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**AMENDMENT TO AGREEMENT FOR ENGINEERING SERVICES FOR DESIGN AND
INSTALLATION OF EMERGENCY NETWORK INFRASTRUCTURE MONITORING SYSTEM
Pursuant to RFQ 22-017**

THIS AMENDMENT (“Amendment”) is entered into by and between Fort Bend County, (“County”), a body corporate and politic under the laws of the State of Texas, and Iteris, Inc., (“Iteris”), a company authorized to conduct business in the State of Texas (collectively referred to as the “parties”).

WITNESSETH:

WHEREAS, the parties previously entered into the Agreement for Engineering Services for Design and Installation of Emergency Network Infrastructure Monitoring System pursuant to RFQ 22-017, on or about July 5, 2022, (the “Agreement”), attached hereto as Exhibit “I” and incorporated herein for all purposes; and

NOW, THEREFORE, County and Iteris desire to amend said Agreement as set forth below:

I. Amendments

1. **Scope of Services.** Iteris shall provide additional product and/or services as described in Iteris' Proposal Quote Sheet, Labor Rates, and Scope of Work, collectively attached as Exhibit "II" and incorporated fully by reference, concerning the design, construction support, and integration for a minimum of 39 additional CCTV locations.
2. **Limit of Appropriation.** Iteris' fees shall be calculated at the rates set forth in the attached Exhibit II. The Limit of Appropriation for the performance of services within the Scope of Services as described in Exhibit II is \$732,259.21. The Limit of Appropriation payable to Iteris for product and/or services rendered under the Agreement is hereby increased to an amount not to exceed \$993,648.11, authorized as follows:

\$261,388.90 under the Agreement; and

\$732,259.21 under this Amendment to the Agreement

In no case shall the amount paid by County for all product and/or services under the Agreement and this Amendment to the Agreement exceed the above Limit of Appropriation without an agreement executed by the parties.

3. **Certain State Law Requirements for Contracts.** The contents of this Section are required by Texas Law and are included by County regardless of content. For purposes of Sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as

amended, Iteris hereby verifies that Iteris and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:

- a. Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization, is not identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.
 - b. If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Iteris does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts. "Boycott Israel" has the meaning provided in § 808.001 of the Texas Government Code.
 - c. If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Iteris does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. "Boycott energy company" has the meaning provided in § 809.001 of the Texas Government Code.
 - d. If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Iteris does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. "Discriminate against a firearm entity or firearm trade association" has the meaning provided in § 2274.001(3) of the Texas Government Code. "Firearm entity" and "firearm trade association" have the meanings provided in § 2274.001(6) and (7) of the Texas Government Code.
4. **Modifications.** Except as modified herein, the Agreement remains in full force and effect and has not been modified or amended.
 5. **Conflict.** If there is a conflict among documents, the most recently executed document will prevail with regard to the conflict.
 6. **Understanding, Fair Construction.** By execution of this Amendment, the parties acknowledge that they have read and understood each provision, term and obligation contained in this Amendment. This Amendment, although drawn by one party, shall be construed fairly and reasonably and not more strictly against the drafting party than the nondrafting party.
 7. **Severability.** If any provision of this Agreement is determined to be invalid, illegal, or unenforceable, the remaining provisions remain in full force, if the essential terms and conditions of this Agreement for each party remain valid, binding, and enforceable.

(Execution Page Follows)

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IN WITNESS WHEREOF, this Amendment is signed, accepted, and agreed to by all parties by and through the parties or their agents or authorized representatives. All parties hereby acknowledge that they have read and understood this Amendment and the attachments and exhibits hereto. All parties further acknowledge that they have executed this legal document voluntarily and of their own free will. This Amendment is effective upon execution by both parties.

FORT BEND COUNTY

ITERIS, INC.

KP George, County Judge

Authorized Agent – Signature

Date

Clifford D. Heise
Authorized Agent- Printed Name

ATTEST:

Regional Vice President
Title

Laura Richard, County Clerk

September 20, 2023
Date

REVIEWED:

Robyn Doughtie
Information Technology Office

REVIEWED:

Gregory Babst
Office of Emergency Management

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$_____ to accomplish and pay the obligation of Fort Bend County under this Agreement.

Robert Ed Sturdivant, County Auditor

Exhibit I: Agreement for Engineering Services for Design and Installation of Emergency Network Infrastructure Monitoring System, executed by the parties on or about July 5, 2022; and
Exhibit II: Iteris' Proposal Quote Sheet, Labor Rates, and Scope of Work.

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EXHIBIT I

**AGREEMENT FOR ENGINEERING SERVICES FOR DESIGN AND INSTALLATION
OF EMERGENCY NETWORK INFRASTRUCTURE MONITORING SYSTEM
Pursuant to RFQ 22-017**

THIS AGREEMENT ("Agreement") is entered into by and between Fort Bend County, ("County"), a body corporate and politic under the laws of the State of Texas, and Iteris, Inc., ("Iteris"), a company authorized to conduct business in the State of Texas (hereinafter each referred to as a "party" or collectively as the "parties").

WITNESSETH

WHEREAS, County desires that Iteris provide Engineering Services for the Design and Installation of an Emergency Network Infrastructure Monitoring System, which complies with all specifications outlined in RFQ 22-017 (hereinafter the "Services"); and

WHEREAS, County desires that Iteris provide Services as will be more specifically described in this Agreement pursuant to RFQ 22-017; and

WHEREAS, Iteris represents that it is qualified and desires to perform Services in accordance with the advertised specifications of RFQ 22-017; and

WHEREAS, RFQ 22-017 is incorporated fully by reference as if set forth verbatim below, and is attached as Exhibit "B"; and

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth below, the Parties agree as follows:

AGREEMENT

Section 1. Scope of Services

- A. Iteris shall render Services to County as defined in the Scope of Services, attached as Exhibit "A" and incorporated fully by reference, which includes Iteris' Proposal Quote Sheet (issue date: March 17, 2022), Emergency Network Infrastructure Monitoring System Scope of Work, and response to County's Request for Firm Qualifications (dated November 16, 2021). Iteris will also render Services to County in accordance with the requirements and advertised specifications of RFQ 22-017.
- B. All performance of the Scope of Services by Iteris including any changes in the Scope of Services and revision of work satisfactorily performed will be performed only when approved in advance and authorized by County.

Section 2. Personnel

- A. Iteris represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Services required under this Agreement and that Iteris shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Scope of Services when and as required and without delays.
- B. All employees of Iteris shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Iteris who, in the opinion of County, is incompetent or by his conduct becomes detrimental to the project shall, upon request of County, immediately be removed from association with the project.
- C. When performing Services for County, Iteris shall comply with, and ensure that all Iteris Personnel comply with, all rules, regulations and policies of County that are communicated to Iteris in writing, including security procedures concerning systems and data and remote access thereto, building security procedures, including the restriction of access by County to certain areas of its premises or systems for security reasons, and general health and safety practices and procedures.

Section 3. Compensation and Payment

- A. Iteris' fees shall be calculated at the rates set forth in the Proposal Quote Sheet (issue date: March 17, 2022), attached within Exhibit A. The Maximum Compensation for the performance of Services within the Scope of Services described in Exhibit A is Two Hundred Sixty-One Thousand, Three Hundred Eighty-Eight dollars and 90/100 cents (\$261,388.90). In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without an approved change order.
- B. All performance of the Scope of Services by Iteris including any changes in the Scope of Services and revision of work satisfactorily performed will be performed only when approved in advance and authorized by County.
- C. County will pay Iteris based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Iteris shall submit to County two (2) original copies of invoices showing the amounts due for services performed in a form acceptable to County. County shall review such invoices and approve them within 30 calendar days with such modifications as are consistent with this Agreement and forward same to the Auditor for processing. County shall pay each such approved invoice within thirty (30) calendar days. County reserves the right to withhold payment pending verification of satisfactory work performed.
- D. County is a body corporate and politic under the laws of the State of Texas and claims exemption from sales and use taxes. A copy of a tax-exempt certificate will be furnished upon request. Interest resulting from late payments by County shall be governed by Chapter 2251, TEXAS GOVERNMENT CODE.

- E. Mutually approved travel and mileage expenses incurred in the performance of required Services will be compensated only in accordance with the County's Travel Policy, a copy of which is attached as Exhibit "C" and is incorporated fully by reference. Receipts evidencing travel related expenditures made by Iteris or Iteris, subcontractors (where applicable) shall be submitted to the County Auditor's Office:

Fort Bend County Auditor
Attn: Robert Ed Sturdivant
301 Jackson Street, Suite 701, Richmond, TX 77469

Section 4. Limit of Appropriation

- A. Iteris clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of Two Hundred Sixty-One Thousand, Three Hundred Eighty-Eight dollars and 90/100 cents (\$261,388.90), specifically allocated to fully discharge any and all liabilities County may incur.
- B. Iteris does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Iteris may become entitled to and the total maximum sum that County may become liable to pay to Iteris shall not under any conditions, circumstances, or interpretations thereof exceed Two Hundred Sixty-One Thousand, Three Hundred Eighty-Eight dollars and 90/100 cents (\$261,388.90).
- C. It is specifically understood and agreed that in the event no funds or insufficient funds are appropriated by Fort Bend County under this Agreement, Fort Bend County shall notify all necessary parties that this Agreement shall thereafter terminate and be null and void on the last day of the fiscal period for which appropriations were made without penalty, liability or expense to Fort Bend County.

Section 5. Time of Performance

The time for performance of the Scope of Services by Iteris shall begin with receipt of the Notice to Proceed from County. Applicable Services shall be scheduled at a time that is mutually agreeable between the parties but without reasonable delay.

Section 6. Modifications and Waivers

- A. The parties may not amend or waive this Agreement, except by a written agreement executed by both parties.
- B. No failure or delay in exercising any right or remedy or requiring the satisfaction of any condition under this Agreement, and no course of dealing between the Parties, operates as a waiver or estoppel of any right, remedy, or condition.

- C. The rights and remedies of the parties set forth in this Agreement are not exclusive of, but are cumulative to, any rights or remedies now or subsequently existing at law, in equity, or by statute.

Section 7. Termination

- A. Termination for Convenience: The County may terminate this Agreement at any time upon thirty (30) days written notice.
- B. Termination for Default
 - 1. County may terminate the whole or any part of this Agreement for cause in the following circumstances:
 - a. If Iteris fails to perform services within the time specified in the Scope of Services or any extension thereof granted by the County in writing;
 - b. If Iteris materially breaches any of the covenants or terms and conditions set forth in this Agreement or fails to perform any of the other provisions of this Agreement or so fails to make progress as to endanger performance of this Agreement in accordance with its terms, and in any of these circumstances does not cure such breach or failure to County's reasonable satisfaction within a period of ten (10) calendar days after receipt of notice from County specifying such breach or failure.
 - 2. If, after termination, it is determined for any reason whatsoever that Iteris was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the County in accordance with Section 7.A above.
- C. Upon termination of this Agreement, County shall compensate Iteris in accordance with Section 3, above, for those Services which were provided under this Agreement prior to its termination and which have not been previously invoiced to County. Iteris' final invoice for said Services will be presented to and paid by County in the same manner set forth in Section 3 above.
- D. If County terminates this Agreement as provided in this Section, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Iteris.
- E. If County terminates this Agreement prior to the termination date, County shall not be subject to any early termination fee or other penalty.

Section 8. Ownership and Reuse of Documents

All documents, data, reports, research, graphic presentation materials, etc., developed by Iteris as a part of its work under this Agreement, shall become the property of County upon completion of this Agreement, or in the event of termination or cancellation thereof, at the time

of payment under Section 3 for work performed. Iteris shall promptly furnish all such data and material to County on request.

Section 9. Inspection of Books and Records

Iteris will permit County, or any duly authorized agent of County, to inspect and examine the books and records of Iteris for the purpose of verifying the amount of work performed under the Scope of Services. County's right to inspect survives the termination of this Agreement for a period of four years.

Section 10. Insurance

- A. Prior to commencement of the Services, Iteris shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days' prior written notice to County. Iteris shall provide certified copies of insurance endorsements and/or policies if requested by County. Iteris shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Iteris shall obtain such insurance written on an Occurrence form from such companies having Bests rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:
1. Workers Compensation in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
 2. Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
 3. Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.
 4. Business Automobile Liability coverage with a combined Bodily Injury/Property Damage limit of not less than \$1,000,000 each accident. The policy shall cover liability arising from the operation of licensed vehicles by policyholder.
 5. Professional Liability insurance may be made on a Claims Made form with limits not less than \$1,000,000.
- B. County and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability (if

required). All Liability policies written on behalf of Iteris shall contain a waiver of subrogation in favor of County and members of Commissioners Court. For Commercial General Liability, the County shall be named as an Additional Insured on a Primary & Non-Contributory basis.

- C. If required coverage is written on a claims-made basis, Iteris warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the Agreement and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning from the time the work under this Agreement is completed.
- D. Iteris shall not commence any portion of the work under this Agreement until it has obtained the insurance required herein and certificates of such insurance have been filed with and approved by Fort Bend County.
- E. No cancellation of or changes to the certificates, or the policies, may be made without thirty (30) days prior, written notification to Fort Bend County.
- F. Approval of the insurance by Fort Bend County shall not relieve or decrease the liability of Iteris.

Section 11. Indemnity

Iteris shall indemnify and hold harmless County against all liability for damages arising from activities of Iteris, its agents, servants or employees, performed under this Agreement to the extent that the damage is caused by or results from an act of negligence, intentional tort, intellectual property infringement, or failure to pay a subcontractor or supplier committed by Iteris, its agents, servants, employees, consultants under contract, or another entity over which Iteris exercises control. Iteris agrees to reimburse County for reasonable attorney's fees in proportion to Iteris' liability.

- 1. Iteris shall timely report all such matters to Fort Bend County and shall, upon the receipt of any such claim, demand, suit, action, proceeding, lien or judgment, not later than the fifteenth day of each month; provide Fort Bend County with a written report on each such matter, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of Fort Bend County required by Iteris in the defense of each matter.
- 2. Iteris' duty to defend, indemnify and hold Fort Bend County harmless shall not abate or end by reason of the expiration or termination of any contract unless otherwise agreed by Fort Bend County in writing. The provisions of this Section shall survive the termination of the contract and shall remain in full force and effect with respect to all such matters no matter when they arise.
- 3. In the event of any dispute between the parties as to whether a claim, demand, suit, action, proceeding, lien or judgment appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of Iteris, Iteris shall never-

the-less fully defend such claim, demand, suit, action, proceeding, lien or judgment until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of Iteris are not at issue in the matter.

4. The provision by Iteris of insurance shall not limit the liability of Iteris under an agreement.
5. Iteris shall cause all trade contractors and any other contractor who may have a contract to perform construction or installation work in the area where work will be performed under this request, to agree to indemnify Fort Bend County and to hold it harmless from all claims for bodily injury and property damage that may arise from said Iteris' operations. Such provisions shall be in form satisfactory to Fort Bend County.
6. Loss Deduction Clause - Fort Bend County shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of Iteris and/or trade contractor providing such insurance.
7. The parties agree that under the Constitution and laws of the State of Texas, County cannot enter into an agreement whereby County agrees to indemnify or hold harmless another party; therefore, all references of any kind to County defending, indemnifying, holding or saving harmless Iteris or any other party for any reason are hereby deleted.

Section 12. Confidential and Proprietary Information

- A. Iteris acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to County. Any and all information of any form obtained by Iteris or its employees or agents from County in the performance of this Agreement shall be deemed to be confidential information of County ("Confidential Information"). Any reports or other documents or items (including software) that result from the use of the Confidential Information by Iteris shall be treated with respect to confidentiality in the same manner as the Confidential Information. Confidential Information shall be deemed not to include information that (a) is or becomes (other than by disclosure by Iteris) publicly known or is contained in a publicly available document; (b) is rightfully in Iteris' possession without the obligation of nondisclosure prior to the time of its disclosure under this Agreement; or (c) is independently developed by employees or agents of Iteris who can be shown to have had no access to the Confidential Information.
- B. Iteris agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Iteris uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purposes whatsoever other than the provision of Services to County hereunder, and to advise each of its employees and agents of their obligations to keep

Confidential Information confidential. Iteris shall use its best efforts to assist County in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Iteris shall advise County immediately in the event Iteris learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement and Iteris will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Iteris against any such person. Iteris agrees that, except as directed by County, Iteris will not at any time during or after the term of this Agreement disclose, directly or indirectly, any Confidential Information to any person, and that upon termination of this Agreement or at County's request, Iteris will promptly turn over to County all documents, papers, and other matter in Iteris' possession which embody Confidential Information.

- C. Iteris acknowledges that a breach of this Section, including disclosure of any Confidential Information, or disclosure of other information that, at law or in equity, ought to remain confidential, will give rise to irreparable injury to County that is inadequately compensable in damages. Accordingly, County may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies that may be available. Iteris acknowledges and agrees that the covenants contained herein are necessary for the protection of the legitimate business interest of County and are reasonable in scope and content.
- D. Iteris in providing all services hereunder agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.
- E. Iteris expressly acknowledges that County is subject to the Texas Public Information Act, TEX. GOV'T CODE ANN. §§ 552.001 et seq., as amended, and notwithstanding any provision in the Agreement to the contrary, County will make any information related to the Agreement, or otherwise, available to third parties in accordance with the Texas Public Information Act. Any proprietary or confidential information marked as such provided to County by Consultant shall not be disclosed to any third party, except as directed by the Texas Attorney General in response to a request for such under the Texas Public Information Act, which provides for notice to the owner of such marked information and the opportunity for the owner of such information to notify the Attorney General of the reasons why such information should not be disclosed. The terms and conditions of the Agreement are not proprietary or confidential information.

Section 13. Independent Contractor

- A. In the performance of work or services hereunder, Iteris shall be deemed an independent Iteris, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of Iteris or, where permitted, of its subcontractors.
- B. Iteris and its agents, employees, officers, or volunteers shall not, by performing work pursuant to this Agreement, be deemed to be employees, agents, or servants of County and shall not be entitled to any of the privileges or benefits of County employment.

Section 14. Notices

- A. Each party giving any notice or making any request, demand, or other communication (each, a "Notice") pursuant to this Agreement shall do so in writing and shall use one of the following methods of delivery, each of which, for purposes of this Agreement, is a writing: personal delivery, registered or certified mail (in each case, return receipt requested and postage prepaid), or nationally recognized overnight courier (with all fees prepaid).
- B. Each party giving a Notice shall address the Notice to the receiving party at the address listed below or to another address designated by a party in a Notice pursuant to this Section:

County: Fort Bend County Information Technology
Department
Attn: Information Technology Director
301 Jackson Street
Richmond, Texas 77469

With a copy to: Fort Bend County
Attn: County Judge
401 Jackson Street, 1st Floor
Richmond, Texas 77469

Contractor: Iteris, Inc.
Attn: _____
1250 S. Capital of Texas Highway, Suite 1-330
West Lake Hills, Texas 78746

- C. Notice is effective only if the party giving or making the Notice has complied with subsections 14.A and 14.B and if the addressee has received the Notice. A Notice is deemed received as follows:
1. If the Notice is delivered in person, or sent by registered or certified mail or a nationally recognized overnight courier, upon receipt as indicated by the date on the signed receipt.
 2. If the addressee rejects or otherwise refuses to accept the Notice, or if the Notice cannot be delivered because of a change in address for which no Notice was given, then upon the rejection, refusal, or inability to deliver.

Section 15. Compliance with Laws

Iteris shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing

laws and regulations. When required by County, Iteris shall furnish County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

Section 16. Performance Warranty

- A. Iteris warrants to County that Iteris has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession practicing in the greater Houston metropolitan area and Iteris will apply that skill and knowledge with care and diligence to ensure that the Services provided hereunder will be performed and delivered in accordance with the highest professional standards.
- B. Iteris warrants to County that the Services will be free from material errors and will materially conform to all requirements and specifications contained in the attached Exhibit A; and will conform to all requirements and advertised specifications of RFQ 22-017.

Section 17. Assignment and Delegation

- A. Neither party may assign any of its rights under this Agreement, except with the prior written consent of the other party. That party shall not unreasonably withhold its consent. All assignments of rights are prohibited under this subsection, whether they are voluntarily or involuntarily, by merger, consolidation, dissolution, operation of law, or any other manner.
- B. Neither party may delegate any performance under this Agreement.
- C. Any purported assignment of rights or delegation of performance in violation of this Section is void.
- D. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of the County.

Section 18. Applicable Law

The laws of the State of Texas govern all disputes arising out of or relating to this Agreement. The Parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all legal actions or proceedings arising out of or relating to this Agreement and waive the right to sue or be sued elsewhere. Nothing in the Agreement shall be construed to waive the County's sovereign immunity. County does not agree to submit disputes arising out of the Agreement to binding arbitration. Therefore, any references to binding arbitration or the waiver of a right to litigate a dispute are hereby deleted. County does not agree to pay any and/or all attorney fees incurred by Iteris in any way associated with the Agreement.

Section 19. Successors and Assigns

County and Iteris bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of the other party, in respect to all covenants of this Agreement.

Section 20. Third Party Beneficiaries

This Agreement does not confer any enforceable rights or remedies upon any person other than the parties.

Section 21. Severability

If any provision of this Agreement is determined to be invalid, illegal, or unenforceable, the remaining provisions remain in full force, if the essential terms and conditions of this Agreement for each party remain valid, binding, and enforceable.

Section 22. Publicity

Contact with citizens of Fort Bend County, media outlets, or governmental agencies shall be the sole responsibility of County. Under no circumstances whatsoever, shall Iteris release any material or information developed or received in the performance of the Services hereunder without the express written permission of County, except where required to do so by law. Iteris may use County's name without County's prior written consent only in any of Iteris customer lists, any other use must be approved in advance by County.

Section 23. Certain State Law Requirements for Contracts

The Contents of this Section are required by Texas law and are included by County regarding of content. For purposes of Sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Iteris hereby verifies that Iteris and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:

- A. Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization, is not identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.
- B. If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Iteris does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts. "Boycott Israel" has the meaning provided in § 808.001 of the Texas Government Code.
- C. If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Iteris does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. "Boycott energy company" has the meaning provided in § 809.001 of the Texas Government Code.

- D. If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Iteris does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. "Discriminate against a firearm entity or firearm trade association" has the meaning provided in § 2274.001(3) of the Texas Government Code. "Firearm entity" and "firearm trade association" have the meanings provided in § 2274.001(6) and (7) of the Texas Government Code.

Section 24. Human Trafficking

By signature below, Iteris acknowledges that Fort Bend County is opposed to human trafficking and that no County Funds will be used in support of services or activities that violate human trafficking laws.

Section 25. County Data

Nothing in this Agreement will be construed to waive the requirements of § 205.009 of the Texas Local Government Code. Nothing in this Agreement will be construed to waive the requirements of any applicable record retention laws.

Section 26. Dispute Resolution

- A. The parties shall attempt in good faith to resolve promptly any dispute arising out of or relating to this Agreement by negotiation between the parties. In the event the dispute cannot be settled through negotiation, the parties agree to submit the dispute to non-binding mediation.
- B. The party requesting mediation shall notify the other party in writing of the dispute desired to be mediated. If the parties are unable to resolve their differences within ten (10) days of the receipt of such notice, such dispute shall be submitted for mediation.
- C. Each party shall be responsible for its own costs associated with the mediation.
- D. The requirement to seek mediation shall be a condition required before filing an action at law or in equity, unless to do so would prevent either party from seeking relief in a court of law or equity under any applicable statute of limitations.
- E. Iteris acknowledges that County is subject to the requirements of the Texas Open Meetings Act, TEX. GOV'T CODE ANN. §§ 551.001 *et seq.*, as amended, and notwithstanding any provision in the Agreement to the contrary, the County will comply with the provisions of the Open Meetings Act.

Section 27. Captions

The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of this Agreement.

Section 28. Conflict

In the event of any conflict or inconsistency among the terms and conditions set forth in the documents comprising this Agreement, the order of priority shall be:

- A. This Agreement;
- B. Iteris' Proposal Quote Sheet (dated March 17, 2022), attached within Exhibit A;
- C. RFQ 22-017 (Professional Engineering Services for Design and Installation of an Emergency Network Infrastructure Monitoring System for Fort Bend County), attached as Exhibit B;
- D. County's Travel Policy, attached as Exhibit C;
- E. Iteris' Emergency Network Infrastructure Monitoring System Scope of Work, attached within Exhibit A; and
- F. Iteris' response to County's Request for Firm Qualifications (dated November 16, 2021), attached within Exhibit A.

Section 29. Further Assurances

Each party further agrees that it shall take any and all necessary steps and sign and execute any and all necessary documents or agreements required to implement the terms of the agreement of the parties contained in this contract, and each party agrees to refrain from taking any action, either expressly or impliedly, which would have the effect to prohibiting or hindering the performance of the other party to this Agreement.

Section 30. Remote Access

If Iteris requires remote access to County Systems for support, installation, integrations, configurations, and/or maintenance, except as otherwise agreed by the parties and approved by the County's Information Technology Director in writing, the below requirements must be met before Iteris is granted remote access to County Systems:

- A. Iteris will adhere to the restricted and monitored channels that are provided by the County, or other technologies approved in advanced in writing by the County's Information Technology Security Manager or the Assistant Information Technology Manager.

- B. Iteris will neither implement nor deploy a remote access solution which bypasses and/or is designed to bypass County provided or approved controls. Iteris will not access County Systems via unauthorized methods.
- C. Iteris' remote access to County Systems will only be requested and activated on as-needed basis and disabled when not in use.
- D. Remote access is restricted only to County Systems necessary for Iteris to conduct provide Services to County pursuant to this Agreement.
- E. Iteris will allow only its Workforce approved in advance by County to access County Systems. Iteris will promptly notify County whenever an individual member of Iteris' Workforce who has access to County Systems leaves its employ or no longer requires access to County Systems. Iteris will keep a log of access when its Workforce remotely accesses County Systems. Iteris will supply County with evidence of access logs concerning remote access to County Systems upon written request from County. Such access logs will be provided to County, within three business days from the date of County's request. These requests may be used to confirm compliance with these terms and/or to investigate a security incident.
- F. If any member(s) of Iteris' Workforce is provided with remote access to County Systems, then Iteris' Workforce will not remotely log-in to County Systems from a public internet access device (e.g., airport computer terminal, or Internet café). This is due to the possibility of sensitive information being monitored by video or computer surveillance in public areas.
- G. Failure of Iteris to comply with this Section may result in Iteris and/or Iteris' Workforce losing remote access to County Systems. County reserves the right at any time to disable remote access to protect County Systems.
- H. For purposes of this Section, "Workforce" means employees, agents, subcontractors (where permitted), and/or other persons whose conduct, in the performance of work for Iteris, is under the direct control of Iteris, whether or not they are paid by Iteris and who have direct or incidental access to County Systems.
- I. For purposes of this Section, "Systems" means any: (i.) computer programs, including, but not limited to, software, firmware, application programs, operating systems, files and utilities; (ii.) supporting documentation for such computer programs, including, without limitation, input and output formats, program listings, narrative descriptions and operating instructions; (iii.) data and/or media; (iv.) equipment, hardware, servers, and/or devices; and/or (v.) network(s).

(Execution Page Follows)

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IN WITNESS WHEREOF, this Agreement is signed, accepted, and agreed to by all parties by and through the parties or their agents or authorized representatives. All parties hereby acknowledge that they have read and understood this Agreement and the attachments and exhibits hereto. All parties further acknowledge that they have executed this legal document voluntarily and of their own free will. This Agreement is effective upon execution by both parties.

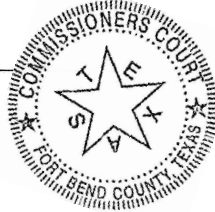
FORT BEND COUNTY

KP George
County Judge KP George

KP George
County Judge

July 5, 2022

Date



ATTEST:

Laura Richard

Laura Richard, County Clerk

REVIEWED:

J. B. Hill

Digitally signed by
Slawinski, Stacy
Date: 2022.06.14
08:56:50 -05'00'

Engineering Department

REVIEWED:

Robyn Doughtie

Information Technology Office

REVIEWED:

[Signature]

Office of Emergency Management

ITERIS, INC.

Clifford D. Heise

Digitally signed by Clifford D.
Heise
Date: 2022.06.09 17:04:05 -05'00'

Authorized Agent – Signature

Clifford D. Heise

Authorized Agent- Printed Name

Regional Vice President

Title

June 9, 2022

Date

AUDITOR'S CERTIFICATE

I hereby certify that funds in the amount of \$ 261,388.90 are available to pay the obligation of Fort Bend County within the foregoing Agreement.



Robert Ed Sturdivant, County Auditor

Exhibit A: Iteris' Proposal Quote Sheet (issue date: March 17, 2022), Emergency Network Infrastructure Monitoring System Scope of Work, and response to County's Request for Firm Qualifications (dated November 16, 2021);

Exhibit B: RFQ 22-017 (Professional Engineering Services for Design and Installation of an Emergency Network Infrastructure Monitoring System for Fort Bend County); and

Exhibit C: County's Travel Policy

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Exhibit A

PROPOSAL QUOTE SHEET

Fort Bend Co., Emergency Management Infrastructure, Design and Integration			
Client:	Fort Bend County	Issue Date:	3/17/2022
Client Address 1:	500 Liberty St.	Primary Contact:	Patrick Ramirez
City, State, Zip:	Richmond, TX 77469-3500	E-Mail:	par@iteris.com
Attn:	Robyn Doughtie	Phone:	281-745-4211
Phone:	281-341-4574		
E-Mail:	Robyn.Doughtie@fortbendcountytexas.gov		
Task #	Description	Total ManHours	Cost
Task 1	Project Management	174	\$ 49,998.53
1.1	Project Progress Meetings	40	\$ 10,704.47
1.1	County Commissioner Meetings	12	\$ 3,660.04
1.2	Project Control and Management	80	\$ 24,400.27
1.3	Project Records and Files	32	\$ 8,106.76
1.4	Monthly Status Reports and Invoicing	6	\$ 1,756.19
1.5	Scheduling	4	\$ 1,170.80
1.6	ODC/Travel		\$ 200.00
Task 2	Existing Field Conditions and Field Evaluation	80	\$ 19,518.34
2.1	Initial Data Collection	56	\$ 13,562.79
2.2	Field Inventories	24	\$ 5,555.55
2.3	ODC/Travel		\$ 400.00
Task 3	PS&E Design Package (Civil Components)	347	\$ 51,270.32
3.1	Base Map Preparation (6 sites)	32	\$ 7,327.67
3.2A	60% Design		-
3.2A	Prepare layout sheets, Legend, Title Blocks, SHT Numbers	34	\$ 7,233.51
3.2A	Title Sheet	20	\$ 2,790.11
3.2A	General Notes	26	\$ 4,420.35
3.2A	Construction Quantities / Cost Estimate	20	\$ 4,494.85
3.2A	Electrical or Solar Calcs and Details	20	\$ 4,067.21
3.2A	Conduit Design, Trenching/Boring/Bridge Attachments	20	\$ 4,494.85
3.2A	Insert/Convert network one-line diagrams	16	\$ 3,663.84
3.2A	Design Layout, Wireless Analysis	24	\$ 5,555.55
3.2A	Detail sheets	34	\$ 5,698.66
3.2A	Standards	5	\$ 1,123.71
3.2A	ODC/Travel		\$ 400.00
3.2B	100% Design		\$ 23,681.93
3.2B	Design adjustments as needed from 60% review	56	\$ 13,672.88
3.2B	Finalize Plan-set package details	32	\$ 8,007.24
3.2B	Sign/Seal and Final Print	8	\$ 2,001.81
Task 4	Network IP Architecture	116	\$ 27,101.18
4.1	Coordination with FBC IT Staff (EOC Evaluation)	76	\$ 17,957.03
4.2	Prepare IP listings and device assignments	18	\$ 4,084.09
4.3	Prepare network drawings and diagrams for field deployment	22	\$ 4,860.06
4.4	ODC/Travel		\$ 200.00
Task 5	Construction Support	168	\$ 43,437.03
5.1	Respond to RFI's	16	\$ 4,003.62
5.2	Field inspection	24	\$ 6,005.43
5.3	Supplemental Engineering Support as needed	88	\$ 21,570.03
5.4	Construction Invoice Financial Tracking	40	\$ 11,707.95
5.5	ODC/Travel		\$ 150.00

PROPOSAL QUOTE SHEET

Fort Bend Co., Emergency Management Infrastructure, Design and Integration			
Client:	Fort Bend County	Issue Date:	3/17/2022
Client Address 1:	500 Liberty St.	Primary Contact:	Patrick Ramirez
City, State, Zip:	Richmond, TX 77469-3500	E-Mail:	par@iteris.com
Attn:	Robyn Doughtie	Phone:	281-745-4211
Phone:	281-341-4574		
E-Mail:	Robyn.Doughtie@fortbendcountytexas.gov		
Task #	Description	Total ManHours	Cost
Task 6	Network Integration	120	\$ 25,008.29
6.1	Roadside Device Configuration	36	\$ 7,378.52
6.2	Network Turn-On (Go Live)	36	\$ 7,378.52
6.3	Cloud Management Configuration	48	\$ 10,101.25
6.4	ODC/Travel		\$ 150.00
Task 7	Network Monitoring	100	\$ 21,373.29
7.1	Post construction Network Monitoring	100	\$ 21,373.29
Total Project Investment:			\$ 261,388.90
Terms & Conditions			
<p>Services performed by Iteris under Tasks 1-7 will be invoiced based upon percentage of completion claimed for each task as reported in the monthly progress report. Each invoice shall provide a detailed listing of each task and the percentage of completion claimed, the total billable amount based upon percentage of completion, amount previously billed and the net current billable amount. The total project investment price includes travel and other direct costs associated with this project. Payment is due within 30 days.</p>			

General

The work to be performed by the Engineer (Iteris) shall consist of providing engineering services for PS&E design, construction support and integration of new roadside CCTV Camera locations to monitor traffic and environmental conditions, and the associated communications infrastructure to stream live video back to Fort Bend County (FBC), Emergency Operations Center (EOC). Roadside infrastructure elements shall also include ground boxes and connectivity to commercial power utilities where appropriate. Some locations may require solar power panels and batteries when commercial facilities are not available. The communications medium will be dependent on an initial engineering analysis for a robust system with communication redundancy, security, and shared infrastructure with adjacent project efforts and stakeholders. Communication options may include Fiber Optic cabling, Point-to-point wireless radios, or cellular modem(s), with failover redundancy or ring topology.

The project will be executed in two major phases as follows:

- **Phase 1:** Design, Construction Support, and Integration for (6 CCTV locations), for a fully functional turn-key project. (Proof-of-Concept)
- **Phase 2:** Design, Construction Support, and Integration for a minimum of (39 additional CCTV locations), for a fully functional turn-key project.

This **Scope of Work** represents the consultant engineering activities for **Phase 1** of this project. The associated project tasks are as follows:

1.0 Project Management

Project administration spans the duration of the work order for this project and is critical for project success. This task involves the monitoring and coordination of services provided by the Engineer, including the establishment of invoicing formats, project control and management, maintenance of project records and files, reporting requirements, project meetings, and documentation deliverables.

1.1 Project Progress Meeting(s)

For this project, 3-types of meetings have been recognized:

- **Business Meetings** – Conducted to discuss overall progress, funding, invoicing, scheduling and associated adjustments.
- **Technical Meetings** - Conducted after notice-to-proceed, and work has commenced, the Engineer will meet with FBC staff on a regular basis to discuss design efforts, project hurdles and proposed resolutions, workshop style topics such as infrastructure topologies, vendor/contractor specific topics, etc. The Engineer will prepare agendas, diagrammatic design documents, equipment configuration plan documents (ECP), materials and meeting notes for each of these meetings.

- **County Commissioner Meetings** – Two (2) meetings to brief the County Commissioner with the status of the Phase 1 project will be facilitated by Iteris staff, in coordination with Ft. Bend County Emergency Operations and Engineering staff. The Engineer will prepare agendas, diagrams, etc. to present to the County Commissioner and prepare meeting notes after each meeting.

Assumption(s):

- Project status meetings will be monthly or bi-weekly (as necessary) including in-person or virtual format to discuss the various project issues and track actionable items.

1.2 Project Control and Management

The Engineer will be responsible for the day-to-day activities of managing the Project. Specific activities include design coordination, review, verification, and adherence to contract schedule for this project. Project tasks and action items will be tracked on an excel spreadsheet and reviewed/updated at each project meeting.

1.3 Project Records and Files

The Engineer will develop a project filing system in Windows electronic data format. This filing system, which will be maintained in the Engineer's offices for the life of the pilot project, will be designed to assure that files can be easily located and retrieved at all times. This filing system will also assure that electronic files are frequently backed up. These files will be available to the FBC until the work order is finalized.

1.4 Monthly Status Reports and Invoicing

The Engineer shall prepare monthly progress reports that identify progress made during the reporting period, percent complete for each task, anticipated activities for the upcoming reporting period, and any problems, obstacles or deviations from the work plan. This task will also include the receipt and processing of invoices from project subconsultant(s).

1.5 Scheduling

The Engineer will develop hardline schedule(s) to depict the project workflow elements based on the structure described within this scope of services. This schedule will present the estimated task durations. If the actual project schedule deviates from the original schedule, the Engineer will generate a revised process to ensure actual progress results in original hardline schedule.

Deliverables:

- Project Progress Reports
- Project Invoices
- Project Meeting Minutes
- Associated correspondence via E-mail

2.0 Existing Conditions, and Field Evaluation

2.1 – Initial Data Collection

This task will involve the collection of any existing electronic CADD files, aerial imagery and project notes for PS&E production.

2.2 – Field Inventories

This task includes a physical site visit to take pictures and make notes of the field conditions and to address any construction challenges for the **Phase 1** portion of this project only. Notes and pictures will be taken along applicable conduit paths, bridge/ditch crossings, building/tower locations, and EOC facility to assess how to integrate with the new communication infrastructure. Notes and photos will be used as exhibits for discussion at the associated technical project meetings.

3.0 PS&E Design Package (Civil Components)

This task, conducted in major milestone efforts, will provide for the preparation of the plans and supporting construction documentation for the ITS roadside communication system. The plans will identify Base Flood Elevations (BFE) for reach site, with information provided by FBC staff. The system may consist of Fiber Optic Cabling, Point-to-point wireless, Cellular modem, or a combination hybrid system dependent on the initial engineering analysis. The initial effort will start from data collected and progress to 60% completion with an opportunity for FBC staff to review, discuss and provide comments. The second level of effort will facilitate making design adjustments, based on comments received and finish other task items to take the design package to 100%. During the design process, will be many opportunities to review ongoing progress and make minor adjustments as necessary as details are discussed during the monthly Technical Meetings. The Engineer shall develop the layouts using English units. The main design components for this project are as follows:

- 1) Communication system for the project limits;
- 2) Physical connections for the existing roadside infrastructure and adjacent communication systems;
- 3) Strategically placed ground boxes for easy access to power facilities and future roadside device integration;
- 4) Fiber Optic splice charts, assignments and termination tables (if needed);
- 5) Non-Standard ITS device details to ensure proper connectivity to tolling infrastructure and accurate record keeping.

3.1 Base Maps

During this subtask, the Engineer will address the following: Gather aerial imagery and incorporating missing features found during site field reviews; cutting and arranging the base mapping onto plan sheets; creating match lines; labeling route numbers/interchanges/adjacent roadways within the base map limits; developing title blocks; and updating base maps with the county supplied flood elevation data where appropriate.

Assumptions:

- FBC staff will be providing data for Base Flood Elevation, for each of the sites as identified.

3.2 Preparations of Layouts

Layout sheets shall be prepared in accordance with the latest applicable FBC or TxDOT applicable standards and procedures including the use of Computer Aided Drafting and Design (CADD) systems. The scale will be 100 scale throughout this project. Final copies of sheets prepared in CADD shall be furnished to the client in electronic PC MicroStation (.DGN) format. Two review milestone submittals are expected for this project, at the 90% and 100% stages of completion.

The layout sheets shall indicate a north directional arrow and a bar scale. Pertinent existing features and any items removed or relocated shall be indicated on the layout sheets.

Layouts prepared by the Engineer shall be submitted for review and comments by FBC staff at the following stages of development:

A. 60% Design

Existing and proposed network connectivity diagrammatic development.

Diagrams including street names, legend, connectivity flow, north arrow, sheet summary charts, conduit run charts, construction quantity estimates, location(s) of conduit trunk line(s) when applicable, field equipment locations, and communications sizing and routing. Detail sheets and standard sheets will be listed and provided as applicable.

An Engineer's Construction Cost Estimate based on 60% design will developed and submitted prior to the 60% review meeting.

A 60% review meeting will be scheduled, after 60% submittal, to walk through the design plans to discuss details and expectations.

60% Review Submittal

Sheets will include:

- 1) Plan-Set Title Sheet, quantity summary, general notes, layout sheets, communication diagrams, fiber splice diagrams, detail sheets, and standards.
- 2) Communication system layout (map) for project locations and limits;
- 3) Communication line diagrams, in MicroStation format, for all locations and devices from the field, back to the local hub and proposed path(s) back to Ft. Bend Co. EOC;
- 4) All proposed ground box and conduit infrastructure, including attachments to any bridge structures and underground boring details as necessary;
- 5) Identification of future roadside devices and existing power utilities including strategically place ground boxes for future expansion.
- 6) 60% Engineer's Construction Cost Estimate

Deliverables:

- Connectivity diagram(s) with all locations as noted, index-of-sheets, existing quantities, and communication and schematic diagrams;
- Plan-set completed to 60% for review and final comments;
- Engineer's construction cost estimate;

- Three (3) B/W 11"x17", hard copy, plan-sets;
- One PDF format electronic copy plan-set
- One PDF format electronic copy of the Engineer's Construction Cost Estimate

B. 100% Design

Sheets will incorporate appropriate review comments from all prior plan reviews. Other required documentation will be provided, in coordination with FBC staff for a complete bid package including the Engineer's construction cost estimate. These plans will include an Engineer's seal, required standards and specifications for contractor bid.

Deliverables:

- One paper set of 11" x 17" plan sheets and PDF format signed, sealed and dated by a Professional Engineer registered in the State of Texas in blue ink;
- Electronic copies of DGN files;
- All items including design changes resulting from client comments, and other stakeholders, and construction quantities.
- One PDF format electronic copy of the Engineer's Construction Cost Estimate
- Supporting PS&E paperwork

The Engineer shall establish target dates on which the plans shall be submitted for review at the above stages of development.

4.0 Network IP Architecture

Iteris staff will coordinate with FBC IT Department in a workshop style for the initial IP topology plan and IP address and VLAN assignments. The new architecture, as identified, will be scalable to accommodate Phase 2 portion of this project. Any security provisions, such as additional firewalls, and redundant hardware and communication paths, will also be discussed during this time.

This portion of the scope is intended to begin during the PS&E task, with associated hardware and costs requirements. Documentation will be created, as a supplement to the PS&E package, including IP listings, and one-line diagrams to illustrate what components are connected and routed throughout the network.

Deliverables:

- IP listings in Excel format
- One-line diagrams, as appropriate in Microsoft Visio and/or MicroStation format.
- KMZ files/diagrams as necessary

5.0 Construction Support

Iteris staff will work with FBC staff to provide construction oversight, as required, to ensure the construction meets Design specifications and standards. Iteris staff will respond to RFI's and approve/disapprove any shop drawings submitted by the construction contractor for use on this project.

Iteris staff will monitor any construction invoices and quantities used, to ensure we stay in alignment with quantities, as identified in the design plans. Iteris staff will track overages and

cost savings as justification for any change orders, that may be identified during the construction process.

6.0 Network Integration

This task includes all the components for a fully functional network with cloud management.

6.1 Roadside Device Configuration

The field integration engineer will manually configure all switches, with the proper IP provisions and any firewall devices, to communicate back to the TMC. These provisions include VLANs and subnets and port forwarding assignments in cooperation with FBC IT staff and network requirements. The field engineer will also assist, where necessary, for any required assignments to the core switches at the EOC location.

After initial delivery of roadside switches, modems, and/or routers, each device will be configured and tested in a lab type of environment to ensure full functionality, prior to field installation.

6.2 Network Turn-On (Go Live)

Iteris staff, in coordination with FBC IT department, will facilitate the network turn-on (Go Live) and ensure video feeds get routed correctly to the EOC, and displayed as intended. The process may be phased, as necessary, for proper integration and network performance.

6.3 Cloud Management Configuration

Iteris staff will work with FBC IT department in properly configuring Microsoft Azure, AWS, or preferred equivalent to manage the network. Exact details and configuration requirements are dependent on the various technical workshop meetings between Iteris and FBC IT staff.

Iteris staff will work closely with FBC IT Department and for the identification and selection of a preferred vendor for associated Video Management System/Software, and final integration.

7.0 Network Monitoring

The network monitoring component of this scope of work includes ancillary network support, immediately following the deployment to ensure proper network performance. During this time, small adjustments may be made, as necessary, to ensure network robustness up to the limitations (if any), as identified during the original Network Analysis and Network IP Architecture tasks. Network monitoring will begin with the completion of **Phase 1** and continue through the development of Phase 2 and associated construction. This task is not to be confused with the 5-year maintenance agreement, after Phase 2 of this project.

Assumptions: Iteris staff will be granted the appropriate secure credentials to monitor the network health on a continuous basis, via remote access connection.

Deliverables:

- Performance logs
- Reports on the system health, outages, and network adjustments

Digital

TITLE PAGE

Engineering Services For Design and Installation of an Emergency Network Infrastructure Monitoring System | RFQ 22-017

November 16, 2021

FIRM NAME AND CORPORATE | LOCAL OFFICE ADDRESS

Iteris, Inc.

1250 S. Capital of Texas Highway, Suite 1-330

West Lake Hills, TX 78746

512.716.0808

PROPOSAL CONTACT

Patrick Ramirez, PE

Principal Engineer

par@iteris.com

281.745.4211

LETTER OF TRANSMITTAL

November 16, 2021

Fort Bend County
Purchasing Department
Travis Annex
301 Jackson, Suite 201
Richmond, TX 77469

Re: [Design and Installation of an Emergency Network Infrastructure Monitoring System](#) | RFQ 22-017

11476-307.22

Dear Selection Committee:

Fort Bend County takes pride in providing its citizens and visitors with an exceptional place to live and visit including safe and efficient travel with investments in smart transportation technologies. **Iteris, Inc. (Iteris)** is pleased to submit this response to your Request for Firm Qualifications to provide Professional Engineering Services to Fort Bend County for design and installation of an Emergency Network Infrastructure Monitoring System.

Iteris understands the County's needs to construct CCTV cameras and associated network infrastructure to augment the existing EOC and associated facilities. Iteris further understands that there may also be extensive coordination with various stakeholders and current design efforts and is prepared to assist with a seamless integration effort to help deploy the CCTV and associated communications system.

Iteris is ideally suited for this project with their extensive experience on similar projects and have assembled a team of experts local to the Fort Bend County to provide a *"one stop-shop"* resource covering multiple planning and engineering disciplines to include installation/integration services for a complete, holistic approach. This project will be led out of our Houston area staff of six industry experts and further supported by staff in Austin. The engineering team assembled for this project is made up of staff who specialize in fiber/wireless communications and IP network design as well as field configuration and integration of devices. These same staff members have extensive TxDOT experience in creating PS&E packages, ready for bid, utilizing TxDOT standards and bid item codes for construction estimates and is ready to assist the County in navigating review and approval processes. Iteris has also partnered with **BGE Inc.** for this project to assist with peer review, surveying, construction inspection, and public involvement. Both firms bring a wealth of local knowledge and prior experience with Fort Bend County, TxDOT, and other regional agencies.

Iteris' philosophy regarding project approach is straightforward. Our goal is to provide exceptional client service, outstanding technical engineering quality, and a system deployment that is on-time and within budget. Iteris' capabilities and experiences as they relate to each work category are detailed in Iteris' proposal.

Iteris proposes **Mr. Patrick Ramirez, PE** as Project Manager for this project. He will be the principal contact with the County and other entities per the County's direction. Mr. Ramirez will oversee work from project inception to completion and will be responsible for coordinating staff activities and meetings.

Thank you for the opportunity to submit our proposal. Iteris looks forward to assisting the County on this important project. Please contact me at (949-270-9647 or sdb@iteris.com, or the designated Project Manager, Mr. Ramirez, at (281) 745-4211 or par@iteris.com, should you have any questions.

Sincerely,
Iteris, Inc.



Regional Vice President, Consulting Solutions

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EXECUTIVE SUMMARY

Firm Information

Iteris, a publicly-traded corporation (NASDAQ: ITI), is the market leader in applying informatics solutions to the transportation industry since 1987. Iteris' 446 staff have decades of expertise in ITS and traffic management, along with superior services and patented products that help detect, measure, and manage traffic and vehicular performance; minimize traffic congestion; and empower Iteris clients with solutions to better manage their transportation networks. The firm has a nationwide presence including offices in Austin, Round Rock, Dallas, Houston, Bryan, and Amarillo, in Texas.



The main engineering staff for this project are located in Houston office with support staff available from our Austin office. The close proximity of Iteris staff will facilitate faster response time to address the immediate needs of the County. Additionally, Iteris meets all appropriate licensing requirements for the State of Texas (TXPE Firm #4779), and qualifies as a Resident Bidder pursuant to Texas Government Code §2252.001.

Corporate Address | Office Location for Work Performed:

Iteris, Inc. | 1250 S. Capital of Texas Hwy., Suite 1-330 | West Lake Hills, TX 78746

Years in business **34** | Number of employees **446**

Proposal Contact Person: **Patrick Ramirez, PE**, Principal Engineer | E: par@iteris.com | P: 281-745-4211

This project is for the design and implementation of a new ITS system consisting of a minimum 45 new CCTV cameras and associated communication network integrated into the County's EOC located at 307 Fort Street, Richmond TX. The communication system may consist of new infrastructure and/or utilization of existing infrastructure, closely coordinated with other network activities currently under design. The project will also contain elements of construction oversight and engineering support, along with IT Consulting and full integration services for a turn-key system. The network solution will also include the ability to be managed via Cloud services and Iteris staff will continue to maintain the live network for a minimum five (5) year period after project integration/go-live.

Professional design and integration services are a couple of Iteris' core disciplines having provided agencies with state-of-the-art, cost-effective approaches to the design and implementation of ITS field elements, communications networks, Traffic Management Systems (TMS) and TMCs. Iteris has designed numerous communication networks comprised of fiber optics, twisted pair cable, cellular and broadband microwave wireless connections. Several of Iteris' projects have also included construction management, procurement, installation and integration, components similarly to the project described in the RFQ.

When it comes to understanding the connection between subsystems, program phasing, interagency communications, and integration, Iteris has the experience to deliver superior results time and again. With backgrounds in systems engineering, in-house testing of all customer hardware/software, object-oriented development hardware/software development, implementation, and integration, Iteris provides integrated solutions that solve current and future transportation challenges before they arise.

ITERIS' TEAM MEMBER

Iteris has partnered with **BGE Inc.** for this project to assist with peer review, surveying, construction inspection, and public involvement. BGE core practice areas include a comprehensive range of engineering, environmental, surveying, construction management, and planning and landscape architecture services for public and private clients. Projects range from public works and water resources to traffic and transportation, as well as land and site development. With more than 800 employees in 21 offices across the southeastern United States, BGE's staff augments Iteris' bench strengths and provides depth to local talent for this project.

1. PROJECT UNDERSTANDING / SCOPE OF WORK

The County of Fort Bend has requested qualifications to provide Professional Engineering Services for the Design and installation of an emergency network infrastructure monitoring system. Roadside ITS elements include a minimum of forty-five (45) CCTV cameras and associated communication network to deliver live video feeds to the County's Emergency Operations Center (EOC) located at 307 Fort Street, Richmond, Texas. This project also includes elements of program management, comprehensive IT consulting, IP architecture design and integration services, long term planning services, surveying services engineering services, geotechnical services, installation, system management and testing.

The Iteris Team stands alone in expertise for local support to perform the detailed design, integration and long-term system support. With staff local to Fort Bend County, Iteris can respond at moment's notice to attend project meetings, field/construction support, and system maintenance. The capability to provide this level of service augments the Fort Bend County staff and removes any delays in getting the appropriate support as project issues arise.

The conceptual overview of the project anticipates the design, construction, and implementation for a minimum of 45 CCTV locations at pre-determined cross streets, broken into **2-phases**. The first phase consists of 6 locations for construction and integration, as a proof of concept, followed by the second phase for the additional 39 locations.

During the design phase, the approach will first consist of a preliminary engineering evaluation. The first step is to conduct a **Project Kick-off Meeting** to discuss the project at a high-level to first understand the project elements, and then to prioritize the "wants" as it pertains to functionality. Research and Data collection efforts immediately follow, to evaluate existing infrastructure, recent projects, existing as-built drawings and topographies as well as field conditions such as rights-of-way, flood zones and other environmental hurdles. High-level communication plans can then be quickly created as exhibits for discussion to highlight primary design elements and alternative solutions (i.e. - cellular based leased network options). Life Cycle Cost Analysis can be created using nationally accepted ITS architecture models, including Operations and Maintenance over a defined life-cycle while also considering annual inflation. The cost analysis for various options can be presented, when required to do so, for decision makers prior to the detailed design and committal of capital funds.



Iteris has completed turn-key communication projects for TxDOT Austin and the Cities of College Station, Abilene, and Killeen, all using a combination of mediums including fiber and wireless solutions.

PRELIMINARY DESIGN

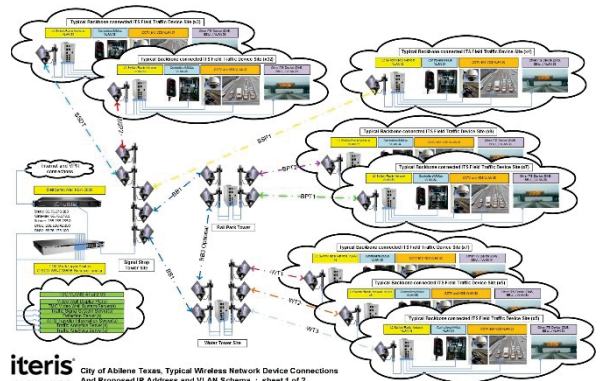
For each CCTV location, the design phase for civil improvements will include field visit to gather data, and visually inspect the surrounding terrain to make observations not readily apparent from aerial imagery. As required by the RFQ, Iteris staff will identify Base Flood Elevation (BFE) for each site, to ensure that new CCTV infrastructure is above any potential flood conditions to ensure continuous operation during flood events. This data will be confirmed through GIS data, and further supplemented by geotechnical survey as needed. At the time this data is collected, Iteris staff will also identify rights-of-way boundaries and available utilities for commercial power services.



A major item for consideration is the communications medium and associated options, including fiber optics, Ethernet and Wireless solutions. Conduit paths will be evaluated for electrical services and fiber optic routes. Rights-of-way and utility conflicts are high priority items for consideration when evaluating options. Appropriate utility coordination may be necessary during the PS&E Design phase of the project.

Wireless solutions require some degree of initial path-profile analysis to ensure successful connection for point-to-point configurations. Iteris staff has in-house capabilities to perform this analysis and associated math models to ensure a clear Line-of-Sight, and anticipated path loss'. Where site conditions prove impossible for deployment of dedicated agency owned wireless systems, leased cellular options may also be considered.

Network solutions have physical as well as logical components to be considered during the preliminary design. For each option, consideration is given to adjacent projects for joint solutions and resource sharing. The network architecture, at a higher level, is also given some consideration during this phase for IP schemes, associated VLAN's and identified backhaul trunks. Communication loop redundancy, and failover options/solutions also play a big role for the initial network topology layouts. Exhibits for discussion will be created for use during project meetings and associated presentations. One such example includes .kmz file format for use in Google Earth and shared appropriately with team members. Other exhibit formats will be created upon request by the client.



PS&E DESIGN



The design phase will capture decisions made during and after the preliminary design phase into MicroStation CADD software and presented in a PS&E package ready for bid. The creation of the PS&E package will utilize a combination of aerial photography and CADD, when existing topo files do not exist. Plan set layouts will be created using a combination of 100 scale and 40 scale when additional detail is necessary. Typical elevation drawings will be created to capture CCTV structure, and electrical service details. For any non-standard equipment, associated custom details will be created to convey the necessary details and intent for contractor construction.

During the PS&E design phase, the Iteris Team will also work with the County's IT team to establish the logical portion of the network including the IP addressing scheme and VLAN architecture. Network connectivity diagrams, and fiber assignment charts will be created and used as a roadmap for the duration of the project life cycle and permanent record.

The electrical design component for roadside devices will be carefully analyzed to maximize uptime for the individual sites during storm events and power outages. Typical ITS electrical cabinet loads will be used and calculated to consider circuit sizing from public utility services, as well as UPS power back-up solutions for maximum operational uptimes. In the occasion that commercial services cannot be utilized, solar solutions will be considered and analyzed as a possible alternative.

A detailed bid-item listing of all components will be created to TxDOT standards including Civil /Structural and IT specific cabinet devices, such as network switches, patch cables wireless radios/modems and fiber SFP modules as needed.

The design phase will consist of several milestones for client presentation and discussion to capture potential issues and proposed solutions. The milestones represent good break points, during the design, to report on package production and keep a working dialog between consultant and stakeholders, so that issues can be discussed with ample time for adjustments or corrections. Each review meeting will be conducted in a workshop style fashion with the design consultant making a presentation for what has been completed while also noting observations and soliciting feedback. These milestones are identified as 30%, 60%, 90%, 95%, and Final Bid Package. The package will also contain TxDOT standard specifications, bid items, as well as an engineer's construction cost estimate, based on TxDOT Average Low Bid prices for comparison with contractor bids. Any necessary special specifications will be created separately and included as part of the over-all package.

The completed PS&E package will be prepared to TxDOT standards with all the components for advertisement for bid. Categorical Exclusion (CE) environmental documents shall be prepared in compliance with TxDOT requirements, with review by TxDOT staff for approval. Iteris also understands that this project may be federally funded, and the County may be subject to compliance with TxDOT Local Government Project Procedures (**LGPP**) process. Iteris is prepared to assist the County in navigating the process to secure the appropriate approvals.

TRAFFIC CONTROL / RIGHT-OF-WAY COORDINATION



Traffic Control for ITS is usually temporary in nature and handled with TxDOT TCP standards. In the case where the project calls for major ramp closures or detour routes, individual TCP's will be created to address the exact scenario with the associated advanced warning sign for public notification. The TCP plans shall be reviewed by Fort Bend County traffic engineers or TxDOT for approval as appropriate.

It's typical for ITS infrastructure to avoid rights-of-way conflicts by adjusting roadside device placement along with associated conduit paths. In the event that conflicts cannot be avoided, Iteris staff shall address the problem with alternative options or assist in the creation of MOU's if appropriate.

AGENCY COORDINATION / PUBLIC INVOLVEMENT



Interagency coordination is typical of ITS project when it is desired to share resources such as CCTV camera feeds, or infrastructure such as shared fiber. Iteris staff has experience and is prepared arrange coordination meetings and associated exhibits for discussion.

When the project calls for public involvement, such as public notification for comment or town-hall meetings, Iteris has retained a specialist, Mrs. Megan Siercks, PE as part of the BGE staff to coordinate and lead the effort and its associated requirements.

CONSTRUCTION PHASE



During construction, Iteris staff can assist the County staff for activities such as approve traffic control plans, review RFIs, daily reports, etc. Iteris can make on-site inspections to check the quality and quantity of the work performed by all trades if needed. This can assist the County in avoiding defects and deficiencies in the work of the Contractor. As necessary, Iteris can inspect construction to evaluate the Contractor's compliance with the intent of the construction documents. In support of this task, Iteris can conduct the following activities:

- Attend the pre-construction meeting and provide technical guidance with regards to the PS&E package.
- Review project construction schedule.
- Respond to Requests for Information (RFIs) and, if necessary, revise and/or modify plans based on construction changes made in the field.
- Be available for construction site visits to assist with the resolution of problems that arise during construction.
- Respond to RFIs and revise and/or modify plans based on construction changes made in the field.
- Assist City staff in the preparation of contract change orders.
- Participate in the final walkthrough ensuring compliance with construction requirements and providing a thorough "punch-list" of items that must be corrected and/or completed to satisfy the project requirements.
- Integrate design plans (MicroStation) into City's GIS system including all other data such as photos.

Following construction, Iteris can coordinate with the Construction Manager to develop as-built drawings. The County will provide Iteris with the red-line markups of changes made during construction and Iteris can transfer that information to the CAD drawings to provide the County with reproducible as-built plans. Iteris will provide supplemental engineering services, as needed during the construction phase. Typical services include responding to RFI's and technical shop drawing approvals. Other activities also include design adjustments as field conditions dictate and assisting the County to minimize change-order requests.

Iteris staff, has experience in construction oversight and quantity tracking during the construction invoice to accurately track overages and cost savings for items not used during construction, as identified in the engineering plan-set. This tracking process will minimize true overages and take into account cost savings for items not used and credited elsewhere. The tracking process will also quickly justify any change-order requests when necessary and maintaining good project tracking for presentation to decision makers (i.e. – Commissioners Court).

INTEGRATION PHASE



During the integration process, Iteris staff will closely coordinate with Fort Bend County IT department for compatible equipment configurations (i.e. security, protocols, IP schemas, interfaces, ACLs...) settings and make recommendations as appropriate. Iteris staff will manually assign and configure the network devices for each location, in a lab environment and test inter-communication before field deployment. Immediately after deployment, Iteris staff will test connectivity and communication, along with simulated failover redundancy tests before going live into the EOC. The testing process will also confirm proper configuration and operation of functions such as Rapid Spanning Tree Protocol and the avoidance of Ethernet broadcast storms that can cause widespread network outages or denial of service events. Network bandwidth will also be tested and confirmed to a level-of-service that meets the design requirements.

Going live with the actual network will be done in a phased and controlled manner to ensure network stability is continually monitored with specific network software tools. Applications such as Wireshark and SNMP network software are employed to manage and analyze the network. Cloud management solutions, such as Microsoft Azure will be discussed in greater detail with Fort Bend County staff along with various options before adoption for this project.

PROJECT MANAGEMENT / DELIVERY



Project coordination and collaboration is key to the success for any project. Iteris' approach to project delivery takes an objective approach so that we can solicit and capture ideas from team members, while also addressing concerns and priorities. Some of these activities will require multiple stakeholder involvement and associated meetings. In fact, stakeholder involvement is vital to documenting and addressing the needs of the various users/departments within the County. Given the current COVID-19 situation, some of these meetings can be virtual in nature, to respect social distancing practices.

For this project, an early stakeholders' meeting is planned, that will assess the current conditions and future needs to determine the requirements necessary to design a comprehensive backhaul and distribution network. Examples of stakeholder discussions to be addressed that will feed into the design include:

1. Will this network be only for CCTV video management or a shared network with other County departments?
2. Will the network support local agencies within the County?
3. Who will be responsible for management of the network, IT or HS&EM?
4. What are the County's Cybersecurity requirements?
5. What are the County's current and future bandwidth needs at the traffic signals?

Iteris believes that excellent project management is essential to the successful completion of any project. Successful completion does not only mean finishing the project but also completing the project to the client's satisfaction within budget and on schedule. Mr. Ramirez will lead this project from Iteris' Houston location and will ensure an efficient and coordinated project development process, delivery of a high-quality product, and deployment of the project components within budget and on schedule. Strategies to ensure excellent coordination include:

- **Project workshops:** to walk through the active items, identify and engage stakeholders, and cull information to get productive feedback and keep the client engaged.
- **Bi-weekly status meetings:** summarize activities, discuss concerns, and report on milestones and next action items.
- **Action item list/matrix:** provides a living document everyone can revisit, as necessary outside of the project meetings.

- **One-on-one meetings:** conducted as necessary to visit and address more granular items, not suitable for the bi-weekly status meetings.
- **Phone Calls/Web Sharing:** used as a mechanism to share items quickly, visually without having to be on location, and reduce time requirements for scheduled meetings.
- **Design Reviews and Comment Resolution:** provide agency with advanced notice of upcoming design submittal reviews, expectations for the goals of the review, highlight of critical items to review and address, and distribution of client comment resolution.

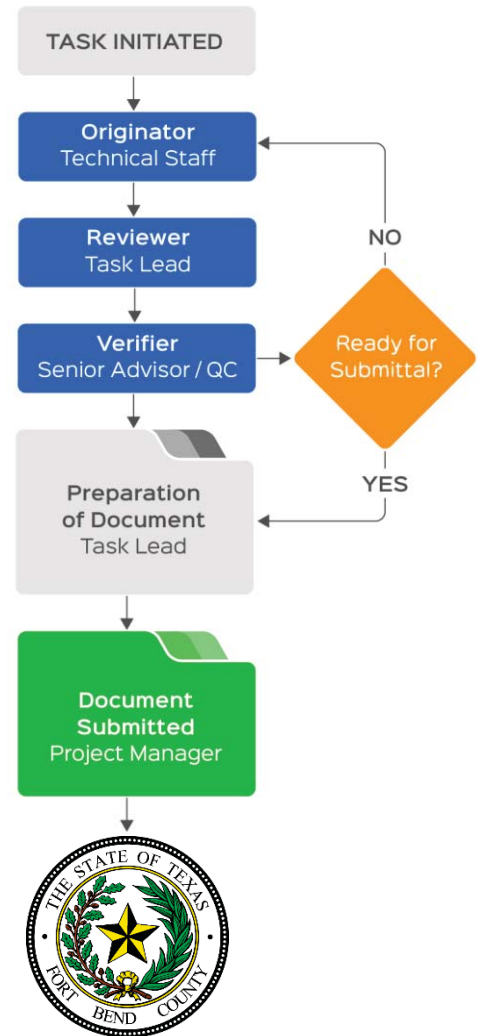
These strategies have been implemented in all projects that Iteris is involved in and have proven to be successful, in maintaining the consultant/client relationship. A well-qualified team of local and regional ITS and transportation technology experts will support Mr. Ramirez with contract management and technical guidance. Iteris Senior Advisors will also provide constant review and feedback while attending meeting and conference calls as appropriate.

Iteris understands that County staff have other duties to perform outside of this project. Iteris will strive to be as efficient and effective as possible with your time. Project management techniques will be modified to meet the County's needs. A project kick-off meeting will be held with the County and appropriate stakeholders to determine project goals, discuss the project schedule, and define lines of communication. Frequency of communication can vary depending on specific project needs, phase of the project, and individual needs and styles of those involved in the project, from both the client and consultant perspective.

- Monitor and control project activities with respect to schedule performance and analyze the impact of delays and cost alternatives. Actual project performance is periodically compared to planned project performance to identify deviations or areas of concern.
- Facilitate the assessment of work progress in terms of project milestones, work completed, percent in process, and dependence on future project tasks. Mr. Ramirez will frequently hold informal discussions with the County on specific tasks in addition to the regularly scheduled project team meetings.

The QC/QA process is a major factor in reducing project issues and technical errors and will assist with identifying conflicts or inconsistencies within project documentation. The QC/QA process will also require that each project be set up with a dedicated task for QC/QA tracking and that an individual be charged with Quality Control for each task in the work plan. Iteris' QA/QC process is illustrated in **Figure 1**.

Figure 1 – Iteris' QA/QC Process



2 FIRM EXPERIENCE

Iteris has extensive, relevant experience in all aspects of ITS and traffic engineering and has worked with numerous agencies throughout the United States, especially in Texas for local agencies including TxDOT's Houston District since 1999. Iteris excels in the assessment of existing systems and design for improvements or complete new systems and integration of these systems. Iteris' has extensive experience working with contractors and vendors, including wireless tower crews for system construction and integration while assisting in all aspects of system deployment.

Iteris is well known within the industry and has a long history of successful projects similar in scope for several numerous agencies. With a proven track record of on-time, within-budget performance, Iteris encourages the County to verify with the references provided for the project qualifications provided. Iteris has initiated over 1,000 ITS/Engineering and Planning projects within the last five years for a wide range of public and private entities including local agencies, counties, MPO, and TxDOT. ***Approximately 70% of these projects represent repeat clients - a testament to Iteris' ultimate goal of client satisfaction.*** Iteris' extensive traffic engineering, transportation planning and ITS experience is demonstrated by the projects are summarized in **Table 1** and project narratives provided in the pages that follow.



A fundamental key advantage Iteris offers the County is that is our expertise covers the entire life cycle of transportation projects. From up front planning to detailed design to integration to data analytics to Operations and Management (O&M), Iteris is the only firms in the US that offers all of these in-house services to our clients. Iteris offers these services under the umbrella of the FHWA ITS Architecture, a valuable FHWA resource for all ITS projects, particularly when Federal funding is involved. Iteris has been the sole consultant to manage the ITS Architecture for FHWA since its inception in 1996. This provides our clients with the added assurance that the projects we plan, design, and integrate leverage meet local, state and Federal ITS standards, as noted in the examples below.



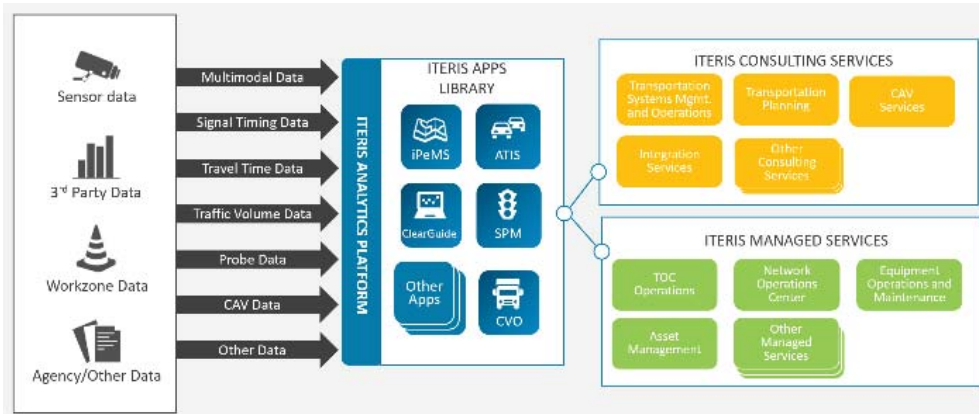
- As agencies upgrade and implement smart signals, which are connected signals running Advanced Traffic Controller (ATC) controllers, the capabilities to start capturing intersection sensor data will unlock doors to next level technologies, including Signal Performance Measures (SPM) and Connected Vehicle (CV) technologies. The outcome will be smart signals that are always operating the most efficient and safest signal timing. Iteris is the industry leader in this space.
- As agencies develop plans to manage their roadways in an environment of connected vehicles and autonomous mobility, Iteris' expertise is again unmatched. Iteris has been at the forefront of integrating related CV applications within ITS architectures. Under the National ITS Architecture effort, Iteris has developed the Connected Vehicle Reference Implementation Architecture (CVRIA), which addresses mobility, safety and environmental applications using Vehicle-to-Vehicle (V2V), Vehicle-to-Infrastructure (V2I), and pedestrian-to-vehicle wireless connectivity along with center-to-infrastructure functionality and Vehicle-to-Center (V2C) services.
- As agencies prepare for a world of smart signal and smart cities, the systems are becoming more complex while also requiring a higher level of up time reliability. Traffic sensors that are nice to have today will be mission critical in the world of connected vehicles and autonomous mobility. Agencies will need to do more management with less resources. Iteris' end to end services provide



Iteris has a strong track record helping agencies for over 30 years, throughout the US, to prepare ITS Master Plans that have resulted in deployment of the projects defined in these Master Plans.

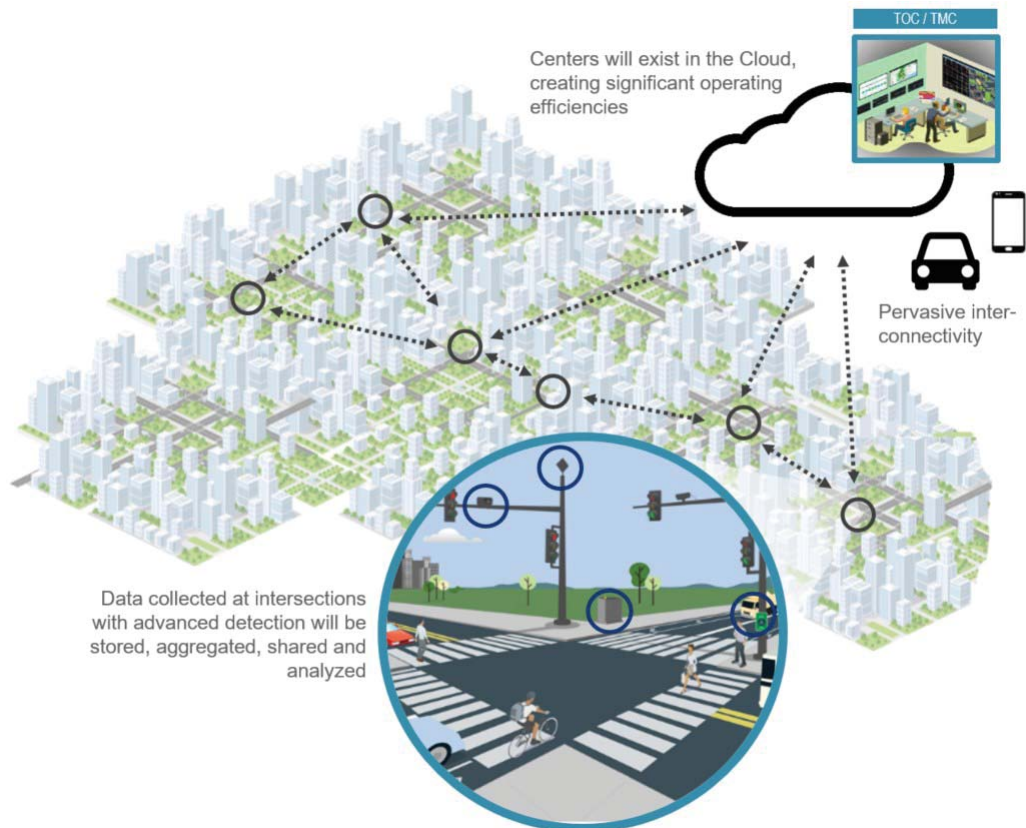
our clients with a fast-track approach to plan, design and deploy solutions. Iteris' unique of any firm in the US managed services, which combines our technical expertise with our analytics software tools, reduces the agency' staff time to manage their transportation network (see **Figure 2**).

Figure 2 – Iteris' Complete Transportation Management Solutions



For the County of Fort Bend, Iteris' unique set of services will ensure the wireless network that is planned and designed for today's needs will be future proof to serve the County in a world of connect vehicles and autonomous mobility. Iteris has completed ITS, traffic engineering, signal system upgrades, and signal timing operations work for every TxDOT District, and numerous local agencies. In recent years, Iteris completed ITS and Communication Planning, Design and Deployment projects for the TxDOT Austin, and the cities of College Station, Abilene, Killeen, Round Rock, and Conroe, to name a few (See **Figure 3**).


Figure 3– Smart City Concept



Similar Projects

With a proven track record of on-time, within-budget performance, Iteris encourages Fort Bend County to verify with the references provided for the project qualification. Iteris' extensive traffic engineering, transportation planning, and ITS experience are demonstrated by the projects are summarized in **Table 1**.

Table 1 – Project Experience Matrix

PROJECT QUALIFICATIONS	 PS&E	 Construction Support	 Integration
Iteris			
TITLE/LOCATION: Austin Wireless Design, Austin, TX COMPLETION DATE: 06/2018 CLIENT: TxDOT Austin District CONTACT: Mr. John Nevares, PE, Assist. Director Traffic Ops (retired), (512) 629-7142, jnevares@netzero.net	■	■	■
TITLE/LOCATION: City of College Station Traffic Signal Upgrade, College Station, TX COMPLETION DATE: 02/2016 CLIENT: City of College Station, Texas CONTACT: Troy Rother, PE, PTOE, City Traffic Engineer, (979) 764-3838, trother@cstx.gov	■	■	■
TITLE/LOCATION: City of Abilene Traffic Signal Upgrade, Abilene, TX COMPLETION DATE: 3/2020 CLIENT: City of Abilene, Texas CONTACT: Mike Mathews, Traffic Services Manager, (325) 676-6066, mike.matthews@abilenetx.com	■	■	■
TITLE/LOCATION: Killeen Traffic Signal Upgrade, Killeen, TX COMPLETION DATE: 12/2017 CLIENT: City of Killeen, Texas CONTACT: Mr. John Koester, PE, Traffic Engineer, (254) 616-3153, jkoester@killeentexas.gov	■	■	■
TITLE/LOCATION: SH-99 Dedicated Fiber Project, Fort Bend County, TX COMPLETION DATE: (Design/Const-10/2021) (Integrate– Ongoing) CLIENT: Fort Bend County Toll Road Authority, CONTACT: Mr. Mike Stone, PMP, PSP, Chief Operating Officer (832) 735-7385, MikeStone@fbctra.com	■	■	■
BGE			
TITLE/LOCATION: City of Houston On-Call Contract, Houston, TX COMPLETION DATE: 12/2007 CLIENT: City of Houston, Texas CONTACT: David Worley, PE (formerly with the City of Houston), 281-275-2485 Michael Wahl, PE (reference for communications plan) 713-881-3052	■		

Iteris, Inc.

AUSTIN WIRELESS DESIGN – TXDOT AUSTIN DISTRICT, TX

Client	TxDOT Austin District		
Reference	Mr. John Nevares, PE, Assist. Director Traffic Operations (retired), (512) 629-7142, Jnevares@netzero.net		
Staff	Patrick Ramirez, PE, Duane Hartmann, PE, Scott Carlson, PE, Nader Ayoub, PE, Stuart Hunter, PE, PE, Cody Fox		
Duration	4/2017 – 6/2018	Budget	\$839,873

Iteris was contracted for a wireless project to design and implement the connectivity of 178 traffic signal intersections located in: Pflugerville, Elgin, Manor, Marble Falls, Granite Shoals, Dripping Springs, Giddings, Lockhart, Luling, Taylor and Llano; to local communication towers and other aggregation points to communicate back to the TxDOT district office in Austin. Project tasks included PS&E level network documentation with Microwave Path and Profile Analysis, followed by the field inventory for communications components inside the traffic cabinets, determine what was operational or missing and then coordinate with TxDOT maintenance personnel for the repair, replacement or new installation of wireless radios, IP switches and configuration of all devices for a functional system.



Other tasks included the scheduling of tower crews and field technicians and assisted with the management of TxDOT procurement processes to ensure radio equipment remained in stock and ready for communication tower installation. Additional elements included the production of As-Built CADD drawings for record, block diagrams and coordination with TxDOT IT staff for IP assignments and listings.

COLLEGE STATION TRAFFIC SIGNAL UPGRADE – CITY OF COLLEGE STATION, TX

Client	City of College Station		
Reference	Mr. Troy Rother, PE, Traffic Engineer, City of College Station, (979) 764-3838, trother@cstx.gov		
Staff	Duane Hartmann, PE, Scott Carlson, PE, Nader Ayoub, PE, Stuart Hunter, PE, Patrick Ramirez, PE, Cody Fox, Steven Torkelson		
Duration	3/2015 – 2/2016	Budget	\$1,008,000

Iteris was contracted to support the implementation of the City of College Station's ITS Master Plan by upgrading the City's communication network, signal system, and implement active traffic management systems to coordinate special event and recurring congestion throughout the City. In year one, Iteris upgraded all of the signal controllers (77) to take advantage of the advanced capabilities that improve traffic operations. In support of this upgrade, Iteris upgraded the communication network from a serial to IP/Ethernet network, installed field network switches and upgraded other equipment to Ethernet. Iteris also designed and installed 25 CCTV cameras, 22 Bluetooth travel time devices, and 17 video detection units. Iteris also designed, installed and integrated the City's Traffic Operations Center (TOC) and upgraded their central ATMS software to Tactics 3.1. Iteris designed the expansion of the city's fiber network, including building redundancy into the system, as well as installing additional CCTV, Bluetooth units and vehicle detection.



The City of College Station was under a tight deadline to upgrade the entire signal system prior to the season's first fall college football game. The effort included upgrading the communication network, replacing signal equipment (controllers, MMUs, etc.), adding additional devices (CCTV, Bluetooth sensors, video detection) and open the TOC operational within six (6) months. After receiving NTP in March, Iteris reviewed the ITS Master Plan which outlined a 2-year period to change the network from a serial to an IP network and upgrade the signal equipment. During this 2-year period, the City would be operating 2 signal systems, one serial and one IP based. Iteris staff developed a schedule to upgrade the entire network (77 intersections) in a two-week period. This required close coordination with equipment vendors to deliver equipment in a timely manner, City IT staff who were responsible for the City network, City Traffic Staff responsible for the signal system, and university transportation officials, responsible for

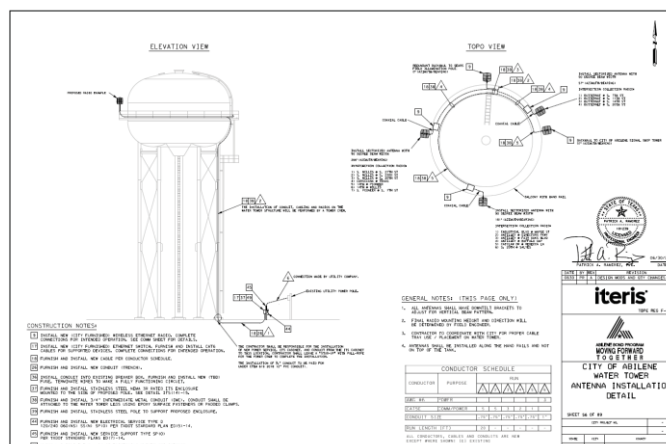
crowd and traffic control before/after football games. To meet this tight schedule, Iteris facilitated a weekly status teleconference meeting with all departments to review work tasks, identify/address issues and concerns, and importantly assign action items to specific staff with a prescribed deadline. Iteris also met with City senior management staff and university senior staff to keep them apprised of the project status. To further compress the schedule, Iteris worked with equipment vendors to deliver equipment as early as possible and set up a test lab to configure and test all equipment prior to installation. Iteris staff created a detailed VLAN IP Address Table and assigned IP addresses to each device prior to configuring and testing. With this planning and scheduling technique, Iteris, with City traffic support, met the 2-week deadline. A second critical path item was the design, construction, equipment installation and integration of the City's TOC. The City hired a local architect to design the TOC space. Iteris worked very closely with the architect by providing detailed requirements for the TOC video wall, servers, workstation consoles and conference room equipment. Iteris also reviewed the architect plans for conformance with the prescribed TOC specifications. Bids for construction were high and the City decided to construct the TOC with in-house facility staff. Again, Iteris worked with City staff to ensure construction met specifications. Iteris staff met with City Facility staff at critical milestones to ensure conformance. All equipment was pre-ordered and was delivered on time. Video wall, workstation console and supporting equipment were installed and integration completed in one week, well before the first football game.

ABILENE TRAFFIC SIGNAL UPGRADE – CITY OF ABILENE, TX			
Client	City of College Station		
Reference	Mr. Mike Mathews, Traffic Services Manager, (325) 676-6066, mike.matthews@abilenetx.com		
Staff	Duane Hartmann, PE, Patrick Ramirez, PE, Scott Carlson, PE, Nader Ayoub, PE, Stuart Hunter, PE, Cody Fox, Steven Torkelson		
Duration	3/2016 – 3/2020	Budget	\$1,079,061

Iteris is providing engineering services for the upgrade of 46 traffic signalized intersections and updating the traffic signal timing at 60 intersections. The planned upgrades at each signal ranged from basic replacements of controller and associated equipment, the addition of pedestrian heads and push buttons to full controller cabinet, conduit, communications and signal cable replacement. Iteris developed PS&E level design to implement a wireless radio IP communication network connecting 75 intersections 2 sector locations and 3 backhaul radio links to the City's Signal Shop. In addition, Iteris developed and implemented traffic signal timing plans to improve coordination throughout the city. Iteris also provided construction support oversight for the third-party contractor that installed the traffic signal elements as defined in the PS&E package. Iteris staff facilitated construction status meetings, on-site construction inspection, responded to Requests for Information, prepared contract change orders, facilitated traffic signal "turn-on" and participated in the final project walk-through ensuring compliance with construction requirements. With the system operational, Iteris is installing the Iteris Signal Performance Measures solution to monitor and address any signal operations issue.

Implementation was divided into four separate contracts. The first contract was the procurement of traffic signal hardware (controllers, cabinets, MMUs, vehicle detection equipment, IP switches and wireless radios. The second contract was with a general construction contractor to install underground conduit, ground boxes, replace signal cabinets, install pedestrian signals and re-cable the intersection. The third contract was for the installation of the sector and backhaul radios mounted on an existing water tower, high mast light structure and radio tower. The fourth contract was the extension of Iteris design services to deliver PS&E plans, configure, install, test and integrate signal equipment, as well as provide construction support and inspection services for the other three contracts. Two critical areas to the success of this project were coordination between contracts and addressing existing field condition unknowns. As part of Iteris' construction support services, Iteris facilitated regularly scheduled (weekly then bi-weekly) web conferences with project managers from each of the contracts. Work schedules, equipment delivery schedules, special events which prohibited work were discussed. A detailed action item list was created and maintained. Further coordination included Iteris hosting a project specific ftp site to house all plans and critical documents needed by all parties. This ensured the version on the ftp site was the latest and correct version.

The downtown signal system was over 40 years old and ROW was very tight. While old ROW plans showed underground utilities, it was certain not all utilities were shown. Iteris worked closely with the contractor to field locate all utilities and developed alternate plans to avoid conflicts. This was critical because the City preferred not to remove sidewalks to trench new conduit paths. Boring the conduit was the preferred method. Iteris and the contractor were successful in avoiding existing utilities. During construction, it was discovered an underground basement from an adjacent building significantly encroached on City ROW. Iteris worked with the contractor and property owner to relocate the conduit around the basement.



KILLEEN TRAFFIC SIGNAL UPGRADE – CITY OF KILLEEN, TX

Client	City of Killeen		
Reference	Mr. Billy Stottler, Traffic Manager, City of Killeen, (254) 616-3157, bstottler@killeentexas.gov		
Staff	Duane Hartmann, PE, Scott Carlson, PE, Nader Ayoub, PE, Cody Fox, James Drake		
Duration	11/2013 – 12/2017	Budget	\$282,000



Iteris was responsible for the design and implementation of the ITS system for the City of Killeen. Iteris provided construction management for the City to upgrade the signal system detection, wireless communications network and integration into the newly deployed TACTICS central office software. The communications system included broadband wireless communications throughout using Iteris' Pegasus radios. Iteris was responsible for developing the IP network, deployment and setup of their new traffic signal controllers, video detection systems, CCTV system, Bluetooth traffic sensors, and both in the field and central integration. The contract also provided citywide retiming of the signal system. Iteris was responsible for the development, implementation and field fine tuning of the signal timing for the 55-intersection signal system.

To fully utilize the benefits of the ITS solutions implemented by Iteris, the City selected Iteris to design, build and integrate the City's new TMC. The TMC includes eight Planar HD 55-inch monitors in a two by four matrix configuration. The TMC is the City's showcase within the newly construction Public Works facility. The City and Iteris are currently working to integrate the City's traffic signal system with that of Fort Hood to provide a regional traffic management system. Iteris' budget for these projects is \$282,000, excluding the deployment of Iteris' video detection, Tactics upgrade, and M50 controllers. This was a turnkey solution, so construction was also provided by Iteris, with assistance by the City's signal technicians, so the construction budgets reflect Iteris' budgets.

Iteris' most recent assignment was to develop and implement new timings at 17 intersections along 3 corridors. Iteris updated the existing traffic models, developed timing sheets (AM peak, Midday, PM peak and Weekend), implemented the new timings and made fine tuning adjustments. This assignment had a very quick turn-around. With an August 27, 2019, NTP date, all work had to be completed and invoiced before September 30th, the City's fiscal year end. Iteris staff worked very closely with City traffic staff and created a schedule to comply with this short deadline. Iteris met this critical deadline and completed the work before September 27th.

SH-99 DEDICATED FIBER PROJECT – FORT BEND COUNTY TOLL ROAD AUTHORITY

Client	Fort Bend County Toll Road Authority / Grand Parkway Toll Road Authority		
Reference	Mr. Mike Stone, PMP, PSP, Chief Operating Officer, (832) 735-7385, MikeStone@fbctra.com		
Staff	Patrick Ramirez, PE, Quan Nguyen, PE, Tuan Nguyen, CCNP, CCDP		
Duration	12/2018 – Present (integration and network monitoring)	Budget	\$539,810

Iteris was responsible for the design and integration of dedicated fiber facilities along SH-99, from US-69 (South Limits) to Westpark Toll Road (North Limits). The project also included fiber extensions along Westpark Toll Road from Katy Gason Toll Plaza to FM 1463, and along Fort Bend Parkway from Hwy-6 to Sienna Parkway. The overarching goal was to create a dedicated fiber network, wholly owned by FBCTRA, and eliminate commercially leased Comcast connections to facilitate network connectivity for Toll Gantries, and roadside ITS devices. The various data streams identified as Revenue Generating Data, and CCTV video were split into their own dedicated fibers for transmission back to TransCore, located at 2801 W Sam Houston Pkwy North, for processing. The CCTV video streams are separately transmitted back to Mike Stone Associates and other stakeholders for road condition monitoring.

The project was broken into phases with initial design, followed by several supplemental agreements for additional services including construction engineering oversight, followed by full network integration (on-going).

- PS&E design (Began Dec. 2018), (Concluded Sept. 2020)
- Construction (Began Oct. 2020), (Concluded Oct. 2021)
- Network Integration (Began Aug. 2021), (Ongoing)

Iteris' initial design began with basic PS&E for fiber infrastructure along the SH-99 corridor. No records existed, and all CAD based topography was created from scratch using a combination of aerial photography, old utility records and manual field measurements imported into a CAD environment and augmented with traditional design to TxDOT standards, prepared into a bid package for advertisement for contractor construction. Iteris staff had discovered that no records existed existing network connectivity, and required some field investigation outside of the original scope of work to document the details properly. This additional effort required the use of OTDR to trace existing fiber cables and figure out how roadside devices were connected along with the assigned fibers, and identify which fibers remained dark.

Additional design work was later requested via Supplemental Work Authorization #1 to improve and extend the existing networks along Westpark Toll Road, and Fort Bend Grand Parkway. A Second supplemental agreement (SWA #2) was created to keep Iteris active during the construction phase after it had been awarded to a local contractor (Creacom). Iteris provided engineering technical support during the construction phase and responded to RFI's and shop drawing approvals.

Later on, a Third supplemental (SWA #3) was requested for continued services for network integration. Iteris worked closely with the network maintainer (TransCore) to understand the history of the network, along with IP and routing details in preparation for a new network topology design and migration from the leased services onto the wholly owned fiber. Another key task was the coordination of MOU's between FBCTRA and HCTRA, as well as FBCTRA and TxDOT for shared fiber agreements across jurisdictional boundaries to achieve direct connections to the various stakeholders along with the completion of redundant fiber rings. Iteris' staff participated in various stakeholder meetings and authored the "ask statements" for technical requirements. Iteris reviewed and provided comments for the draft MOU's before being sent for final review and approval. Upon execution of the pending MOU's, Iteris will move forward with the full network migration and performance monitoring.

BGE

CITY OF HOUSTON ON-CALL CONTRACT

Client	City of Houston		
Reference	David Worley, PE (formerly with the City of Houston), 281-275-2485 Michael Wahl, PE (reference for communications plan) 713-881-3052		
Duration	01/2004 – 12/2007	Budget	\$1,000,000

BGE provided program management services and traffic signal timing optimization services to the City of Houston to develop and implement this program. Mayor Bill White authorized the notice to proceed with the program on his third day in office, in early January 2004. Traffic signal timing of the entire City was one of Mayor White's key platform issues during his campaign. This program consisted of optimizing 1,540 traffic signals along the major arterial streets in Houston in 1 year, by December 31, 2004.

BGE identified candidate corridors, provided on-site staff at TranStar, provided traffic signal timing training to City staff, and optimized a portion of the signals in the program. The City of Houston conducted bi-weekly meetings to coordinate the program throughout the year. BGE and five other consulting companies were involved in the program, as well as City of Houston staff who also optimized a portion of the signals in the program.

BGE and one subconsultant firm optimized 225 signalized intersections in the program during a 6-month period. The work consisted of conducting travel time studies, uploading existing timings with a laptop, developing optimized time-space diagrams using the TSPPD software, developing offset and split tables for the optimized timings, field implementation and fine-tuning of the optimized timings by downloading to the controllers from the laptop, and providing the final timing files and plan tables to the City.

City of Houston Traffic Signal Communications Plan

The purpose of the Communications Master Plan (CMP) was to identify the architecture and high-level design requirements that shall form the basis for the design and implementation of a state-of-the-art communications network to support the City's advanced transportation management system (ATMS).

The City of Houston's ATMS currently manages approximately 300 of the City's more than 2,400 signalized intersections. The City utilizes the i2TMS central management software from multiple workstations located at TranStar and the Patterson Road Traffic Operations Shop. The existing ATMS network uses a variety of communication protocols and technologies to communicate with the Model 2070 advanced traffic controller located at signalized intersections.

The efficient management of the City's transportation infrastructure becomes more critical as traffic increases on area roadways, and available funding for new roadway capacity is not adequate to meet this growing demand for additional capacity. To maximize the operational efficiency of the existing infrastructure, the City needs to expand the transportation management capabilities of its ATMS to include the following:

- 3,000+ signalized intersections
- Closed circuit television cameras (CCTV)
- Dynamic message signs (DMS)
- School zone flashers
- System detectors (real-time vehicle counts, vehicle occupancy, speed measurement, etc.)
- High water warning system

The nucleus of the recommended CMP is a series of redundant fiber optic cable loops that shall serve as the major backhaul segment for the network. Extending from the major backhaul loops, lateral communication links shall extend the high-capacity network into specific areas of the City. From the lateral communication links, field circuits shall connect to individual or groups of ATMS field devices through wired or wireless technologies.

Traffic Signal and Fiber Optic Standard Details and Specifications Technical Approach ITS Construction Management

BGE is the leader in traffic signal and communication construction work in the City of Houston having updated the traffic signal and fiber optic standard details and specifications (02893 series) for the City of Houston 2003 and 2004.

3 STAFF EXPERIENCE

Project Management Team – Trusted Leadership

PROJECT MANAGER

Patrick Ramirez, EE, PE, Project Manager

Current Position: Principal Engineer

Education & Registrations:

BS, Electrical Engineering | Electrical Engineer (EE): CA #2176 | Electrical Engineer (PE): TX #101239

Years with Iteris: 6

E: par@iteris.com | P: 281-745-4211



Mr. Patrick Ramirez will serve as the project manager for this project and will be the principal contact with the County and other entities per the County's direction. He will be responsible for coordinating staff activities, meetings, project strategies, and will oversee work from project inception to completion.

Mr. Ramirez serves as a Principal Transportation Engineer for Iteris' Consulting Solutions division and has over **26 years of experience** in design for electronics and telecommunications infrastructure and has spent the past 16 years in transportation and ITS consulting. His expertise includes ITS and Traffic Signal PS&E, advanced RF wireless design and antenna selection, terrain and RF link budget analysis, analog and digital circuit design, low voltage power design, IP network and VLAN design, fiber optic network design, vehicular detection devices, construction inspection and quality control. Mr. Ramirez has served as the Engineer of Record for a numerous ITS infrastructure projects for municipalities throughout the US, primarily practicing from Houston, Texas. With his extensive background and experience on projects similar to this one, Mr. Ramirez is the ideal PM and will serve as the primary contact for the County.



Mr. Ramirez' most recent experience includes the detailed design and integration for the dedicated fiber project, for Fort Bend County Toll Road Authority.

Resumes



Iteris strives to help clients solve the problems that are the focus of the project by providing solutions that work, solutions that innovate, and solutions that are Smart. These are reasons why clients know Iteris as a firm that goes above and beyond expectations to make client projects successful. One method to achieve these goals is by offering clients an Expert Project Team whose mission it is to assist the County with innovation ideas, problem solving solutions, and quality control (QA/QC). Iteris is pleased to offer the following proposed personnel for this contract. Brief bios for key staff are include in the pages that follow. Resumes are included in Appendix A.

Project Team Organization

With offices nationwide, Iteris has cross-trained employees to strengthen their ability to withstand a loss of key personnel. Iteris has resources of over 100 team members nationwide dedicated to Traffic Engineering, Traffic Operations, Transportation Planning, and ITS that can serve as backup and help meet critical project goals and deadlines in case of a loss of a key person(s). The personnel identified in the organization chart are available to immediately work on any assigned task. Iteris' proposed team organization is provided in **Figure 4**.



- ◆ Task Lead
- BGE (Sub)

DUANE HARTMANN, PE
QA/QC Advisor

Construction Management

Patrick Ramirez, PE ♦

James Hunt, PE ●
Jeff Bostick, PE ●
Nick Fuentes ●

Network Management


Tuan Nguyen, CCNP,
CCDP

Patrick Ramirez, PE
Stuart Hunter, PE
Cody Fox, IMSA I, II, III

All PEs are registered in the State of Texas, unless otherwise noted.

iteris[®]

Dr. Robert A. Kohn is a professor of psychology at the University of California, San Diego. He is also a senior research advisor at the RAND Corporation. Dr. Kohn has published numerous articles on the psychology of aging and the role of social support in health and well-being.



Mr. Hartmann serves as an Associate Vice President for Iteris' Consulting Solutions division. He has over 37 years of experience in the planning, design, development, deployment, and operations of Intelligent Transportation Systems (ITS) as well as numerous aspects related to traffic management, traffic incident management, traffic design, and roadway design. His duties have included development, deployment, and evaluation of over 60 ITS projects, including transportation management systems (freeway, arterial, and signal), infrastructure design, system development, system integration, and system maintenance. Mr. Hartmann has also been responsible for overall project assignments and project coordination with other disciplines and agencies. Mr. Hartmann has also taught courses to ensure proper techniques, procedures, design standards, and policies required by the government.

KEY PERSONNEL



Iteris is pleased to present the following key personnel assigned to the project who will assist Mr. Ramirez with the successful delivery of this project to the County. Additional information for the key personnel listed can be found in **Appendix A**, staff resumes.

MEGAN SIERCKS, PE, PTOE



Role on Project
Task Lead

Education & Registrations
PE, TX #110297
Certified PTOE No. 3304
Certified PTP No. 369
MS, Civil Engineering
BS, Civil Engineering



Megan Siercks has more than 14 years of experience in various aspects of traffic engineering. She has served in the capacity of project engineer and Project Manager for planning and engineering projects in the state of Texas. Megan's experience includes traffic engineering studies, traffic signal design, traffic control plans, signing, pavement markings, illumination, and master plan design. She has conducted ITS planning and design projects, as well as innovative intersection planning and design. She is proficient with modeling software packages, including Synchro and VISSIM.

TUAN NGUYEN, CCDP, CCNP, CCNA



Role on Project
Task Lead |
Integration Manager

Education & Registrations
MS, Computer
Engineering,
Computer Science, and
Networking
Technologies



Mr. Nguyen serves as a Principal Engineer Integrations for Iteris' Consulting Solutions division. He has been with the firm since 2019. He has over 16 years of experience working in the fields of ITS Network Systems Design, Integration, Operations, and Maintenance. He has extensive expertise with multi-vendor networking technology, video management systems, network operation management, and project management.

NICOLAS VANN, RPLS



Role on Project
Task Lead

Education & Registrations
BS in Bioenvironmental
Sciences
TX RPLS No. 6393



Nick Vann has 13 years of survey experience. As Director of Survey at BGE, he is responsible for the supervision of project surveyors, technicians, and field crews along with maintaining the highest standard of surveying procedures. His experience includes surveying for engineering design, rights-of-way, horizontal and vertical control, as-builts, and topographic surveys.

QUAN NGUYEN, PE



Role on Project
Staff Engineer

Education and Registrations
BS, Civil Engineering
PE, TX #111605



Mr. Nguyen serves as a Senior Engineer of Iteris' Consulting Solutions division. He has over 14 years of experience in intelligent transportation systems (ITS), illumination, tolling, traffic signalization and signing and pavement marking. He specializes in the development of ITS systems that include closed-circuit television cameras, dynamic message signs (DMS), vehicle detection and work zone ITS. He has developed ITS communication systems, tolling plans, DMS for emergency evacuation plans, roadway and safety lighting, traffic signal systems, and work zone intelligent transportation systems. He is experienced with various traffic and transportation software, including MicroStation, Synchro, SimTraffic, AGI32, AutoTurn and SignCAD. He has completed projects for private clients and for various cities, counties and TxDOT Districts in Texas.

4 FINANCIAL STABILITY

Successful Completion of All Awarded Work

a. Has your Company ever failed to complete any work awarded to it?

Iteris, Inc. has never failed to complete any work awarded.

Litigation Status

b. Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your Company or its officers?

Response: Company is currently not a party to any judgments, claims, arbitration proceedings or suits pending or outstanding against it, that the adverse outcome, in management's opinion, individually or in the aggregate, would have a material adverse effect on its consolidated results of operations, financial position, or cash flows. As a public company, Company is required to disclose material matters (e.g., claims, judgments, arbitration, etc.) in its SEC filings. Company's SEC filings can be found at its website (URL: <https://iterisinc.gcs-web.com/financial-information/sec-filings>). From time to time, Company has received claims or been involved in litigation relating to or arising out of our operations in the normal course of business. Company is currently not a party to any pending or outstanding judgments, claims, arbitration or suits, the adverse outcome of which, in management's opinion, individually or in the aggregate, would have a material adverse effect on Company's consolidated results of operations, financial position, or cash flows. Notwithstanding the foregoing and to be responsive to this question, the following is a summary and status of Company's pending suits against Company:

In 2017, Mary Cheney, Surviving Spouse of Decedent Eric Cheney v. City of Killeen, et. al, Cause No. 286,720-C, filed in the District Court of Bell County, Texas. The surviving spouse contends wrongful death arising from a motorcycle/vehicular accident, alleging negligence in the cause of death of plaintiff's spouse based upon a phase change in the operation sequence of an intersection traffic signal. Company and all other defendants were dismissed of all claims by the District Court. Plaintiff appealed and the Court of Appeals reversed the District Court's order of dismissal and remanded the case back to the District Court for further proceedings.

In August 2021, Wavetronix LLC v. Iteris, Inc., Civil Action No. 6:21-CV-00899, filed in the U.S. District Court for the Western District of Texas. The plaintiff claims breach of contract arising from a settlement agreement related to a patent infringement suit and Company's traffic control sensor. Suit filed recently and first responses have been exchanged.

In August 2021, Triumph IP LLC v. Iteris, Inc., Case No. 1:21-CV-01211-UNA, filed in the U.S. District Court for the District of Delaware. The plaintiff claims patent infringement of two patents by Company's Vantage Pegasus product. Suit filed recently and first responses have been exchanged.

c. Has your Company filed any lawsuits or requested arbitration with regard to construction contracts within the last five years? If yes, please provide details.

Response: Company has not filed any lawsuits or requested arbitration with regard to construction contracts within the last five years.

5 REQUIRED PROOF OF INSURANCE / COMPLETED FORMS

Vendor Form



COUNTY PURCHASING AGENT
Fort Bend County, Texas

Vendor Information

Jaime Kovar
Purchasing Agent

Office (281) 341-8640

Legal Company Name (top line of W9)	Iteris, Inc.												
Business Name (if different from legal name)													
Federal ID # or S.S. #	952588496	DUNS #	048765937										
Type of Business	<input checked="" type="checkbox"/> Corporation/LLC <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Proprietor/Individual <input type="checkbox"/> Tax Exempt Organization		Age in Business? 34 years										
Publicly Traded Business	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Ticker Symbol <input type="text"/>												
Remittance Address	Iteris, Inc., P.O. Box 842123												
City/State/Zip	Los Angeles, CA 90084-2123												
Physical Address	1700 Carnegie Avenue, Suite 100												
City/State/Zip	Santa Ana , CA 92705												
Phone/Fax Number	Phone: (949) 270 9400 Fax: _____												
Contact Person	Proposal: Patrick Ramirez												
E-mail	Proposal: par@iteris.com												
Check all that apply to the company listed above and provide certification number.	DBE-Disadvantaged Business Enterprise <input type="checkbox"/> SBE-Small Business Enterprise <input type="checkbox"/> HUB-Texas Historically Underutilized Business <input type="checkbox"/> WBE-Women's Business Enterprise <input type="checkbox"/>	Certification # _____ Certification # _____ Certification # _____ Certification # _____	<table border="1"> <thead> <tr> <th>Cert Date</th> <th>Exp Date</th> </tr> </thead> <tbody> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> </tbody> </table>	Cert Date	Exp Date	_____	_____	_____	_____	_____	_____	_____	_____
Cert Date	Exp Date												
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_____	_____												
Company's gross annual receipts	<table border="1"> <tr> <td><\$500,000 _____</td> <td>\$500,000-\$4,999,999 _____</td> </tr> <tr> <td>\$5,000,000-\$16,999,999 _____</td> <td>\$17,000,000-\$22,399,999 _____</td> </tr> <tr> <td colspan="2">>\$22,400,000 <input checked="" type="checkbox"/> _____</td> </tr> </table>			<\$500,000 _____	\$500,000-\$4,999,999 _____	\$5,000,000-\$16,999,999 _____	\$17,000,000-\$22,399,999 _____	>\$22,400,000 <input checked="" type="checkbox"/> _____					
<\$500,000 _____	\$500,000-\$4,999,999 _____												
\$5,000,000-\$16,999,999 _____	\$17,000,000-\$22,399,999 _____												
>\$22,400,000 <input checked="" type="checkbox"/> _____													
NAICs codes (Please enter all that apply)	541600, 334290, 511210, 541330, 541511, 541512, 541618, 541714, 541715, 541990, 611430												
Signature of Authorized Representative													
Printed Name	Steven Bradley												
Title	Regional Vice President, Consulting Solutions												
Date	11-12-2021												

THIS FORM MUST BE SUBMITTED WITH THE SOLICITATION RESPONSE

W-9 Form

Form W-9 (Rev. October 2018) Department of the Treasury Internal Revenue Service	Request for Taxpayer Identification Number and Certification ▶ Go to www.irs.gov/FormW9 for instructions and the latest information.	Give Form to the requester. Do not send to the IRS.
1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. Iteris, Inc.		
2 Business name/disregarded entity name, if different from above		
Print or type. See Specific Instructions on page 3.	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.	
	<input type="checkbox"/> Individual/sole proprietor or single-member LLC <input checked="" type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate	
	<input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.	
	<input type="checkbox"/> Other (see instructions) ▶ _____	
4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ (Applies to accounts maintained outside the U.S.)		
5 Address (number, street, and apt. or suite no.) See instructions. 1700 Carnegie Avenue, Suite 100		Requester's name and address (optional)
6 City, state, and ZIP code Santa Ana, CA 92705		
7 List account number(s) here (optional)		
Part I Taxpayer Identification Number (TIN) Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> , later. Note: If the account is in more than one name, see the instructions for line 1. Also see <i>What Name and Number To Give the Requester</i> for guidelines on whose number to enter.		
Social security number <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> 95-2588496 </div>		Employer identification number <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> 95-2588496 </div>
Part II Certification Under penalties of perjury, I certify that: 1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and 2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and 3. I am a U.S. citizen or other U.S. person (defined below); and 4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct. Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.		
Sign Here	Signature of U.S. person ▶	Date ▶ 1/7/21
General Instructions Section references are to the Internal Revenue Code unless otherwise noted. Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9 . Purpose of Form An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.		
<ul style="list-style-type: none"> • Form 1099-DIV (dividends, including those from stocks or mutual funds) • Form 1099-MISC (various types of income, prizes, awards, or gross proceeds) • Form 1099-B (stock or mutual fund sales and certain other transactions by brokers) • Form 1099-S (proceeds from real estate transactions) • Form 1099-K (merchant card and third party network transactions) • Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition) • Form 1099-C (canceled debt) • Form 1099-A (acquisition or abandonment of secured property) Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN. If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later. 		
Cat. No. 10231X		Form W-9 (Rev. 10-2018)

Tax Form/Debt/Residence Certification

Job No.: MONITORING SYSTEM:
RFQ 22-017 **TAX FORM/DEBT/ RESIDENCE CERTIFICATION**
(for Advertised Projects)

Taxpayer Identification Number (T.I.N.): 952588496

Company Name submitting Bid/Proposal: Iteris, Inc.

Mailing Address: CORPORATE: 1700 Carnegie Avenue, Suite 100, Santa Ana, CA, 92705
TEXAS: 1250 S. Capital of Texas Hwy, Suite 1-330, West Lake Hills, TX 78746

Are you registered to do business in the State of Texas? ☒ Yes ☐ No

If you are an individual, list the names and addresses of any partnership of which you are a general partner or any assumed name(s) under which you operate your business **Not Applicable**

I. **Property:** List all taxable property in Fort Bend County owned by you or above partnerships as well as any d/b/a names. Include real and personal property as well as mineral interest accounts. (Use a second sheet of paper if necessary.) **Not Applicable**

Fort Bend County Tax Acct. No.*	Property address or location**

* This is the property account identification number assigned by the Fort Bend County Appraisal District.

** For real property, specify the property address or legal description. For business personal property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored at a warehouse or other location.

II. **Fort Bend County Debt** - Do you owe any debts to Fort Bend County (taxes on properties listed in I above, tickets, fines, tolls, court judgments, etc.)?

Yes ☒ No ☐ If yes, attach a separate page explaining the debt.

III. **Residence Certification** - Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Fort Bend County requests Residence Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

- (3) "Nonresident bidder" refers to a person who is not a resident.
- (4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☒ I certify that Iteris, Inc. is a Resident Bidder of Texas as defined in Government Code §2252.001. [Company Name]

I certify that _____ is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ [City and State]

Created 05/12

Certificate of Insurance, as stated in Section



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
5/5/2021

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).

PRODUCER Woodruff-Sawyer & Co. 2 Park Plaza, #500 Irvine CA 92614		CONTACT NAME: Katharine Tiller PHONE (A/C, No, Ext): 949.435.7353 FAX (A/C, No): 949.476.3118 E-MAIL ADDRESS: ktiller@woodruff-sawyer.com	
INSURED Iteris, Inc. 1700 Carnegie Avenue, Suite 100 Santa Ana CA 92705-5551		INSURER(S) AFFORDING COVERAGE INSURER A: Continental Insurance Company 35289 INSURER B: Columbia Casualty Company 31127 INSURER C: Continental Casualty Company 20443 INSURER D: American Casualty Company of Reading 20427 INSURER E: INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 305029238 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADOL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> BI Ded. None GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC <input checked="" type="checkbox"/> OTHER:		6057362701	4/1/2021	4/1/2022	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$15,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$4,000,000 PRODUCTS - COMP/OP AGG \$4,000,000 \$
C	<input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY		6057362682	4/1/2021	4/1/2022	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Owned/Hired Comp/Coll \$Ded's \$1000
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB DED <input checked="" type="checkbox"/> RETENTION \$ \$10,000	<input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE	6057362679	4/1/2021	4/1/2022	EACH OCCURRENCE \$25,000,000 AGGREGATE \$25,000,000 \$
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/ MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N/A	6057544401 - CA 6057544413 - AOS	4/1/2021 4/1/2021	4/1/2022 4/1/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
B	Professional Liability Claims Made Form		652092957	5/1/2021	4/1/2022	Aggregate/Occurrence \$5,000,000 \$500,000

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

CERTIFICATE HOLDER

Iteris, Inc. (Basic)
1700 Carnegie Avenue, Suite 100
Santa Ana CA 92705-5551

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

K. Tiller

ACORD 25 (2016/03)

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APPENDIX A RESUMES

Iteris

- Patrick Ramirez, PE
- Duane Hartmann, PE
- Tuan Nguyen, CCNP, CCDP

Subconsultant

BGE

- Megan Siercks, PE, PTOE
- Nicolas Vann, RPLS



Mr. Ramirez serves as a Senior Transportation Engineer for Iteris' Consulting Solutions division. He has over 26 years of experience working in electronics and telecommunications fields and has spent the past 16 years working in transportation and Intelligent Transportation System (ITS) consulting. His expertise includes ITS and traffic signal plans, Specifications and Estimates (PS&E), advanced Radio Frequency (RF) wireless design and antenna selection, terrain and RF link budget analysis, analog and digital circuit design, low voltage power design, IP network and VLAN design, fiber optic network design, traffic signal design, vehicular detection devices, construction inspection and quality control. Mr. Ramirez has served as Project Manager and Engineer-of-Record on numerous ITS and traffic engineering projects in several states.

EDUCATION

BS, Electrical Engineering, University of Houston, TX, 2005

Post Baccalaureate Studies, Electrical Engineering, University of Houston, TX

Did you know?

Patrick, a self-proclaimed tech guru, is heavily involved in electronics research, web development, and programming in his free time. He also enjoys home improvement projects, woodworking, playing guitar, skydiving, and going to the gym.

YEARS OF EXPERIENCE

With Iteris: 6 Total: 26

REGISTRATIONS

Electrical Engineer (EE)
CA #21176, 2015

Professional Engineer (PE)
TX #101239, 2008
NC #048182, 2018
OK #30547, 2018

CORE DISCIPLINES

ITS Planning & Design

Tolling

ITS Systems Engineering & Architecture

Traffic Engineering

Electrical Design

Systems Integration

AFFILIATIONS

National Council of Examiners for Engineering and Surveying (NCEES)

Institute of Transportation Engineers (ITE)

Intelligent Transportation Society of America (ITSA)

Project Experience

SH-99 Dedicated Fiber Project, Fort Bend County Toll Road Authority, Fort Bend County, TX

Mr. Ramirez served as the Project Manager/Engineer of Record for the design and integration for a dedicated fiber optic backbone, connecting existing toll gantries and CCTV cameras, and eliminating leased services. Project components included the evaluation of the existing tolling system along SH 99 between I-69 and Westpark Tollway, and the fiber optic tie-in to I-69 and Westpark Tollway, the proposed fiber optic communication plans, including the conduit, ground boxes, ITS cabinets, for the existing tolling system and future CCTVs. The fiber optic installation plans includes the tie-in to TxDOT's HUB building at I-69, seven toll gantry cabinets along SH 99 and splicing to the fiber optic system at Westpark Tollway. The plans also included fiber optic communication schematic, fiber optic cables assignment and splicing details, conduit boring details, ground boxes interception details and TxDOT's standards and specifications. Iteris is also coordinating with TxDOT Houston District, TransCore, Fort Bend County Levee Improvement District 7 and 10. Additional Work Authorizations included additional design services to extend fiber communications along the Westpark Toll corridor, and Fort Bend Parkway corridors. Iteris staff also provided engineering supplemental engineering services during construction, created new network topologies, and performed network migration from the existing leased facilities to the dedicated fiber network. The Design and Construction phases of the project began in December 2018 and completed in October 2021. Network migration began in September 2021 and is ongoing.

Intelligent Transportation System (ITS) Statewide On-Call (WA#6-SA2), Texas Department of Transportation (TxDOT) – Austin, TX

Mr. Ramirez served as the Engineer of Record for a wireless project to connect an additional 107 traffic signal intersections located in Marble Falls, Granite Shoals, Dripping Springs, Giddings, Lockhart, Luling, Taylor and Llano o local communication towers and back to the TxDOT district office in Austin. Project tasks included the field inventory for communications components inside the traffic cabinets, determine what was operational or missing and

then coordinate with TxDOT maintenance personnel for the repair, replacement or new installation of wireless radios, IP switches and configuration of all devices for a functional system. Other tasks included the scheduling of tower crews and field technicians, and assisted in the management of the procurement processes to ensure radio equipment remained in stock and ready for communication tower installation. Production of As-Built CADD drawings for record, block diagrams and IP listings. The project began in April 2017 and is ongoing.

Abilene Traffic Signal Upgrades – City of Abilene, TX

Mr. Ramirez served as the Engineer of Record for a city-wide traffic signal improvement project for 62 traffic signal intersections, along major corridors throughout the city. Phase I included a detailed Plans, Specifications and Estimates (PS&E) package production and advertisement for bid. Phase II included contractors bid review and selection, construction management, engineering support, quality control and contractor invoicing. Forty-one of the intersections required the design for updated power utilities, conduit infrastructure, communications and cabinet replacement. One intersection required the complete design for new traffic signal poles foundations, mast arm assemblies, and signal heads. Downtown Abilene consisted of the design for communications to connect 26 intersections using a combination of Ethernet and wireless within a dense urban environment. Other project components included a preliminary field survey and traffic signal re-timing efforts. A complete PS&E package and IP scheme was also created for construction, and integration assistance during construction. The project began in April 2016 and concluded Dec. 2019.

Loop 1604/US-281 ITS Expansion, TxDOT – San Antonio, TX

Mr. Ramirez served as the Engineer-of-Record for LP 604/US 281 ITS system expansion. Loop 1604 included the design of eleven (11) ITS Poles (60 Ft.), five Dynamic Message Signs (DMS) and their associated foundations and electrical service. Thirteen (13) Closed-Circuit Television (CCTV) cameras were strategically placed along the corridor to bring visual information back to TransGuide. To facilitate the communications a custom wireless Ethernet network was designed utilizing 24 new radios spanning from I-10 to I-35. Communications drop onto a fiber network at I-10, US 281 and I-35. US 281 included the design of three ITS poles (60 Ft.), two Dynamic Message Signs (DMS) and their associated foundations and electrical service. To facilitate

communications, 144 SMFO cable was run the length of the project utilizing CPS Energy poles on TxDOT Right-of-Way. A major project hurdle involved finalizing a pole attachment agreement with CPS Energy and attaching to 1 existing bridge. The Project design was completed in March 2019. Project letting is scheduled for July 2019.

ITS Statewide On-Call (WA#6), TxDOT – Austin, TX

Mr. Ramirez served as the Engineer of Record for a wireless project to connect 71 traffic signal intersections located in Pflugerville, Elgin and Manor to local communication towers and back to the TxDOT district office in Austin. Project tasks included the field inventory for communications components inside the traffic cabinets, determine what was operational or missing and then coordinate with TxDOT maintenance personnel for the repair, replacement or new installation of wireless radios, IP switches and configuration of all devices for a functional system. Other tasks included the scheduling of tower crews and field technicians, and assisted in the management of the procurement processes to ensure radio equipment remained in stock and ready for communication tower installation. Production of As-Built CADD drawings for record, block diagrams and IP listings. The project began in February 2016 and completed in March 2017.

ITS Statewide On-Call (WA#4), TxDOT – Austin, TX

Mr. Ramirez served as the Prime Consultant Engineer of record for ITS, Plans, Specifications and Estimates (PS&E) design services for the non-site specific locations within the Austin district. Project tasks included the compiling of state standards for all ITS devices, along with the creation of any additional details for the construction, retro-fit, installation and integration of all ITS devices regularly used within the district. These devices included Dynamic Message Signs (DMS) and poles, LCS signals, Closed-Circuit Television (CCTV) cameras, Radar Vehicle detection devices, conduit trenching and boring details, electrical services and associated transformers, fiber optic construction and connection details, wireless radios and antenna alignment details, metal beam guard fence details and worksheets, CCTV and DMS pole foundation worksheets, connection of Ethernet and fiber optic devices and all data equipment including switches, video encoders, cabinets, UPS back-up systems, electrical surge protection and grounding details. The project began in April 2015 and completed in June 2016.



EDUCATION

MS, Civil Engineering, Texas A&M University, College Station, TX, 1996

BS, Civil Engineering, Texas A&M University, College Station, TX, 1996

YEARS OF EXPERIENCE

With Iteris: **7** Total: **37**

REGISTRATIONS

Civil Engineer (PE)
TX #65322, 1988

CORE DISCIPLINES

Traffic Engineering & Operations
ITS Planning/Design/Integration
Traffic Incident Management

AFFILIATIONS

American Society of Civil Engineers (ASCE)

Institute of Transportation Engineers (ITE)

ITS America

ITS Texas

Mr. Hartmann serves as an Associate Vice President for Iteris' Consulting Solutions division. He has over 37 years of experience in the planning, design, development, deployment, and operations of Intelligent Transportation Systems (ITS) as well as numerous aspects related to traffic management, traffic incident management, traffic design, and roadway design. His duties have included development, deployment, and evaluation of over 60 ITS projects, including transportation management systems (freeway, arterial, and signal), infrastructure design, system development, system integration, and system maintenance. Mr. Hartmann has also been responsible for overall project assignments and project coordination with other disciplines and agencies. Mr. Hartmann has also taught courses to ensure proper techniques, procedures, design standards, and policies required by the government.

Project Experience

Traffic Engineering/Intelligent Transportation System (ITS) On-Call Services, Texas Department of Transportation (TxDOT), San Antonio District – San Antonio, TX

Mr. Hartmann serves as the project manager for Work Authorization (WA) based on-call services contract.

- **WA 4 SL 1604/US 281 Intelligent Transportation Systems (ITS) Plans, Specifications and Estimates (PS&E) Gap Project:** Iteris provided PS&E design services along 17.5 miles of State Loop (SL) 1604 from IH-10 east to IH-35 and 4.5 miles of US 281 from SL 1604 south to Nokoma Dr. The SL 1604 section included the design of 11 ITS Poles (60 Ft.), 5 Dynamic Message Signs (DMS) and their associated foundations and electrical service. Thirteen (13) Closed-Circuit Television (CCTV) cameras were strategically placed along the corridor to bring visual information back to TransGuide. To facilitate the communications a custom wireless Ethernet network was designed utilizing 24 new radios spanning from I-10 to I-35 for full redundancy. Communications drop onto a fiber network at I-10, US 281 and I-35. The US 281 section 281 included the design of 3 ITS poles (60 Ft.), 2 DMS and their associated foundations and electrical service. To facilitate communications, 144 SMFO cable was run the length of the project utilizing CPS Energy poles on TxDOT Right-of-Way. A major project hurdle involved finalizing a pole attachment agreement with CPS Energy (the local electricity provider) and attaching to 1 existing bridge. In addition to design services, this WA included a Construction Support task. Under this task, Iteris will provide shop drawing, construction review and change order development, as-built plan development and other construction related activities. The project started in November 2018. The project design completed in March 2019. Construction letting is July 2019.

. Bend Toll Road Authority SH-99 (Grand Parkway) ITS Fiber Plans, Specifications and Estimates (PS&E) – Ft. Bend County, TX

Mr. Hartmann served as the QA/QC advisor for this fiber optic cable trunk PS&E design project along 13 miles of SH 99 between I-69 South and the Westpark Tollway. Iteris staff developed detailed PS&E to install a 144-count fiber optic cable trunk throughout the project limits, including tie-ins to the Westpark Tollway fiber optic cable trunk network and the TxDOT Houston

District ITS fiber optic cable trunk at the IH-69 South HUB building. The project included the evaluation of the existing toll system and fiber optic cable connectivity to each toll gantry within the project limits. The PS&E package included proposed fiber optic cable communication layouts, which included location of conduit, ground boxes, ITS cabinets to tie-in the existing toll system and future CCTV cameras. Plans also included fiber optic cable communication schematic, fiber optic cable assignments and splicing details, various ITS details and standards. Iteris staff also developed detailed specifications list and general notes, as well as an engineer's cost estimate. All plans and designs were in accordance with TxDOT specifications and standards. Iteris staff also coordinated with TxDOT Houston District ITS staff, TransCore (toll integrator) staff, and Ft. Bend County Levee Improvement District 7 and 10 staff throughout the design. This project began in December 2018 and is scheduled to end in June 2019.

Corpus Christi Signal Assessment, Network Design, TMC Design/Installation/Integration – City of Corpus Christi, TX

Mr. Hartmann served as the Project Manager for this signal system network assessment, network design and traffic management center design/implementation and integration project. The City embarked on an upgrade of their traffic signal system and bringing all communication back to their new central TMC. The City operated and maintained over 240 traffic signals and over 180 school zone flashers within the city limits. The City had some fiber optic cable communications, which were augmented by wireless radio communications and leased line communication. Mr. Hartmann's responsibilities included overseeing Iteris staff assessing each signalized intersection and school zone flasher location. This assessment included a detailed inventory of all equipment within the signal cabinet and communication between each cabinet. The results of this inventory were documented in a comprehensive database. Mr. Hartmann also developed recommendations and communication topology design to upgrade the network to an IP-based Ethernet network. The design included a list of equipment to be upgraded as part of the network upgrade, as well as a comprehensive IP address schema to be used well into the future, as devices are added. Mr. Hartmann also managed staff for the design, installation and integration of the City's new TMC. Mr. Hartmann developed the TMC architecture

design documents for the installation of a 4x2 Planar video wall solution. Mr. Hartmann assisted in the installation and integration of the video wall and audio system equipment. This project began in May 2016 and O&M completed in March 2018.

Abilene Traffic Signal Upgrade Design and Construction Support Services – City of Abilene, TX

Mr. Hartmann serves as the Project Manager for this contract in preparation to upgrade the city's traffic signal system. Phase 1 Design Services activities included a comprehensive inventory and assessment of 64 signalized intersections, communication network and existing utility reviews, an existing signal timing assessment, developing base maps and preliminary communication design, develop 30%, 90%, 100% design plans upgrading and replacing signal equipment (42 intersections), developing new signal timing plans at 52 intersections, develop a before/after traffic study to document signal timing improvements, developing a comprehensive IP address schema to incorporate existing, proposed and future devices. Phase 2 Construction Support Services provided construction support during the signal upgrade construction phase. Phase 2 included contractor's bid review and selection, construction management and inspection, engineering support, quality control and contractor invoicing. Mr. Hartmann's responsibilities included all aspects of project management and administration, support with the inventory field work, design elements, signal timing development, communication topology development, construction management and inspection, equipment configuration, testing, installation and integration, resolving issues associated with the plans and actual field conditions, overseeing the construction contractor's schedule, invoicing and payment, as well as addressing any City concerns about the project. Phase 1 began in April 2016 and completed in October 2017. Phase 2 began in October 2017 and is ongoing.



EDUCATION

BS, Computer Engineering, Computer Science, and Networking Technologies
Iowa State University of Science and Technology, Ames, IA, 2004

YEARS OF EXPERIENCE

With Iteris: 2+ Total: 16

REGISTRATIONS & CERTIFICATIONS

Cisco Certified Design Professional (CCDP)
CSCO12212819, 2024

Cisco Certified Network Professional (CCNP)
CSCO12212819, 2024

Cisco Certified Network Associate – CCNA Security
CSCO12212819, 2024

CORE DISCIPLINES

Network Design Engineering
Network Operation Engineering
Planning/Design/Integration
Systems Engineering
ITS Architecture, IoT
Connected Vehicle Systems

Mr. Nguyen serves as a Principal Engineer Integrations for Iteris' Consulting Solutions division. He has been with the firm since 2019. He has over 16 years of experience working in the fields of ITS Network Systems Design, Integration, Operations, and Maintenance. He has extensive expertise with multi-vendor networking technology, video management systems, network operation management, and project management.

Did you know?

Tuan loves to bicycle, garden, cook, and spend time with family. He enjoys reading technical books and information related to networking, as well as ITS technologies.

Professional Experience

- Led the design and implementation of complex Layer II and Layer III fiber optic communication networks for ITS Architecture
- Worked with Engineers on Citywide or Regional concept of operation and fiber optic network master plan projects
- Managed and administered Cisco's routers, switches, firewall appliances, and wireless access points as well as Routerboards, SonicWall, Azure, Ubiquiti technology
- Monitored network bandwidth utilization, network performance baseline, and improve network redundancy and resiliency for Citywide and regional networks
- Evaluated and provided leading-edge technology solution to assist in the conversion of legacy network sites to next-generation network design specifications

Previous Project Experience

NETWORK DESIGN, INTEGRATION, OPERATIONS & MAINTENANCE

Network Optimization – City of West Des Moines, IA

Mr. Nguyen served as Project Manager and Network Engineer on this network optimization for City of West Des Moines. Assisted with the design and implementation plan to upgrade the client's legacy fiber optic network communication infrastructure and enhance overall network performance. The current network architecture was brought up-to-date with a high-speed, reliable and scalable network system to support CCTV cameras, traffic signals, traffic signal adaptive systems, and many other ITS components. Mr. Nguyen's involvement on the project began in 2012 and concluded in 2015. The project is on-going with maintenance and support until 2019.

Network Design and Integration – St. Charles County, MO

Mr. Nguyen served as Senior Systems Integration on this multi-agency network design and integration for St. Charles County – Gateway Green Light. Technologies include Cisco Layer III switches, ASA firewall, and other vendor network communication equipment. In addition, it was multi-year on-call network support and troubleshoot complex fiber-optic network communication system. Mr. Nguyen's involvement on the project began in 2013. The project is on-going with maintenance and support until 2019.

Network Operation Management and Support – Kane County DOT, St. Charles, IL

Mr. Nguyen served as the Project Manager and Network Engineer on this project. Mr. Nguyen assisted with the design and implementation plan to upgrade the legacy fiber optic network communication infrastructure and enhance overall network performance. Mr. Nguyen's involvement on the project began in 2016 and concluded in 2018. The project is on-going with support maintenance until 2019.

Fiber Optic Network Communication Design and Integration Services – IDOT District 5, IL

Mr. Nguyen served as the Project Manager and the Network Engineer on this Fiber Optic Network Communication Design and Integration Services project. He assisted with the network infrastructure and ITS architecture design and implementation. Mr. Nguyen's involvement on the project began in 2016 and concluded in 2017. The network support portion of the project is on-going.

San Mateo Smart Corridor Network Monitoring – San Mateo County, CA

Mr. Nguyen serves as the Network Support Engineer on this Network Monitoring project for San Mateo Smart Corridor Network. Tuan provides technical expertise to maintain the HiVision SNMP software, network monitor, and troubleshoot network problems. Mr. Nguyen's involvement in the project began in 2019. The project is on-going with support maintenance.

TMC Relocation and Systems Integration – City of Long Beach, CA

Mr. Nguyen served as the Project Manager and Network Engineer on this TMC relocation project. He assisted with network integration and configuration of Traffic Management Center (TOC) with Planar Video-Wall and Video Management Systems. In addition, Mr. Nguyen configured Sonicwall, procured and implemented Cisco Catalyst 3850 layer III switches to provide high-speed network communication for servers, workstations, video-wall processors, and network communication to traffic signals in the field. His primary role on this project was project management. Mr. Nguyen involvement in this project began in September 2019 and concluded in May 2020.

Culver City Bus Signal Priority – Culver City, CA

Mr. Nguyen joined the project as a network engineer and systems integration. His primary roles in this project are design, procurement, troubleshooting, and implementing Cisco Catalyst 9300 Series Switches and server. He applies his network knowledge to best practices and helps to troubleshoot network problems. He helped with the installation of BSP server and setup SNMP network management and monitoring software. Mr. Nguyen's involvement in the project begins in December 2019. He continues to maintain and provide remote support to Santa Ana and LA team from Houston, TX.

IowaDOT IRP/IFTA Implementation – Ames, IA

Mr. Nguyen joined the project as a network engineer and systems integration. His primary roles on this project are procurement of VPN devices, setup temporary VPN connections to connect the on-premises network to Microsoft Azure Virtual VPN Gateway. In addition, Mr. Nguyen configured two Cisco ASA5506-X series VPN devices, implemented Cisco High Availability, and maintained end-to-end availability network services, users, devices, and appliances. Mr. Nguyen's involvement in the project begins in March 2020. He continues to maintain and provide remote support from Houston, TX.

Wichita Signal System Maintenance – City of Wichita, KS

Mr. Nguyen served as the Network Engineer on this System Maintenance and Integration Services project. He assisted with network system design and implementation. The City of Wichita is in the process of upgrading the traffic signal system. Mr. Nguyen's involvement in the project began in 2021. This project is on-going with network design, integration, and support.

Fort Bend County Toll Road Authority ITS – Fort Bend County, TX

Mr. Nguyen served as the Network Engineer on this project. He assisted with network design and integration. Mr. Nguyen's involvement in the project began in 2021. This project is on-going with network design, integration, and support.



EDUCATION

BS, Civil Engineering, University of Houston, Houston, TX, 2007

YEARS OF EXPERIENCE

With Iteris: 3 Total: 14

REGISTRATIONS & CERTIFICATIONS

Civil Engineer (PE)
TX #111605, 2012

CORE DISCIPLINES

Intelligent Transportation Systems
Illumination
Tolling
Signalization
Traffic Control System Analysis, Design & Implementation
Signing, Pavement Marking & Channelization

AFFILIATIONS

Institute of Transportation Engineers
Intelligent Transportation Society of America (ITS Texas)

Mr. Nguyen serves as a Senior Engineer of Iteris' Transportation Systems division and has been with the firm since May 2018. Mr. Nguyen has over 14 years of experience in intelligent transportation systems (ITS), illumination, tolling, traffic signalization and signing and pavement marking. He specializes in the development of ITS systems that include closed-circuit television cameras, dynamic message signs (DMS), vehicle detection and work zone ITS. He has developed ITS communication systems, tolling plans, DMS for emergency evacuation plans, roadway and safety lighting, traffic signal systems, and work zone intelligent transportation systems. He is experienced with various traffic and transportation software, including MicroStation, Synchro, SimTraffic, AGI32, AutoTurn and SignCAD. He has completed projects for private clients and for various cities, counties and TxDOT Districts in Texas.

Did you know?

Quan loves spending time with his family.

Project Experience

Fort Bend County Toll Road Authority Fiber Optic Installation– Fort Bend County, TX

Mr. Nguyen served as the lead design engineer for the installation of fiber optic cable, conduit, ground boxes and ITS cabinet along three toll roads in Fort Bend County. He proposed conduit backbone with 144 fiber optic cable for 12.8 miles along SH 99 for tolling and communication, connecting an existing HUB building, two proposed HUB cabinets and seven proposed ITS cabinets. He designed conduit backbone with 144 fiber optic cable along Westpark Tollway for future connection, extending 2.97 miles from the existing toll gantry to the end of the toll road. He also designed conduit backbone with 144 fiber optic cable along Fort Bend Parkway, connecting two existing CCTVs and a toll gantry cabinet. He provided conduit crossing details at the Brazos River, Oyster Creek, a wetland and two levee systems. He also coordinated with TxDOT, Levee Improvement District 7 and 10 and TransCore for approval. The plans were signed and sealed in June 2020, and the project is currently in the final stage of the construction phase.

SH 130 ITS – Austin, TX

Mr. Nguyen serves as the lead design engineer for the ITS communication system and the work zone ITS of proposed widening of SH 130. In this role, he performs the ITS designs for the freeway ITS system along SH 130 between SH 45 and US 290. The ITS design includes instrumentation of nine miles of roadway with 10 CCTVs, 19 RVSDs, 9 ITS cabinets, 2 DMSs, 2 Bluetooth, 1 HUB building and 1 Road Weather Information System and uses fiber optic. He also designed the interconnection of the ITS equipment along the corridor and connect the system to Combined Transportation, Emergency & Communications Center (CTECC) through a HUB building locating near IH 35 and SH 45. He contacted city of Austin and Pflugerville to obtain electrical meter addresses and coordinated with

the power companies to provide power for the proposed ITS equipment. The project began in November 2016 and completed in August 2017.

Dynamic Message Signs – Sugar Land, TX

Mr. Nguyen served as the lead design engineer for the installation of 6 DMS signs along SH 6 and US 90A within the city limit. He also designed the wireless and fiber optic connection to the city's traffic management center. He prepared PowerPoint representation and cost estimate for the city's traffic engineer to present to the City Council. The project began in December 2014 and completed in November 2015.

Various Traffic Signals – Fort Bend County, TX

Mr. Nguyen served as the lead design engineer for designing various traffic signals in Fort Bend County for TxDOT and private developers:

- SH 99 at West Airport Blvd
- FM 1464 at Madden Rd
- FM 1464 at Denver Miller Rd
- FM 1463 at S Fry Rd
- FM 1463 at Cinco Ranch Blvd

Grand Parkway Segment D (SH 99) and Fort Bend Parkway Toll Road Segment B1 Tolling – Fort Bend County, TX

Mr. Nguyen served as the lead design engineer for the installation of 7 toll gantries for 12.5 miles of SH 99 between US 59 and Westpark Tollway, and 1 toll gantry for Fort Bend Parkway Toll Road. He designed the overhead and underground conduits, ground boxes, junction boxes, loop detectors for each gantry. He also specified the required electrical service and developed the lightning and grounding plans. The project began in June 2013 and completed in October 2013.

Grand Parkway Segment E (SH 99) – Harris County, TX

Mr. Nguyen served as the ITS and illumination design engineer for the proposed SH 99. The ITS design included instrumentation of 15 miles of roadway with 17 CCTVs, 8 DMSs, 6 HUB buildings and 10 RVSDs using fiber optic ATM and Ethernet network for connection back the Houston Transtar.

Mr. Nguyen also designed the Ethernet network for the toll facilities along the corridor. The illumination design included installation of 10 high mast poles and 16 underpass lighting for two direct connectors from SH 99 to IH 10. He used AGI-32 photometric analysis software to determine optimum luminaire placement to meet TxDOT and AASHTO illumination guidelines. Mr. Nguyen also performed voltage drop calculations and specified the required electrical service. The project began in July 2010 and completed in May 2011.

Fort Bend Parkway Toll Road Extension – Fort Bend County, TX

Mr. Nguyen served as the ITS, tolling and illumination design engineer for the proposed 1.7-miles extension of Fort Bend Parkway Toll Road. The ITS and tolling included the installation of a toll gantry and three surveillance cameras. He designed the overhead and underground conduits, ground boxes, junction boxes, loop detectors for the toll gantry. The illumination design included installation of 45 roadway illumination lights along the extension of Fort Bend Parkway Toll Road. The project began in April 2008 and completed in March 2012.



Megan Siercks, PE, PTOE, PTP

Senior Project Manager

Career Summary

Megan Siercks has more than 14 years of experience in various aspects of traffic engineering. She has served in the capacity of project engineer and Project Manager for planning and engineering projects in the state of Texas. Megan's experience includes traffic engineering studies, traffic signal design, traffic control plans, signing, pavement markings, illumination, and master plan design. She has conducted ITS planning and design projects, as well as innovative intersection planning and design. She is proficient with modeling software packages, including Synchro and VISSIM.

Representative Experience

City of Friendswood City Wide Traffic Study, Friendswood, Texas

Project Manager for a city wide traffic study for the City of Friendswood in Harris County. The project studies the entire city, and includes traffic counts at 36 locations, and 24-hour counts in key locations. Analysis includes utilizing HGAC and TxDOT volumes for future growth expectations, studying 2025, 2030, and 2040 projections. Detailed capacity analysis of key intersections and improvements are classified as short-term, mid-term, and long-term improvements with cost estimates and benefit-cost analysis of the proposed solutions. Recommendations will provide the City with a plan to implement improvements over time. The study is being presented to the City of Friendswood.

Elmendorf Traffic Control Plans, Elmendorf Texas

Lead Traffic Engineer for the design of the traffic control for a full roadway closure. A road was being rebuilt and existing pavement width was insufficient to safely maintain traffic. A full closure was put in place to complete the work with special considerations for a large sand facility which had daily truck activity. Specific signage for the sand facility was placed to ensure that trucks would not get trapped in the residential area.

Griggs Road Traffic Control Plan, Houston, Texas

Project Manager and Traffic Engineer for the design of traffic control plans for rail road improvements at Griggs Road. Griggs Road intersects with Long Drive creating a unique three intersection triangle. The traffic control needed to provide channelization and detours for all three intersections while work occurred. Coordination was critical as the work crossed and impacted active railroad lines. Full closure detours were also provided and approved by the City.

Mason at Cypresswood TCP, Harris County Texas

Project Manager for the design of the traffic control roadway panel replacement located in an intersection. The panel being replaced impacted two directions of travel. Traffic control devices were placed with LPCB to redirect both travel lanes away from the work being completed. Appropriate devices and signage were provided.

Bee Creek Rd. Traffic Signal Modification Design, Austin, Texas

Megan was the Project Manager on the traffic signal modification design of the intersection of US 71 at Bee Creek Road. This signal was being modified to include a fourth leg and was designed to TxDOT standards and coordinated with TxDOT Austin District. Modification included relocating existing pole to accommodate

Registration

Texas PE No. 110297
Certified PTOE No. 3304
Certified PTP No. 369

Education

MS in Civil Engineering
University of Houston, 2011

BS in Civil Engineering
Texas A&M University, 2006

TxDOT Precertification

Firm Sequence Number: 211
Employee Sequence Number: 19938
Precertification Categories: 1.4.1, 1.5.1,
4.1.1, 7.1.1, 7.3.1, 7.5.1, 8.1.1, 8.3.1

new pedestrian facilities and the additional width. The design included a deceleration and exit acceleration lane for the intersection.

FM 2090 Traffic Signal Design, Splendora, Texas

Megan was the Project Manager on the design of two proposed traffic signals located at the driveways of Splendora High School and Splendora Elementary School along FM 2090. These signals were designed to TxDOT standards, and coordinated with TxDOT to be included in an on-call construction contract. Due to the nature of the roadway and the proximity of the school, special considerations were provided for pedestrian facilities including regrading the ditch to provide a landing pad and pedestrian push buttons.

IH 69 Speed Study, Houston, Texas

Project Manager and Lead Traffic Engineer for a speed study conducted on the IH 69 corridor within the Houston District. The project included over 400 data collection points on 88 miles of mainlanes and 65 miles of frontage road. The project included updating 33 pages of strip maps for TxDOT, and conducting GPS ballbank studies on all direct connector ramps in the study area.

FM 529 Fiber Optic Cable Design, Houston Texas

Megan was the Project Manager and engineer responsible for approximately 9.8 miles of fiber optic interconnect along the FM 529 corridor. Extending from Settles Village to US 290, the fiber optic connection created a fiber backbone that connected 24 traffic signals to a HUB providing connected data to Houston TranStar. Due to two rail road crossings, coordination with TxDOT, and the UP railroad occurred to ensure the cable could cross the active railroads and meet both TxDOT and UP standards. PS&E plans were created for installation of the fiber optic cable, which included splicing diagrams for the integration of the truck line at each controller and at the HUB.

Cambridge Street Traffic Signal Warrant and Innovation Design, Houston Texas

Megan was the Project Manager on a traffic study at Cambridge Street and IH 610. The study includes conducting a traffic signal warrant for a possible diamond design confirmation, and analyzing forecast data provided by TxDOT. Bluetooth data was collected and analyzed to identify existing travel patterns in the immediate area. Additional considerations for non-signalization and innovation solutions were conducted due to the proximity of the proposed signal to existing complex signals.

IH 69 Active Traffic Management System Concept of Operations, Houston Texas

Megan served as the Project Manager and Lead Traffic/ITS Engineer for this project. The project provided a concept of operations for an ITS based Active Traffic Management System along the IH 69 corridor from Beltway 8 South to IH 10 north of downtown. The project required the evaluation of all existing technology devices along the corridor, recommendations for system improvements, and identifying proposed locations for overhead sign bridge structures with LCD. The project included multi-agency coordination and stakeholder involvement including TxDOT, COH, Metro, HCTRA, and first responders. Regular presentations to the stakeholders, and other interested groups were made to highlight the features of the project.

IH 10 Interstate Access Justification Report for Frontage Road and Freeway Lanes, Houston, Texas

As Task Lead, Megan supervised the development of the CORSIM and HCS models for a 22-mile freeway section, all ramps, and cross street intersections. The model was calibrated with actual volumes, signal timings, and queue lengths. Traffic operations and level of service (LOS) were analyzed utilizing HCS software for all freeway segments, ramps, and merging and weaving areas. The analysis compared the build and no-build scenarios for the frontage road changes, and additional freeway lanes. Design hourly volumes were developed using TxDOT provided ADTs and TMCs, K factor and Directional Distribution factor.



Nicolas Vann, RPLS

Director, Survey

Career Summary

Nick Vann has 13 years of survey experience. As Director of Survey at BGE, he is responsible for the supervision of project surveyors, technicians, and field crews along with maintaining the highest standard of surveying procedures. His experience includes surveying for engineering design, rights-of-way, horizontal and vertical control, as-builts, and topographic surveys.

Registration

Texas RPLS No. 6393

Education

BS in Bioenvironmental
Sciences

Texas A&M University, 2007

Representative Experience

Port of Houston Authority Barbours Cut Entry Gate Re-Design, Harris County, Texas

Nick managed the topographic survey and control efforts for the design portion of this contract. The project included managing datum conversions of topographic data and existing survey control from MLT (Mean Low Tide) Datum to MLLW (Mean Lower Low Water) Datum.

Port of Houston Authority Barbours Cut Terminal Warf 3 Rehab, Harris County, Texas

Nick managed the topographic survey and control efforts for the design portion of this contract. The project included bathymetric surveying and control analysis.

Missouri City Estates Drainage Improvements, City of Stafford, Texas

Nick managed the topographic survey and control efforts for this contract. The project included local residential drainage ditch improvements, new storm sewer system, deepening and widening of an existing outfall channel, providing detention for mitigation and utility coordination, and adjustments. Construction costs: \$949,000.

NHHIP Segment 3a – IH 69 from Montrose Blvd. to Alabama St.

Nick verified project controls, located utilities for SUE services, and surveyed bore locations for Geotech.

Vaccaro Manor Drainage Improvements, City of Stafford, Texas

Nick managed the topographic survey and control efforts for this contract, which aimed to alleviate flooding along the subdivision's streets. BGE provided a survey for construction plans and analysis. BGE completed the project on budget and on schedule with no change orders. Construction costs: \$856,000.

Hurricane Harvey Disaster Repairs, Harris County, Texas

Nick managed the topographic survey and control efforts for BGE's Disaster Recovery contract and acted as a survey subconsultant for the MBCO contract. The project includes 72 channel maintenances repairs throughout northeast Harris County. Construction costs: \$3.1 million.

Dagg Road Stormwater Detention Basin (A500-08-00) Preliminary Engineering Report, Harris County, Texas

Nick managed field crews for topographic survey and control efforts. The project site is a former sandpit, located adjacent to Harris County Precinct 1 Adair Park and is within the Clear Creek floodplain. The project included a detailed survey and bathymetry, geotechnical borings and analysis, development of an interim stabilization plan, and preparation of 30% design plans.



Hufsmith-Kohrville Road Widening, Harris County, Texas

Nick managed field crews for topographic survey and control efforts. The project included widening an existing 5,100-foot roadway section from a 2-lane asphalt roadway and concrete roadway to a divided 4-lane concrete boulevard with an improved storm sewer system. Construction costs: \$6.5 million.

Horsepen Creek Slope Repair and Sheet Pile Wall Installation, Harris County, Texas

Nick managed field crews for topographic survey and control efforts. The project included the reestablishment of creek banks, slopes, and sheet pile wall to previous conditions along Horsepen Creek. Terrestrial Laser Scanning and a Hy-drone with a SonarMite echosounder were used to access areas of the sheet piling and creek banks that were inaccessible. Construction costs: \$6.2 million.

SH 99 Stavinoha Bridge Interior Bents, Fort Bend County, Texas

Supervised the monitoring of Bridge Bents and erosion concerns due to Hurricane Harvey damage.

Master Planned Communities and Industrial Parks

Nick has managed boundary surveys, topographic surveys, easement parcels, and platting services for the following master-planned communities and industrial parks.

- Bridgeland
- The Groves
- Elyson
- Pinto Business Park
- Cross Creek Ranch
- Fulshear Farms
- Bridges of Lake Houston
- East River Development
- Falls at Green Meadows
- Manvel Town Center
- Grand Parkway Market Place

Memorial Park Conservancy Land Bridge, Houston, Texas

Nick managed the topographic survey and tree survey of Memorial Park for the design of the Land Bridge project for Memorial Drive.

Municipal Utility Districts, Texas

BGE manages more than 100 municipal utility districts, and many of them require surveying services. Nick regularly assists with topographic services, boundary maps for acquisition or political boundaries, and easement documents for various MUDs in Harris County, Fort Bend County, and Montgomery County.

North Fort Bend Water Authority, NFBWA, Texas

Nick managed parcel documents for more than 200 conveyances of land for large diameter water lines. He has also been overseen construction staking and control maintenance for approximately 50 miles of large diameter water line installation.

IH 45, Houston, TxDOT, Texas

Nick managed topo acquisition for SUE efforts, GEC surveying services, supplemental topo acquisition, Rail Road topo acquisition, and control verification efforts. Under Nick's supervision, several significant control concerns were discovered on the project, and BGE was able to remedy them before construction phases.

APPENDIX B ADDENDUM ACKNOWLEDGEMENT

Iteris acknowledges Addendum #1 issued November 3, 2021, which included Questions and Answers related to the RFQ.

Exhibit B

*Fort Bend County, Texas
Request for Qualifications*



*Professional Engineering Services for Design and Installation of an Emergency Network
Infrastructure Monitoring System for Fort Bend County
RFQ 22-017*

SUBMIT RFQs TO:

Fort Bend County
Purchasing Department
Travis Annex
301 Jackson, Suite 201
Richmond, TX 77469

Note: All correspondence must include the term
“Purchasing Department” in address to assist in
proper delivery

SUBMIT NO LATER THAN:

Tuesday, November 16, 2021
2:00 PM (Central)

MARK ENVELOPE:

RFQ 22-017
Monitoring System

***ALL RFQs MUST BE RECEIVED IN AND TIME/DATE STAMPED BY THE PURCHASING OFFICE
OF FORT BEND COUNTY ON OR BEFORE THE SPECIFIED TIME/DATE STATED ABOVE.***

RFQs RECEIVED AS REQUIRED WILL THEN BE OPENED AND NAMES PUBLICLY READ.

RFQs RECEIVED AFTER THE SPECIFIED TIME, WILL BE RETURNED UNOPENED.

Results will not be given by phone.
Results will be provided to bidder in writing
after Commissioners Court award.

Requests for information must be in
writing and directed to:
Jaime Kovar
County Purchasing Agent
Jaime.Kovar@fortbendcountytexas.gov

Vendor Responsibilities:

- Download and complete any addendums. (Addendums will be posted on the Fort Bend County website no later than 48 hours prior to bid opening)
- Submit response in accordance with requirements stated on the cover of this document.
- DO NOT submit responses via email or fax.



COUNTY PURCHASING AGENT
Fort Bend County, Texas

Vendor Information

Jaime Kovar
Purchasing Agent

Office (281) 341-8640

Legal Company Name (top line of W9)														
Business Name (if different from legal name)														
Federal ID # or S.S. #			DUNS #											
Type of Business	<input type="checkbox"/> Corporation/LLC <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Proprietor/Individual <input type="checkbox"/> Tax Exempt Organization		Age in Business?											
Publicly Traded Business	<input type="checkbox"/> No <input type="checkbox"/> Yes Ticker Symbol _____													
Remittance Address														
City/State/Zip														
Physical Address														
City/State/Zip														
Phone/Fax Number	Phone: _____ Fax: _____													
Contact Person														
E-mail														
Check all that apply to the company listed above and provide certification number.	DBE-Disadvantaged Business Enterprise <input type="checkbox"/> SBE-Small Business Enterprise <input type="checkbox"/> HUB-Texas Historically Underutilized Business <input type="checkbox"/> WBE-Women's Business Enterprise <input type="checkbox"/>		Certification # _____ Certification # _____ Certification # _____ Certification # _____	<table border="1"> <thead> <tr> <th>Cert Date</th> <th>Exp Date</th> </tr> </thead> <tbody> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> </tbody> </table>	Cert Date	Exp Date	_____	_____	_____	_____	_____	_____	_____	_____
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Company's gross annual receipts	<\$500,000 _____ \$5,000,000-\$16,999,999 _____ >\$22,400,000 _____		\$500,000-\$4,999,999 _____ \$17,000,000-\$22,399,999 _____											
NAICs codes (Please enter all that apply)														
Signature of Authorized Representative														
Printed Name														
Title														
Date														

THIS FORM MUST BE SUBMITTED WITH THE SOLICITATION RESPONSE

1.0 Scope of Work:

Fort Bend County (County or FBC) is requesting Request for Qualifications (RFQ) from professional engineering consulting firms (Contractor or Respondent) for the design and installation of an emergency network infrastructure monitoring system. The project shall include, but not limited to program management, comprehensive IT consulting and integration services, long term planning services, surveying services, engineering services, geotechnical services, installation and installation management and testing.

The Project will also include the layout of a minimum of forty-five (45) sites. Each site shall include a CCTV camera and communication to transmit the information to the County's Emergency Operations Center (EOC) located at 307 Fort Street in Richmond, Texas and other County locations. These cameras and communication capable vertical assets will also be leveraged for additional benefits to the public.

2.0 General:

- 2.1 This RFP is governed by the procedures as contained in the Texas Government Code §2254.
- 2.2 Respondents should carefully read the information contained herein and submit a complete response to all requirements and questions as directed.
- 2.3 Submittals and any other Respondent information in response to this RFQ shall become the property of Fort Bend County.
- 2.4 Fort Bend County will not provide compensation to Respondents for any expenses incurred by the Respondent(s) for submittal preparation or for any demonstrations that may be made, unless otherwise expressly stated or required by law. Respondents submit qualifications at their own risk.
- 2.5 Each submittal should be prepared simply and economically, providing a straightforward, concise description of your firm's ability to meet the requirements, and an understanding of the County's needs.
- 2.6 Fort Bend County makes no guarantee that an award will be made as a result of this RFQ. Fort Bend County reserves the right to accept or reject any or all submittals, with or without cause, waive any formalities or minor technical inconsistencies, or delete any item/requirement from this RFQ or contract when deemed to be in the County's best interest. Representations made within the qualifications submittal and any subsequent proposal will be binding on responding firms. Fort Bend County will not be bound to act by any previous communication or submittal by the firms other than those responding to this RFQ.

3.0 Insurance:

- 3.1 All respondents shall submit, with RFQ, a current certificate of insurance indicating coverage in the amounts stated below. In lieu of submitting a certificate of insurance, respondents may submit, with submission, a notarized statement from an Insurance company, authorized to conduct business in the State of Texas, and acceptable to Fort Bend County, guaranteeing the issuance of an insurance policy, with the coverage stated below, to the firm named therein, if successful, upon award of this Contract.
- 3.2 At contract execution, contractor shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days prior written notice to County. Contractor shall provide certified copies of insurance endorsements and/or policies if requested by County. Contractor shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Contractor shall obtain such insurance written on an Occurrence form (or a Claims Made form for Professional Liability insurance) from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:
- 3.2.1 Workers' Compensation insurance. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
- 3.2.2 Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
- 3.2.3 Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.
- 3.2.4 Business Automobile Liability coverage with a combined Bodily Injury/Property Damage limit of not less than \$1,000,000 each accident. The policy shall cover liability arising from the operation of licensed vehicles by policyholder.
- 3.2.5 Professional Liability insurance may be made on a Claims Made form with limits not less than \$1,000,000.
- 3.3 County and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and

Professional Liability (if required). All Liability policies including Workers' Compensation written on behalf of contractor, excluding Professional Liability, shall contain a waiver of subrogation in favor of County and members of Commissioners Court.

- 3.4 If required coverage is written on a claims-made basis, contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning from the time that work under the agreement is completed.

4.0 Indemnification:

Respondent shall indemnify and hold harmless County against all liability for damages arising from activities of Respondent, its agents, servants or employees, performed under this agreement to the extent that the damage is caused by or results from an act of negligence, intentional tort, intellectual property infringement, or failure to pay a subcontractor or supplier committed by the Respondent, its agents, servants, employees, consultants under contract, or another entity over which the Respondent exercises control. Respondent agrees to reimburse County for reasonable attorney's fees in proportion to Respondent's liability.

- 4.1 Respondent shall timely report all such matters to Fort Bend County and shall, upon the receipt of any such claim, demand, suit, action, proceeding, lien or judgment, not later than the fifteenth day of each month; provide Fort Bend County with a written report on each such matter, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of Fort Bend County required by Respondent in the defense of each matter.
- 4.2 Respondent's duty to defend, indemnify and hold Fort Bend County harmless shall not abate or end by reason of the expiration or termination of any contract unless otherwise agreed by Fort Bend County in writing. The provisions of this section shall survive the termination of the contract and shall remain in full force and effect with respect to all such matters no matter when they arise.
- 4.3 In the event of any dispute between the parties as to whether a claim, demand, suit, action, proceeding, lien or judgment appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of Respondent, Respondent shall never-the-less fully defend such claim, demand, suit, action, proceeding, lien or judgment until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of Respondent are not at issue in the matter.
- 4.4 The provision by Respondent of insurance shall not limit the liability of Respondent under an agreement.

- 4.5 Respondent shall cause all trade contractors and any other contractor who may have a contract to perform construction or installation work in the area where work will be performed under this request, to agree to indemnify Fort Bend County and to hold it harmless from all claims for bodily injury and property damage that may arise from said Respondent's operations. Such provisions shall be in form satisfactory to Fort Bend County.
- 4.6 Loss Deduction Clause - Fort Bend County shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of Respondent and/or trade contractor providing such insurance.

5.0 TEXAS ETHICS COMMISSION FORM 1295:

- 5.1 Effective January 1, 2016 all contracts executed by Commissioners Court, regardless of the dollar amount, will require completion of Form 1295 "Certificate of Interested Parties", per the new Government Code Statute §2252.908. All vendors submitting a response to a formal Bid, RFP, SOQ or any contracts, contract amendments, renewals or change orders are required to complete the Form 1295 online through the State of Texas Ethics Commission website. Please visit: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm.
- 5.2 On-line instructions:
 - 5.2.1 Name of governmental entity is to read: Fort Bend County.
 - 5.2.2 Identification number used by the governmental entity is: Q22-017.
 - 5.2.3 Description is the title of the solicitation: Engineering Services for Design and Installation of an Emergency Network Infrastructure Monitoring System
- 5.3 Apparent low bidder(s) will be required to provide the Form 1295 within three (3) calendar days from notification; however, if your company is publicly traded you are not required to complete this form.

6.0 STATE LAW REQUIREMENTS FOR CONTRACTS:

The contents of this section are required by Texas Law and are included by County regardless of content.

- 6.1 Agreement to Not Boycott Israel Chapter 2271 Texas Government Code: Contractor verifies that if Contractor employs ten (10) or more full-time employees and this Agreement has a value of \$100,000 or more, Contractor does not boycott Israel and will not boycott Israel during the term of this Agreement.
- 6.2 Texas Government Code Section 2251.152 Acknowledgment: By signature on

vendor form, Contractor represents pursuant to Section 2252.152 of the Texas Government Code, that Contractor is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.

7.0 HUMAN TRAFFICKING:

By acceptance of this contract, Contractor acknowledges that Fort Bend County is opposed to human trafficking and that no County funds will be used in support of services or activities that violate human trafficking laws.

8.0 REQUIREMENTS:

8.1 Project Management and Administration.

Respondent shall be responsible for providing a turnkey Project defined as working comprehensively and intimately with all relevant County departments such as the County Judge's Office, Office of Emergency Management, Information Technology, and Engineering from design through full execution, inclusive of integration and maintenance. Respondent shall be responsible for directing and coordinating all activities associated with the Project to comply with County policies and procedures, and to deliver that work on time. Respondent shall coordinate all sub provider activity to include quality and consistency of plans and administration of the invoices and monthly progress reports. If an additional sub provider not originally identified in the Project response is needed, Provider shall submit qualifications and proposed tasks for the sub provider to the County for prior approval. The Engineer shall coordinate with necessary local entities and utility companies.

Deliverables will be submitted using the following methods:

- PDF submittals of plans, manuals, specifications, meeting minutes, etc. shall be submitted to the County at each milestone.
- PDF and paper copies of final documents. County may waive paper copy requirements upon request.

8.2 Progress Reporting and Invoicing.

Respondent shall submit each invoice in a format acceptable to the County. With each invoice, the Respondent shall submit a monthly written progress report to the County's Project Manager regardless of whether the Respondent is invoicing for that month. The progress report shall describe activities during the reporting period; activities planned for the following period; problems encountered, and actions taken to remedy them; list of meetings attended; and overall status, including a percent complete by task.

Respondent shall:

- Meet on a scheduled basis with the County to review Project progress.

- Prepare, distribute, and file both written and electronic correspondence.
- Prepare and distribute meeting minutes.
- Document phone calls and conference calls as required during the project to coordinate the work for various team members.

8.3 Schedule.

Respondent shall prepare a design time schedule and an estimated contract time schedule. The schedules shall indicate tasks, subtasks, critical dates, milestones, deliverables and review requirements in a format that depicts the interdependence of the various items. Respondent shall schedule milestone submittals at 30%, 60%, 90% and final design completion phases as well as installation milestones. The Engineer shall advise the County in writing if the Engineer is not able to meet the scheduled milestone review date.

8.4 Quality Assurance (QA and Quality Control (QC)).

For each deliverable, the Respondent shall have some evidence of their internal review and mark-up of that deliverable as preparation for submittal. A milestone submittal is not considered complete unless the required milestone documents and associated internal red-line mark-ups are submitted. The County's Project Manager may require the Respondent to submit the Respondents' internal mark-up (red lines) or comments developed as part the Respondents' quality control step. The County may reject the actual deliverable should the Provider fail to provide the evidence of quality control. Respondent shall clearly label each document submitted for quality assurance as an internal mark-up document. A submittal returned for this reason is not a submittal for purposes of the schedule.

8.5 Traffic control.

Respondent shall provide all planning, labor, and equipment to develop and to execute each Traffic Control Plan (TCP) needed to perform services for the design and installation of the project. Respondent shall comply with the requirements of the most recent edition of the TMUTCD. The Engineer shall submit a copy of each TCP to the County for approval prior commencing any work on any State or County roadway and obtain State approval as needed. The Engineer shall provide all signs, flags, and safety equipment needed to execute the approved TCP. The Engineer shall notify the County in writing twenty-four (24) hours in advance of executing each TCP requiring a lane closure and shall have received written concurrence from the State prior to beginning the lane closure. The Engineer's field crew shall possess a copy of the approved TCP on the job site at all times and shall make the TCP available to the State for inspection upon request.

8.6 Right-of-Entry and Coordination.

Respondent shall secure permission to enter private property to perform any surveying, engineering or geotechnical activities needed. Respondent shall not commit acts that

would result in damages to private property, and the Respondent shall make every effort to comply with the wishes and address the concerns of affected private property owners. The Engineer shall contact each property owner prior to any entry onto the owner's property.

8.7 Agency Coordination and Public Involvement.

Respondent shall assist the County in conducting stakeholder meetings with various property owners as needed to discuss and review the Project. Respondent shall document and respond to issues related to the Project. Respondent shall assist in conducting stakeholder meetings during the Project development process. Respondent shall prepare exhibits (if determined necessary). Compile meeting minutes of the stakeholder meetings.

8.8 Preliminary Design.

- 8.8.1 Provide an overall concept for the Project and provide information to coordinate basic design decisions with the County based on the list of locations in Exhibit A.
- 8.8.2 Consideration shall be made for potential current or future use of vertical assets for the benefit of the County. This phase shall include:
- 8.8.3 Network Architecture and Design.
 - 8.8.3.1 Solution shall be able to natively bond multiple carrier signals, including cable, ethernet, DSL, 3G/4G/LTE/5G into a single VPN WAN connection back to the EOC.
 - 8.8.3.2 Solution shall be able to bond and failover a minimum of three technologies and/or carriers concurrently. Ability to automatically and seamlessly failover between the multiple carriers/connection methods as circumstances require.
 - 8.8.3.3 Solution shall have the ability to be securely managed via Cloud installation.
 - 8.8.3.4 Provide two (2) hour looped recording for all cameras and have the ability to store video of selected incidents.
- 8.8.4 General equipment list to be included at each Site
- 8.8.5 General equipment list to be included at the EOC
- 8.8.6 General equipment list to be included at IT (located in Jane Long building)
- 8.8.7 Control, operation, and monitoring software for all components
- 8.8.8 Any other software and hardware for a Turnkey project

8.9 Project Phasing.

The Project shall be developed in two (2) phases. Phase I shall develop a limited number of sites and integrate the sites back to the EOC to allow the County to evaluate the selected solution. Respondent shall take feedback from County and modify solution for Phase II as needed. Exhibit A shows the locations to be developed for both Phases.

8.10 Design.

- 8.10.1 The Site design plans may be prepared using aerial images or surveys obtained for the Project. Camera and equipment locations shall provide desired sight lines while minimizing potential damage from flooding or wind. Must be able to view water level 24-hours per day. Identify Base Flood Elevation (BFE) at each site and call out for equipment to be installed a minimum of four (4) feet above BFE.
- 8.10.2 Identify power sources (minimum two (2) per site), communication sources (minimum two (2) per site), and utility conflicts at each site.
- 8.10.3 Provide detailed equipment list to be included at each site that include key components such as lighting, backup power, renewable power supply (fuel cell, solar, etc.), cameras, equipment control box.
- 8.10.4 Provide standard details or structural engineering design of support equipment (poles, towers, etc.) as needed.
- 8.10.5 Geotech boring and foundation design if needed. Respondent shall determine requirements based on recommended design and present to County for approval. All testing shall be performed in accordance with the latest American Society for Testing Materials (ASTM) test procedures.
- 8.10.6 Topographic and boundary surveys, if needed. Respondent shall determine requirements based on recommended design and present to County for approval. All surveys shall be performed in accordance with the latest standards and requirements of the type required.
- 8.10.7 Identify any ROW or easements needed.
- 8.10.8 Provide detailed equipment and software list to be included at the EOC.
- 8.10.9 Provide detailed equipment list to be included at IT.
- 8.10.10 Project Manual
- 8.10.11 Lay out any performance characteristics for uptime – Service Level Agreements (SLA) – and Key Performance Indicators (KPI) that can guarantee operational aspects.
- 8.10.12 An installation estimate of probable cost. If the cost estimate exceeds the budget, a priorities list will be established for the County's review and concurrence.
- 8.10.13 Evaluate the Total Cost of Ownership/Life Cycle through a holistic approach for the use of the vertical poles as infrastructure points to benefit County efforts and initiatives such as:
 - 8.10.13.1 Flood Monitoring
 - 8.10.13.2 Traffic Flow
 - 8.10.13.3 Wifi Access
 - 8.10.13.4 Digital Signage
 - 8.10.13.5 Crowd Detection
 - 8.10.13.6 Early Alert System for County Resident
 - 8.10.13.7 Two Way Communications
- 8.10.14 Design the systems from a Total Cost of Ownership/Life Cycle

Approach

- 8.10.14.1 Considerate/ideate on alternative technologies (in lieu of cameras) that could not only save capital cost but make it easy to maintain
- 8.10.14.2 Optimize bandwidth to the overall network
- 8.10.14.3 Provide a Proof of Concept and options to work with other partners
- 8.10.15 Identify and develop the workflows for the following:
 - 8.10.15.1 Ability for County to provide citizens information via a website, and early alerts from the flood monitoring and traffic monitoring system in a more robust fashion than currently available.
 - 8.10.15.2 Align the data to meet the needs of the Intelligent Traffic System (ITS) system so flood monitoring system data can be of value to provide inputs to system.
 - 8.10.15.3 Ensure integration of operational capability through a data flow guarantee for integration of this system and ITS or other integrated pieces required at the EOC and/or other critically identified County facilities.

8.11 Construction.

Respondent shall be responsible for developing and providing the bid specifications for procuring a vendor to construct the physical components of the project including, but not limited to specifications for slab, control box and power.

8.12 Installation.

Respondent shall be responsible for the installation and turnover of all components of a fully functioning system including cameras, back-up sources, lighting, cellular communications, etc. Respondent shall also provide one (1) set of as-built record drawings and electronic drawing files of the project.

- 8.12.1 Provide options of offering the Technology as a Service (TAAS) that could combine the turnkey nature of the project and operational/maintenance guarantee.
- 8.12.2 Consider alternative uses to expand county offering and possible revenue generation capabilities from the vertical assets.

8.13 Maintenance.

Respondent shall maintain turnkey Emergency Network Infrastructure Monitoring System for a minimum of five (5) years.

9.0 FORMAT OF RESPONSE, QUALIFICATIONS, AND EVALUATION FACTORS:

- 9.1 To facilitate evaluation of submittals, one (1) original, seven (7) paper copies and one (1) electronic response on CD or flash drive is required. CD or flash drive must contain only one (1) file in PDF format and must match written response identically. Failure to provide proper CD or flash drive will result in disqualification.
- 9.2 Request for Qualifications must take the form of a bound 8-1/2-inch by 11-inch report with a Table of Contents and all pages numbered in sequence (**maximum 25 pages**). Binding must allow reports to lay flat when open and may be either wire or GBC. Format of the report may be either “portrait” or “landscape” format with binding on either long or short side. The title page, letter of transmittal, table of contents, tabs, executive summary, or resumes are not included in the 25 page maximum page count.
- 9.3 Respondents are required to follow the outline below (utilizing tabs) when preparing their submission:
- | | |
|-----|--|
| Tab | Title |
| | Title Page |
| | Letter of Transmittal |
| | Table of Contents |
| | Executive Summary |
| 1 | Understand Scope of Work |
| 2 | Firm's Experience |
| 3 | Staff Experience |
| 4 | Financial Stability |
| 5 | Forms (insurance, vendor forms, W9, debt form) |
- 9.4 Executive Summary - This part of the response to the RFQ should be limited to a brief narrative highlighting the Respondent's submission. Note that the executive summary should identify the primary contacts for the Respondent.
- 9.5 This RFQ is governed by the procedures as contained in the Texas Government Code §2254.004. Therefore, award of contract(s) shall be made to the respondent of the required services that is evaluated to be the most qualified on the basis of demonstrated competence and qualifications, and, after negotiations, whose pricing is considered to be fair and reasonable.

In the first phase of the RFQ process, Fort Bend County is soliciting RFQs from sole proprietorships, partnerships, corporations, or other legal entities with the experience, capabilities, and qualified available staff that can fulfill the efforts described in this document. After ranking of the RFQs in the first phase, firms will be notified, in writing, should a presentation be needed.

No information regarding fees or prices is to be included with submitted RFQ.

In the second phase of the RFQ process, Fort Bend County may short-list firms, selected solely on the basis of qualifications to prepare and present further details of their statement of qualifications to the Evaluation Committee via in-person or virtual.

- 9.6 Respondents will be evaluated in the first phase of the RFQ process utilizing the factors, as weighted below:

Tab 1

Understanding Scope of Work (weight factor = 30%)

- Understanding of Scope of Work: Respondents must express, in detail, their understanding of this specific project. In addition, describe how the project requested will be provided and managed. Describe the approach your firm will take to the required collaboration, scheduling and coordination required for this project.

Tab 2

Firm's Experience (weight factor = 20%)

- Firm Experience with Similar Projects: Such experience must be in the form of providing engineer design services, installation and construction oversight for municipal/county government. List a minimum of three (3) similar projects completed within the last ten (10) years; provide the name and location of each project, completion date, the client, and a contact person and phone number.

Tab 3

Staff Experience (weight factor = 15%)

- List the proposed project team, showing all staff and their roles in the contract.
- Include an organizational chart of the proposed team, showing the names and roles of all key personnel and the contractor they are associated with (if applicable).
- Provide resumes of staff members assigned to specific areas of experience and relevant staff experience.

Tab 4

Financial Stability (weight factor = 5%)

Complete and accurate responses to the following questions:

- a. Has your Company ever failed to complete any work awarded to it?
- b. Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your Company or its officers?
- c. Has your Company filed any lawsuits or requested arbitration with regard to construction contracts within the last five years? If yes, please provide details.

Tab 5

Overall Completeness of Proposal (weight factor = 5%)

➤ Required proof of insurance and completed forms

The above referenced selection criteria totals seventy-five (75) percent, which will be utilized during the initial evaluation process. Once the short-list of firms, of no more than five (5) have been identified, the remaining twenty-five (25) percent will be based on information received during the subsequent interview/presentation process.

Firms shall not contact any members or employees of Fort Bend County regarding this RFQ, evaluation, or selection process from the time the RFQ is issued until the time a notification of intent to award is announced, except if such contact is in writing, with a copy of any written communication being forwarded to the Office of the Purchasing Agent. Contact discovered in any such manner, other than in writing and copied to the Office of the Purchasing Agent, would be considered as grounds for elimination.

10.0 QUESTIONS:

Questions about this Request for Qualification Package should be directed in writing to Jaime Kovar, County Purchasing Agent at Jaime.Kovar@fortbendcountytexas.gov. **Questions will be accepted until 10:00AM, Monday, November 8, 2021.** Requests received after the deadline will not be responded to due to the time constraints of this RFQ process.

11.0 REQUIRED FORMS:

All vendors submitting are required to complete the attached and return with submission:

11.1 Vendor Form

11.2 W9 Form

11.3 Tax Form/Debt/Residence Certification

11.4 Certificate of Insurance, as stated in Section 3.0

12.0 EXHIBIT:

12.1 Exhibit A. Location List

Form **W-9**
(Rev. December 2014)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

Print or type
See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
5 Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
6 City, state, and ZIP code	
7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number									
				-			-		
or									
Employer identification number									
				-					

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note. ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note. You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.ssa.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/businesses and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor ²
4. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee ¹ The actual owner ¹
5. Sole proprietorship or disregarded entity owned by an individual	The owner ³
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor ⁴
For this type of account:	Give name and EIN of:
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity ⁴
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

***Note.** Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: spam@uce.gov or contact them at www.ftc.gov/idtheft or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

TAX FORM/DEBT/ RESIDENCE CERTIFICATION
(for Advertised Projects)

Taxpayer Identification Number (T.I.N.): _____

Company Name submitting Bid/Proposal: _____

Mailing Address: _____

Are you registered to do business in the State of Texas? Yes No

If you are an individual, list the names and addresses of any partnership of which you are a general partner or any assumed name(s) under which you operate your business

I. **Property:** List all taxable property in Fort Bend County owned by you or above partnerships as well as any d/b/a names. Include real and personal property as well as mineral interest accounts. (Use a second sheet of paper if necessary.)

Fort Bend County Tax Acct. No.*Property address or location**

* This is the property account identification number assigned by the Fort Bend County Appraisal District.

** For real property, specify the property address or legal description. For business personal property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored at a warehouse or other location.

II. **Fort Bend County Debt** - Do you owe any debts to Fort Bend County (taxes on properties listed in I above, tickets, fines, tolls, court judgments, etc.)?

Yes No If yes, attach a separate page explaining the debt.

III. **Residence Certification** - Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Fort Bend County requests Residence Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

I certify that _____ is a Resident Bidder of Texas as defined in Government Code §2252.001.
[Company Name]

I certify that _____ is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____.

[City and State]

	No.	STREET NAME	CROSS STREET
Phase 1	1	Pitts Rd	Melody Lane
	2	Pitts Rd	Morton League Road
	3	Mason Rd	Oyster Creek (Brandt Road future intersection)
	4	McKeever Rd	Sienna Parkway
	5	McKeever Rd	Knight Rd
	6	McKeever Rd	Steep Bank Trace
Phase 2	7	FM 1093	Guyler Rd
	8	FM 1093	FM 1489
	9	Bois D'Arc Lane	Red Bird Ln
	10	SH 36	North County Line
	11	SH 36	Spur 10 (North)
	12	Spur 10	US 90A
	13	Spur 10	IH-69
	14	SH 36	Spur 10 (South)
	15	SH 36	FM 360
	16	SH 36	Old Needville Fairchild Rd
	17	SH 36	FM 442
	18	SH 36	South County Line
	19	FM 723	Cummings Rd
	20	FM 723	FM 359
	21	FM 723	Bellaire Blvd
	22	US 90A	Underpass at Rose/Rich
	23	US 90A	Pitts Rd
	24	US 90A	Harlem Road
	25	US 90A	Cunningham Creek
	26	SH 99	New Territory
	27	FM 359	River Trace Drive
	28	FM 359	Southern Place
	29	FM 359	Mason Road
	30	Skinner Ln	James Long Pkwy
	31	Skinner Ln	McCrary Road
	32	McCrary Rd	Richmond Foster Rd
	33	IH-69	Williams Way
	34	IH-69	Brazos River Turn Around (north)
	35	IH-69	Brazos River Turn Around (south)
	36	FM 1464	Bellaire Blvd
	37	FM 1464	Clodine Rd
	38	FM 1464	Bissonnet St
	39	FM 1093	Mason Rd
	40	South Fry Rd	Peek Rd
	41	South Fry Rd	Mason Rd
	42	South Fry Rd	Westheimer Pkwy
	43	FM 1463	Tamarron Parkway
	44	FM 1463	Cinco Ranch Blvd
	45	FM 1463	Fry Rd

Exhibit C

Annex B

Fort Bend County Travel Policy

Approved in Commissioners' Court on November 3, 2009

Effective November 4, 2009

Revised September 7, 2010

Revised June 2, 2015, Effective August 1, 2015

Revised July 28, 2015, Effective August 1, 2015

Revised July 26, 2016, Effective August 1, 2016

Revised December 12, 2017, Effective January 1, 2018

The Commissioners' Court allocates funds annually for the payment of travel expenditures for county employees and officials within the individual departmental budgets. Travel expenditures paid from these budgets must serve a public purpose for Fort Bend County. These expenditures may be paid directly to the vendor or provided as a reimbursement to the employee/official upon completion of their travel. Advance payments to vendors may be accommodated by issuance of a check or use of a County procurement card. Eligible expenditure categories under this policy include: Lodging, meals, transportation, registration fees, and other fees (with justification). Each category is further defined below.

CONTRACT RATES:

Fort Bend County is a 'Cooperative Purchasing Participating Entity' with the State of Texas. This program is also known as TPASS (Texas Procurement and Support Services) State Travel Management Program (STMP). This gives County employees and officials access to the contract rates negotiated by the State for hotels and rental cars. Procurement procedures for these contract services are explained within the categories below.

OUT OF STATE TRAVEL:

Authorization: The traveler must obtain Commissioners' Court approval for out-of-state travel before departure. The duration must include travel days along with the event scheduled days. To prevent delays in processing travel reimbursement, ensure that the travel duration is accurately defined when submitting the agenda request.

Documentation: The traveler must provide an excerpt from the Commissioners' Court minutes (<http://www.fortbendcountytexas.gov/index.aspx?page=55>) with the travel reimbursement form.

LODGING (In and Out of State):

Hotel:

Hotel reimbursements are limited to the Federal Travel Regulations set forth by US General Services Administration (GSA) by location not including taxes. The rates are set annually and vary by month and location. The maximum rates for lodging per day can be found at:

http://www.gsa.gov/portal/content/104877?utm_source=OGP&utm_medium=print-radio&utm_term=perdiem&utm_campaign=shortcuts based on travelers destination.

Fort Bend County is a 'Cooperative Purchasing Participating Entity' with the State of Texas. This gives County employees and officials access to the contract rates negotiated by the State for hotels. Participating hotels can be found at: https://portal.cpa.state.tx.us/hotel/hotel_directory/index.cfm (be sure to check the correct fiscal year).

Traveler must verify confirmed rate matches the negotiated contract rates found on the State's website listed above and does not exceed the GSA daily allowance.

If the organizer of a conference/seminar has negotiated discount rates with a hotel(s), the traveler may choose these lodging services without penalty but the traveler must reserve the room at the group rate and provide documentation of the group rate with reimbursement request.

The traveler will be responsible for the excess charge over the GSA per diem rate for the city/county even if using the State rate. The Auditor's Office will deduct from the travelers' reimbursement any excess charges over the GSA per diem rate. Travel websites including but not limited to Expedia and Travelocity should not be used to book lodging.

Travel Days: If the traveler must leave before 7:00AM to arrive at the start of the event and/or return to the County after 6:00PM after the event concludes, an additional night's lodging is allowable before and/or after the event.

Additional fees allowable: Self-parking

Additional fees allowable with justification: Valet parking is allowable if an extreme hardship exists due to physical disability of the traveler or if no self-parking is available.

Fees not allowable: Internet, phone charges, laundry, safe fees

Gratuities: Gratuities are not reimbursable for any lodging services.

Overpayments by County: Any lodging overpayment by the County must be reimbursed by the hotel before processing a reimbursement to the traveler for any of the categories addressed in this policy. Prepaid lodging services should be accurately calculated or underestimated by excluding the taxes to prevent delays in processing travel reimbursements.

Procurement Card: The traveler may use the procurement card to make lodging reservations. Contact Purchasing to arrange or use the procurement card assigned to the department or traveler.

Documentation: **A final settled hotel bill with a zero balance from the front desk is required even if lodging is paid by the procurement card. The hotel bill left under the door is not acceptable.** The hotel bill should be scrutinized before traveler departs to make sure all charges are valid and notify hotel of any invalid charges and resolve issues before departing. Make sure all parking has been added to your bill and all personal incidentals have been paid by traveler. Any invalid charges will be the responsibility of the traveler. A copy of the itemized hotel statement must be submitted with the travel reimbursement claim if the traveler used a County procurement card to purchase lodging services or prepaid by County check. Event agenda/documentation or a letter from the traveler describing the event/meeting is required. If utilizing conference negotiated hotel rates, documentation of rates is required.

Changes/Modifications to Reservation – Any modifications including cancellation of reservation, the traveler must obtain a confirmation number and note the name of the person they spoke with in case the hotel charges the traveler. If the traveler does not obtain a confirmation number then any expenses incurred will be the responsibility of the traveler. Expenses resulting from changes or modifications to travel reservations will be paid by the County if the traveler produces documentation that a family emergency exists.

County Exemption Status – Fort Bend County Employees traveling on County Business are not exempt from State and local hotel taxes, state taxes, etc. with the exception of District Judges and the District Attorney.

MEALS:

Texas: Meals including gratuities will be reimbursed to the traveler at a flat rate of \$36/day. The travelers per diem on the departure day and final day of travel will be at 75% of the per diem which is \$27/day.

Out-of-state: Meals including gratuities will be reimbursed to the traveler at a flat rate of \$48/day. The travelers per diem on the departure day and final day of travel will be at 75% of the per diem which is \$36/day.

Late Night Arrival – If a traveler arrives in Fort Bend County between midnight and 6am the traveler will receive a full day per diem for the previous day.

Day trips: Meals will not be reimbursed for trips that do not require an overnight stay.

Procurement Card: No meal purchases are allowed on any County procurement card.

Documentation: No meal receipts are required for reimbursement. Event agenda/documentation or a letter from the traveler describing the event/meeting is required.

TRANSPORTATION:

Personal Vehicle: Use of personal vehicle will be reimbursed at the current rate/mile set by Commissioners' Court. Mileage should be calculated using the County office location of the traveler and the event location. Mileage may not be calculated using the traveler's home. Mileage should be calculated using an employee's vehicle odometer reading or by a readily available online mapping service for travel out of Fort Bend County. If using the mileage of an online mapping service, state which mapping service was used or provide a printout of your route detailing the mileage. For local travel, odometer readings or mapping service details are not required. Departments should develop a mileage guide for employees for local travel points, if a department does not have a mileage guide, the Auditor's Office will determine if the mileage listed is reasonable.

Allowable expenses: Parking and tolls with documentation.

County Vehicle: Fuel purchases when using a County vehicle should be made with the County Procurement card if available. Original receipts will accompany the Procurement Card statement but a copy must be provided with the travel reimbursement request.

Allowable expenses: Parking and tolls with documentation required.

Airfare: Airfare is reimbursable at the lowest available rate based on 14 day advance purchase of a discounted coach/economy full-service seat based on the required arrival time for the event. The payment confirmation and itinerary must be presented with the travel reimbursement form. The traveler will be responsible for the excess charges of an airline ticket purchase other than a coach/economy seat. When using Southwest Airlines a traveler should choose the "wanna get away" flight category.

Allowable Expenses: Bag fees. Fare changes are allowable if business related or due to family emergency.

Unallowable Expenses/Fees: Trip insurance, Early Bird Check In, Front of the line, Leg Room, Fare changes for personal reasons.

Rental Car: Rental cars are limited to the negotiated TPASS rates listed at: <http://www.window.state.tx.us/procurement/prog/stmp/stmp-rental-car-contract/vendor-comparison/>. The contact information for Avis is listed here: <http://www.window.state.tx.us/procurement/prog/stmp/stmp-rental-car-contract/Avis/>. The contact information for Enterprise is listed here: <http://www.window.state.tx.us/procurement/prog/stmp/stmp-rental-car-contract/Enterprise/>. When making a reservation traveler should provide the County's [REDACTED] The traveler will not be reimbursed for any amount over the negotiated contract rates if a non-contract company is used at a higher rate. The traveler should

select a vehicle size comparable to the number of County travelers. The traveler may use a non-contract vendor at an overall rate lower than the contract rates with no penalty. The original contract/receipt must be presented with the travel reimbursement form or a copy if a County procurement card is used. The traveler will be responsible for any excess charges not included in the TPASS rates or for choosing a vehicle size not comparable with the number of travelers on the trip. Insurance is included in the negotiated TPASS rates, if a traveler chooses to take out additional insurance the cost is on the traveler.

Enterprise:

[REDACTED]

Avis:

Unallowable Fees/Charges: GPS, prepaid fuel, premium radio, child safety seats, additional insurance, one way rentals.

Allowable expenses: Parking and tolls allowed with documentation.

Other Transportation: Other forms of transit (bus, taxi, train) are reimbursable with an original receipt.

Gratuities: Gratuities are permitted if original receipt includes gratuity (20% maximum allowed) for any transportation services.

Procurement Card: The traveler may use a County procurement card to make transportation reservations for air travel and rental car services. Contact Purchasing to arrange or use the procurement card assigned to the department or traveler.

Documentation: Original receipts are required for all transportation reimbursements paid by the traveler. Transportation services obtained with a County procurement card require a copy of the receipt. Additional requirements are noted within each category above. Event agenda/documentation or a letter from the traveler describing the event/meeting is required.

REGISTRATION:

Registration fees: Registration fees are reimbursable for events that serve a Fort Bend County purpose. Registration fees for golf tournaments, tours, guest fees and other recreational events are not reimbursable.

Procurement Card: The traveler may use a County procurement card to register for an event. Contact Purchasing to arrange or use the procurement card assigned to the department or traveler.

Documentation: An original receipt must be obtained upon registration and submitted with the reimbursement request if paid by the traveler. A copy of the receipt must be provided if registration is paid on a County procurement card. Event agenda/documentation or a letter from the traveler describing the event/meeting is required.

GRANTS:

Travel expenditures from Federal and State grants must also conform to the granting agency's funding requirements.

TRAVEL REIMBURSEMENT FORM:

The traveler must use the current travel reimbursement form (<http://econnect/index.aspx?page=55>) for all travel related services addressed in this policy. No other expenditures may be submitted for reimbursement on the travel reimbursement form. After completing all required information, the travel form must be signed/dated by the traveler and the department head/elected official. Travel reimbursement request should be submitted within 30 days from when traveler returns from trip. Mileage reimbursement request should be submitted no less frequently than quarterly. Mileage reimbursement request for the fourth quarter should be submitted no later than October 30th for yearend processing.

EXCLUSIONS:

If the traveler has custody of a person pursuant to statute or court order or if the traveler is required by court or legal entity to appear at a particular time and place the traveler will not be penalized for accommodations that require a 14 day advance purchase ticket if travel is required with less than 14 days' notice.

If the traveler has custody of a person pursuant to statute to court order the traveler will not be held to the 75% per diem on the departure and final day of travel.

EXHIBIT II

PROPOSAL QUOTE SHEET

Fort Bend Co., Emergency Management Infrastructure, Design and Integration			
Client:	Fort Bend County	Issue Date:	6/14/2023
Client Address 1:	500 Liberty St.	Primary Contact:	Patrick Ramirez
City, State, Zip:	Richmond, TX 77469-3500	E-Mail:	par@iteris.com
Attn:	Robyn Doughtie	Phone:	281-745-4211
Phone:	281-341-4574		
E-Mail:	Robyn.Doughtie@fortbendcountytexas.gov		
Task #	Description	Total ManHours	Cost
Task 1	Project Management	262	\$ 75,967.01
1.1	Project Progress Meetings	44	\$ 9,996.82
1.1	County Commissioner Meetings	16	\$ 5,114.04
1.2	Project Control and Management	38	\$ 11,828.33
1.3	Project Records and Files	8	\$ 2,441.56
1.4	Monthly Status Reports and Invoicing	12	\$ 3,662.34
1.5	Scheduling	8	\$ 2,441.56
1.6	Team Coordination	84	\$ 25,751.85
1.7	Video Management System Technical Consultation	52	\$ 14,730.51
Task 2	Existing Field Conditions and Field Evaluation	300	\$ 72,574.68
2.1	Initial Data Collection (39 sites)	180	\$ 40,753.24
2.2	Field Inventories	120	\$ 31,821.44
Task 3	PS&E Design Package (Civil Components)	2052	\$ 443,735.29
3.1	Base Map Preparation (39 sites)	397	\$ 83,813.11
3.2A	60% Design		-
3.2A	Prepare layout sheets, Legend, Title Blocks, SHT Numbers	400	\$ 81,058.38
3.2A	Title Sheet	18	\$ 3,602.59
3.2A	General Notes	26	\$ 5,098.70
3.2A	Construction Quantities / Cost Estimate	155	\$ 30,797.06
3.2A	Electrical or Solar Calcs and Details	68	\$ 13,859.74
3.2A	Conduit Design, Trenching/Boring/Bridge Attachments	120	\$ 24,042.19
3.2A	Network one-line diagrams	120	\$ 26,571.35
3.2A	Design Layout, Wireless Analysis	88	\$ 19,963.64
3.2A	Detail sheets	88	\$ 17,402.58
3.2A	Standards	44	\$ 7,785.71
3.2B	100% Design		
3.2B	Design adjustments as needed from 60% review	260	\$ 57,240.24
3.2B	Finalize Plan-set package details	220	\$ 51,285.70
3.2B	Sign/Seal and Final Print	48	\$ 12,728.58
3.2C	Bid Form / Advertising		
3.2C	Prepare documents for bidding	32	\$ 8,485.72
Task 4	Utility / Stakeholder Coordination (BGE)	8	\$ 2,441.56
	Utility company coordination (Power)	8	\$ 2,441.56
	Stakeholder coordination		
Task 5	Network IP Architecture	144	\$ 35,624.67
	Coordination with FBC IT Staff (EOC Evaluation)	64	\$ 16,971.43
	Prepare IP listings and device assignments	36	\$ 8,425.97

PROPOSAL QUOTE SHEET

Fort Bend Co., Emergency Management Infrastructure, Design and Integration			
Client:	Fort Bend County	Issue Date:	6/14/2023
Client Address 1:	500 Liberty St.	Primary Contact:	Patrick Ramirez
City, State, Zip:	Richmond, TX 77469-3500	E-Mail:	par@iteris.com
Attn:	Robyn Doughtie	Phone:	281-745-4211
Phone:	281-341-4574		
E-Mail:	Robyn.Doughtie@fortbendcountytexas.gov		
Task #	Description	Total ManHours	Cost
	Prepare network drawings and fiber diagrams for deployment	44	\$ 10,227.27
Task 99	Other Direct Expenses (ODE's)	0	\$ 2,000.00
	Associated Expenses for field surveys		\$ 2,000.00
Sub	Sub Consultant (BGE)	0	\$ 99,916.00
	Utility/Stakeholder coordination (See Task 4)		\$ 99,916.00
Total Project Investment:			\$ 732,259.21
Terms & Conditions			
<p>Services performed by Iteris under Tasks 1-7 will be invoiced based upon percentage of completion claimed for each task as reported in the monthly progress report. Each invoice shall provide a detailed listing of each task and the percentage of completion claimed, the total billable amount based upon percentage of completion, amount previously billed and the net current billable amount. The total project investment price includes travel and other direct costs associated with this project. Payment is due within 30 days.</p>			

FBC EOC Infrastructure (Phase 2)
Iteris - Labor Rate Table

Job Classification	Base Rate	Loaded Rate
Principal / Project QA/QC	\$99.30	\$334.06
Project Manager	\$90.72	\$305.20
Project Engineer	\$66.93	\$225.16
Senior Network Engineer	\$62.49	\$210.23
Staff Engineer	\$44.25	\$148.86
Project Controls Specialist	\$48.08	\$161.75
Admin/Clerical	\$31.35	\$105.47
FARS Audited Overhead	200.37%	
Profit	12%	

General

The work to be performed by the Engineer (Iteris) shall consist of providing engineering services for PS&E design, construction support and integration of new roadside CCTV Camera locations to monitor traffic and environmental conditions, and the associated communications infrastructure to stream live video back to Fort Bend County (FBC), Emergency Operations Center (EOC). Roadside infrastructure elements shall also include ground boxes and connectivity to commercial power utilities where appropriate. Some locations may require solar power panels and batteries when commercial facilities are not available. The communications medium will be dependent on an initial engineering analysis for a robust system with communication redundancy, security, and shared infrastructure with adjacent project efforts and stakeholders. Communication options may include Fiber Optic cabling, Point-to-point wireless radios, or cellular modem(s), with failover redundancy or ring topology.

This scope of work is for **Phase 2** of a larger project and includes:

- Design, Construction Support, and Integration for a minimum of **(39 additional CCTV locations)**, for a fully functional turn-key project.

The associated project tasks are as follows:

1.0 Project Management

Project administration spans the duration of the work order for this project and is critical for project success. This task involves the monitoring and coordination of services provided by the Engineer, including the establishment of invoicing formats, project control and management, maintenance of project records and files, reporting requirements, project meetings, and documentation deliverables.

1.1 Project Progress Meeting(s)

For this project, 3-types of meetings have been recognized:

- **Business Meetings** – Conducted to discuss overall progress, funding, invoicing, scheduling and associated adjustments.
- **Technical Meetings** - Conducted after notice-to-proceed, and work has commenced, the Engineer will meet with FBC staff on a regular basis to discuss design efforts, project hurdles and proposed resolutions, workshop style topics such as infrastructure topologies, vendor/contractor specific topics, etc. The Engineer will prepare agendas, diagrammatic design documents, equipment configuration plan documents (ECP), materials and meeting notes for each of these meetings.
- **County Commissioner Meetings** – Two (2) meetings to brief the County Commissioner with the status of the project will be facilitated by Iteris staff, in coordination with Ft. Bend County Emergency Operations and Engineering staff. The Engineer will prepare agendas, diagrams, etc. to present to the County Commissioner and prepare meeting notes after each meeting.

Assumption(s):

- Project status meetings will be monthly or bi-weekly (as necessary) including in-person or virtual format to discuss the various project issues and track actionable items.

1.2 Project Control and Management

The Engineer will be responsible for the day-to-day activities of managing the Project. Specific activities include design coordination, review, verification, and adherence to contract schedule for this project. Project tasks and action items will be tracked on an excel spreadsheet and reviewed/updated at each project meeting.

1.3 Project Records and Files

The Engineer will develop a project filing system in Windows electronic data format. This filing system, which will be maintained in the Engineer's offices for the life of the pilot project, will be designed to assure that files can be easily located and retrieved at all times. This filing system will also assure that electronic files are frequently backed up. These files will be available to the FBC until the work order is finalized.

1.4 Monthly Status Reports and Invoicing

The Engineer shall prepare monthly progress reports that identify progress made during the reporting period, percent complete for each task, anticipated activities for the upcoming reporting period, and any problems, obstacles or deviations from the work plan. This task will also include the receipt and processing of invoices from project subconsultant(s).

1.5 Scheduling

The Engineer will develop hardline schedule(s) to depict the project workflow elements based on the structure described within this scope of services. This schedule will present the estimated task durations. If the actual project schedule deviates from the original schedule, the Engineer will generate a revised process to ensure actual progress results in original hardline schedule.

Deliverables:

- Project Progress Reports
- Project Invoices
- Project Meeting Minutes
- Associated correspondence via E-mail

1.6 Team Coordination

The Engineer will coordinate all project activities and action items with amongst local Iteris staff, sub-consultants, construction contractors and stakeholders as necessary. The engineer shall also track action items and deliverables for the various activities, and provide updates for each Project Progress Meeting.

1.7 Video Management Technical Consultation

The Engineer will assist FBC on the selection of video management system in coordination with the needs of the Emergency Operations Center. This task item will include technical oversight

and presentation(s) as required to assist the county in making the correct decision for the procurement of video management software. Technical decisions/explanations include software features, on-premise vs. off-premise video storage, costs, user features, user accounts and controls, stakeholder video feed sharing, remote access, event triggers (setup) and how they work, vendor comparison pros/cons.

2.0 Existing Conditions, and Field Evaluation

2.1 – Initial Data Collection

This task will involve the collection of any existing electronic CADD files, aerial imagery and project notes for PS&E production.

2.2 – Field Inventories

This task includes a physical site visit to take pictures and make notes of the field conditions and to address any construction challenges for the **Phase 2** portion of this project. Notes and pictures will be taken along applicable conduit paths, bridge/ditch crossings, building/tower locations, and EOC facility to assess how to integrate with the new communication and electrical infrastructure. Notes and photos will be used as exhibits for discussion at the associated technical project meetings.

3.0 PS&E Design Package (Civil Components)

This task, conducted in major milestone efforts, will provide for the preparation of the plans and supporting construction documentation for the ITS roadside communication system. The ITS roadside system, under **Phase 2**, includes **39 CCTV camera locations** and associated communications infrastructure. The plans will identify Base Flood Elevations (BFE) for reach site, with information provided by FBC staff. The system may consist of Fiber Optic Cabling, Point-to-point wireless, Cellular modem, or a combination hybrid system dependent on the initial engineering analysis. The initial effort will start from data collected and progress to 60% completion with an opportunity for FBC staff to review, discuss and provide comments. The second level of effort will facilitate making design adjustments, based on comments received and finish other task items to take the design package to 100%. During the design process, will be many opportunities to review ongoing progress and make minor adjustments as necessary as details are discussed during the monthly Technical Meetings. The Engineer shall develop the layouts using English units. The main design components for this project are as follows:

- 1) Communication system for the project limits;
- 2) Physical connections for the existing roadside infrastructure and adjacent communication systems;
- 3) Strategically placed ground boxes for easy access to power facilities and future roadside device integration;
- 4) Fiber Optic splice charts, assignments and termination tables (if needed);
- 5) Non-Standard ITS device details to ensure proper connectivity to tolling infrastructure and accurate record keeping.

3.1 Base Maps

During this subtask, the Engineer will address the following: Gather aerial imagery and incorporating missing features found during site field reviews; cutting and arranging the base mapping onto plan sheets; creating match lines; labeling route numbers/interchanges/adjacent roadways within the base map limits; developing title blocks; and updating base maps with the county supplied flood elevation data where appropriate.

Assumptions:

- FBC staff will be providing data for Base Flood Elevation, for each of the sites as identified.

3.2 Preparations of Layouts

Layout sheets shall be prepared in accordance with the latest applicable FBC or TxDOT applicable standards and procedures including the use of Computer Aided Drafting and Design (CADD) systems. The scale will be 100 scale throughout this project. Final copies of sheets prepared in CADD shall be furnished to the client in electronic PC MicroStation (.DGN) format. Two review milestone submittals are expected for this project, at the 90% and 100% stages of completion.

The layout sheets shall indicate a north directional arrow and a bar scale. Pertinent existing features and any items removed or relocated shall be indicated on the layout sheets.

Layouts prepared by the Engineer shall be submitted for review and comments by FBC staff at the following stages of development:

A. 60% Design

Existing and proposed network connectivity diagrammatic development.

Diagrams including street names, legend, connectivity flow, north arrow, sheet summary charts, conduit run charts, construction quantity estimates, location(s) of conduit trunk line(s) when applicable, field equipment locations, and communications sizing and routing. Detail sheets and standard sheets will be listed and provided as applicable.

An Engineer's Construction Cost Estimate based on 60% design will be developed and submitted prior to the 60% review meeting.

A 60% review meeting will be scheduled, after 60% submittal, to walk through the design plans to discuss details and expectations.

60% Review Submittal

Sheets will include:

- 1) Plan-Set Title Sheet, quantity summary, general notes, layout sheets, communication diagrams, fiber splice diagrams, detail sheets, and standards.
- 2) Communication system layout (map) for project locations and limits;
- 3) Communication line diagrams, in MicroStation format, for all locations and devices from the field, back to the local hub and proposed path(s) back to Ft. Bend Co. EOC;
- 4) All proposed ground box and conduit infrastructure, including attachments to any bridge structures and underground boring details as necessary;

- 5) Identification of future roadside devices and existing power utilities including strategically place ground boxes for future expansion.
- 6) 60% Engineer's Construction Cost Estimate

Deliverables:

- Connectivity diagram(s) with all locations as noted, index-of-sheets, existing quantities, and communication and schematic diagrams;
- Plan-set completed to 60% for review and final comments;
- Engineer's construction cost estimate;
- Three (3) B/W 11"x17", hard copy, plan-sets;
- One PDF format electronic copy plan-set
- One PDF format electronic copy of the Engineer's Construction Cost Estimate

B. 100% Design

Sheets will incorporate appropriate review comments from all prior plan reviews. Other required documentation will be provided, in coordination with FBC staff for a complete bid package including the Engineer's construction cost estimate. These plans will include an Engineer's seal, required standards and specifications for contractor bid.

Deliverables:

- One paper set of 11" x 17" plan sheets and PDF format signed, sealed and dated by a Professional Engineer registered in the State of Texas in blue ink;
- Electronic copies of DGN files;
- All items including design changes resulting from client comments, and other stakeholders, and construction quantities.
- One PDF format electronic copy of the Engineer's Construction Cost Estimate
- Supporting PS&E paperwork

The Engineer shall establish target dates on which the plans shall be submitted for review at the above stages of development.

4.0 Utility/Stakeholder Coordination (Sub-Consultant)

The Engineer will lead engagement activities including any review processes required by other entities, such as but not limited to; GCWA, City or Richmond, City of Missouri City, TxDOT, local utility companies, FAA, etc... as required by the project for construction.

- Power utility coordination includes inquiries for proposed camera location and availability for local power sources and transformer accessibility. Detailed design requirements are subject to adjustment based on power availability and site access.
- Stakeholder coordination shall include the preparation for exhibits and applicable correspondence for navigating encroachment agreements and applicable permitting. Stakeholders may include, but not limited to adjacent municipalities, LID's Gulf Coast Water Authority (GCWA) and Union Pacific Railroad. This task also includes assistance with preparation for applicable MOU's when needed.

The Iteris team will track correspondence and coordinate meetings between FBC staff and others as-necessary.

Deliverables:

- Confirmation for electrical utility availability for the corresponding CCTV sites.
- Associated paperwork and coordination stakeholder action items as necessary.
- Associated paperwork and correspondence tracking for conduit crossing/boring under Union Pacific Railroad.

5.0 Network IP Architecture

Iteris staff will coordinate with FBC IT Department in a workshop style for the initial IP topology plan and IP address and VLAN assignments. The new architecture, as identified, will be scalable to accommodate **Phase 2** portion of this project, as an addition to Phase 1. Any security provisions, such as additional firewalls, and redundant hardware and communication paths, will also be discussed during this time.

This portion of the scope is intended to begin during the PS&E task, with associated hardware and costs requirements. Documentation will be created, as a supplement to the PS&E package, including IP listings, and one-line diagrams to illustrate what components are connected and routed throughout the network.

Deliverables:

- IP listings in Excel format
- One-line diagrams, as appropriate in Microsoft Visio and/or MicroStation format.
- KMZ files/diagrams as necessary