5,000)
b.	Care, Custody Or Control	•		\$
		TOTA	s	

C. Coverages

1. Employee Benefit Liability Coverage

a. The following is added to Section I - Coverages:

Employee Benefit Liability Coverage

- (1) Insuring Agreement
 - (a) We will pay those sums that the insured becomes legally obligated to pay as damages caused by any act, error or omission of the insured. or of any other person for whose acts the insured is legally liable, to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend against any "suit" seeking damages to which this insurance does not apply. We may, at our discretion, investigate any report of an act, error or omission and settle any claim or "suit" that may result. But:
 - The amount we will pay for damages is limited as described in Section III - Limits Of Insurance; and
 - Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments.

- (b) This insurance applies to damages only if the act, error or omission, is negligently committed in the "administration" of your "employee benefit program"; and
 - 1) Occurs during the policy period; or
 - 2) Occurred prior to the "first effective date" of

this endorsement provided:

a) You did not have knowledge of a claim or "suit" on or before the "first effective date" of this endorsement.

You will be deemed to have knowledge of a claim or "suit" when any "authorized representative";

- Reports all, or any part, of the act, error or omission to us or any other insurer;
- ii) Receives a written or verbal demand or claim for damages because of the act, error or omission; and
- b) There is no other applicable insurance.

(2) Exclusions

This insurance does not apply to:

(a) Bodily Injury, Property
Damage Or Personal And
Advertising Injury

"Bodily injury", "property damage" or "personal and advertising injury".

(b) Dishonest, Fraudulent, Criminal Or Malicious Act

Damages arising out of any intentional, dishonest, fraudulent, criminal or malicious act, error or omission, committed by any insured, including the willful or reckless violation of any statute.

(c) Failure To Perform A Contract

Damages arising out of failure of performance of contract by any insurer.

(d) Insufficiency Of Funds

Damages arising out of an insufficiency of funds to meet any obligations under any plan included in the "employee benefit program".

(e) Inadequacy Of Performance Of Investment/Advice Given With Respect To Participation

Any claim based upon:

- 1) Failure of any investment to perform;
- Errors in providing information on past performance of investment vehicles; or
- 3) Advice given to any person with respect to that person's decision to participate or not to participate in any plan included in the "employee benefit program".

(f) Workers' Compensation And Similar Laws

Any claim arising out of your failure to comply with the mandatory provisions of any workers' compensation, unemployment compensation insurance, social security or disability benefits law or any similar law.

(g) ERISA

Damages for which any insured is liable because of liability imposed on a fiduciary by the Employee Retirement Income Security Act of 1974, as now or hereafter amended, or by any similar federal, state or local laws.

(h) Available Benefits

Any claim for benefits to the extent that such benefits are available, with reasonable effort and cooperation of the insured, from the applicable funds accrued or other collectible insurance.

(i) Taxes, Fines Or Penalties

Taxes, fines or penalties, including those imposed under the Internal Revenue Code or any similar state or local law.

(j) Employment-Related Practices

Any liability arising out of any:

- Refusal to employ;
- (2) Termination of employment;
- (3) Coercion, demotion, evaluation, reassignment, discipline, defamation, harassment, humiliation, discrimination or other employment related practices, acts or omissions; or
- (4) Consequential liability as a result of (1), (2) or (3) above.

This exclusion applies whether the insured may be held liable as an employer or in any other capacity and to any obligation to share damages with or repay someone else who must pay damages because of the injury.

(3) Supplementary Payments

Section I - Coverages, Supplementary Payments - Coverages A And B also apply to this Coverage.

b. Whols An Insured

As respects **Employee Benefit Liability Coverage**, **Section II - Who Is An Insured** is replaced by the following:

- (1) If you are designated in the Declarations as:
 - (a) An individual, you and your spouse are insureds, but only with respect to the conduct of a business of which you are the sole owner.
 - (b) A partnership or joint venture, you are an insured. Your members, your part-

- ners, and their spouses are also insureds but only with respect to the conduct of your business.
- (c) A limited liability company, you are an insured. Your members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.
- (d) An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.
- (e) A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.
- (2) Each of the following is also an insured:
 - (a) Each of your "employees" who is or was authorized to administer your "employee benefit program";
 - (b) Any persons, organizations or "employees" having proper temporary authorization to administer your "employee benefit program" if you die, but only until your legal representative is appointed; or
 - (c) Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.
- (3) Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain ownership or majority interest, will qualify as a Named Insured if no other similar insurance applies to that organi-

- zation. However, coverage under this provision:
- (a) Is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier; and
- (b) Does not apply to any act, error or omission that was committed before you acquired or formed the organization.

c. Limits Of Insurance

As respects Employee Benefit Liability Coverage, Section III - Limits Of Insurance is replaced by the following:

- The Limits of Insurance shown in Section B. Limits Of Insurance,
 Employee Benefit Liability Coverage and the rules below fix the most we will pay regardless of the number of:
 - (a) Insureds;
 - (b) Claims made or "suits" brought;
 - (c) Persons or organizations making claims or bringing "suits";
 - (d) Acts, errors or omissions; or
 - (e) Benefits included in your "employee benefit program".
- (2) The Aggregate Limit shown in Section B. Limits Of Insurance, 1. Employee Benefit Liability Coverage of this endorsement is the most we will pay for all damages because of acts, errors or omissions negligently committed in the "administration" of your "employee benefit program".
- (3) Subject to the limit described in (2) above, the Each Employee Limit shown in Section B. Limits Of Insurance, 1. Employee Benefit Liability Coverage of this endorsement is the most we will pay for all damages sustained by any one "employee", including damages sustained by such "employee's" dependents and beneficiaries, as a result of:
 - (a) An act, error or omission; or

(b) A series of related acts, errors or omissions, regardless of the amount of time that lapses between such acts, errors or omissions;

negligently committed in the "administration" of your "employee benefit program".

However, the amount paid under this endorsement shall not exceed, and will be subject to the limits and restrictions that apply to the payment of benefits in any plan included in the "employee benefit program."

(4) Deductible Amount

- (a) Our obligation to pay damages on behalf of the insured applies only to the amount of damages in excess of the Deductible Amount stated in the Declarations as applicable to Each Employee. The limits of insurance shall not be reduced by the amount of this deductible.
- (b) The Deductible Amount stated in the Declarations applies to all damages sustained by any one "employee", including such "employee's" dependents and beneficiaries, because of all acts, errors or omissions to which this insurance applies.
- (c) The terms of this insurance, including those with respect to:
 - Our right and duty to defend the insured against any "suits" seeking those damages; and
 - Your duties, and the duties of any other involved insured, in the event of an act, error or omission, or claim;

apply irrespective of the application of the Deductible Amount.

(d) We may pay any part or all of the Deductible Amount to effect settlement of any claim or "suit" and, upon no-

tification of the action taken, you shall promptly reimburse us for such part of the Deductible Amount as we have paid.

d. Additional Conditions

As respects Employee Benefit Liability Coverage, Section IV - Commercial General Liability Conditions is amended as follows:

- (1) Item 2. Duties In The Event Of Occurrence, Offense, Claim Or Suit is replaced by the following:
 - 2. Duties In The Event Of An Act, Error Or Omission, Or Claim Or Suit
 - a. You must see to it that we are notified as soon as practicable of an act, error or omission which may result in a claim. To the extent possible, notice should include:
 - What the act, error or omission was and when it occurred; and
 - (2) The names and addresses of anyone who may suffer damages as a result of the act, error or omission.
 - b. If a claim is made or "suit" is brought against any insured, you must:
 - Immediately record the specifics of the claim or "suit" and the date received; and
 - (2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

- c. You and any other involved insured must:
 - (1) Immediately send us copies of any demands, notices, summonses or legal papers re-

- ceived in connection with the claim or "suit":
- (2) Authorize us to obtain records and other information:
- (3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and
- (4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of an act, error or omission to which this insurance may also apply.
- d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense without our consent.
- (2) Item 5. Other Insurance is replaced by the following:

5. Other Insurance

If other valid and collectible insurance is available to the insured for a loss we cover under this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

This insurance is primary except when **c.** below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the method described in **b.** below.

b. Method Of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers

c. No Coverage

This insurance shall not cover any loss for which the insured is entitled to recovery under any other insurance in force previous to the effective date of this Coverage Part.

e. Additional Definitions

As respects Employee Benefit Liability Coverage, Section V - Definitions is amended as follows:

- (1) The following definitions are added:
 - 1. "Administration" means:
 - a. Providing information to "employees", including their dependents and beneficiaries, with respect to eligibility for or scope of "employee benefit programs";
 - **b.** Interpreting the "employee benefit programs";
 - **c.** Handling records in connection with the "employee benefit programs"; or
 - **d.** Effecting, continuing or terminating any "employee's" participation in

any benefit included in the "employee benefit program".

However, "administration" does not include:

- a. Handling payroll deductions; or
- b. The failure to effect or maintain any insurance or adequate limits of coverage of insurance, including but not limited to unemployment insurance, social security benefits, workers' compensation and disability benefits.
- "Cafeteria plans" means plans authorized by applicable law to allow "employees" to elect to pay for certain benefits with pre-tax dollars.
- 3. "Employee benefit programs" means a program providing some of all of the following benefits to "employees", whether provided through a "cafeteria plan" or otherwise:
 - a. Group life insurance; group accident or health insurance; dental, vision and hearing plans; and flexible spending accounts; provided that no one other than an "employee" may subscribe to such benefits and such benefits are made generally available to those "employees" who satisfy the plan's eligibility requirements;
 - Profit sharing plans, employee: savings plans, employee stock ownership plans, pension plans and stock subscription plans, provided that no one other than an "employee" may subscribe to such benefits and such benefits are made generally available to all "employees" who are eligible under the plan for such benefits:

- Unemployment insurance, social security benefits, workers' compensation and disability benefits; and
- d. Vacation plans, including buy and sell programs; leave of absence programs, including military, maternity, family, and civil leave; tuition assistance plans; transportation and health club subsidies.
- "First effective date" means the date upon which coverage was first effected in a series of uninterrupted renewals of insurance coverage.
- (2) The following definitions are deleted in their entirety and replaced by the following:
 - 8. "Employee" means a person actively employed, formerly employed, on leave of absence or disabled, or retired. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".
 - 21. "Suit" means a civil proceeding in which money damages because of an act, error or omission to which this insurance applies are alleged. "Suit" includes:
 - a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent:
 - b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent; or
 - An appeal of a civil proceeding.

2. Unintentional Failure To Disclose Hazards

Section IV - Commercial General Liability Conditions, 7. Representations is amended by the addition of the following:

Based on our dependence upon your representations as to existing hazards, if unintentionally you should fail to disclose all such hazards at the inception date of your policy, we will not reject coverage under this Coverage Part based solely on such failure.

3. Damage To Premises Rented To You

a. The last Paragraph of 2. Exclusions under Section I - Coverage A - Bodily Injury And Property Damage Liability is replaced by the following:

Exclusions c. through q. do not apply to "property damage" by fire, explosion, lightning, smoke or soot to premises while rented to you or temporarily occupied by you with permission of the owner, for which the amount we will pay is limited to the Damage To Premises Rented To You Limit as described in Section III - Limits Of Insurance.

- b. The insurance provided under Section I Coverage A Bodily Injury And Property Damage Liability applies to "property damage" arising out of water damage to premises that are both rented to and occupied by you.
 - (1) As respects Water Damage Legal Liability, as provided in Paragraph 3.b. above:

The exclusions under Section I - Coverage A - Bodily Injury And Property Damage Liability, 2. Exclusions, other than i. War and the Nuclear Energy Liability Exclusion (Broad Form), are deleted and the following are added:

This insurance does not apply to:

- (a) "Property damage":
 - (i) Assumed in any contract or agreement; or
 - (ii) Caused by or resulting from any of the following:
 - 1) Wear and tear:

- Rust or other corrosion, decay, deterioration, hidden or latent defect or any quality in property that causes it to damage or destroy itself;
- 3). Smog;
- Mechanical breakdown, including rupture or bursting caused by centrifugal force;
- Settling, cracking, shrinking or expansion;
- 6) Nesting or infestation, or discharge or release of waste products or secretions, by insects, birds, rodents or other animals; or
- Presence, growth, proliferation, spread or any activity of fungus, including mold or mildew, and any mycotoxins, spores, scents or byproducts produced or released by fungi.
- (**b**) "Property damage" caused directly or indirectly by any of the following:
 - (i) Earthquake, volcanic eruption, landslide or any other earth movement;
 - (ii) Water that backs up or overflows or is otherwise discharged from a sewer, drain, sump, sump pump or related equipment;
 - (iii) Water under the ground surface pressing on, or flowing or seeping through:
 - Foundations, walls, floors or paved surfaces;

- 2) Basements, whether paved or not; or
- Doors, windows or other openings.
- (c) "Property damage" caused by or resulting from water that leaks or flows from plumbing, heating, air conditioning, fire protection systems, or other equipment, caused by or resulting from freezing, unless:
 - (i) You did your best to maintain heat in the building or structure; or
 - (ii) You drained the equipment and shut off the water supply if the heat was not maintained.
- (d) "Property damage" to:
 - (i) Plumbing, heating, air conditioning, fire protection systems, or other equipment or appliances; or
 - (ii) The interior of any building or structure, or to personal property in the building or structure, caused by or resulting from rain, snow, sleet or ice, whether driven by wind or not.

c. Limit Of Insurance

With respect to the insurance afforded in Paragraphs 3.a. and 3.b. above, the **Damage To Premises Rented To You** Limit as shown in the Declarations is amended as follows:

- (1) Paragraph 6. of Section III -Limits Of Insurance is replaced by the following:
 - 6. Subject to Paragraph 5. above, the Damage To Premises Rented To You Limit is the most we will pay under Coverage A Bodily Injury And Property Damage Liability for damages because of "property damage" to any one premises:
 - a. While rented to you, or temporarily occupied by

- you with permission of the owner;
- In the case of damage by fire, explosion, lightning, smoke or soot, while rented to you; or
- In the case of damage by water, while rented to and occupied by you.
- (2) The most we will pay is limited as described in Section B. Limits Of Insurance, 3. Damage To Premises Rented To You of this endorsement.

4. Supplementary Payments

Under Section I - Supplementary Payments - Coverages A And B:

 Paragraph 2. is replaced by the following:

Up to the limit shown in Section B. Limits Of Insurance, 4.a. Bail Bonds of this endorsement for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.

Paragraph 4. is replaced by the following:

All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to the limit shown in Section B. Limits Of Insurance, 4.b. Loss Of Earnings of this endorsement per day because of time off from work.

5. Medical Payments

The Medical Expense Limit of Any One Person as stated in the Declarations is amended to the limit shown in Section B. Limits Of Insurance, 5. Medical Payments of this endorsement.

180 Day Coverage For Newly Formed Or Acquired Organizations

Section II - Who Is An Insured is amended as follows:

Subparagraph **a**. of Paragraph **3**. is replaced by the following:

 Insurance under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier;

7. Waiver Of Subrogation

Section IV - Commercial General Liability Conditions, 9. Transfer Of Rights Of Recovery Against Others To Us is amended by the addition of the following:

We waive any right of recovery we may have against any person or organization against whom you have agreed to waive such right of recovery in a written contract or agreement because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a written contract or agreement with that person or organization and included in the "products-completed operations hazard". However, our rights may only be waived prior to the "occurrence". giving rise to the injury or damage for which we make payment under this Coverage Part. The insured must do nothing after a loss to impair our rights. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce those rights.

8. Automatic Additional Insured - Specified Relationships

- The following is added to Section II -Who Is An Insured:
 - (1) Any person(s) or organization(s) described in Paragraph 8.a.(2) of this endorsement (hereinafter referred to as additional insured) whom you are required to add as an additional insured under this Coverage Part by reason of a written contract, written agreement, written permit or written authorization.
 - (2) Only the following persons or organizations are additional insureds under this endorsement, and insurance coverage provided to such additional insureds is limited as provided herein:

(a) Managers Or Lessors Of Premises

The manager or lessor of a premises leased to you with whom you have agreed per Paragraph 8.a.(1) of this endorsement to provide insurance, but only with respect to liability arising out of the ownership, maintenance or

use of that part of the premises leased to you, subject to the following additional exclusions:

This insurance does not apply to:

- (i) Any "occurrence" which takes place after you cease to be a tenant in that premises;
- (ii) Structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.

(b) Lessor Of Leased Equipment

Any person or organization from whom you lease equipment when you and such person(s) or organization(s) have agreed per Paragraph 8.a.(1) of this endorsement to provide insurance. Such person(s) or organization(s) are insureds only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your maintenance, operation or use of equipment leased to you by such person(s) or organization(s). A person's or organization's status as an additional insured under this endorsement ends when their contract or agreement with you for such leased equipment ends. However, this insurance does not apply to any "occurrence" which takes place after the equipment lease expires.

(c) Vendors

Any person or organization (referred to below as vendor) with whom you have agreed per Paragraph 8.a.(1) of this endorsement to provide insurance, but only with respect to "bodily injury" or "property damage" arising out of "your products" which are distributed or sold in the regular course of the

vendor's business, subject to the following additional exclusions:

- (i) The insurance afforded the vendor does not apply to:
 - "Bodily injury" or "property damage" for which the vendor is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that the vendor would have in the absence of the contract or agreement;
 - 2) Any express warranty unauthorized by you;
 - Any physical or chemical change in the product made intentionally by the vendor;
 - 4) Repackaging, except when unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;
 - 5) Any failure to make such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products;
 - **6)** Demonstration, installation, servicing

- or repair operations, except such operations performed at the vendor's premises in connection with the sale of the product;
- 7) Products which, after distribution or sale by you, have been labeled or relabeled or used as a container, part or ingredient of any other thing or substance by or for the vendor; or
- 8) "Bodily injury" or "property damage" arising out of the sole negligence of the vendor for its own acts or omissions or those of its employees or anyone else acting on its behalf. However, this exclusion does not apply to:
 - a) The exceptions contained in Paragraphs
 (c) (i) 4) or 6) of this endorsement; or
 - Such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course business, connection with the distribution or sale of the products.
- (ii) This insurance does not apply to any insured person or organization:
 - From whom you have acquired such products, or any ingredient, part

- or container, entering into, accompanying or containing such products; or
- 2) When liability included within the "productscompleted operations hazard" has been excluded under this Coverage Part with respect to such products.
- (d) State Or Governmental Agency Or Subdivision Or Political Subdivision -Permits Or Authorizations Relating To Premises

Any state or governmental agency or subdivision or political subdivision with which you have agreed per Paragraph 8.a.(1) of this endorsement to provide insurance, subject to the following additional provision:

This insurance applies only with respect to the following hazards for which the state or governmental agency or subdivision or political subdivision has issued a permit or authorization in connection with premises you own, rent or control and to which this insurance applies:

- (i) The existence, maintenance, repair, construction, erection or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoist away openings, sidewalk vaults, street banners or decorations and similar exposures; or
- (ii) The construction, erection or removal of elevators; or
- (iii) The ownership, maintenance or use of any elevators covered by this insurance.

(e) Mortgagee, Assignee Or Receiver

Any person or organization with whom you have agreed per Paragraph 8.a.(1) of this endorsement to provide insurance, but only with respect to their liability as mortgagee, assignee, or receiver and arising out of the ownership, maintenance, or use of the premises by you. However, this insurance does not apply to structural alterations, new construction and demolition operations performed by or for that person or organization.

- (3) The insurance afforded to additional insureds described in Paragraph 8.a.(1) of this endorsement:
 - (a) Only applies to the extent permitted by law; and
 - (b) Will not be broader than that which you are required by the written contract, written agreement, written permit or written authorization to provide for such additional insured; and
 - (c) Does not apply to any person, organization, vendor, state, governmental agency or subdivision or political subdivision, specifically named as an additional insured under any other provision of, or endorsement added to, this Coverage Part, provided such other provision or endorsement covers the injury or damage for which this insurance applies.
- b. With respect to the insurance afforded to the additional insureds described in Paragraph 8.a.(1) of this endorsement, the following is added to Section III Limits Of Insurance:

The most we will pay on behalf of the additional insured is the amount of insurance:

 Required by the written contract, written agreement, written permit or written authorization described

- in Paragraph **8.a.(1)** of this endorsement; or
- (2) Available under the applicable Limits of Insurance shown in the Declarations:

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

c. Section IV - Commercial General Liability Conditions is amended to include the following:

Automatic Additional Insured Provision

This insurance applies only if the "bodily injury" or "property damage" occurs, or the "personal and advertising injury" offense is committed:

- (1) During the policy period; and
- (2) Subsequent to your execution of the written contract or written agreement, or the issuance of a written permit or written authorization, described in Paragraph 8.a.(1).
- d. Section IV Commercial General Liability Conditions is amended as follows:

Condition **5. Other Insurance** is amended to include:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured per Paragraph 8.a.(1) of this endorsement provided that:

- The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed in writing in a contract, agreement, permit or authorization described in 8.a.(2) of this endorsement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.
- 9. Property Damage To Borrowed Equipment
 - a. The following is added to Exclusion2.j. Damage To Property under Sec-

tion | - Coverage A - Bodily Injury And Property Damage Liability:

Paragraphs (3) and (4) of this exclusion do not apply to tools or equipment loaned to you, provided they are not being used to perform operations at the time of loss.

- b. With respect to the insurance provided by this section of the endorsement, the following additional provisions apply:
 - (1) The Limits of Insurance shown in the Declarations are replaced by the limits designated in Section B. Limits Of Insurance, 9. Property Damage To Borrowed **Equipment** of this endorsement with respect to coverage provided by this endorsement. These limits are inclusive of and not in addition to the limits being replaced. The Limits of Insurance shown in Section B. Limits Of Insurance, 9. Property Damage To Borrowed Equipment of this endorsement fix the most we will pay in any one "occurrence" regardless of the number of:
 - (a) Insureds;
 - (b) Claims made or "suits" brought; or
 - (c) Persons or organizations making claims or bringing "suits".

(2) Deductible Clause

- (a) Our obligation to pay damages on your behalf applies only to the amount of damages for each "occurrence" which are in excess of the Deductible Amount stated in Section B. Limits Of Insurance, 9. Property Damage To Borrowed Equipment of this endorsement. The limits of insurance will not be reduced by the application of such deductible amount.
- (b) Section IV Commercial General Liability Conditions, 2. Duties In The Event Of Occurrence, Offense, Claim Or Suit, applies to each claim or "suit" irrespective of the amount.

(c) We may pay any part or all of the deductible amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the deductible amount as has been paid by us.

10. Employees As Insureds - Specified Health Care Services And Good Samaritan Services

Paragraph 2.a.(1)(d) under Section II - Who Is An Insured does not apply to:

- a. Your "employees" who provide professional health care services on your behalf as a duly licensed nurse, emergency medical technician or paramedic in the jurisdiction where an "occurrence" or offense to which this insurance applies takes place; or
- b. Your "employees" or "volunteer workers", other than an employed or volunteer doctor, providing first aid or good samaritan services during their work hours for you will be deemed to be acting within the scope of their employment by you or performing duties related to the conduct of your business.

11. Broadened Notice Of Occurrence

Paragraph a. of Condition 2. Duties In The Event Of Occurrence, Offense, Claim Or Suit under Section IV - Commercial General Liability Conditions is replaced by the following:

- a. You must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include:
 - (1) How, when and where the "occurrence" or offense took place;
 - (2) The names and addresses of any injured persons and witnesses; and
 - (3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

This requirement applies only when the "occurrence" or offense is known to an "authorized representative".

12. Nonowned Aircraft

The following is added to Exclusion 2.g. Aircraft, Auto Or Watercraft under Section I - Coverage A - Bodily Injury And Property Damage Liability:

This exclusion does not apply to an aircraft you do not own, provided that:

- a. The pilot in command holds a current effective certificate, issued by a duly constituted authority of the United States of America or Canada, designating that person as a commercial or airline transport pilot;
- the aircraft is rented with a trained, paid crew; and
- c. The aircraft does not transport persons or cargo for a charge.

13. Bodily Injury Redefined

Section V - Definitions, 4. "Bodily injury" is replaced by the following:

4. "Bodily injury" means bodily harm or injury, sickness, disease, disability, humiliation, shock, fright, mental anguish or mental injury, including care, loss of services or death resulting from any of these at any time.

14. Expected Or Intended Injury Redefined

The last sentence of Exclusion 2.a. Expected Or Intended Injury under Section I - Coverage A - Bodily Injury And Property Damage Liability is replaced by the following:

This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

15. Former Employees As Insureds

The following is added to Paragraph 2. under Section II - Who Is An Insured:

Each of the following is also an insured:

Any of your former "employees", directors, managers, members, partners or "executive officers", including but not limited to retired, disabled or those on leave of absence, but only for acts within the scope of their employment by you or for duties related to the conduct of your business.

16. Voluntary Property Damage Coverage

a. Coverage D - Voluntary Property Damage Coverage

Section I - Coverages is amended to include the following:

(1) Insuring Agreement

- (a) We will pay the cost to repair or replace "property damage" to property of others arising out of operations incidental to your business when:
 - Damage is caused by you; or
 - 2) Damage occurs while in your possession.

At your written request, we will make this payment regardless of whether you are at fault for the "property damage".

If you, at our request, replace, or make any repairs to, damaged property of others, the amount we will pay under Voluntary Property Damage Coverage will be determined by your actual cost to replace or repair the damaged property, excluding any profit or overhead.

Any payment we make under Voluntary Property
Damage Coverage shall not be interpreted as an admission of liability by you or by us.

It shall be your duty, not our duty, to defend any claim or "suit" to which this insurance applies.

No other obligation or liability to pay sums or perform acts or services is covered.

- (b) This insurance applies to "property damage" only if:
 - The "property damage" takes place in the "coverage territory"; and
 - The "property damage" occurs during the policy period.

(2) Exclusions

This insurance does not apply to "property damage" that would be excluded by Coverage A - Bodily Injury And Property Damage Liability, 2. Exclusions, except for j. Damage To Property, paragraphs (3), (4), (5) and (6), k. Damage To Your Product, and l. Damage To Your Work.

(3) Definitions

For purposes of Voluntary Property Damage Coverage only, the following definitions under Section V - Definitions are replaced by the following:

- 16. "Occurrence" means an incident, including continuous or repeated exposure to substantially the same general harmful conditions that result in "property damage".
- 20. "Property damage" means physical injury to tangible property. "Electronic data" is not tangible property, and "property damage" does not include disappearance, abstraction or theft.

b. Care, Custody Or Control Liability Coverage

For purposes of the coverage provided by Care, Custody Or Control Liability Coverage in this endorsement only:

- (1) Section I Coverage A Bodily Injury And Property Damage Liability, 2. Exclusions, j. Damage To Property, Subparagraphs (3), (4) and (5) do not apply to "property damage" to the property of others described therein.
- (2) It shall be your duty, not our duty, to defend any claim or "suit" to which this insurance applies.

No other obligation or liability to pay sums or perform acts or services is covered.

This Paragraph (2) supersedes any provision in the Coverage Part to the contrary.

(3) "Property damage" for which Care, Custody Or Control Liability Coverage provides cover-

age shall be deemed to be caused by an "occurrence" but shall not serve to limit or restrict the applicability of any exclusion for "property damage" under this Coverage Part.

c. Limits Of Insurance And Deductibles

For purposes of the coverage provided by Voluntary Property Damage Coverage and Care, Custody Or Control Liability Coverage, Section III - Limits Of Insurance is amended to include the following:

- (1) The Limits of Insurance shown in the Declarations are replaced by the limits designated in Section B. Limits Of Insurance, 16. Voluntary Property Damage Coverage And Care, Custody Or Control Liability Coverage, in this endorsement. These limits are inclusive of, and not in addition to, the limits being replaced. The Limits of Insurance shown in the Schedule fix the most we will pay regardless of the number of:
 - (a) Insureds;
 - (b) Claims made or "suits" brought; or
 - (c) Persons or organizations making claims or bringing "suits".
- (2) (a) Subject to (3) below, the Voluntary Property Damage Coverage, Each Occurrence Limit Of Insurance is the most we will pay for the sum of damages under Voluntary Property Damage Coverage;
 - (b) The Care, Custody Or Control Liability Coverage, Each Occurrence Limit Of Insurance is the most we will pay for the sum of damages under Care, Custody Or Control Liability Coverage;

because of all "property damage" arising out of any one "occurrence". (3) The Voluntary Property Damage Coverage, Aggregate Limit Of Insurance is the most we will pay for the sum of all damages under Voluntary Property Damage Coverage. This limit applies separately to each "coverage term".

(4) Deductible Clause

- (a) Our obligation to pay damages on your behalf applies only to the amount of damages for each "occurrence" which are in excess of the Deductible Amount stated for the applicable coverage in the Schedule. The limits of insurance will not be reduced by the application of such Deductible Amount.
- (b) Section IV Commercial General Liability Conditions, 2. Duties In The Event Of Occurrence, Offense, Claim Or Suit, applies to each claim or "suit" irrespective of the amount.
- (c) We may pay any part or all of the Deductible Amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the Deductible Amount as has been paid by us.

17. Broadened Contractual Liability - Work Within 50' Of Railroad Property

Section V - Definitions, 12. "Insured contract" is amended as follows:

- Paragraph c. is replaced by the following:
 - Any easement or license agreement;
- Paragraph f.(1) is deleted in its entirety.

18. Alienated Premises

Exclusion 2.j. Damage to Property, Paragraph (2) under Section I - Coverage A - Bodily Injury And Property Damage Liability does not apply if the premises are "your work".

THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY.

CONTRACTORS ADDITIONAL INSURED - AUTOMATIC STATUS WHEN REQUIRED IN WRITTEN CONTRACT OR AGREEMENT COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

- A. Additional Insured Owners, Lessees Or Contractors - Automatic Status For Other Parties When Required In Written Contract Or Agreement With You
 - Section II Who Is An Insured is amended to include as an additional insured any person or organization you have agreed in writing in a contract or agreement to add as an additional insured on this Coverage Part. Such person(s) or organization(s) is an additional insured only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" performed under that written contract or written agreement and included in the "products-completed operations hazard", but only if:
 - a. The Coverage Part to which this endorsement is attached provides coverage for "bodily injury" or "property damage" included within the "products-completed operations hazard"; and
 - b. The written contract or written agreement requires you to provide additional insured coverage included within the "products-completed operations hazard" for that person or organization.

If the written contract or written agreement requires you to provide additional insured coverage included within the "products-completed operations hazard" for a specified length of time for that person or organization, the "bodily injury" or "property damage" must occur prior to the expiration of that period of time in order for this insurance to apply.

If the written contract or written agreement requires you to provide additional insured coverage for a person or organization per ISO additional insured endorsement form number **CG 20 10**, without specifying an edition date, coverage

- does not apply to that person or organization.
- With respect to the insurance afforded to the additional insureds described in Paragraph A., the following additional exclusions apply:

This insurance does not apply to

- a. "Bodily injury" or "property damage" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:
 - (1) The preparing, approving or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - (2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the rendering of, or the failure to render, any professional architectural, engineering or surveying services.

- "Bodily injury" or "property damage" arising out of "residential" construction.
- B. The insurance afforded to additional insureds described in Paragraph A.:
 - 1. Only applies to the extent permitted by law; and
 - Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured; and

- Does not apply to any person or organization specifically named as an additional insured for the same project in the schedule of an endorsement added to this Coverage Part.
- C. With respect to the insurance afforded to the additional insureds described in Paragraph A., the following is added to Section III - Limits Of Insurance:

The most we will pay on behalf of the additional insured is the amount of insurance:

- Required by the written contract, written agreement, written permit or written authorization described in Paragraph A.; or
- Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

D. Section IV - Commercial General Liability Conditions is amended to add the following:

Automatic Additional Insured Provision

This insurance applies only if the "bodily injury" or "property damage" occurs:

- 1. During the policy period; and
- Subsequent to your execution of the written contract or written agreement described in Paragraph A.
- E. Except when F. below applies, the following is added to Section IV Commercial General Liability Conditions, 5. Other Insurance, and supersedes any provision to the contrary:

When Other Additional Insured Coverage Applies On An Excess Basis

This insurance is primary to other insurance available to the additional insured described in Paragraph **A.** except:

- As otherwise provided in Section IV -Commercial General Liability Conditions, 5. Other Insurance, b. Excess Insurance; or
- 2. For any other valid and collectible insurance available to the additional insured as an additional insured by attachment of an endorsement to another insurance policy that is written on an excess basis. In such case, this insurance is also excess.
- F. The following is added to Section IV Commercial General Liability Conditions, 5. Other Insurance, and supersedes any provision to the contrary:

Primary Insurance When Required By Written Contract Or Agreement

Except when wrap-up insurance applies to the claim or "suit" on behalf of the additional insured, this insurance is primary to any other insurance available to the additional insured described in Paragraph A. provided that:

- The additional insured is a Named Insured under such other insurance; and
- You have agreed in writing in a contract or agreement described in Paragraph A. that this insurance would be primary to any other insurance available to the additional insured.

As used in this endorsement, wrap-up insurance means any insurance provided by a consolidated (wrap-up) insurance program.

Primary And Noncontributory Insurance When Required By Written Contract Or Agreement

Except when wrap-up insurance applies to the claim or "suit" on behalf of the additional insured, this insurance is primary to and will not seek contribution from any other insurance available to the additional insured described in Paragraph A. provided that:

- The additional insured is a Named Insured under such other insurance; and
- You have agreed in writing in a contract or agreement described in Paragraph A. that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

As used in this endorsement, wrap-up insurance means any insurance provided by a consolidated (wrap-up) insurance program.

- G. Section V Definitions is amended to include:
 - 1. "Residential" construction means:
 - a. A structure used, or intended, in whole or in part, for the purpose of human habitation, and includes, but is not limited to, single-family housing, multi-family housing, tract homes, condominiums, cooperatives, townhomes, townhouses, plannedunit developments and timeshares;
 - A structure converted, or being converted, in whole or in part, into condominiums or cooperatives; and
 - c. Common areas and grounds, appurtenant structures and facilities, of the structures described in 1.a. and b. above, except a public street, public

road, public right of way, or public utility easement located on or near such common areas and grounds.

"Residential construction" does not include:

- a. "Hospitals, jails or prisons; and
- b. Provided there is no individual ownership of units and that such was not, in whole or in part, at any time, marketed, sold, occupied or used as single-family housing, multi-family housing, or as a condominium, cooperative, townhouse, townhome or timeshare:

- Government housing on military bases;
- (2) College/university dormitories;
- (3) Apartments;
- (4) Long-term care facilities;
- (5) Assisted-living facilities;
- (6) Nursing homes; and
- (7) Hotels or motels.

(Ed. 4-84)

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

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

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

Schedule

State

Blanket/Schedule/State

ΑZ

BLANKET

Blanket Waiver: Anyone for whom you have agreed to provide this Waiver subject to the terms of this endorsement

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective 05/01/2021

Policy No. 1016380

Endorsement No. 4

Insured Hunter Contracting Co/Hunter Ditch LP/BED LLC

Premium \$

Insurance Company CopperPoint American Insurance Company

Countersigned by

WC 00 03 13 (Ed. 4-84)

ARIZONA STATUTORY PERFORMANCE BOND

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

KNOW ALL MEN BY THESE PRESENTS THAT:

BOND #107453447

Hunter Contracting Co.

(hereinafter "Principal"), as Principal, and <u>TRAVELERS CASUALTY AND SURETY COMPANY OF</u> AMERICA

(hereinafter "Surety"), a corporation organized and existing under the laws of the State of CONNECTICUT with its principal office in the City of HARTFORD, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto Pima County, Arizona (hereinafter "Obligee") in the amount of FOUR MILLION & NO/100--- (\$4,000,000.00), 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 xxth of month, year for:

Job Order Master Agreement: Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services

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

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of the contract during the original term of the contract and any extension of the contract, with or without notice 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 of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copies at length in this Contract.

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

Witness our hands this 2ND day of SEPTEMBER, 2021.

HUNTER CONTRACTING CO

Principal

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

Surety

WILLIAM J PASSEY, ATTOR

WANTAMINION

William A Ville Control of the Contr

ARIZONA STATUTORY PAYMENT BOND

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

KNOW ALL MEN BY THESE PRESENTS THAT:

BOND #107453447

Hunter Contracting Co.

(hereinafter "Principal"), as Principal, and <u>TRAVELERS CASUALTY AND SURETY COMPANY OF</u> AMERICA

(hereinafter "Surety"), a corporation organized and existing under the laws of the State of CONNECTICUT, with its principal office in the City of HARTFORD, holding a certificate of authority to transact surety business in Arizona issued by the Director of Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto Pima County (hereinafter "Obligee") in the amount of FOUR MILLION & NO/100 (\$4,000,000.00) 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, xxth of month, year for:

Job Order Master Agreement: Wastewater Conveyance System and Related Facilities Repair, Rehabilitation & Construction Services

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

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

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

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

Witness our hands this <u>2ND</u> day of <u>SEPTEMBER</u>, 20<u>21</u>.

HUNTER CONTRACTING CO

Principal

TRAVELERS CASUALTY AND SURETY COMPANY

OF AMERICA

Surety

Charles English, Prusident

William William William

By: WILLIAM J PASSEY, ATTORNOOM



Travelers Casualty and Surety Company of America Travelers Casualty and Surety Company St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint WILLIAM J PASSEY of Mesa

Arizona , their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 3rd day of February, 2017.







State of Connecticut

City of Hartford ss.

On this the 3rd day of February, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021



Marie C. Tetreault, Notary Public

Raney, Sentor Vice President

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

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

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

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

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

I, Kevin E. Hughes, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is the power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 2ND

day of SEPTEMBER 2021







To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.

Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.





DEPARTMENT OF INSURANCE

CERTIFICATE OF AUTHORITY

I, JOHN A. GREENE, Director of Insurance of the State of Arizona, do hereby certify that

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA Domiciled in Connecticut NAIC NO. 31194

is hereby authorized, subject to the provisions thereof and the Charter Powers of said Company, to transact the business of:

CASUALTY WITH WORKERS' COMPENSATION
DISABILITY
MARINE AND TRANSPORTATION
PROPERTY
SURETY
VEHICLE

insurance within the State of Arizona until terminated at the request of the insurer or suspended or revoked by the Director of Insurance.

Arizona Revised Statute § 20-217 (C) states:

A Certificate of Authority remains the property of the State of Arizona. Upon termination at the request of the insurer or revocation by the Director of Insurance, the insurer shall immediately deliver the Certificate of Authority to the Director of Insurance.

In TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Director of Insurance at the City of Phoenix. The effective date of this Certificate is July 1, 1997.

E146 (01/97)

John A. Greene

Director of Insurance

30 18 () 7 000843

STATE OF ARIZONA

DEPARTMENT OF INSURANCE AND FINANCIAL INSTITUTIONS

This is to certify, that this instrument is a true, full and correct copy of the original electronically filed with the National Association of Insurance Commissioners and consists of 1 pages(s)

Hereunto set my hand and the official seal of this Department for the Director of Insurance and Financial Institutions this 07 December 2020.

Authorized Representative





Certificate No.: