

AGREEMENT FOR
GEOFRAME GIS SERVICES
BETWEEN THE
PUERTO RICO DEPARTMENT OF HOUSING
AND

TETRA TECH, INC.



THIS AGREEMENT FOR GEOFRAME GIS SERVICES, (hereinafter referred to as the "Agreement") is entered into in San Juan, Puerto Rico, this of becember, 2021, by and between the PUERTO RICO DEPARTMENT OF HOUSING (hereinafter, "PRDOH"), a public agency created under Law No. 97 of June 10, 1972, as amended, 3 L.P.R.A. § 441 et seq., known as the Department of Housing Governing Act with principal offices at 606 Barbosa Avenue, San Juan, Puerto Rico, herein represented by William O. Rodríguez Rodríguez, attorney, of legal age, single, and resident of San Juan, Puerto Rico, in his capacity as Secretary; and TETRA TECH, INC. (hereinafter, the "CONTRACTOR"), with principal offices in 251 Recinto Sur, San Juan, PR 00901 herein represented by Fernando L. Pagés Rangel, P.E., in his capacity as Strategic Managing Director- Caribbean Operations, of legal age, married, and resident of Carolina, Puerto Rico duly authorized by Resolution by the CONTRACTOR.

WHEREAS, on September 2017, Hurricanes Irma and María made landfall in Puerto Rico causing catastrophic island wide damage, knocking out power, water, and telecommunications for the entire island and its island municipalities. Hurricane María caused major structure and infrastructure damage to family homes, businesses and government facilities triggering the displacement of thousands of residents of the Island from their homes and jobs.

WHEREAS, under the Continuing Appropriations Act, 2018 and Supplemental Appropriations for Disaster Relief Requirements Act, 2017, signed into law September 8, 2017 (Pub. L. 115-56), \$1.5 billion were allocated by the U.S. Department of Housing and Urban Development (HUD) for disaster recovery assistance to the Government of Puerto Rico under the CDBG-DR. These funds are intended to provide financial assistance to address unmet needs that arise and that are not covered by other sources of financial aid.

WHEREAS, on February 9, 2018, a Notice was published in the Federal Register, Vol. 83, No. 28 (83 FR 5844), that allocated \$1.5 billion for disaster recovery assistance to the Government of Puerto Rico.

WHEREAS, under the Bipartisan Budget Act of 2018, signed into law February 9, 2018 (Pub. L. 115-123), an additional \$8.22 billion were allocated by HUD for disaster recovery assistance to the Government of Puerto Rico under CDBG-DR.

WHEREAS, pursuant to a letter dated February 23, 2018 sent by the former Governor of Puerto Rico to the Secretary of HUD, the PRDOH is the governmental agency designated as grantee of the CDBG-DR funds allocated to the Government of Puerto Rico.

WHEREAS, on August 14, 2018, a Notice was published in the Federal Register Vol. 83, No. 157, (83 FR 40314) that made an additional allocation to Puerto Rico of \$8.22 billion for recovery. With these allocations of funding, the PRDOH aims to lead a transparent, comprehensive recovery to benefit the residents of Puerto Rico. PRDOH holds

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accountability and is committed to the responsible, efficient, and transparent administration of CDBG-DR grant funding.

WHEREAS, On September 20, 2018, the Governor of Puerto Rico and the Secretary of HUD signed the Grant Agreement.

WHEREAS, the PRDOH is interested in contracting a firm to assist PRDOH with the implementation of the CDBG-DR GeoFrame Program under the CDBG-DR grants. The GeoFrame Program will compile, collect and create data necessary to develop a complete, standardized GIS database and mapping portal. This firm will support PRDOH's objectives of ensuring compliance with all CDBG-DR, HUD and applicable federal and local requirements, rules and regulations, as well as in PRDOH's objectives of the Action Plan, as amended, and adequately coordinating and monitoring all CDBG-DR related activities.

WHEREAS, on September 30, 2020, the PRDOH issued the Request for Proposals No. CDBG-DR-RFP-2020-06 for GeoFrame GIS Services ("RFP") with CDBG-DR funds. This request was placed through the Registro Único de Subastas (RUS, by its Spanish Acronym) and the CDBG-DR website. Through this procurement process, PRDOH was able to reach seven (7) qualified firms listed for their capacity and experience with federal grants to deliver qualified services.

WHEREAS, on November 30, 2020, the CONTRACTOR submitted a proposal (hereinafter referred to as the "Proposal"), which fully complied with the requirements set forth by the PRDOH

WHEREAS, Tetra Tech, Inc. was chosen to perform the required services at a reasonable proposed cost to assist PRDOH in the Puerto Rico's recovery efforts according to the award criteria established in the RFP.

WHEREAS, the PRDOH desires to enter into an agreement with **Tetra Tech**, **Inc.** to secure its services and accepts the CONTRACTOR's Proposal and costs, and the CONTRACTOR by its acceptance of the terms and conditions of this Agreement is ready, willing and able to provide the requested services contemplated under this Agreement.

NOW THEREFORE, in consideration of the mutual promises and the terms and conditions set forth herein, the PRDOH and the CONTRACTOR agree as follows:

I. TYPE OF CONTRACT

Contract Type: This is a fixed fee and hourly contract. Under this Agreement, CONTRACTOR shall submit monthly invoices to the PRDOH based on the Cost Form (**Attachment D**) and as the services are rendered. Any and all changes and/or modifications to this Agreement shall be in writing and must be signed by both parties.

Attachments Incorporated: The following attachments are incorporated into this Agreement by reference and are hereby made part of this Agreement:

Attachment A Notice of Award

Attachment B Proposal

Attachment C Scope of Services

Attachment D Cost Form

Attachment E Insurance Requirements (DV-OSPA-78-5)

Attachment F HUD General Provisions

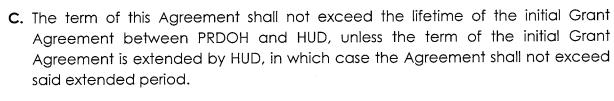


Attachment G Contractor Certification Requirement

All Attachments hereto are fully incorporated herewith such that the terms and conditions of the Attachments shall be as binding as any terms and conditions of this executed written Agreement. Should any inconsistency appear between the Attachments and this Agreement, the Agreement shall prevail.

II. TERM OF AGREEMENT

- A. This Agreement shall be in effect and enforceable between the parties from the date of its execution. The Term of this Agreement will be for a performance period of thirty-six (36) months, ending on <u>hecember</u>, <u>8</u>, 20<u>24</u>
- **B.** Contract Extensions: PRDOH may, at its sole discretion, extend the Agreement's term for an additional term of twenty four (24) months, or expressed in days, seven hundred and thirty (730) days upon mutual written agreement of the parties.



III. SCOPE OF SERVICES

The CONTRACTOR will provide the services described in **Attachment C** of the Agreement. The parties agree that the CONTRACTOR shall furnish all permits, consents, licenses, equipment, software and supplies necessary to perform the Services, at CONTRACTOR's sole cost.

IV. COMPENSATION AND PAYMENT

- **A.** The PRDOH agrees to pay the CONTRACTOR for allowable Services rendered under this Agreement in accordance with the rates and amounts described in **Attachment D** of this Agreement.
- B. The PRDOH will pay the CONTRACTOR, for allowable services performed during the term of this Agreement, a maximum amount not to exceed FIFTY-TWO MILLION THREE HUNDRED THIRTY-SEVEN THOUSAND SEVEN HUNDRED NINETY-TWO DOLLARS (\$52,337,792.00); <u>Account Number</u> R01P03API-PBA-NA / R02P03API-PBA-NA / R02P06PMP-DOH-NA 4190-10-000.
- **C.** Such payment shall be compensation for all allowable services required, performed and accepted under this Agreement included in **Attachment C** and **Attachment D**.
- **D.** Any additional funds to complete the services requested by the PRDOH to the CONTRACTOR will be subject to evaluation before acceptance as well as funds availability and will require an amendment to this Agreement.
- **E.** The CONTRACTOR shall submit an invoice to PRDOH on a monthly basis. Said invoice must be submitted including all required invoice supporting documents, including but not limited to monthly reports, timesheets, invoice and photos



evidence, expense plan and/or work projections. If PRDOH determines that the submitted invoice and supporting documents are acceptable, then the invoice will be approved for payment.

- **F.** The services rendered under the Agreement, shall be payable within thirty (30) business days from the date the invoice is received and approved by a PRDOH representative for payment. If PRDOH raises any objections, PRDOH will return the invoice for corrections and the CONTRACTOR shall modify the invoice and return it within five (5) business days. Once the CONTRACTOR returns the modified invoice, the PRDOH shall resume and conclude the payment process within the next thirty (30) business days.
- **G.** An authorized representative of the PRDOH will review each invoice and, if adequate, will approve and process its payment. Payments to the CONTRACTOR shall be made by electronic funds transfer (EFT). PRDOH reserves the right to conduct any audits it deems necessary. The CONTRACTOR agrees to cooperate fully with any such audit or audits.
- **H.** While providing the services under this Agreement, the CONTRACTOR must adhere to applicable requirements of the CDBG-DR grant. If the CONTRACTOR performs ineligible activities under the CDBG-DR grant or program, the CONTRACTOR cannot include them in the invoice for payment to the CONTRACTOR.
- I. CONTRACTOR shall be liable to the PRDOH for any costs disallowed pursuant to financial and/or compliance audit(s) of funds received under this Agreement. CONTRACTOR shall reimburse such disallowed costs from funds other than those CONTRACTOR received under this Agreement.
- J. The CONTRACTOR acknowledges and agrees to repay any CDBG-DR funds used for ineligible costs.
- **K.** In order for the CONTRACTOR to receive payment for any work performed hereunder, the following certification must be included in each application for payment or invoice submitted to the PRDOH for payment:

"Under penalty of absolute nullity, I hereby certify that no public servant of the government entity is a party to or has an interest of any kind in the profits or benefits to be obtained under the contract which is the basis of this invoice, and should he be a party to, or have an interest in, the profits or benefits to be obtained under the contract, a waiver has been previously issued. The only consideration to provide the contracted goods or services under the contract is the payment agreed upon with the authorized representative of the government entity. The amount that appears in the invoice is fair and correct. The work has been performed, the goods have been delivered, and the services have been rendered, and no payment has been received therefor."

V. REIMBURSABLE EXPENSES

The PRDOH will not reimburse any costs incurred by the CONTRACTOR not included in the approved Proposal or in an executed written amendment.

VI. ADDITIONAL SERVICES



Should additional services be needed by the PRDOH, such additional services shall be agreed upon by the parties in a written document signed by both parties, prior to the issuance of a notice to proceed with the performance of such additional services.

VII. OWNERSHIP AND USE OF DOCUMENTS

- **A.** With the exception of the CONTRACTOR's working papers, the CONTRACTOR acknowledges the PRDOH's ownership of all information, drafts, documents, reports, papers, and other materials developed and prepared by the CONTRACTOR, its agents or representatives, for purposes of performing key obligations hereunder. In the event of any termination, the CONTRACTOR shall deliver such information, drafts, reports, papers and other materials to the PRDOH, in document form or as computer program data, and the CONTRACTOR recognizes the PRDOH's right to request such documentation or computer program data. If the CONTRACTOR fails to deliver said information, the PRDOH may seek a judicial order to enforce its rights.
- B. Proof of expenditures incurred by the CONTRACTOR on behalf of PRDOH shall be made available to PRDOH. The CONTRACTOR agrees to maintain accurate records and files of all contract documents, correspondence, book estimates, bills, and other information related to the CONTRACTOR account. These documents shall be open for the PRDOH examination at all reasonable times during the term of this Agreement, and up to five (5) years from closeout of the grant to the state, or the period required by other local applicable laws and regulations.

VIII.DOCUMENTATION AND RECORKEEPING

- Records to be Maintained: The CONTRACTOR shall maintain records of the state and units of general local government, including supporting documentation, which shall be retained for the greater of five (5) years from closeout of the grant to the state, or the period required by other local applicable laws and regulations. Such records include but are not limited to: Records providing a full description of each activity undertaken; Records demonstrating that each activity undertaken meets one of the National Objectives of the CDBG-DR program; Records required to determine the eligibility of activities; Records required to document the acquisition, improvement, use or disposition of real property acquired or improved with CDBG-DR assistance; Records documenting compliance with the fair housing and equal opportunity requirements of the CDBG-DR program regulations; Financial records as required by 24 C.F.R. § 570.502, and 2 C.F.R. part 200, including records necessary to demonstrate compliance with all applicable procurement requirements; and other records necessary to document compliance with this agreement, any other applicable Federal statutes and regulations, and the terms and conditions of PRDOH's Federal award.
- **B.** Access to Records: The CONTRACTOR shall permit the PRDOH and auditors to have access to the CONTRACTOR's records and financial statements as necessary for the PRDOH to meet its audit requirements under the Federal award.
- C. Record Retention and Transmission of Records to the PRDOH: Prior to close out of this Agreement, the CONTRACTOR must transmit to the PRDOH records sufficient for the PRDOH to demonstrate that all costs under this Agreement met the requirements of the Federal award.

- D. CONTRACTOR's Data and Privileged Information: The CONTRACTOR is required to maintain confidential data demonstrating client eligibility for activities provided under this Agreement. Such data may include, but not be limited to, client name, address, income level or other basis for determining eligibility, and description of activities provided.
- **E. PII Policy:** The CONTRACTOR must comply with the PRDOH CDBG-DR Personal Identifiable Information Policy, as found in the CDBG-DR Website (www.cdbg-dr.pr.gov), which is herein included and made integral part of this Agreement, as it may be updated from time to time.

IX. ACCESS TO RECORDS

- **A.** The CONTRACTOR agrees to provide the Government of Puerto Rico, PRDOH, HUD's Secretary, the Comptroller General of the United States, or any of their authorized representative's access to any books, documents, papers, and records of the CONTRACTOR which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions.
- **B.** The CONTRACTOR agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

X. NON-DISCLOSURE AND CONFIDENTIALITY

A. Confidential Information; Definition: The term Confidential Information as used throughout this Section, means any information concerning PRDOH operations and that of its CONTRACTOR (e.g., the projects, computer processing systems, object and source codes and other PRDOH business and financial affairs). The term Confidential Information shall also deem to include all notes, analysis, compilation, studies and interpretation or other documents prepared by CONTRACTOR, its agents or representatives, in connection with PRDOH operations.



- **B. Non-Disclosure**: CONTRACTOR agrees to take all reasonable steps or measures to keep confidential all Confidential Information and will not, at any time, present or future, without PRDOH express written authorization, signed by the Secretary of the PRDOH, use or sell, market or disclose any Confidential Information to any third party, contractor, corporation, or association for any purpose whatsoever. CONTRACTOR further agrees that, except as they relate to the normal course of the service, the CONTRACTOR will not make copies of the Confidential Information except upon PRDOH express written authorization, signed by an authorized representative of PRDOH, and will not remove any copy or sample of Confidential Information without prior written authorization from PRDOH. CONTRACTOR retains the right to control its work papers subject to these confidentiality provisions.
- **C. Return Documents**: Upon receipt of written request from the PRDOH, CONTRACTOR will return to PRDOH all copies or samples of Confidential Information which, at the time of the notice are in CONTRACTOR's or its agent's possession. CONTRACTOR reserves the right to retain a set of its work papers.
- D. Equitable Relief: The CONTRACTOR acknowledges and agrees that a breach of the provision of subparagraph B and C of this Section will cause PRDOH to suffer irreparable damage that could not be remedied or compensated adequately only by mere monetary retribution. The CONTRACTOR further agrees that money damages may not be a sufficient remedy for any breach of this Section. Accordingly,

the CONTRACTOR agrees that PRDOH shall have the right to seek injunctive relief and the specific performance of the provisions of this Section to enjoin a breach or attempted breach of the provision hereof, such right being in addition to any and all other rights and remedies that are available to PRDOH by law, equity, or otherwise.

XI. PERFORMANCE WARRANTY

- (a) CONTRACTOR warrants that it will perform all work and provide all Deliverables under this Contract in a manner consistent with the degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.
- (b) CONTRACTOR warrants that all Deliverables it completes under this Contract shall: meet or exceed the standards of CONTRACTOR's trade, profession, or industry; meet or exceed the specifications set forth in the Attachments to this Agreement; and be fit for ordinary use, of good quality, and with no material defects.
- (c) If CONTRACTOR submits Deliverables that do not meet specifications, fails to complete Deliverables timely, or fails to perform its obligation under this Contract, PRDOH may require CONTRACTOR, at its sole expense, to:
 - 1. repair or replace Deliverables that do not meet specifications;
 - 2. refund payment for Deliverables that do not meet specifications and accept the return of such Deliverables;
 - 3. pay liquidated damages for any past due Deliverable; and
 - 4. take necessary action to ensure that future performance and Deliverables meet specifications and conform to the Contract.

XII. TERMINATION

- Termination for Cause or Default: The PRDOH may terminate this Agreement, in whole or in part, because of CONTRACTOR's failure to fulfill any of its obligations. The PRDOH shall terminate this Agreement by delivering to the CONTRACTOR a thirty (30) calendar day notice of termination specifying the extent to which the performance of the service under this Agreement is terminated, the reason therefor and the effective date of termination. CONTRACTOR shall, upon written notice, be provided a ten (10) calendar day opportunity to cure the alleged defect that resulted in the perceived default. If the defect is not cured within that period of time, CONTRACTOR shall immediately discontinue all such services being terminated and deliver to the PRDOH all information, notes, drafts, documents, analysis, reports, compilations, studies and other materials accumulated or generated in performing the services contemplated in this Agreement, whether completed or in process. Notwithstanding the above, the CONTRACTOR shall not be relieved of liability to the PRDOH for damage sustained to PRDOH CDBG-DR Program by virtue of any breach of the Agreement by the CONTRACTOR. The PRDOH may withhold any payments to the CONTRACTOR, for the purpose of off-set or partial payment, as the case may be, of amounts owed to the PRDOH by the CONTRACTOR. PRDOH shall make payment, in accordance with the terms of this Agreement, of any amounts due to CONTRACTOR for allowable services rendered prior to the termination notice.
- **B.** Termination for Convenience: The PRDOH may terminate this Agreement, in whole or in part, whenever the PRDOH determines that such termination is necessary or convenient to the Agency. The PRDOH will terminate this Agreement by delivering to the CONTRACTOR a thirty (30) calendar day notice of termination specifying the extent to which the performance of the work under this Agreement is terminated, and the effective date of termination. Upon receipt of such notice, the CONTRACTOR shall immediately discontinue all services affected and deliver to the





PRDOH all information, studies and other materials property of the PRDOH. In the event of a termination by Notice, the PRDOH shall be liable only for payment of services rendered up to and including the effective date of termination. PRDOH shall make payment, in accordance with the terms of this Agreement, of any amounts due to CONTRACTOR for allowable services rendered prior to the termination notice.

- C. Termination by Unilateral Abandonment: The PRDOH will consider this Agreement immediately terminated, in the event that the CONTRACTOR unilaterally and without prior notice, chooses to abandon (in any shape, form or fashion) cease and desist in the specific performance of its general and particular duties and responsibilities as agreed in this Agreement. Upon the knowledge of such event, the PRDOH will not be held liable and will immediately, automatically and retroactively deduct from any future reimbursement, all funds from the day such unilateral abandonment took place. The PRDOH will not be compelled to continue the performance of the Agreement, should the CONTRACTOR breach the Agreement by unilateral abandonment. For the purposes of this Section, Abandonment shall mean that CONTRACTOR voluntarily and intentionally disavows its contractual duties in a manner that is overt and without question a relinquishment of said contractual duties.
- D. Unilateral Termination: The PRDOH may terminate this Agreement, in whole or in part, at PRDOH's sole discretion, with or without cause, at any time. The PRDOH will terminate this Agreement by delivering to the CONTRACTOR a thirty (30) calendar day notice of termination specifying the extent to which the performance of the work under this Agreement is terminated, and the effective date of termination. Upon receipt of such notice, the CONTRACTOR shall immediately discontinue all services affected and deliver to the PRDOH all information, studies and other materials property of the PRDOH. In the event of a termination by Notice, the PRDOH shall be liable only for payment of services rendered up to and including the effective date of termination.

Suspension: The PRDOH may suspend this Agreement in whole or in part at any time for the PRDOH's convenience. The PRDOH shall give the CONTRACTOR **five (5) business days**' written notice of such suspension. Upon receipt of said notice the CONTRACTOR shall immediately discontinue all Services affected.

- F. Immediate Termination: In the event the CONTRACTOR is subjected to a criminal or civil action, suit, proceeding, inquiry or court of applicable jurisdiction, or any governmental agency, or the CONTRACTOR shall be subject to an order, judgment, or opinion, issued by any federal or local authority, a court of applicable jurisdiction, or any governmental agency, in connection with the execution, delivery, and performance by the CONTRACTOR of this Agreement or the CONTRACTOR of this Agreement has been noncompliant, breach, inaccuracy of any representation, warranties, covenants, or the certifications provided herein, whether the noncompliance, breach or inaccuracy takes place before or after the execution of this Agreement, the PRDOH shall have the right to the immediate termination of this Agreement notwithstanding, any provisions to the contrary herein. This Section will apply in the event of any judgment that may obligate the PRDOH to terminate the Agreement pursuant to Act Number 2 of January 2, 2018, as amended, known as the Anti-Corruption Code for the New Puerto Rico.
- **G. Period of Transition:** Upon termination of this Agreement, and for **ninety (90) consecutive calendar days** thereafter (the Transition Period), CONTRACTOR agrees to make himself available to assist the PRDOH with the transition of services assigned to CONTRACTOR by the PRDOH. CONTRACTOR shall provide to the PRDOH the





assistance reasonably requested to facilitate the orderly transfer of responsibility for performance of the Services to the PRDOH or a third party designated by the PRDOH. PRDOH reserves the right to provide for the execution of a Transition Services Agreement for the Transition Period. In such instance, the CONTRACTOR will be paid at a reasonable, agreed upon, hourly rate for any work performed for the PRDOH during the Transition Period. Moreover, during that Transition Period, all finished or unfinished records (files, data, work product) connected with this Agreement will be turned over to PRDOH.

XIII. PENALTIES AND LIQUIDATED DAMAGES

A. Penalties

- 1. In the event the CONTRACTOR is determined to have engaged in any proscribed conduct or otherwise is in default as to any applicable term, condition, or requirement of this Agreement, at any time following the Effective Date of the Agreement, the CONTRACTOR agrees that, PRDOH may impose sanctions against the CONTRACTOR for any default in accordance with **Attachment C** and this Section. Refer to all required provisions set forth at 2 C.F.R. § 200.326 and 24 C.F.R. § 570.489(g), and the CDBG-DR Procurement Manual and Contract Requirements, Art. XII, Section 2(a.), as found in the CDBG-DR Website (www.cdbg-dr.pr.gov) which is herein included and made integral part of this Agreement, as it may be updated from time to time.
- 2. If the CONTRACTOR fails to comply with federal statutes, regulations or the terms and conditions of the Agreement, PRDOH may take one or more of the following actions:
 - i. Temporarily withhold cash payments pending correction of the deficiency by the CONTRACTOR.
 - ii. Disallow all or part of the cost of the activity or action not in compliance.
 - iii. Initiate suspension or debarment proceedings as authorized under 2 C.F.R. part 180.
 - iv. Withhold further Federal awards for the project or program.
 - v. Take other remedies that may be legally available.

B. Liquidated damages

The CONTRACTOR shall pay to PRDOH, as liquidated damages, \$350.00 for each calendar day that any task deliverable required is late until deemed in compliance subject to a maximum of \$5,250.00 established in this Contract between PRDOH and the CONTRACTOR, in accordance with **Attachments C**. Said sum, in view of the difficulty of accurately ascertaining the loss which PRDOH will suffer by reason of delay in the completion of the Work hereunder, is hereby fixed and agreed as the liquidated damages that PRDOH will suffer by reason of such delay. Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of the PRDOH's right to indemnification, or the CONTRACTOR's obligation to indemnify the PRDOH pursuant to this Contract, or to any other remedy provided for in this Contract or by Law. Liquidated damages may be assessed at the sole discretion of PRDOH. For the purpose of applying and calculating such liquidated damages, a grace period of ten (10) business days shall be observed. The PRDOH may deduct and retain out of the monies which may become due hereunder, the amount of any



such liquidated damages; and in case the amount which may become due hereunder shall be less than the amount of liquidated damages due to the PRDOH per the formula above, the CONTRACTOR shall be liable to pay the difference.

XIV. LIABILITY

In no event, the PRDOH shall be liable for any indirect, incidental, special or consequential damages, or damages for loss of profits, revenue, data or use, incurred by either party or any third party, whether in an action in contract or tort, even if the other party or any person has been advised of the possibility of such damages. Third parties operating under this program, with their agency, will have their own general civil and criminal liability imposed by law towards the PRDOH, the CONTRACTOR and any citizen.

The CONTRACTOR shall carry the insurances as are required by law (if applicable), as set forth below. The CONTRACTOR shall furnish PRDOH certificates of insurance.

XV. INSURANCE

A. Required Coverage

The CONTRACTOR shall keep in force and effect for the period beginning from the execution of the Agreement and ending at the completion of all services to be provided hereunder, insurance policies in compliance with the PRDOH's requirements as set forth in OSPA-78-5, attached hereto and made an integral part hereof as **Attachment E**. The CONTRACTOR shall meet all other insurance requirements as may be imposed by the PRDOH from time to time.

Upon the execution of this Agreement, the CONTRACTOR shall furnish PRDOH with original and two (2) certified copies of the insurance policies described in **Attachment E** and any other evidence PRDOH may request as to the policies' full force and effect.

Any deductible amount, under any of the policies, will be assumed in whole by the CONTRACTOR for any and all losses, claims, expenses, suits, damages, costs, demands or liabilities, joint and several of whatever kind and nature arising from the Agreement resulting from this solicitation by and between the CONTRACTOR and PRDOH.

The PRDOH shall not be held responsible under any circumstances for payments of any nature regarding deductibles of any Commercial Liability Policies for the aforementioned Agreement.

B. Endorsements

Each insurance policy maintained by the CONTRACTOR must be endorsed as follows:

- 1. PRDOH, Government of Puerto Rico, HUD and its officers, agents and employees are named as additional insured (except Worker's Compensation) but only with respect to liability arising out of tasks performed for such insured by or on behalf of the named insured.
- 2. To provide waiver of subrogation coverage for all insurance policies provided or herein in favor of PRDOH and its respective officers, agents and employees.
- 3. The insurer shall be required to give PRDOH written notice at least thirty (30)



days in advance of any cancellation in any such policies.

The CONTRACTOR shall furnish to PRDOH, prior to commencement of the work, certificates of insurance from insurers with a rating by the A.M. Best Co. of B+ and five (5) or over on all policies, reflecting policies in force, and shall also provide certificates evidencing all renewals of such policies. Insurers shall retain an A.M. Best Co. rating of B+ and five (5) or over on all policies throughout the term of this Agreement and all policy periods required herein. The insurance company must be authorized to do business in Puerto Rico and be in good standing.

C. Related Requirements

The CONTRACTOR shall furnish original Certificates of Insurance evidencing the required coverage to be in force on the Effective Date of Agreement. In the case of Payment and Performance Bond, Certificate of Authority, Power of Attorney and Power of Attorney License issued by the Commissioner of Insurance shall be furnished. THE REQUIRED DOCUMENTATION MUST BE RECEIVED PRIOR TO THE CONTRATOR COMMENCING WORK. NO CONTRACTOR OR ITS AUTHORIZED REPRESENTATIVES ARE TO BEGIN THEIR RESPONSIBILITIES UNDER THE AGREEMENT PRIOR TO FULL COMPLIANCE WITH THIS REQUIREMENT AND NOTIFICATION FROM PROOH TO PROCEED.

Renewal Certificates of Insurance or such similar evidence is to be received by the Contract Administration of the Legal Division and/or the Finance area of the CDBG-DR program prior to expiration of insurance coverage. At PRDOH's option, non-compliance will result in one or more of the following actions: (1) The PRDOH will purchase insurance on behalf of the CONTRACTOR and will charge back all cost to the CONTRACTOR; (2) all payments due the CONTRACTOR will be held until the CONTRACTOR has complied with the Agreement; and/or (3) The CONTRACTOR will be assessed **Five Thousand Dollars** (\$5,000.00) for every day of non-compliance.

The receipt of any certificate does not constitute agreement by PRDOH that the insurance requirements in the Agreement have been fully met or that the insurance policies indicated on the certificate are in compliance with the requirements of the Agreement. The insurance policies shall provide for **thirty (30) days** written notice to be given to PRDOH in the event coverage is substantially changed, cancelled or non-renewed.

The CONTRACTOR shall require all subcontractors or consultants to carry the insurance required herein or the CONTRACTOR, may provide the coverage for any or all of its subcontractors and if so, the evidence of insurance submitted shall so stipulate and adhere to the same requirements and conditions as outlined above.

The CONTRACTOR expressly understands and agrees that whenever the CONTRACTOR is covered by other primary, excess, or excess contingent insurance that, any insurance or self-insurance program maintained by PRDOH shall apply in excess of and will not contribute with insurance provided by the CONTRACTOR under this Agreement.

XVI. HOLD HARMLESS

The CONTRACTOR and its affiliates, its successors and assignees will indemnify the PRDOH from any damages and/or losses arising out of any breach of this Agreement by the CONTRACTOR or against personal injuries or property damage resulting from any act of negligence or omission by the CONTRACTOR and its affiliates in connection with this Agreement.

XVII. FORCE MAJEURE

In the event of a fire, flood, earthquake, natural disaster, hurricane, riot, act of governmental authority in its sovereign capacity, pandemic officially declared by the Government of Puerto Rico, strike, labor dispute or unrest, embargo, war, insurrection or civil unrest, any Force Majeure including inclement weather, herein collectively referred to as Force Majeure during the term of this Agreement, neither the PRDOH nor the CONTRACTOR shall be liable to the other party for nonperformance during the conditions created by such event.

The CONTRACTOR shall notify, as soon as possible, the PRDOH of the occurrence of the Force Majeure event and describe in reasonable detail, the nature of the Force Majeure event.

XVIII. CONFLICTS OF INTEREST

The CONTRACTOR shall comply with the ethics requirements set forth herein and warrant that to the best of its knowledge and belief and except as otherwise disclosed, it does not have any organizational conflict of interest which is defined as a situation in which the nature of the work under a PRDOH contract and CONTRACTOR'S organizational, financial, contractual or other interest are such that:

- 1/1/2
- a) Award of the Agreement may result in an unfair competitive advantage; or
- b) The CONTRACTOR's objectivity in performing the contract work may be impaired.

The CONTRACTOR agrees that if after award he or she discovers an organizational conflict of interest with respect to this Agreement, it shall make an immediate (within the next seventy-two (72) hours) and full disclosure in writing to the Contracting Officer, which shall include a description of the action, which the CONTRACTOR has taken or intends to take to eliminate or neutralize the conflict. The CONTRACTOR will disclose the details of any existing or future contract to provide services to third parties participating or for the purpose to participate in disaster recovery programs or projects in Puerto Rico. The PRDOH may, however, terminate the Agreement for the convenience of PRDOH if it would be in its best interest.

In the event the CONTRACTOR was aware of an organizational conflict of interest before the award of this Agreement and did not disclose the conflict to the Contracting Officer, the PRDOH may terminate the Agreement for default.

The provisions of this clause shall be included in all subcontracts and/or consulting agreements wherein the work to be performed is similar to the services provided by the CONTRACTOR. The CONTRACTOR shall include in such subcontracts and consulting agreements any necessary provision to eliminate or neutralize conflicts of interest.

XIX. INDEPENDENT CONTRACTOR

The relationship of the CONTRACTOR to PRDOH shall be that of an independent CONTRACTOR rendering professional services. Neither the CONTRACTOR nor any personnel of the CONTRACTOR shall have any authority to execute contracts or make commitments on behalf of PRDOH. Nothing contained herein shall be deemed to create the relationship of employer/employee, principal/agent, joint venture or partner between the CONTRACTOR and PRDOH. Further, the CONTRACTOR recognizes that in



view of its status as an independent CONTRACTOR, neither it nor its employees or subcontractors will be entitled to participate in or receive any fringe benefits normally granted to PRDOH employees under such programs, including, but not limited to, worker's compensation, voluntary disability, travel accident insurance, medical/dental insurance, life insurance, long-term disability, holiday pay, sick pay, salary continuation pay, leaves of absence (paid or unpaid), pension plan and savings plan.

The CONTRACTOR shall have exclusive control over its employees and subcontractors (and the CONTRACTOR's employees and subcontractors are herein, collectively, referred to as the "CONTRACTOR Personnel"), its labor and employee relations and its policies relating to wages, hours, working conditions and other employment conditions. The CONTRACTOR has the exclusive right to hire, transfer, suspend, lay off, recall, promote, discipline, discharge and adjust grievances with its CONTRACTOR Personnel. The CONTRACTOR is solely responsible for all salaries and other compensation of its CONTRACTOR Personnel who provide Services.

The CONTRACTOR is solely responsible for making all deductions and withholdings from its employees' salaries and other compensation and paying all contributions, taxes and assessments, including union payments. The CONTRACTOR shall be responsible for and shall defend, indemnify and hold harmless PRDOH, and its agents, officers, directors, employees, representatives, CONTRACTOR's, successors and assigns against all costs, expenses and liabilities, including without limitation reasonably prudent attorneys' fees relative to the situation, in connection with the CONTRACTOR's employment and/or hiring of any CONTRACTOR Personnel providing any of the Services, including without limitation: (i) payment when due of wages and benefits, (ii) withholding of all payroll taxes, including but not limited to, unemployment insurance, workers' compensation, FICA and FUTA, (iii) compliance with the Immigration Reform Control Act, and (iv) compliance with any other applicable laws relating to employment of any CONTRACTOR Personnel of, and/or hiring by, CONTRACTOR in connection with the Services.

XX. NOTICES

All notices required or permitted to be given under the Agreement shall be in writing, and shall be deemed given when delivered by hand or sent by registered or certified mail, return receipt requested, to the address as follows:

To: PRDOH William O. Rodríguez Rodríguez, Esq.

Secretary

Puerto Rico Department of Housing

Director-

606 Barbosa Ave.

Juan C. Cordero Dávila Bldg.

San Juan, PR 00918

To: CONTRACTOR Fernando L. Pagés, P.E.

Strategic Managing

Caribbean Operations

Tetra Tech, Inc. 251 Recinto Sur San Juan, PR 00901

XXI. THIRD PARTIES

Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action of a third party against either the PRDOH or the CONTRACTOR.

XXII. SUBCONTRACTS

- A. General: All subcontracts shall contain the applicable provisions described in Attachment F (HUD General Provisions), as well as applicable provisions set forth in 2 C.F.R. § 200.101. The PRDOH shall review subcontracts as part of the compliance, monitoring, and oversight process performed by PRDOH or upon request.
- B. Specific Requirements: All subcontracts shall contain provisions specifying:
 - i. That the work performed by the subcontractor be in accordance with the applicable terms of this Agreement between the PRDOH and CONTRACTOR;
 - ii. That nothing contained in such subcontract agreement shall impair the rights of the PRDOH;
 - iii. That nothing contained herein, or under this Agreement will create any contractual relation between the subcontractor and the PRDOH;
 - iv. That the subcontractor specifically agrees to be bound by the confidentiality provision regarding Personal Identifiable Information set forth in this Agreement;
 - v. That CONTRACTOR will be responsible for ensuring all subcontract work is performed consistent with federal and state regulations and/or policies to be eligible for reimbursement of the approved work; and
 - vi. All Federal flow down provisions are included in the subcontract agreement per Federal guidelines.
- **C. Monitoring:** CONTRACTOR shall diligently monitor all subcontracted services. If CONTRACTOR discovers any areas of noncompliance, CONTRACTOR shall provide the PRDOH summarized written reports supported with documented evidence of corrective action.
- **D. Content:** CONTRACTOR shall cause all the applicable provisions of this Agreement to be included in, and made a part of, any subcontract executed in the performance of this Agreement.
- **E. Notification:** CONTRACTOR shall notify and provide a copy of any and all subcontracts related to this Agreement and CDBG-DR funds to the Contract Administration Area of the PRDOH CDBG-DR Legal Division within **three (3) business days** of its execution.

XXIII. CERTIFICATION OF COMPLIANCE WITH LEGAL REQUIREMENTS

Given that the Agreement involves funds for which HUD is the oversight agency, the CONTRACTOR agrees to carry out its obligations under this Agreement in compliance with all the requirements described in **Attachment F** (HUD General Provisions), **Attachment G** (Contractor Certification Requirement) and the following provisions:

A. Compliance with Executive Order 24: Pursuant to Executive Order 24 of June 18, 1991, the CONTRACTOR certifies and guarantees that at the signing of this Agreement it has filed all the necessary and required income tax returns to the Government of Puerto Rico for the last five (5) years. The CONTRACTOR further certifies that it has complied and is current with the payment of any and all income taxes that are, or were due, to the Government of Puerto Rico. The CONTRACTOR shall hand out, to the satisfaction





of the PRDOH and whenever requested by the PRDOH during the term of this Agreement, the necessary documentation to support its compliance of this clause. The CONTRACTOR will be given a specific amount of time by the PRDOH to produce said documents. During the term of this Agreement, the CONTRACTOR agrees to pay and/or to remain current with any repayment plan agreed to by the CONTRACTOR with the Government of Puerto Rico.

- **B.** Compliance with Executive Order 52: Pursuant to Executive Order 52 of August 28, 1992, amending EO-1991-24, the CONTRACTOR certifies and warrants that it has made all payments required for unemployment benefits, workmen's compensation and social security for chauffeurs, whichever is applicable, or that in lieu thereof, has subscribed a payment plan in connection with any such unpaid items and is in full compliance with the terms thereof. The CONTRACTOR accepts and acknowledges its responsibility for requiring and obtaining a similar warranty and certification from each and every CONTRACTOR and subcontractor whose service the CONTRACTOR has secured in connection with the services to be rendered under this Agreement and shall forward evidence to PRDOH as to its compliance with this requirement.
- **C. Social Security and Income Tax Retentions**: The CONTRACTOR will be responsible for rendering and paying the Federal Social Security and Income Tax Contributions for any amount owed as a result of the income from this Agreement.
- D. Government of Puerto Rico Municipal Tax Collection Center (CRIM, for its Spanish acronym): The CONTRACTOR certifies and guarantees that at the signing of this Agreement it has no current debt with regards to property taxes that may be registered with the Government of Puerto Rico's Municipal Tax Collection Center. The CONTRACTOR further certifies to be current with the payment of any and all property taxes that are or were due to the Government of Puerto Rico. The CONTRACTOR shall hand out, to the satisfaction of the PRDOH and whenever requested by the PRDOH during the term of this Agreement, the necessary documentation to support its compliance of this clause. The CONTRACTOR will deliver upon request any documentation requested under this clause as per request of PRDOH. During the Term of this Agreement, the CONTRACTOR agrees to pay and/or to remain current with any repayment plan agreed to by the CONTRACTOR with the Government of Puerto Rico with regards to its property taxes.
- **E.** Income Tax Withholding: The PRDOH shall retain the corresponding amount from all payments made to the CONTRACTOR, as required by the Puerto Rico Internal Revenue Code. The PRDOH will advance such withholdings to the Government of Puerto Rico's Treasury Department (known in Spanish as Departmento de Hacienda del Gobierno de Puerto Rico). The PRDOH will adjust such withholdings provided the CONTRACTOR produces satisfactory evidence of partial or total exemption from withholding.
- F. Compliance with Act No. 45 of April 18, 1935, as amended, 11 L.P.R.A. § 1, et seq.: The CONTRACTOR certifies and guarantees that at the signing of this Agreement has valid insurance issued by the State Insurance Fund Corporation (CFSE, for its Spanish Acronym), as established by Act No. 45, supra, known as the "Puerto Rico Workers' Accident Compensation Act".
- G. Government of Puerto Rico's Agency for the Collection of Child Support (ASUME, for its Spanish acronym): The CONTRACTOR certifies and guarantees that at the signing of this Agreement that the CONTRACTOR nor any of its Partners, if applicable, have any debt or outstanding debt collection legal procedures with regards to child





support payments that may be registered with the Government of Puerto Rico's Child Support Administration. The CONTRACTOR hereby certifies that it is a limited liability company organized and existing in good standing under the laws of the Government of Puerto Rico. The CONTRACTOR shall present, to the satisfaction of PRDOH, the necessary documentation to substantiate the same. The CONTRACTOR will be given a specific amount of time by PRDOH to deliver said documents.

- H. Compliance with Act No. 168-2000, as amended, 8 L.P.R.A. § 711, et seq.: The CONTRACTOR is in full compliance with Act No. 168-2000, as amended, known as "Act for the Improvement of Elderly Support of Puerto Rico."
- I. Compliance with Act No. 1-2012, as amended, 3 L.P.R.A. § 1854, et seq.: The PRDOH and the CONTRACTOR hereby certify that in signing this Agreement they are in compliance with Act No. 1-2012, as amended, known as "Puerto Rico Government Ethics Act of 2011", in connection with the possibility of a conflict of interest.
- J. Clause of Governmental Ethics Certification of Absence of Conflict of Interests The CONTRACTOR certifies that: (1) No public servant of this executive agency has a pecuniary interest in this contract, purchase or commercial transaction. (2) No public servant of this executive agency has requested me or accepted from me, directly or indirectly, for him (her), for any member of his family unit or for any person, gifts, bonuses, favors, services, donations, loans or anything else of monetary value. (3) No public servant (s) requested or accepted any good of economic value, linked to this transaction, from any person of my entity as payment for performing the duties and responsibilities of their employment. (4) No public servant has requested from me, directly or indirectly, for him (her), for any member of her family unit, or for any other person, business or entity, some of economic value, including gifts, loans, promises, favors or services in exchange for the performance of said public servant is influenced in my favor or of my entity. (5) I have no kinship relationship, within the fourth degree of consanguinity and second by affinity, with any public servant who has the power to influence and participate in the institutional decisions of this executive agency.
 - **K. Ethics.** CONTRACTOR also acknowledges receipt and agrees to obey with the Anticorruption Code for the New Puerto Rico known in Spanish as "Código Anticorrupción para el Nuevo Puerto Rico".
- L. Non-Conviction. The CONTRACTOR certifies that it has not been convicted nor accused of a felony or misdemeanor against the government, public faith and function, or that involves public property or funds, either federal or local in origin. Furthermore, CONTRACTOR also certifies that:
 - 1. It has not been convicted, nor has pleaded guilty at a state or federal bar, in any jurisdiction of the United States of America, of crimes consisting of fraud, embezzlement or misappropriation of public funds, as stated in Act Number 2 of January 2, 2018, as amended, known as the Anti-Corruption Code for the New Puerto Rico, which prohibits the award of Offers or government contracts to those convicted of fraud, misappropriation of public fund.
 - 2. It understands and accepts that any guilty plea or conviction for any of the crimes specified in Article 3 of said Act, will also result in the immediate cancellation of any contracts in force at the time of conviction, between the undersigned and whichever Government Agencies, Instrumentalities, Public Corporations, Municipalities and the Legislative or Judicial Branches.

- 3. It declares under oath the above mentioned in conformity with what is established as in Act Number 2 of January 2, 2018, as amended, known as the Anti-Corruption Code for the New Puerto Rico, which prohibits awarding Offers for government contracts, to those convicted of fraud, embezzlement or misappropriation of publics funds.
- 4. The CONTRACTOR represents and guarantees that none of its employees, officials or agents have been convicted of a felony or misdemeanor as described in this sub-section. Moreover, the CONTRACTOR agrees to notify PRDOH should any employee, official, or agent is convicted of a felony or misdemeanor as described in this sub-section after the date of this Agreement. Said notice shall be made within ten (10) business days from the time of the conviction.
- M. Other payments or compensation: The CONTRACTOR certifies that it does not receive payment or compensation for regular services rendered as an official or public employee to another government entity, agency, public corporation or municipality, and knows the ethical standards of his profession and assumes responsibility for his actions.
- N. Consequences of Non-Compliance: The CONTRACTOR expressly agrees that the conditions outlined throughout this Section are essential requirements of this Agreement; thus, should any one of these representations, warrants, and certifications be incorrect, inaccurate or misleading, in whole or in part, there shall be sufficient cause for PRDOH to render this Agreement null and void and the CONTRACTOR reimburse to PRDOH all moneys received under this Agreement.

XXIV. ACT NO. 18 OF OCTOBER 30, 1975, as amended, 2 L.P.R.A. secs. 97-98

The parties to this Agreement agree that its effective date will be subject to the due registration and remittance to the Office of the Comptroller of Puerto Rico. No rendering or consideration subject matter of this Agreement will be required before its registration at the Office of the Comptroller of Puerto Rico pursuant to Act No. 18 of October 30, 1975, as amended. The CONTRACTOR will be responsible for ensuring that this Agreement has been registered before the rendering of services by requesting a copy of the registered Agreement with its proper number and date of registry. No services under this Agreement will continue to be delivered after its effective date unless at the expiration date, an amendment signed by both parties and duly registered exists. No services performed in violation of this provision will be paid. The party violating this clause will be doing so without any legal authority, this action will be deemed as ultra vires.

- XXV. MEMORANDUM NO. 2021-003; CIRCULAR LETTER 001-2021 OF THE OFFICE OF THE CHIEF OF STAFF OF THE GOVERNOR (SECRETARÍA DE LA GOBERNACIÓN) & THE OFFICE OF MANAGEMENT AND BUDGET (OFICINA DE GERENCIA Y PRESUPUESTO)
- A. Interagency Services Clause: Both contracting parties acknowledge and agree that services retained may be provided to any entity of the Executive Branch with which the contracting entity makes an interagency agreement or by direct provision of the Office of the Chief of Staff of the Governor (Secretaría de la Gobernación). These services will be performed under the same terms and conditions in terms of hours of work and compensation set forth in this Agreement. For purposes of this clause, the term "Executive Branch entity" includes all agencies of the Government of Puerto Rico, as well as public instrumentalities and corporations and the Office of the Governor.

- **B.** Termination Clause: The Chief of Staff (Secretario de la Gobernación) of the Governor shall have the power to terminate this Agreement at any time.
- C. Contract Review Policy of the Financial Supervision and Administration Board for Puerto Rico: The parties acknowledge that the contractor has submitted the certification entitled "Contractor Certification Requirement" required in accordance with the Contract Review Policy of the Financial Oversight and Management Board (FOMB) for Puerto Rico, effective as of November 6, 2017 as amended on October 30, 2020, signed by the Contractor's Executive Director (or another official with an equivalent position or authority to issue such certifications). A signed copy of the "Contractor's Certification Requirement" is included as Attachment G to this contract.
 - XXVI. MEMORANDUM NO. 2021-029; CIRCULAR LETTER NO. 013-2021 OF THE OFFICE OF THE CHIEF OF STAFF OF THE GOVERNOR (SECRETARÍA DE LA GOBERNACIÓN) & THE OFFICE OF MANAGEMENT AND BUDGET (OFICINA DE GERENCIA Y PRESUPUESTO):
- **A.** The PRDOH certifies that the CONTRACTOR was selected as the provider of the services described in this agreement, pursuant to OE 2021-029.
- **B.** The Parties certify that they acknowledge the provisions stated in OE 2021-029 and CC 013-2021. Any failure to comply with the requirements set forth in OE 2021-029 and CC 013-2021 will result in the termination of this agreement.
- C. The CONTRACTOR certifies that it has informed PRDOH of any current contractual relationship with any government entities of the Government of Puerto Rico. The CONTRACTOR certifies that said entities are all the entities of the Government of Puerto Rico with which they maintain a contractual relationship. In addition, the CONTRACTOR recognizes and accepts that omitting any information regarding any current contractual relationship with any governmental entity could result in the termination of this agreement if so required by PRDOH.
- **D.** The CONTRACTOR certifies that it has informed the PRDOH whether or not the entity is a public corporation whose shares are exchanged in a stock exchange properly regulated. In the event that the CONTRACTOR certifies that it is not a public corporation that exchanges shares in a stock change, the CONTRACTOR certifies it has completed the applicable certification as stated in CC-013-2021.
 - XXVII. FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO (FOMB) POLICY: REVIEW OF CONTRACTS, AS MODIFIED ON APRIL 30,2021, REGARDING PROFESSIONAL SERVICES

The FOMB Policy requires that all agreements that contemplate recurring professional services that may be performed by appropriately trained government staff include a provision of compliance with the adequate transfer of skills and technical knowledge to the pertinent public sector personnel. This requirement shall not apply to contracts which contemplate non-recurring professional services or specialized professional services that may not be performed by existing staff at the applicable governmental entity, including as a result of independence requirements.

Accordingly, given that the agreements under CDBG-DR are non-recurring professional services or specialized professional services, the PRDOH certifies that the transfer of skills



and technical knowledge required by the Certified Fiscal Plan is inapplicable given the non-recurring or specialized nature of the contracted services.

As mentioned before, HUD allocated funds for disaster recovery assistance to the Government of Puerto Rico under the CDBG-DR Program. These funds are intended to provide financial assistance to address unmet needs that arise and that are not covered by other sources of financial aid. In addition, with these allocations of funding under the Grant Agreement, the PRDOH will conduct a comprehensive recovery to benefit the residents of Puerto Rico.

XXVIII. COMPLIANCE WITH THE FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO (FOMB) POLICY, REVIEW OF CONTRACTS

As part of the PRDOH contract process, and pursuant to Section 204(b)(2) of the "Puerto Rico Oversight, Management, and Economic Stability Act," 48 U.S.C. §2101, et seq., also known as "PROMESA", the Financial Oversight and Management Board for Puerto Rico (FOMB) require approval of certain contracts and amendments to assure that they "promote market competition" and "are not inconsistent with the approved fiscal plan." For the approval process, the FOMB requests, among other information, the Contractor Certification Requirement for its evaluation.

In compliance with the above, the CONTRACTOR represents and warrants that the information included in the Contractor Certification Requirement is complete, accurate and correct, and that any misrepresentation, inaccuracy of falseness in such Certification will render the contract null and void and CONTRACTOR will have the obligation to reimburse immediately to the Commonwealth any amounts, payments or benefits received from the Commonwealth under the proposed Amendment and original Agreement.

XXIX. COMPLIANCE WITH FEDERAL LAW, REGULATIONS, & EXECUTIVE ORDERS

The CONTRACTOR acknowledges that HUD financial assistance will be used to fund the Agreement only. Also, the CONTRACTOR shall comply with all applicable Federal, state and local laws, rules, regulations, and policies relating to CDBG-DR and CDBG Program services. This includes without limitation, applicable Federal Registers; 2 C.F.R. part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Community Development Act of 1974; 24 C.F.R. part 570 Community Development Block Grant; applicable waivers; Fair Housing Act, 24 C.F.R. Part 35, 24 C.F.R. Part 58, 24 C.F.R. Part 135; National Historic Preservation Act, and any other applicable state laws or regulations, including the requirements related to nondiscrimination, labor standards, and the environment; and Action Plan amendments and HUD's guidance on the funds. Also, CONTRACTOR shall comply, without limitation, those set forth in **Attachment F** and in compliance with all the requirements described in **Attachment G**.

XXX. CDBG-DR POLICIES AND PROCEDURES

In addition to what is established in this Agreement, the CONTRACTOR shall comply with all CDBG-DR program specific and general policies and procedures, including, but not limited to, the Contract and Subrecipient Agreement Manual, OS&H Guideline, MWBE Policy, Procurement Manual and Contractual Requirements, URA & ADP Guidelines, Cross Cutting Guidelines, AFWAM Policy, Section 3 Policy, Personally Identifiable Information, Confidentiality, and Nondisclosure Policy and Conflict of Interest and



Standards of Conduct Policy, as found in the CDBG-DR Website (www.cdbg-dr.pr.gov), which are herein included and made integral part of this Agreement, as they may be updated from time to time, and reporting requirements as established by the PRDOH.

XXXI. SECTION 3 CLAUSE

- **A.** The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- **B.** The parties to this contract agree to comply with HUD's regulations in 24 C.F.R. part 75, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 75 regulations.
- C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- **D**. The contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. part 75 and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. part 75. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 75.
- **E.** The contractor acknowledges that subrecipients, contractors, and subcontractors are required to meet the employment, training, and contraction requirements of 24 CFR 75.19, regardless of whether Section 3 language is included in recipient or subrecipient agreements, program regulatory agreements, or contracts.
- **F**. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 C.F.R. part 75 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 C.F.R. part 75.
- **G**. Noncompliance with HUD's regulations in 24 C.F.R. part 75 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- H. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (46 U.S.C. § 5307) also applies to the work to be performed under this contract. Section



7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and sub contracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of Section 3 and section7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section7(b).

I. The Contractor agrees to submit, and shall require its subcontractors to submit to them, quarterly reports to the PRDOH detailing the total number of labor hours worked on the Section 3 Project, the total number of labor hours worked by Section 3 Workers, and the total number of hours worked by Targeted Section 3 Workers, and any affirmative efforts made during the quarter to direct hiring efforts to low- and very low-income persons, particularly persons who are Section 3 Workers and Targeted Section 3 Workers.

XXXII.BYRD ANTI-LOBBYING AMENDMENT, 31 U.S.C. § 1352

The CONTRACTOR certifies, to the best of his or her knowledge, that:

- A.- No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- **B.** If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Forms-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
- C. The CONTRACTOR shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). The CONTRACTOR acknowledges that any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. The CONTRACTOR certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONTRACTOR understands and agrees that the provisions of 31 U.S.C. §3801 et seq., apply to this certification and disclosure, if any.

XXXIII.EQUAL OPPORTUNITY

- A.- The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity or national origin. The CONTRACTOR will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B.- The CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- C. When applicable, the CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the CONTRACTOR's commitments under this Section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D.-The CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, and as supplemented by the rules, regulations, and relevant orders of the United States Secretary of Labor.
- E.-The CONTRACTOR will furnish all information and reports required by Executive Order 11246 of September 24, 1965, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- F. In the event of the CONTRACTOR's noncompliance with the nondiscrimination clauses of this Agreement or with any of the said rules, regulations, or orders, this Agreement may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. The CONTRACTOR will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (F) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, as amended, so that such provisions will be binding upon each subcontractor or vendor. The CONTRACTOR will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for





noncompliance. Provided, however, that in the event a CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

XXXIV.CLEAN AIR ACT

- A.- The CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- B.- The CONTRACTOR agrees to report each violation to the PRDOH and understands and agrees that the PRDOH will, in turn, report each violation as required to assure notification to the Government of Puerto Rico, HUD, and the appropriate Environmental Protection Agency Regional Office.
- C. The CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by HUD.

XXXV.SOLID WASTE DISPOSAL ACT

- 1) In the performance of this contract, the CONTRACTOR shall make maximum use of products containing recovered materials that are Environmental Protection Agency (EPA)- designated items unless the product cannot be acquired:
 - a. Competitively within a timeframe providing for compliance with the contract performance schedule;
 - b. Meeting contract performance requirements; or
 - c. At a reasonable price.
- 2) Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program.
- 3) Contractor must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include:
 - a. procuring only items designated in guidelines of the EPA at 40 C.F.R. part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds ten thousand dollars (\$10,000) or the value of the quantity acquired during the preceding fiscal year exceeded ten thousand dollars (\$10,000);
 - b. procuring solid waste management services in a manner that maximizes energy and resource recovery; and
 - c. establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

XXXVI.WATER POLLUTION CONTROL ACT

A.- The CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251, et seq.





- B.- The CONTRACTOR agrees to report each violation to the PRDOH and understands and agrees that the PRDOH will, in turn, report each violation as required to assure notification to the Government of Puerto Rico, HUD, and the appropriate Environmental Protection Agency Regional Office.
- C. The CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by HUD.

XXXVII. DRUG FREE WORKPLACE

The CONTRACTOR should establish procedures and policies to promote a Drug-Free workplace. Further, the CONTRACTOR should notify all employees of its policy for maintaining a Drug-Free workplace, and the penalties that may be imposed for drug abuse violations occurring in the workplace. Further, the CONTRACTOR shall notify the PRDOH if any of its employees is convicted of a criminal drug offense in the workplace no later than **ten (10) days** after such conviction.

XXXVIII.SUSPENSION AND DEBARMENT

- A.-This Agreement is a covered transaction for purposes of 2 C.F.R. part 180 and 2 C.F.R. part 2424. As such, the CONTRACTOR is required to verify that none of the CONTRACTOR, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- B.- The CONTRACTOR must comply with 2 C.F.R. part 180, subpart C and 2 C.F.R. part 2424, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
- C. This certification is a material representation of fact relied upon by PRDOH. If it is later determined that the CONTRACTOR did not comply with 2 C.F.R. part 180, subpart C and 2 C.F.R. part 2424, in addition to remedies available to PRDOH, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- D.- The CONTRACTOR agrees to comply with the requirements of 2 C.F.R. part 180, subpart C and 2 C.F.R. part 2424, while this Agreement is valid. The CONTRACTOR further agrees to include a provision requiring such compliance in its lower tier covered transactions.

XXXIX. NO OBLIGATION BY THE FEDERAL GOVERNMENT

The Federal Government is not a party to this Agreement and is not subject to any obligations or liabilities to the non-Federal entity, CONTRACTOR, or any other party pertaining to any matter resulting from the Agreement.

XL. PROGRAM FRAUD & FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS

The CONTRACTOR acknowledges that 31 U.S.C. Chapter 38 (Administrative Remedies for False Claims and Statements) applies to the CONTRACTOR's actions pertaining to this Agreement.

XLI. BANKRUPTCY

In the event that CONTRACTOR files for bankruptcy protection, the Government of Puerto Rico and PRDOH may deem this Agreement null and void, and terminate this Agreement without notice.

XLII. ENTIRE AGREEMENT

This Agreement and all its attachments represent the entire and integrated agreement between PRDOH and the CONTRACTOR and supersede all prior negotiations, representations, agreements and/or understandings of any kind. This Agreement may be amended only by written document signed by both PRDOH and the CONTRACTOR.

XLIII. MODIFICATION OF AGREEMENT

Any modification of this Agreement or additional obligation assumed by either party in connection with this Agreement shall be binding only if written and signed by both parties, and its authorized representatives. Those amendments shall make specific reference to this Agreement, comply with programmatic policies, procedures, and guidelines. Such amendments shall not invalidate this Agreement, nor relieve or release the Parties from their obligations under this Agreement.

However, PRDOH reserves the right to notify in writing to CONTRACTOR any applicable policies, procedures, regulations, requirements, guidelines, or change in law, whether existing or to be established, as well as changes and/or amendments thereof, and the notified policies, procedures, regulations, requirements, guidelines and laws shall be deemed incorporated by reference to this Agreement without the need of executing a separate written and signed amendment.

XLIV. BINDING EFFECT

This Agreement shall be binding upon and shall inure to the benefit of PRDOH and the CONTRACTOR, their successors and assigns.

The CONTRACTOR shall not assign this Agreement, in whole or in part, without the prior written consent of PRDOH, and any attempted assignment not in accordance herewith shall be null and void and of no force or effect.

XLV. ASSIGNMENT OF RIGHTS

The rights of each party hereunder are personal to that party and may not be assigned or otherwise transferred to any other person, contractor, corporation, or other entity without the prior, express, and written consent of the other party.

XLVI. NON-WAIVER

The failure or delay of either party to insist upon the performance of and/or the compliance with any of the terms and conditions of this Agreement shall not be construed as a waiver of such terms and conditions or the right to enforce compliance with such terms and conditions.

XLVII. ORDER OF PRECEDENCE

In the event of an inconsistency in this Agreement or if a conflict occurs between this Agreement and any Attachment, Appendix, Exhibit, or Schedule, unless otherwise specifically stated in those documents, the order of precedence shall be: Federal laws, regulations, and policies applicable to this Agreement, this Contract and the HUD General Provisions (Attachment F), the Scope of Services (Attachment C), the Cost Form (Attachment D), and lastly, the CONTRACTOR's proposal (Attachment B).

XLVIII. GOVERNING LAW JURISDICTION

This Agreement shall be governed by, interpreted, and enforced in accordance with the laws of the Government of Puerto Rico and any applicable federal laws and regulations. The parties further agree to assert any claims or causes of action that may arise out of this Agreement in the Puerto Rico Court of First Instance, Superior Court of San Juan, Puerto Rico.

XLIX. CONSOLIDATIONS, MERGERS, CHANGE OF NAME, OR DISSOLUTIONS

A. Consolidation or Merger

In the event that the signing party (e.g. Subrecipient, Contractor, or Subcontractor) of the Agreement with the PRDOH moves for a consolidation or merger with another entity (private or public), by its discretion or otherwise, written notice of such decision or event shall be delivered to the PRDOH <u>at least</u> fifteen (15) business days prior to the effective date of the consolidation or merger. The notice shall include, but not limited to, a description of: the expected effective date of the consolidation or merger; name of each of the constituent entities moving to consolidate or merge into the single resulting or surviving entity; the proposed name of the resulting entity (in case of a consolidation) or the name of the surviving entity (in case of a merger) if necessary; reference to the projected capacity of the resulting or surviving entity to comply with the terms, conditions, obligations, tasks, services, and performance goals or requirements included in the Agreement as well as its Exhibits or Attachments; and a brief summary of the proposed plan to achieve the transition of duties (Scope of Work or Scope of Services), tasks, and performance goals or requirements to the resulting or surviving entity.

Upon the consolidation or the merger becoming effective, and supporting evidence of such event is notified to PRDOH, execution of an Amendment to the Agreement may follow. The Amendment would include, but not limited to, modifications to the clauses that refer to the identity, personal circumstances, address, and any other information related to the signing party deemed relevant by PRDOH for the execution of the Amendment. No amendment to the Agreement will be necessary if the Subrecipient, Contractor, or Subcontractor becomes the surviving entity following a merger.

Failure to comply with any of the before mentioned conditions, may result in the activation of the termination clauses provided in the Agreement.

B. Change of Name

In the event that the signing party (e.g. Subrecipient, Contractor, or Subcontractor) of the Agreement with the PRDOH initiates a change of name process, written notice of such decision or event shall be delivered to the PRDOH <u>at least</u> fifteen (15) business days prior to the effective date of such event. The notice shall include, but not limited to, a description of: the expected effective date of the change of name; the proposed name; inform of any change of address; and reference of any change in the capacity of the entity to comply with the terms, conditions, obligations, tasks, services, and performance goals or requirements included in the Agreement, as well as its Exhibits or Attachments.

Upon the change of name becoming effective, and supporting evidence of such event is notified to PRDOH, execution of an Amendment to the Agreement may follow. The Amendment would include, but not limited to, modifications to the clauses that refer to the identity, personal circumstances, address, and any other information related to the signing party deemed relevant by PRDOH for the execution of the Amendment.

Failure to comply with any of the before mentioned conditions, may result in the activation of the termination clauses provided in the Agreement.



C. <u>Dissolution</u>

In the event that the signing party (e.g. Subrecipient, Contractor, or Subcontractor) of the Agreement with the PRDOH moves for dissolution of the entity, written notice of such decision or event shall be delivered to the PRDOH at least fifteen (15) business days prior to the effective date of such event. The notice shall include, but not limited to, a description of the expected effective date of the dissolution; and contact information of one or more of its directors, officials or agents. Upon dissolution, becoming effective, and supporting evidence of such event is notified to PRDOH, termination of the Agreement will follow. Consequently, the signing party acknowledges and agrees to provide to the PRDOH, after termination of the Agreement, the assistance reasonably requested to facilitate the orderly transfer of responsibility for performance of the tasks or services to the PRDOH or a third party designated by the PRDOH. Moreover, all finished or unfinished records (files, data, work product) connected with this Agreement will be turned over to PRDOH following the Agreement termination.

L. HEADINGS

The titles to the paragraphs of this Agreement are solely for reference purposes and the convenience of the parties and shall not be used to explain, modify, simplify, or aid in the interpretation of the provisions of this Agreement.

LI. FEDERAL FUNDING

The fulfillment of this Agreement is based on those funds being made available to the PRDOH as the lead administrative agency for Recovery. All expenditures under this Agreement must be made in accordance with this Agreement, the policies and procedures promulgated under the CDBG-DR Program, and any other applicable laws. Further, CONTRACTOR acknowledges that all funds are subject to recapture and repayment for non-compliance.

LII. RECAPTURE OF FUNDS

PRDOH may recapture payments it makes to CONTRACTOR that (i) exceed the maximum allowable rates; (ii) are not allowed under applicable laws, rules, or regulations; or (iii) are otherwise inconsistent with this Agreement, including any unapproved expenditures. CONTRACTOR must refund such recaptured payments within **thirty (30) business days** after the PRDOH issues notice of recapture to CONTRACTOR.

LIII. OVERPAYMENT

CONTRACTOR shall be liable to the PRDOH for any costs disallowed pursuant to financial and/or compliance audit(s) of funds received under this Agreement. CONTRACTOR shall reimburse such disallowed costs from funds other than those CONTRACTOR received under this Agreement.

LIV. SEVERABILITY

If any provision of this Agreement shall operate or would prospectively operate to invalidate the Agreement in whole or in part, then such provision only shall be deemed severed and the remainder of the Agreement shall remain operative and in full effect.

LV. COUNTERPARTS

This Agreement may be executed in any number of counterparts, each of whom shall be deemed to be an original, however, all of which together shall constitute one and



the same instrument. If the Agreement is not executed by the PRDOH within thirty (30) calendar days of execution by the other party, this Agreement shall be null and void.

LVI.SURVIVAL OF TERMS AND CONDITIONS

The terms and conditions of this Agreement related to the following subjects shall survive the termination or expiration of this Agreement: interpretive provisions; consideration; warranties; general affirmations, federal assurances, federal and state certifications; CDBG-DR and state funding, recapture of CDBG-DR and/or state funds, overpayment of CDBG-DR and/or state funds; ownership and intellectual property, copyright; records retention methods and time requirements; inspection, monitoring and audit; confidentiality; public records; indemnification and liability; infringement of intellectual property rights; independent contractor relationship; compliance with laws; notices; choice of law and venue; severability; dispute resolution; consolidations, merger, change of name, and dissolution. Terms and conditions that, explicitly or by their nature, evidence the Parties' intent that they should survive the termination or expiration of this Agreement shall so survive.

IN WITNESS THEREOF, the parties hereto execute this Agreement in the place and on the date first above written.

DEPARTMENT OF HOUSING

O. Rodríguez Rodríguez, Esq.,

Secletary

TETRA TECH, INC.

Fernando L. Pagés, P.E.

Strategic

Managing

Director-

Caribbean Operations

DUNS No. 080106449

GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING

ATTACHMENT A

Notice of Award Geoframe GIS Services CDBG-DR-RFP-2020-06

September 2, 2021

Fernando Pages Rangel Tetra Tech Inc. 251 Recinto Sur San Juan, PR 00901 Tel. 787-721-7929 Email:Fernando.pages@tetratech.com

Re: Request for Proposals No. CDBG-DR-RFP-2020-06 Geoframe GIS Services

Dear Proposer,



On September 30, 2020, the Puerto Rico Department of Housing (PRDOH) issued the Request for Proposal No. CDBG-DR-RFP-2020-06 for GeoFrame GIS Services (the RFP or RFP-2020-06) under the Community Development Block Grant for Disaster Recovery (CDBG-DR) Program. The RFP was publicly advertised as: "The Puerto Rico Geospatial Framework Program" (GeoFrame Program), which involves the aggregation, integration, and actualization of all cadastral data (addresses, roads, parcels, structures, ownership, occupancy, landuse, etc.) in Puerto Rico using a centralized and regulated system. The RFP's objective consists of consolidating all existing island geo-spatial data and stakeholder needs within a singular standardized system - a centralized and open database - resilient to crisis scenarios, fiscal hardship, and enabling efficient and unobstructed collaboration and data access to municipalities, state agencies and public entities during and after local and whole-island emergencies. The GeoFrame Program seeks to create a comprehensive data system and database, online mapping portal and map analyses, and cohesive set of Spatial Data Infrastructure (SDI) database to support all aspects of Puerto Rico's ongoing recovery and resilience. As stated by the RFP, the PRDOH will select one or more firm(s) with Geographic Information System (GIS) data development, maintenance, management and utilization experience. The selected proposer(s) will be responsible for providing additional expertise and guiding any future program approach and perform all necessary data collection activities and geodatabase creation.

The following is a summary of the Bid Board Resolution, notified on September 1, 2021 to the CDBG-DR Program Procurement Division, which is appended hereto and made an

Barbosa Avenue #606, Building Juan C. Cordero Dávila, Río Piedras, PR 00918 I P.O. Box 21365 San Juan, PR 00928-1365 Tel: (787)274-2527 I <u>www.vivienda.pr.gov</u> integral part of this Notice of Award. In the event of any discrepancy between the Bid Board Resolution and this Notice of Award, the Bid Board Resolution shall prevail. (**Exhibit** 1)

On July 14, 2021, the Bid Board of the Puerto Rico Department of Housing (**Board**) with quorum duly constituted, pursuant to Article 2, Section 2.8 (1) of Regulation No. 6106 of February 25, 2000, known as the Regulation for Bids of the Department of Housing and its components (**Regulation 6106**), as amended, and Article II, Section 2.1 (e) of Regulation No. 9205 of September 3 2020, on the Procurement Manual and Contractual Requirements for CDBG-DR (**Regulation 9205**), upon evaluation of the recommendation issued by the CDBG-DR Program Procurement Division regarding the process for the GeoFrame Program under the RFP-2020-06 and the Evaluation Committee Report dated February 10, 2021, recommended to award the RFP-2020-06 to **Tetra Tech, Inc.** (**Tetra Tech**), a responsible firm whose technical approach, qualifications, and price are most advantageous to the PRDOH and the cost provided is reasonable for the services.



This award will result in the execution of a contract to **Tetra Tech** to provide services for **Stage 1** and **Stage 2**. Therefore, this award will result in the execution of a contract to provide services for **Stage 1** for a maximum amount of \$11,140,570, and **Stage 2** for a maximum amount of \$40,897,222, plus an allowance of \$200,000 to cover expenses for travel and representation outside Puerto Rico and \$100,000 for training stakeholders prior authorization from PRDOH. This, for a contract amount of \$52,337,792. The term of the contract shall be for three (3) years with the option of annual extensions up to two (2) years prior written agreement between the parties and subject to funds availability. As such, during the contract term and subject to funds availability, the PRDOH will amend the contract to authorize services for Stage 3 for a maximum amount of \$38,407,611. Pursuant to the terms of the RFP, **Tetra Tech** will be authorized to provide services for Stage 1 at the exdecution of the agreement. Stage 2 services will be authorized in writing by the PRDOH.



The three (3) stages will be separated in the following periods of performance: (i) Stage 1 with a performance period of twelve (12) months; (ii) Stage 2 with a performance period of twenty-four (24) months; and (iii) Stage 3 with a performance period of twenty-four (24) months.

The PRDOH received seven (7) proposals in response to RFP-2020-06:

- 1. Arcadis Caribe PSC (**Arcadis**)
- 2. ICF Incorporated LLC (ICF)
- 3. NGIS Australia PTY LTD (NGIS)
- 4. Tetra Tech, Inc. (Tetra Tech)

- 5. Innovative Emergency Management, Inc. (IEM)
- 6. The Tittle Security Group LLC (TSG)
- 7. TrackIt LLC (TrackIt)

The proposals were evaluated by an Evaluation Committee appointed by virtue of Administrative Order No. 20-47 dated December 2, 2020. The Evaluation Committee performed an evaluation of the proposals based on the criteria stated in the RFP-2020-06. The following criteria were considered as part of the evaluation:

- Mandatory Requirements (Pass/Fail) (Section 6.1 of the RFP)
- Qualifications (34 points) (Section 6.2. of the RFP)
- Work Approach (36 points) (Section 6.3. of the RFP)
- Oral Presentations (30 points) (Section 6.4 of the RFP)
- Preference of 5 points Section 3 Business Concern Submission/MWBE (5 points each) (Section 7 of the RFP)
- Cost Poposal Requirements (20 points) (Section 8 of the RFP)

The initial evaluation considered the Mandatory Requiremets of the proposals stated in Section 6.1 of the RFP-2020-06, including the Financial Requirements. Those proposers whose proposals met the Mandatory Requirements were evaluated by the Evaluation Committee for Qualifications, Work Approach and Oral Presentations. To be considered as "Qualified", the proposers needed to obtain a score greater than or equal to 70 points in the evaluation of their Qualifications, Work Approach and Oral Presentations. Thee proposers; IEM, Tetra Tech and ICF, were considered as "Qualified" for the services. A summary of the results of the evaluation of each proposal is shown in Table 1 below:

Table 1: Proposals Evaluation Summary

PROPOSER	MAN. REQ. PTS.	QUAL. REQ. PTS.	WORK APP.	ORAL PRESENTATION	SECT. 3/MWBE	OVER. TECH	QUALIFIED	OVERALL PROP COST	COST PROPOSAL POINTS	TOTAL POINTS
Arcadis	Pass	16.49	27.40	19.09	0	62.98	NO	N/A	N/A	NA
ICF	Pass	31.3	34.26	29.66	10	105.22	YES	\$39,997,446	20	125.22
IEM	Pass	25.43	32.77	22.73	5	85.93	YES	\$74,067,666	10.80	96.73
NGIS	Fail	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tefra Tech	Pass	27.10	34.41	29.66	10	101.17	YES	\$91,568,562	8.74	109.91
TSG	Pass	22.95	3.68	12.82	0	39.45	NO	N/A	N/A	N/A
Trackit	Fail	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

In order to obtain the revised Cost Proposal Points for a first round of negotiations, the Cost Proposal Points were revised according to the formula established in Section 9.3 of the RFP. **Table 2** includes the revised Cost Proposal Points and Total Proposal Points from Tetra Tech and IEM.





Table 2: Revised Cost Proposal Points and Total Proposal Points

PROPOSER	TOTAL TECHNICAL POINTS	REVISED COST PROPOSAL (BAFO MARCH 9, 2021)	REVISED COST PROP POINTS	TOTAL POINTS POINTS	
Tetra Tech	101.17	\$93,060,088	12.93	114.1	
IEM	85.93	\$60,142,792	20	105.93	

In order to obtain the revised Cost Proposal Points for second round of negotiations, the Cost Proposal Points were revised according to the formula established in Section 9.3 of the RFP. **Table 3** includes revised Cost Proposal Points and Total Proposal Points from Tetra Tech and IEM.

Table 3: Revised Cost Proposal Points and Total Proposal Points

PROPOSER	TOTAL TECHNICAL POINTS	REVISED COST PROPOSAL (BAFO MAY 28 2021)	REVISED COST PROP POINTS	TOTAL POINTS POINTS
Tetra Tech	101.17	\$90,445,403	13.30	114.47
IEM	85.93	\$60,142,792	20	105.93



Given the above, the Evaluation Committee's recommendation for negotiation, the BAFO's received, the Programmatic Area's recommendations, cost analysis, and pursuant to the terms and conditions of the RFP to award based on Best Value, the Procurement Division recommended that an award be issued to **Tetra Tech**. The Board agreed to award RFP-2020-06 to **Tetra Tech** under the terms established in the Board Resolution.

The list of proposers, which is attached hereto and made an integral part hereof as **Exhibit** II, details the names, addresses, and contact information of all proposers that submitted a proposal in response to RFP-2020-06.

Any person, party or entity that considers itself having been adversely affected by an award determination of the Board made under the provisions of the Regulation 9205, may file a petition for reconsideration with the Bid Review Board (Request for Reconsideration) within twenty (20) days from the date on which a copy of the Notice of Award was duly notified in accordance with Section 3.19 of Act 38-2017, Uniform Administrative Procedures Act of the Government of Puerto Rico. Simultaneously, with the filing of the Request for Reconsideration, said person, party or entity shall submit a copy of the Request for Resonsideration to all the parties in the process and to the PRDOH. Alternatively, a petition for review may be filed before the Court of Appeals of Puerto Rico.



The Bid Review Board shall consider the motion for reconsideration within thirty (30) calendar days from the date of filing thereof, which term the Review Board may extend

once for just cause for an additional period of fifteen (15) calendar days. If the Review Board issues a decision on the motion for reconsideration, the term to file a request for judicial review before the Court of Appeals will begin as of the date of deposit of a copy of the corresponding notice with the U.S. Postal Service. If the Review Board does not issue a decision on the motion for reconsideration within the term allowed by law, the motion will be deemed denied as of right, and the term to file a request for judicial review will begin to run as of the date thereof, as provided in Section 3.19 of Act 38-2017.

An original and two copies of the motion for reconsideration shall be filed to the Secretary of the Review Board, and a copy thereof shall be filed with the Board.

Any proposer that considers itself adversely affected by this Notice of Award or the determination of the Review Board on a request for reconsideration, may file a request for judicial review before the Court of Appeals within twenty (20) calendar days from the date of deposit of the corresponding notice with the U.S. Postal Service, or within twenty (20) days from the date of expiration of the term, hence deemed denied as of right, set forth in Section 4.2 of Act 38-2017.

The mere filing of a Request for Reconsideration or a Judicial Review will not have the effect of halting the contested award. This Notice of Award does not represent a contract or constitute a contractual relationship between the PRDOH and your firm.

Sincerely,

Melissa Almodóvar Suárez, Esq. Interim Procurement Division Director

CDBG-DR Program

Attachments

cc:

Mr. Ricardo Vázquez Morales, CPA, Chairman

Mr. Pedro J. Cintrán Vázquez, Esq.

Mr. Jose M. Urrutia Vélez, Esq.

Eng. Germán Acevedo Miranda, PE

Mrs. Nesherlee Soldevila Guzmán

Mrs. Adalgisa Polanco Reyes, Secretary

I hereby certify that this Notice of Award was delivered to all proposers listed in **Exhibit II**. Receipt Number: 7019 1640 0001 1241 9963



ATTACHMENT B

TAB B
QUALIFICATIONS (RFP 6.2)







QUALIFICATIONS (RFP SECTION 6.2)

TETRA TECH, INC.

Tetra Tech is pleased to present the Puerto Rico Department of Housing (PRDOH) (Vivienda) with a local, experienced, client-facing program management team with unique experience, past performance, and qualifications relevant to the provision of services required by the Geospatial Framework (GeoFrame) Program. Our team comprises seven proposed Key Team Members, five First-Tier subcontractors, and on- and off-Island support staff and global subject matter experts (SMEs) with direct experience in providing program management services on large-scale geospatial, data, and hazard mitigation programs. Our program management and organization approach utilizes our deep bench of staffing capacity, our suite of cutting-edge

Locality, Proximity, and Value-Added Capacity

Tetra Tech has 22 years' experience working in and supporting clients across Puerto Rico. With 117 staff across 7 offices on-island, and 20,000 staff across 450 offices globally, Tetra Tech offers Vivienda assurance that we have the intrinsic capacity and resources to respond to, meet, and exceed all GeoFrame Program goals and outcomes.



technology and machine learning capabilities, and a deep understanding of Puerto Rico and its stakeholders to deliver customized, sustainable, and resilient solutions to Vivienda.

1.0 Capacity to Provide Services

Tetra Tech's experts have direct experience in stakeholder engagement, technical standards creation, data collection, gap analyses, and data production, as well as hands-on experience in the field. Our proposed program management team has access to our full company's global support network as needs arise over the contract's lifecycle. Tetra Tech is a full-service consultant with a resource pool comprising 20,000

Strengths and Benefits of Tetra Tech's Team

Capacity: Tetra Tech offers PRDOH a versatile team of internal and external local expertise. In addition to on-Island support, Tetra Tech's full breadth of global resources and in-house staff from different disciplines are available to our proposed program management team. We provide PRDOH with the confidence that Tetra Tech can deliver all required personnel and skill sets to achieve program outcomes and maximize results.



Proposed Project Team: Our team of highly qualified personnel will combine local understanding, technical expertise, and resources with experience from highly relevant projects to meet or exceed objectives of this project by facilitating stakeholder buy-in and delivering high-quality outcomes. We will remain agile, flexible, and responsive to the PRDOH's needs while staying focused on execution and delivery.

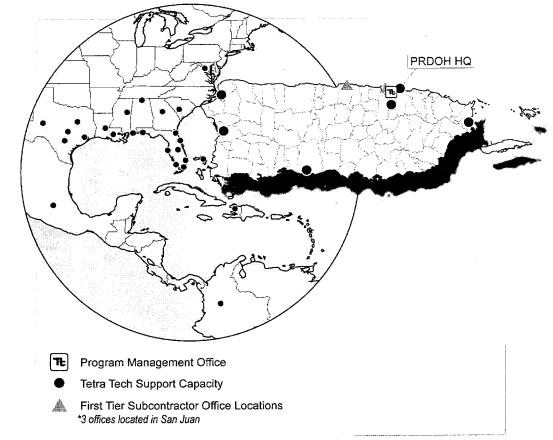




employees in 450 offices, including 7 offices in Puerto Rico. For this contract, in addition to the 117 Tetra Tech staff in Puerto Rico, Tetra Tech's full breadth of resources are available to our project management team to draw from a multitude of relevant disciplines when needed. Section 4.5 of this document and Tab E provide more detailed overviews of Tetra Tech's bench support.

Though Tetra Tech has offices across the United States, **Diagram 1** depicts only the resources immediately surrounding our team in Puerto Rico, as well as staffing capacity in relevant disciplines that both directly and indirectly benefit this contract. Our proposed personnel with expertise in data management and hazard mitigation are complemented not only by our large pool of on-call experienced technical staff, but also by our in-house geographic information systems (GIS), Geomatics, planning, mobile mapping, and surveying SMEs available for both remote and on-site support. This extended capacity means that we can offer Vivienda value-added benefits through in-house multi-disciplinary expertise and capabilities, versus other firms that need to rely on outsourcing these skill sets through subcontractors, thereby adding costs, time, and risk to quality and delivery.

Diagram 1. Tetra Tech Provides Local Expertise and Capacity to Provide Program Management Services







TETRA TECH



1.1 Experience

We have the in-house resources to successfully implement the GeoFrame Program, including a comprehensive, accessible, and sustainable Spatial Data Infrastructure (SDI). We will advance an effective, productive partnership with Vivienda, public and private stakeholder entities, and citizens to meet or exceed program objectives. We can deliver excellence by combining our intimate knowledge of Puerto Rico, stakeholders, and public communities; Tetra Tech's unparalleled GIS and IT technical capabilities for GIS design, data collection, and data production; and our full spectrum capabilities with land administration (cadaster and property registration systems), property rights, and land

Tetra Tech's Experience and Past
Performance Demonstrates our Ability
to Staff the GeoFrame Program with
Appropriate Resources

Seven Key Team Members

Support Staff with critical

15 relationships and
experience in Puerto Rico

1,200+ Global SMEs in relevant disciplines

use management. We offer highly qualified and experienced personnel who can collaboratively identify needs and deficiencies, recognize impacts and challenges introduced by natural disasters, and implement resilient and sustainable solutions. Tetra Tech provides leading and cutting-edge services to partners around the globe to implement these federally funded projects involving numerous public stakeholders. We refine our capabilities by applying lessons learned and a deep understanding of challenges common to large-scale geospatial programs, just as we also understand the aspects unique to Puerto Rico's ongoing recovery and resilience. Our proposed team offers unique collective experience with land use, planning, and stakeholder engagement in Puerto Rico and can reach back to our global experts in all aspects of the GeoFrame Program. Section 2.2 describes our experience in providing the program management services required in the Scope of Services, and Section 4.5 includes detailed experience of our proposed Key Team Members and support staff.

Our seven proposed Key Team Members have experience in Puerto Rico that connect with our experience in providing the capacity of skill sets required in global projects of similar scale. We developed our GeoFrame staffing plan to maximize the benefits of this experience. Tetra Tech will support our team of Key staff with 15 full-time personnel with critical relationships and experience on the Island. As an additional benefit, our proposed team has access to our full company's global resource pool of more than 1,200 SMEs in relevant disciplines. As such, Tetra Tech has reflected this benefit in our proposed project organizational structure with rapid access to qualified and experienced analysts, engineers, specialists, field data collection resources, an SDI team, other staff across Tetra Tech's geographic locations, and an





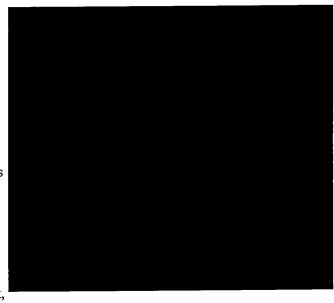




off-Island Program Management Office that reduces administrative burden on the project team in the field.

1.2 Past Performance

Just as Tetra Tech's experience demonstrates that we have previously managed and maintained capacity for programs of similar scope and scale, our Past Performance demonstrates that we've done so successfully. Our ability to deliver qualified personnel has proven effective when supporting the PRDOH as prime contractor on the current Hurricane Maria Housing Recovery Program Management program, where our proactive management and staffing approach enable Tetra Tech to mobilize and train 17 inspection teams in less than a week,





technology to streamline processes in a manner scalable to address thousands of applicants. Tetra Tech has staffed complex land use programs on five continents with scale and complexity equal to or greater than the GeoFrame Program, using multi-lingual project managers and subject matter experts; GIS technicians and mapping specialists (including ESRI); database architects and administrators, cloud-based infrastructure engineers, and artificial intelligence/machine learning experts; land use, land rights, and land administration experts; stakeholder engagement liaisons with advanced skills in facilitation, mediation, workshops, and charrettes; communications strategists with data-driven approaches to outreach and citizen engagement; locally licensed planners and surveyor engineers; environmental scientists and geographers; and award-winning solutions used by personnel for data collection through aerial technology, mobile mapping, and hand-held technology for site visits. Tetra Tech has the internal capacity to drive innovation through communities of interest on a grand scale. Our consultants, scientists, and engineers have consistently used lessons learned from each other and applied them to active projects to solve complex challenges for their customers (Section 4.3). Tetra Tech's capacity also extends to technology partnerships, such as our 11-year partnership with ESRI that gives us easy access to GIS licensing, thought leadership, and expertise. Another example of this capacity is our corporate partnership with Microsoft and our Advanced Consulting Partner status with Amazon Web Services. These relationships have consistently placed us on the front lines of cloud-based innovation. We consistently put the latest applications of data science, analytics, and machine learning to work for our customers.





1.3 Record of Integrity

With this proposal, Tetra Tech has submitted all required forms that demonstrate a strong record of integrity and our lasting commitment to quality, transparency, and accountability. **Tab** C provides Tetra Tech's statement of integrity submitted with this proposal as a part of **Exhibit** C (Statement of Qualifications).

2.0 Company Profile

2.1 Brief History of the Firm

Established in 1966, Tetra
Tech is a high-end consulting
and engineering firm with
more than 450 offices
worldwide, including
established operations in
Puerto Rico since 1998. We
help our clients conceptualize
and execute innovative

WORKS IN
120
COUNTRIES
CONTINENTS
Publicly traded on NASDAQ as
TIEK
NASDAQ
CLOBAL SELECT

Diagram 2. Tetra Tech's Company Snapshot

solutions to their most difficult problems. From front-end science and planning to design, analysis, and operations, Tetra Tech's global service network provides experts with worldwide project experience. We deliver a high level of integrated services for the full project life cycle in five service areas: infrastructure,

Strengths and Benefits of Tetra Tech's Experience, Past Performance, and Qualifications

- Experience: Global experience in implementing geospatial solutions; facilitating participatory data collection; and improving policy to transform land administration, maximize participation, and establish sustainable mechanisms. Local relationships and understanding gained from 22 years in Puerto Rico, our Key Team Members, and local teaming partners. Understanding of the Action Plan, cadaster, and legal and regulatory framework.
- Past Performance: Successful delivery of similar programs at scale, encompassing all GeoFrame Program components and outcomes with transformative impact. A trusted partner and technical advisor to government agencies across Puerto Rico and around the world.
- Qualifications: Unrivaled technical and geospatial expertise backed by corporate integrity and commitment, local and regional presence, and a global pool of advisors and experts.







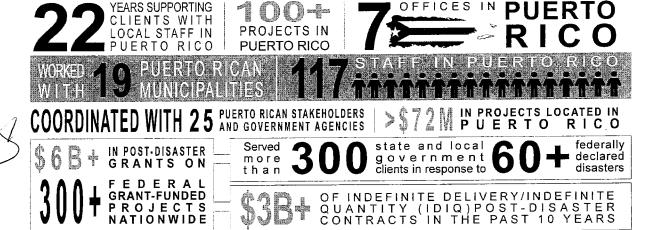
water, natural resources, the environment, and energy. **Diagram 2** demonstrates the operational scale and global reach of Tetra Tech.

Tetra Tech is an established firm with demonstrated stability and integrity, and resources to effectively manage and staff this program. Our in-house team is complemented by our qualified First-Tier subcontractors whose participation will increase execution effectiveness and contribute to minority business enterprise/women business enterprise (MBE/WBE) participation goals. Section 2.5 provides our selection rationale and demonstrated scope coverage.

2.2 Experience

Tetra Tech has the necessary experience at scale to perform all tasks for the GeoFrame Program and SDI implementation. **Diagram 3** illustrates relevant Tetra Tech company experience performing relevant tasks with similar quantities.

Diagram 3. Summary of Tetra Tech's Relevant Experience Highlights



2.2.1 Project Experience in Puerto Rico

critical respects. First, we have demonstrated ability to execute a large and complex program, to recognize and understand challenges unique to the local PR context, and to support Vivienda as a capable advisor. Second, we have the established relationships necessary for effective engagement across all stages and to lead development of collaborative, technical, and governance mechanisms for long-term sustainability. We understand the impacts of an incomplete, fractured cadaster such as inefficient workflows for citizen services, insufficient information for timely response, and inability to make data-driven decisions. Tetra Tech's experience includes supporting PRDOH as prime contractor on the current Hurricane Maria Housing Recovery Program Management project, on which we provide Community Development Block

Tetra Tech's successful work experience in Puerto Rico will benefit the GeoFrame program in two



Page 6



Grant Disaster Recovery (CDBG-DR) fund management, housing reconstruction repair and relocation, eligibility assessments, initial damage assessments, and Tier 2 environmental reviews. Our proprietary hand-held data collection system has been validated by the U.S. Army Corps of Engineers for emergency response and disaster recovery (and we use this same system in support of FEMA Public Assistance recovery work for COR^3). We recognize

Benefits of Tetra Tech's Experience Providing Program Management Services

Tetra Tech has been providing program management services for 54 years. Tetra Tech's proven experience in providing program management services for the successful delivery of more than \$6B in CDBG-DR funds enables our team to help Vivienda achieve programmatic goals.

Vivienda is best served by our proactive approach to project management issues. This system is based on years of CDBG-DR experience that focuses on up-front planning, constant evaluation of the project's productivity and accuracy, and course correction before significant impact on project success.

In addition to direct history with Vivienda, Tetra Tech has been supporting agencies and entities in Puerto Rico with local staff for 22 years. We have worked for 19 municipalities and 25 stakeholders and other government agencies as end clients, including the Puerto Rico Department of Natural and Environmental Resources (DNER) and Puerto Rico Electric Power Authority (PREPA). Our team has collectively worked with all major stakeholders in some capacity over this time. This experience is reflected in our proposed Key Team Members and support staff, who will have direct access to other project teams and their leadership to augment their understanding of each stakeholder entity. Tetra Tech will apply best practices from our experience on more than 100 projects in Puerto Rico to facilitate successful delivery through the entire program lifecycle.

2.2.2. GIS Experience on Global Projects

In addition to our team's historical and current knowledge of stakeholders, cadastral data, and land use in Puerto Rico, Tetra Tech brings lessons learned and challenges resolved from global GIS projects of similar scope, scale, and complexity. **Chart 1** lists some examples of this highly relevant experience.

Chart 1. Tetra Tech's Highly Relevant GIS and Stakeholder Experience on Projects at a Global Scale

	Project		Relevance to GeoFrame
	USAID Colombia	0	\$76.3M multi-dimensional land use / land tenure program
Land and Rural o			Developed Land Node geodatabase and platform with a similar approach
	Development	1	as contemplated for GeoFrame – stakeholders building consensus (led by
Program (LRDP)			Tetra Tech), connecting cadastral databases of more than a dozen
			institutions with 49 different types of data, digitizing 5.4 million land files,
		1	







		updating the database with new parcel maps and attributes, and deploying
		it to support diverse end users and LRDP program goals
	0	Benefit: Strengthened local and national capacity and governance; laid
		groundwork for clarifying land rights and lowering transaction costs
USAID Guatemela	0	\$46.4M land use program for municipal strengthening, service delivery
Urban Municipal		improvement, and citizen engagement
Governance (UMG)	0	Supported cadaster and land registry by creating and improving a GIS
		system for data-driven decision-making and increased transparency; led
		stakeholder workshops to leverage information to improve tax registration
		and collection and identify paths to sharing taxpayer data with each other
	0	Benefit: Helped municipalities increase revenue generation, equip non-
		technical staff on GIS and land use processes, and improve citizen services
United States Coast	0	Advanced mapping and data collection program for asset management and
Guard (USCG)		a web-based GIS platform to use, visualize, and maintain ICAM data
Inventory, Condition	0	Stepped process to map utilities, convert existing drawings to GIS, and
Assessment, and		augment with field collection data using ESRI Collector and Survey 123
Mapping (ICAM)	0	Benefit: Single data source achieved long term goal (web-based
		geodatabase) and increased speed, efficiency, and accuracy of recurring
		field collection
Federal Emergency	0	Designed, implemented, and configured high availability cloud infrastructure
Management		and platform operations for Office of Response and Recovery. Tetra Tech
Agency (FEMA)		migrated legacy data and added new applications and services
Geospatial Cloud	0	50+ terrabytes (TB) of data, 1000+ GIS servers, four types of databases,
		and 20+ applications using .NET, Python, JavaScript, and Java
	0	Benefit: Infrastructure designed to scale over time but also for surges in
		users during active emergency or disaster events. The public no longer
		experienced outages or delays when looking for real-time access to citizen
		services
Federal Geographic	0	Cloud usage, migration, and exploration program sponsored by the FGDC
Data Committee		and managed through the U.S. Geological Survey (USGS).
(FGDC) GeoCloud	0	Provided cloud-based infrastructure, engineering support, and knowledge
		management for 36 projects representing 16 agencies
	0	Benefit: Shared infrastructure operated as a managed service allowed
		agencies to focus on processes, workflows, and applications to better serve

their end users instead of making complex technology investments





	Environmental	0	Development, public release, and maintenance of the web-based
	Protection Agency		EnviroAtlas with mapping widgets and cadastral data (since 2012)
	(EPA) EnviroAtlas	0	Developed interactive tools to visualize and interpret complex geospatial
			data on the fly within the interactive browser
		0	Benefit: Like the planned Geoportal, EnviroAtlas is a central, continuously
			refreshed database where users can interact with geospatial data
-	USAID Albania	0	\$17.6M land use planning and sustainable service delivery in an urban
	Planning and Local		context, with an emphasis in stakeholder outreach and equipping national
	Governance Project		and local governments to build and improve service capacity
	(PLGP)	0	Developed formal partnerships with municipalities and at the national level,
			performed analysis, drafted, and successfully advocated for policy reforms
		0	Benefit: Municipal partnerships for revenue collection and local
			administration led to first-time property registrations, tax registers with
			parcel attributes, and a 150% increase in own-source revenue between
			2015 and 2018.
-	USAID Haiti LOKAL	0	Series of projects to improve public services for local governments by
	and LOKAL+		improving land administration, governance, and revenue collection
- /	1	0	Tetra Tech used GIS technologies to document businesses (for licensing)
\angle			and built properties (for the property tax register)
\nearrow)	0	Benefit: Introducing GIS and systematic data collection expanded tax rolls
			and led to a 20% overall increase in revenues, while providing
			municipalities with improved information for data-driven decisions
-	Air National Guard	0	Surveying, land title evaluation, and GIS installation boundary updates for a
	(ANG) Base Grading		nationwide geodatabase of 74 ANG locations in 46 states
	System	0	Tetra Tech developed a GIS application using ESRI's Widget tools to show
			real time status and key information for each installation.
		0	Data was displayed through a "Base Grading System" that assigned a letter
			grade (A, B, C, or D) for each installation
11		0	Benefit: Letter grades made it easy to visualize and make data-driven
VYII			decisions for ANG's action plan to correct deficiencies across all sites This
1/2			data was displayed through a "Base Grading System" that assigned a letter
V			grade (A, B, C, or D) for each installation to drive data-driven decisions for
			the ANG's action plan to correct deficiencies across their installations.
	National Oceanic	0	18 task orders as prime contractor for GIS services and analytics



and Atmospheric



Administration	0	Tetra Tech has collected airborne LiDAR, aerial imagery, hyperspectral
(NOAA) Coastal		imagery, mobile mapping, and survey data for shorelines and sea levels
Geospatial Services	0	Benefit: Maintain NOAA Sea Level Rise Viewer for end users to interact
		with data; developed goespatial management tools for planning and
		mapping.
City of Houston Data	0	Data management and reporting solution with a comprehensive suite of real
Management and		time data visualization and analysis tools
Analytics	0	Tetra Tech designed and implemented this solution in response to
Framework		Hurricane Harvey emergency response efforts
	0	Benefit: Demonstrates capabilities in visualization (relevant to GeoPortal);
		for this project, Tetra Tech received the City of Houston Goods and
		Services Prime Contractor of the Year Award in February of 2019.
Ghana Local	0	LOGODEP was a national project that included a presidential directive for
Governance and		street naming and house numbering project that used GIS to develop
Decentralization		maps, collect and georeference data, and establish a geodatabase
Program	0	Tetra Tech developed the overall communications and outreach strategy
(LOGODEP)	0	Benefit: GIS portion of project led to increased revenue and enhanced
		services such as emergency response; citizen outreach exceeded
		expectations with public participation in local governance."
, 4 G-PML3 * R.F. INT. STOP LATER REPORT (ARTHUR PROPERTY AND THE PROPERTY	January Contract	The second control of the control of

Our subcontractor company profiles (Tab C) further demonstrate the breadth of relevant experience with GIS and land use projects.

2.2.3. Experience of our Proposed Personnel

Section 4.5 and Tab E present relevant qualifications and experience of our proposed Key Team Members and organization rationale.

2.3 Past Performance

Tetra Tech's selected Comparable Projects (**Tab F** for **Exhibit B** per RFP 6.2.2, and **Section 3.0** of this document) and Client References (**Tab H** for **Exhibit L** per RFP 6.2.4, and **Section 5.0** of this document) provide formal, readily verifiable assurance of our ability to perform all aspects of the GeoFrame Scope



of Services. Our Comparable Projects tie our Project Director and two of our first-tier subcontractors directly to GIS projects in Puerto Rico. The outcomes achieved align to the GeoFrame Program in areas of stakeholder outreach, planning, process reengineering and workflows, geodatabase design and development, tools and training, data management, web-based portals, and operations and sustainment. Our Client References also align to GeoFrame outcomes, but with two added elements: 1) Program





management at a scale comparable to (even exceeding) the GeoFrame Program for highly successful land use programs. 2) Program Management for Vivienda on a CDBG-DR-funded project for Hurricane Maria recovery. This emphasizes that Tetra Tech not only has local performance history in the context of disaster recovery and resiliency, but also has delivered complex, transformative land administration programs that blend technology, land rights, and geospatial data through stakeholder engagement, outreach, and full life-cycle program management.

2.4 Qualifications

Tetra Tech's personnel have the expertise and qualifications required to meet and exceed the objectives of this contract. As previously demonstrated in **Section 1.0**, Tetra Tech maintains

Benefits of Tetra Tech's Highly Qualified Key Team Members and Subcontractors

- As providers and users of geospatial data,
 Tetra Tech's team will apply best practices
 to the GeoFrame Program gained from
 extensive experience across all service
 areas of required work. We provide end-toend services, from initial project planning
 through final deliverables and data
 analysis, to exceed Vivienda expectations
 throughout the period of performance.
- Tetra Tech has matched our Key Team Members and Subcontractors to proposed roles for which they are uniquely qualified. They have dedicated their careers to Puerto Rico and are invested in its ongoing recovery and resilience.

the staffing and operational capacity to support a large-scale effort such as the GeoFrame Program. Section 4.5 provides our staffing overview to provide assurance we will deliver a trusted team for this important contract. Tetra Tech's proposed team builds on collective experience to continuously improve processes, develop innovative technologies, and attract and retain highly qualified staff. Our staff offer an unparalleled depth and breadth of relevant experience across all scope areas of the GeoFrame Program. They will leverage experience gained through managing complex geospatial contracts to provide fast, responsive, efficient,

and effective program delivery that maximizes federal funding. Tetra Tech prioritizes productivity and efficiency by applying our well-defined processes for planning staffing requirements, using effective corporate tools for mobilizing qualified staff, and managing staff to efficiently perform program requirements specific to the recovery and mitigation needs of our clients. For the GeoFrame Program, our processes will inform our tailored management approach and development of effective and efficient solutions of each Component and Task. Section 4.0 provides information on Tetra Tech's Reputation and Managerial, Organization, and Technical Capabilities.







2.5 Subcontractor Qualifications

Tetra Tech has assembled a team of five first-tier subcontractors to supplement our core strengths with highly specialized technical capabilities and to ensure full team coverage of the scope of services required under the GeoFrame Program. e3 Consulting, Inc. (e3 Consulting) is a Puerto Rico-based IT management consulting firm that will augment our services with strong technical capabilities and that is uniquely qualified in business processes for permitting agencies local to Puerto Rico. CSA Architects & Engineers, LLP (CSA), headquartered in Puerto Rico, brings strong GIS capabilities to expedite, standardize, and monitor processes in diverse scenarios, as well as a long and successful history working with Vivienda and its dependencies for more than 20 years, completing over 25 projects with a total contract award value of \$12.3M. Agrimensor Luis S Berrios Montes y Asociados (Agrim LSBM) is a partnership that has a long and successful 39-year history providing professional surveying services in Puerto Rico, including land surveying, topography, highway studies, hydrological studies, plot plans, land subdivision, surveying certifications, land developments, stake out, and construction survey. They provide unparalleled knowledge and understanding of surveying in Puerto Rico and are one of the few firms that have the capabilities to provide surveying consultation for all the disciplines involved in a typical surveying project. The Sanborn Map Company, Inc. (Sanborn) is an international, full-service geospatial company that brings extended and unique mapping, GIS, ortho, and light detection and ranging (LiDAR) bench strength capabilities in addition to 17 years of experience working on GIS projects in Puerto Rico. Finally, Strategic Minds International, LLC (Strategic Minds), is a women-owned strategic consulting firm dedicated to providing planning, marketing, communications, and telemarketing expertise to our team. Tetra Tech partnered with subcontractors with exceptional technical capabilities, locality, successful past performance with Vivienda, understanding of Puerto Rico and its stakeholders, and finally, a demonstrable working relationship with Tetra Tech and its employees. This teaming rationale and structure enables us to be agile, flexible, and responsive to Vivienda's needs while staying focused on our execution and delivery of program outcomes. As requested by RFP 6.2.1, Exhibit A-2, and Exhibit C, first-tier subcontractor company profiles are provided as attachments in Tab C. As reflected in Chart 2, our team's composition offers Vivienda full coverage of component- and task-based experience and expertise required for successful execution of the GeoFrame Program.







Chart 2. Tetra Tech's Team Members have Experience and Specialization Relevant to the Components and Tasks Required by the GeoFrame Program

Components and Tasks (Scope of Services)	Tetra Tech Team	Tetra Tech	e3 Consulting	Agrim LSBM	Sanborn	CSA	Strategic Minds
Component 1. Stakeholder Outreach			1		.!!	<u>:</u>	
Task 1.1: Perform Stakeholder/Partner analysis and		<u> </u>			_		áh.
conduct ongoing Stakeholder/Partner engagement		¥	•			•	
Task 1.2: Develop and perform Stakeholder/Partner			<u> </u>				A
training			-			•	
Task 1.3: Conduct ongoing citizen engagement	•	•					•
Component 2. Technical Standard Creation			J	1	1	1	ł
Task 2.1: Define PRDOH Geodatabase Components		- A					
and Standards		v					
Task 2.2: Define data collection, metadata and	1	_			A		
security standards		W			****		
Component 3. Data Collection	_i			.!			L
Task 3.1: Consolidate existing cadastral and		-60-			•	•	
geospatial data			_		•		
Component 4. Gap Analysis	<u> </u>	i <u>.</u>	1		<u> </u>		
Task 4.1: Identify spatial and quality gaps in existing	•	•	•	•	•	4	
datasets		•				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Task 4.2: Develop prioritized data production					4		
strategy for Interim Database and Final Cadaster				-	***		
Component 5. Data Production		i					
Task 5.1: Obtain written approval for data production		<u> </u>	•		a	•	
strategy							
Task 5.2: Produce all additional data necessary for			•		4	4	
Interim Database and Final Cadaster		-	•		489	***	
Task 5.3: Create GIS files for complete datasets	•	•			•	•	
Additional Activities for Outcomes/Deliverables	.:	E ⊒¥LX: YN 49Yes ONS	L	Armen na	ACTION ACTION ACTION	l	
Outreach/Media	•	•					•
Contraction and the Contraction of the Contraction	-		ļ	ļ.,	 		<u> </u>





GIS and Software Licenses

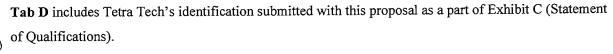


IT Infrastructure	♦	•	*			•	
GIS and Software Maintenance	•	•	AV VS				and the contraction of the second of the sec
Hazard Map	•	-		♦	•	♦	
Surveyor Process/Certified Engineering Parcel	•		GAVI ALLENS	*		•	
Surveys	. No contraction		··· ··································		11 ml - 11 ml	DESTRUCTION OF SERVICE	one employed and a second of the
Legend: ♦ = Experience ♦ = Specialization							

2.6 Integrity

With this proposal, Tetra Tech has submitted all required forms that demonstrate a strong record of integrity and our lasting commitment to quality, transparency, and accountability. **Tab D** provides Tetra Tech's statement of integrity submitted with this proposal as a part of Exhibit C (Statement of Qualifications).

2.7 Identification



2.8 Form of Business

Tab D provides Tetra Tech's form of business submitted with this proposal as a part of Exhibit C (Statement of Qualifications).

2.9 Organizational Chart

Tab E includes Tetra Tech's organizational chart rational submitted with this proposal as an attachment to Exhibit C (Statement of Qualifications).

2.10 Integrity

Tab D includes Tetra Tech's statement of integrity submitted with this proposal as a part of Exhibit C (Statement of Qualifications).

2.11 Ongoing Contracts/Projects

Though the information requested in the RFP 6.2.1 requirement titled "Ongoing Contracts/Projects" was to be submitted as part of Exhibit C (Statement of Qualifications), there was no designated section for a response on Exhibit C. As a result, Tetra Tech has included the required information in this document.

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Tetra Tech will perform this contract with a team that is primarily dedicated to this contract. With the exception of three US-based subject matter experts who are supporting the project part time (15%, 10%,





and 5%), our entire proposed team is committed to support GeoFrame at 100% for the five-year period of performance. For detailed breakdown of LOE and commitments, see **Tab E: Organizational Chart**.

We recognize that with any contract transition, the availability of highly qualified personnel who are in high demand on other contracts is a concern for the customer. To mitigate this concern, our office in San Juan has already coordinated availability for the Key Team Members who are current Tetra Tech employees. Two of the seven are contingent hires who have committed to the project and will join Tetra Tech immediately upon contract award. They have supported this proposal and committed to attend the Oral Presentation representing Tetra Tech. A third is committed to Tetra Tech and GeoFrame via fully executed subcontract. For the four current Tetra Tech employees, their transition status is listed below:

- Mr. Alexis Dragoni, Project Director: He is currently supporting three projects (BlueTide, Coastal Resiliency, Lobster Farm). For BlueTide, he is developing a decision support tool that will be completed by January. For Coastal Resiliency, he is supporting planning for Phase 2 of the contract and will be handing off to others. For the Lobster Farm project, we anticipate his tasks to be completed by February if not sooner.
- Ms. Marisol Rodriguez Rivera, Planning Manager: She joined Tetra Tech this month in order to support this proposal and be bid as a Key Team Member. She is currently supporting our recent Bluetide Strategic Implementation Plan contract award at 100%. The leadership team for that project is aware that she is very much "on loan" until the anticipated GeoFrame award and will leverage her stellar communications, planning, and leadership skills on short-term tasks.
- Ms. Renee Vandermause, GIS Specialist: She is currently supporting three projects (Margaret Creek Watershed, PREPA's Travelling Screen Installation, and PREPA's Air Emission Testing and Permitting). She is already transitioning out of the Emission Testing project and will transition out of the other two by time of GeoFrame award.
- Mr. Steve Ahrens, Geodatabase DBA: He is not currently supporting Puerto Rico projects. He is assigned to multiple U.S.-based GIS projects and will transition his tasks to other staff at award.

Should the award of GeoFrame be delayed for any reason, we have 47 current projects in Puerto Rico and additional geospatial projects in the Caribbean. We anticipate no difficulty in providing meaningful work for our proposed personnel. The complete project is provided below (**Chart 3**) with current status (Active) and projected end date.

Chart 3: List of Active Projects in Puerto Rico per RFP 6.2.1

Project Name	Status	Project End Date
RI/FS, CULEBRA WATER RANGES	ACTIVE	30-AUG-2020







DNER STORMWATER MGMT	ACTIVE	31-DEC-2020
ARRECIFE CONDADO EA_PERMITTING	ACTIVE	23-OCT-2020
PREPA BONUS AND TRAINING	ACTIVE	30-SEP-2019
PREPA AIR EMIS TEST.	ACTIVE	02-OCT-2020
2019 AGURRE AIR EMISSIONS TEST	ACTIVE	02-OCT-2020
AIR PERMITTING PALO SECO	ACTIVE	31-DEC-2020
MAYAGUEZ NATURAL GAS CONVERSIO	ACTIVE	31-DEC-2020
T+M MCALLISTER BID + REIMBURSE	ACTIVE	31-DEC-2020
SAN SEBASTIAN HMP UPDATE	ACTIVE	31-JUL-2018
CONDOMINIUM AZURE	ACTIVE	31-DEC-2020
RINCON ENVIRONMENTAL COMPLIANC	ACTIVE	30-DEC-2019
MARBELLA SHORELINE STABILIZAT	ACTIVE	31-DEC-2020
TRAVELING SCREEN INSTALLTION	ACTIVE	31-DEC-2020
PEAKING COMBUSTION TURBINE REP	ACTIVE	02-OCT-2020
PASEO LINEAL	ACTIVE	31-DEC-2020
PREPA CCTV	ACTIVE	30-DEC-2020
BLUETIDE STRATEGIC IMPLEMENTAT	ACTIVE	31-MAY-2021
NGB NEPA SUPPORT FOR EAS AND E	ACTIVE	30-JAN-2021
PR DRILL QC GUANAJIBO NIGUA	ACTIVE	06-NOV-2020
USVI GEOTECH DRILLING	ACTIVE	15-DEC-2020
RINCON MARINA ENVCOM	ACTIVE	04-SEP-2020
PRWRERI P2 EPA GRANT CONTINU	ACTIVE	30-NOV-2020
HUMACAO MS4 MAPS PHASE II	ACTIVE	04-SEP-2020
MAYAGUEZ PSD AIR PERMITTING	ACTIVE	30-OCT-2020
PALO SECO TRAVELING SCREEN	ACTIVE	31-DEC-2020
SAN JUAN TRAVEL SCREEN FP	ACTIVE	31-DEC-2020
AGUADA ENVIRONMENTAL AND MS4	ACTIVE	25-SEP-2020
PIER 15 BULKHEAD DESIGN	ACTIVE	31-DEC-2020
HORNED DORSET SITE ASSESSMENT	ACTIVE	30-MAR-2020
GUAJATACA DAM PHASE 1	ACTIVE	31-DEC-2020
PR 250 ENSENADA HONDA	ACTIVE	31-MAR-2021
CIENFUEGOS PWTP TECHNICAL GUID	ACTIVE	30-OCT-2020
ICF PR 2020 PROJECT YEAR 3	ACTIVE	30-JUN-2021
SFE SPINY LOBSTER FARM	ACTIVE	31-DEC-2021
SFE SPINY LOBSTER FARM PM	ACTIVE	31-DEC-2021
NFE OTHER AS-NEEDED CONSULTING	ACTIVE	30-JUL-2021









GSA HATO REY SITE INSPECTIONS	ACTIVE	30-SEP-2020
PHASE 1 PRE APPROVED HMGP 404	ACTIVE	30-SEP-2020
PHASE II 2 BRIDGES HMGP 404	ACTIVE	31-DEC-2020
TRUJILLO ALTO PROJECT FORMULAT	ACTIVE	31-DEC-2020
MOCA MS4 2020/2021 FIRST HALF	ACTIVE	31-DEC-2020
2020 RATA REPORTING AT SJPP	ACTIVE	31-DEC-2020
2020 AIR EMISSIONS TESTING REP	ACTIVE	30-JUN-2021
HMGP 404 BOAT RAMP/QUEBRADA GR	ACTIVE	31-DEC-2020
RINCON BOAT RAMP ENVIRO SUPPOR	ACTIVE	31-DEC-2020

3.0 Comparable Projects



Exhibit B provides three project descriptions that illustrate our exemplary record of success in completing projects relevant to the GeoFrame Program. We have selected projects that demonstrate our team's successful history working together to provide services similar in scope to the GeoFrame Program:

- ▶ Project 1: Puerto Rico DNER, Coastal Resiliency. Alexis Dragoni, proposed Project Director on the GeoFrame Program, acted as the GIS Analyst and Biogeographer on this project to support the DNER in Land Use, Stakeholder Engagement and Outreach, Hazard Mapping, and identification of solutions for the long-term resiliency of the Coastal Zone.
- ▶ Project 2: Puerto Rico Department of Economic Development and Commerce (DEDC), Single Business Portal (SBP). Tetra Tech's First-Tier Subcontractor, e3 Consulting, Inc., partnered with DDEC and supplied a team of 19 consultants to develop the SBP as a unified platform that assisted private sector users and government personnel in applying, adjudicating, monitoring, and managing economic incentives, permits, and licenses under Act 141.
- Project 3: Puerto Rico Aqueduct and Sewer Authority (PRASA), Potable Water & Sewer GIS System.

 Tetra Tech's First-Tier Subcontractor, CSA Architects & Engineers, LLP, acted as prime contractor to provide localization services for the PRASA's Supply Points (both active and inactive accounts).

Tab F includes Tetra Tech's comparable projects submitted with this proposal as a part of **Exhibit B** (List of Comparable Projects).





4.0 Reputation and Managerial, Organization, and Technical Capabilities

4.1 Reputation

Commitment to Small Business Utilization. Tetra Tech has a proven record and a well-defined process to mentor, guide, and train small business subcontractors who support the execution of our projects. This has been recognized through multiple awards from the U.S. federal government recognizing contractors that excel by using small businesses and that create maximum practicable opportunity for those small businesses. The Mandatory Requirements proposal demonstrates Tetra Tech's commitment to small business

Benefits of Tetra Tech's Program Management Approach

Tetra Tech's management approach integrates science, technology, and human factors. We can accomplish all required tasks while delivering cost savings, schedule savings, and solutions to achieve long-term goals.

participation on the GeoFrame Program. These subcontractors were selected because of their successful relationship with Tetra Tech, local understanding of Puerto Rico, demonstrated past performance, and high quality of work. Section 2.5 describes Tetra Tech's First-Tier subcontractor selection rationale.



4.2 Managerial Capabilities

Tetra Tech's offers Vivienda a program management methodology that features technological and human factor capabilities that will enable our proposed program management team to provide best-in-class services and solutions to achieve program goals.

Leading with Science. Tetra Tech combines high-end consulting and technology to address challenges while enhancing resiliency in local communities. Leading with Science focuses on our company's depth of expertise, breadth of innovation, and history of putting science at the forefront of our projects. For this GeoFrame Program, Leading with Science informs our use of Tetra Tech's suite of technologies, such as Tetra Tech Delta (described below), to provide effective solutions to Vivienda. Our team will leverage analytics, advanced technology, and deep subject matter expertise to support Vivienda's needs. Tetra Tech's technology solutions include:

- Machine learning implementation for infrastructure and environmental analysis
- AI tools for image classification and automation of feature recognition
- Cloud platform engineering, infrastructure implementation, and cybersecurity positioning
- Software development, low code, and custom web and mobile tools
- Analytics to optimize quality assurance and control for big data
- Cloud-based GIS infrastructure development
- ▶ Sensor data (IoT) integration, digital twins, and optimization





Tetra Tech Delta. Tetra Tech Delta, our collection of Delta technologies, delivers solutions that combine science and engineering expertise with advanced analytics and technology. Our interdisciplinary team will collaborate with the Vivienda to create customized, sustainable, and scalable solutions to address the Components and Tasks of

Diagram 4. Tetra Tech Delta



the GeoFrame Program. Tetra Tech's global team of geospatial specialists implement GIS technology across many sectors, including federal, state, municipal, international development, industrial, energy, and infrastructure. We provide full service solutions including data collection, data management, technology infrastructure and deployment, cybersecurity, analytics and GeoAI stakeholder engagement, and decision support tools. Tetra Tech is an ESRI business partner and uses the full ESRI suite, including desktop (ArcMAP and Pro), AGOL, Portal, AGS, mobile (Collector and Survey123), and Tetra Tech was also an early implementor of ArcGIS Indoors. We have deep expertise with OpenSource GIS tools, including GeoServer, Mapbox, VR engines, and development tools such as Leaflet - we have developed custom web portals and mobile applications with OpenSource technology for federal agencies such as FEMA and USAID. During project planning and delivery, our project managers and technical directors draw from the Tetra Tech Delta suite of technologies and approaches to deliver cost effective and sustainable project management solutions. We scale our technologies and approaches across our global operations to enhance delivery of the more than 70,000 projects we perform each year. Our Tetra Tech Technology Transfer program ensures Tetra Tech Delta information is available to employees worldwide, broadening the impact of each technology and approach for clients. For the Vivienda GeoFrame Program in Puerto Rico, our technological capabilities will enable Tetra Tech to achieve program goals and outcomes, meeting and exceeding expectations of accuracy, timeliness, and completion. The Tetra Tech Delta suite of technologies is available for the program management team to use for the GeoFrame Program.

Our adaptive project teams are passionate about problem solving and technological innovation. We use our design, engineering, technology, and program management expertise to gain an understanding of our clients' current challenges and work with them to anticipate their future needs. Then we employ an Agile development approach to transform understanding into successful iterations, continuously collaborating with our clients to increase value. Our trusted project managers guide the pragmatic deployment of Tetra Tech Delta technologies to create customized, sustainable, scalable solutions. We partner with our clients to support digital adoption in their organizations—from smart data collection and advanced analytics that support decision-making to automated processes and secure cloud solutions that modernize operations.

Chart 4 demonstrates the five specialty areas that the Delta suite of technologies draws upon, and the applicability to the GeoFrame Program.



TETRA TECH

Page 19



Chart 4. Tetra Tech Delta's 5 Specialty Areas are Relevant to the GeoFrame Program

Specialty	Solution Details	Applicability to GeoFrame Program
Tetra.Analytics	Al, machine learning, analytics, and	Primary: Data collection/integration, gap
	workflow and process optimization	analysis, data production/refinement
Tetra.Cloud.	Cloud computing, cybersecurity, and	Primary: IT Infrastructure, Geodatabase
	software development	design/development, Geoportal
Tetra.Design.	Smart buildings, sustainability, and	Secondary: Informs understanding of
	energy and asset management	"smart Island" citizen services workflows
Tetra.Maps	Data collection, geospatial analytics,	Primary: Data collection/integration, GIS,
	interactive dashboards, and virtual reality	maps portfolio/GeoPortal, visualizations
Tetra.Simulate.	Scenario analysis, modeling, forecasting,	Secondary: Informs innovative thinking
	risk, and impact analysis	for efficient and effective solutions

Data is the key to successful implementation of systems. We use our data science teams and domain experts to successfully design and implement data management and governance systems that are robust and extensible. We use on-site infrastructure where applicable, but our IT services division (~ 1,000 staff) are partners with AWS, Azure, and Google to implement third-party cloud solutions when appropriate. We helped the U.S. government design the Fedramp program (www.fedramp.gov) to enable robust cybersecurity on cloud platforms, and we deploy geospatial solutions on in-house infrastructure and cloud platforms.

Human Factor. Tetra Tech's exemplary past performance has not been due to technological capabilities alone. We understand the role and value of the human factor and relationships in programs of this caliber. Tetra Tech prioritizes

Ability to Achieve Outcomes on the GeoFrame Program

- Accuracy: Tetra Tech's consistently evaluates the project productivity, accuracy, and integrity that is often required by the data processing and reporting needs of our clients.
- Timeliness: Tetra Tech leverages specific technological solutions to increase efficiency of the data collection and management process across all tasks and teams.
- Completion: Tetra Tech's ability to not only achieve required tasks, but to provide
 Vivienda with lasting and sustainable solutions is demonstrated by our effort in the development of the Land Node digital platform. Much like the GeoFrame Program, it links the cadastral and land use databases of 12 different institutions in Colombia for data sharing, collaboration, and citizen services.

building relationships with our clients, stakeholders, and communities in which we live and work in order to achieve success on our programs. A robust and well-functioning SDI requires building trust among the various actors, achieving consensus, and ensuring the right people are involved and that the appropriate







data sources are available. An SDI is not simply information technology: it involves people, regulations and standards, clear processes, software, hardware, and high-quality data. Tetra Tech uses traditional outreach and an expansive array of digital tools to reach communities. For the GeoFrame Program, Tetra Tech recognizes that stakeholder consultation and engagement is invaluable in ensuring the complete data collection necessary for production of the multi-layered cadaster. Section 3.1 in the Work Approach (Tab I) submitted with this proposal provides more information on our engagement strategies.

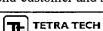
4.3 Organization Capabilities

Tetra Tech's management and organization capabilities ensure staff have the ability and capacity to perform all required tasks of the GeoFrame Program, including responsibilities for compliance, as noted in Addendum No.1 CDBG-DR-RFP-2020-06: Assigning staff who will attend to the day-to-day activities for Civil Rights compliance; Attending Trainings and Workshops; Using tools and templates provided by Vivienda; Executing Activities and Documentation needed; Participating in Vivienda-sponsored technical assistance; Completing Quarterly Reporting; and Complying with Reporting.

Management Framework. On a company-wide scale, our management, coordination, and administrative approach includes centralized management—principal-in-charge, contracts manager, health and safety officer, and quality manager—directing the decentralized execution of project assignments through regional and local project managers, technical staff, and a pre-screened pool of small business subcontractors. Execution is led by regional project managers, who manage projects directly and oversee local managers and subcontractors in daily project execution. Executing project work using regional, local, or subcontractor resources is determined by combining project requirements with the best value to the client.

Learning from Experience (LFE). A key benefit of Tetra Tech's proposed program management team and approach is the monitoring and control that will ensure that deliverables for the GeoFrame Program are tracking on time, on budget, compliant, and to high-quality standards. Our process of capturing, documenting, sharing, and applying LFE is integral to our management approach. Our program managers communicate closely with the program team and pay close attention to client and stakeholder feedback regarding what methods and technologies result in outstanding performance so that we continue to integrate them into our projects. Even more importantly, our program and project managers work with the client and technical team to identify, recommend, and implement solutions to project challenges. Solutions successful in enhancing quality, improving schedule, and reducing cost are adopted by the broader team so that performance and project outcomes continuously exceed expectations. At key milestones during the project lifecycle, our program and project managers elicit client feedback, including end-customer and stakeholder inputs; and document LFEs into a repository accessible by all program







personnel for ready reference and application on future projects. Our program and project managers regularly review LFEs prior to the start of a new project and integrate relevant LFEs, either real-time on an ongoing project, or applied and integrated from the start of a new project so that risks and challenges are mitigated from the start, and proven best practices and enhancements are applied from the beginning of the project. LFEs that have demonstrated a high impact on achieving and exceeding project outcomes are those relating to staffing plans, resource management (including subconsultants), project controls (scope, schedule, budget), and quality control. Our LFE best practices are modeled on our enterprise-wide quality program, both focused on achieving continuous improvement.

Financial Depth. Tetra Tech had a record fiscal year 2019 that resulted in annual revenue of \$3.12 billion. Tetra Tech's performance in 2019 was driven by broad-based growth across end markets and continued global expansion. We closed fiscal 2019 with backlog of \$3.1 billion, the highest in the history of the company. And most importantly, we have the resources and expertise to deliver high-end services in more places around than the world than ever before. As requested in RFP 6.1.3, Tetra Tech has submitted all required financial documentation with this proposal as attachments to **Exhibit A-1** in the Mandatory Requirements Proposal.



4.4 Technical Capabilities and Relevancy to the GeoFrame Program

Charrettes and Requirements Planning to Achieve Components 1 and 2. Tetra Tech's professionally-trained charrette facilitators use this tool in master planning, designing, addressing critical problems, and even reviewing data. We have conducted planning charrettes with FEMA, Army National Guard, Air National Guard, Air Force, and local municipalities and military installations in joint land use studies.







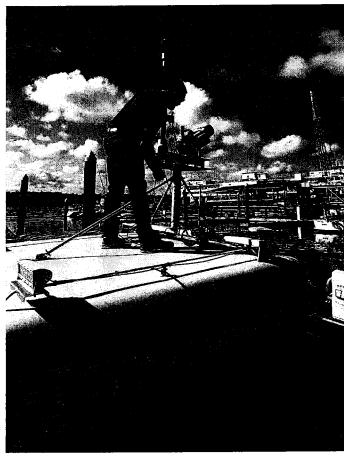


With the advent of highly accurate location referencing for LiDAR data, the LiDAR point data could be combined with the imagery to permit the accurate asset extraction remotely. These accurate datasets are extremely large and needed the development of machine learning algorithms to efficiently extract the location and classification of assets.

GIS Support, Data Collection, and Web Integration to Achieve Component 3. Tetra Tech maintains capability to collect, store, and share large amounts of geospatial data shared with multiple stakeholders.

Typical products include web service endpoint maps for specialized field data collection teams, web mapping applications for data browsing and verification, and web map dashboards to track progress of data collection tasks. Transparency of the data collection process has proven successful in identifying process pitfalls in a timely manner. Tetra Tech utilizes this approach to increase efficiency of the data collection and management process across all tasks and teams. As an added benefit, Tetra Tech's program management team will have access to Tetra Tech's own RecoveryTracTM, an electronic-based automated site inspection report system. Though it is designed specifically to address the operational challenges faced during a disaster recovery project, its relevant capabilities include: efficient data collection; GPS components that enable the

Diagram 5. Example of Tetra Tech's Collection Technologies









user to tie data to a parcel of land; the ability to electronically capture site inspection data and submit to a cloud-based storage system; and real-time field documentation and reporting. To date, RecoveryTracTM has seamlessly created detailed Site Inspections Forms, Photo Logs, and Damage Dimensions and Descriptions for over 25,000 damaged sites.

System Integration and Development to Achieve Components 1, 2, 3, 4, and 5. Tetra Tech's proven success in information technology stems from our broad engineering expertise and structured yet innovative approach to developing systems. Tetra Tech performs an extensive range of core information technology services, including software and systems development, systems integration, data management and database development, cyber security, and cloud services. We have also developed innovative artificial intelligence, GIS, and mobile application solutions.

4.5 Key Team Member Resumes

To demonstrate the capabilities of personnel, Tetra Tech selected seven Key Team Member resumes that align with the Position Descriptions in the Scope of Services. Although we have extensive capacity with talented GIS personnel worldwide, we did not merely search a resume database for matches based on technology keywords or years of experience. We started by assessing what kind of consultants would be capable of leading such an ambitious, transformational project for Puerto Rico. We quickly determined that while technical qualifications are important, the most essential factors are institutional knowledge and experience. We decided to build our team around GIS professionals who have dedicated their careers to Puerto Rico and who are personally invested in its ongoing recovery and resilience, with science and technology leading the way. We would then augment this team with selected resources and specialized skills that

Tetra Tech Selected Proposed Key Team Members and Support Staff Based on the Following Rationale

- Technical qualifications and experience
- Institutional knowledge and experience, globally and in Puerto
 Rico
- Dedication to Puerto Rico's recovery and resiliency
- ▶ In-depth understanding of the scope of services and the importance of collaboration
- Leading with science and technology
- Recognition, reputation, and network on-Island



have been essential to the success of global programs similar to the GeoFrame Program. These success factors include a comprehensive understanding of land use, effective stakeholder engagement centered around discovery and establishing long-term collaboration, and using technology to architect a sustainable, high-performing SDI with a modern user experience.





Our team begins with one of Tetra Tech's foremost geospatial experts, Mr. Alexis Dragoni, as Project Director. Mr. Dragoni has spent his entire 28-year career in geospatial field work, technical analysis, scientific and environmental applications of GIS technologies, refining protocols for land use and cadastral data, and developing geospatial products and systems for clients in Puerto Rico. Relevant highlights include migrating the Department of Natural and Environmental Resources (DNER) geodatabase from UNIX to Windows, maintaining DNER data collection protocols, and more than 12 years gathering data and managing geodatabases for coastal resiliency and coastal zone management. The passion and thought leadership are reflected in the recent (and ongoing) Coastal Resiliency effort that we have presented as a Comparable Project (Section 3.0 and Tab F). With his technical expertise, project management experience, stakeholder relationships, understanding of the Action Plan, and personal commitment to Puerto Rico's resiliency and recovery, Mr. Dragoni will be an instant enabler for the GeoFrame Program's success.



With a strong leader in place, we focused next on two roles where relationships and hands-on experience in Puerto Rico would have the greatest impact. For the Planning Manager, we went outside of Tetra Tech and hired Ms. Marisol Rodríguez Rivera, GISP, who has spent her entire 20-year career as a strategic planner, geographer, and GIS consultant in Puerto Rico. We prioritized this hire not only because she is a Licensed Professional Planner (PLL) in Puerto Rico, but because she is a recognized expert on the Island with an extensive professional network. Her relationships, her experience as a Puerto Rico Planning Board (PRPB) Director, and her hands-on GIS skills will make her a key contributor in stakeholder workshops and for developing the SDI Strategic Plan. For the estimated 78,000 unregistered and informal structures, we again looked outside Tetra Tech and partnered with one of Puerto Rico's foremost surveyors and engineers, Mr. Luis Berríos-Montes, PLS, as Surveyor Manager. He is not only one of the best in the field, but an established expert in survey and land use protocols, data standards

Strengths and Benefits of Tetra Tech's Proposed Team

- Qualified In-House Staff: Our dedicated and integrated in-house team has experience in delivering efficient solutions to Puerto Rico stakeholders and achieving client objectives.
- Relationship and Successful Working History with First Tier Subcontractors: Our selection of local first-tier subcontractors with proven histories of supporting Tetra Tech or project team personnel provides assurance we will effectively manage subcontractor activities to ensure the timely completion of tasks. In addition to managing our own subcontractors, Tetra Tech will continue to successfully work in concert with all other Puerto Rico stakeholders through consistent and transparent coordination, communication, and courtesy.







compliance, and legal/regulatory standards. His skills and professional relationships (e.g. serving on the CIAPR Board of Directors) add value across all Components.

For the SDI itself, we selected three GIS technicians and information technologists with the hands-on GIS experience and IT skills to collect, refine, and integrate data; design and develop a high-performing geodatabase; and craft the presentation of maps and cadastral data through the GeoPortal. Our GIS Technical Lead, Ms. Alicia Tyson, is a Ph.D candidate with ten years of experience in project management, geospatial data management, and GPS field collection. She has strong personal and professional ties to Puerto Rico and is returning to the Island for GeoFrame to participate in its recovery and building resilience for the future. Our GIS Specialist, Ms. Renee Vandermause, EIT, is based in Puerto Rico. She has eight years of experience working on geospatial and disaster recovery projects across the Island, achieving bilingual fluency. She is especially skilled in integrating GIS techniques with physical and numerical modeling. For our GIS Database Administrator, we selected Mr. Steve Ahrens. He has 22 years of experience, including 10 years as a professional Personal Computer (PC) system architect, providing a solid foundation for the computer-centric GIS and computer-aided design and drafting (CADD) pursuits through extensive knowledge of PC systems, popular operating systems, applications and peripherals. Mr. Ahrens brings a highly relevant subject matter expertise in GIS, CADD. SQL, Large Dataset QA/QC, Workflow Engineering to the GeoFrame Program.

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To complete our Key Team Members team, we identified *Mr. Gabriel Arancibia*, our proposed *Deputy Project Manager*, who is a *multi-lingual technical project manager and Survey Engineer with 29 years of international experience in land administration, land use, and land information systems.* He has previous ties to Tetra Tech as a stakeholder and collaborator for a land administration project with USAID in Afghanistan and ties to Puerto Rico's current digital cadaster as Project Director converting parcel maps for the Municipal Revenues Collection Center (CRIM). His large-scale international experience is an ideal complement to the on-Island GIS experience of the other Key Team Members'.

Based on the critical need for stakeholder collaboration to integrate, modernize, and sustain the SDI and make GeoFrame successful, we did not consider our team complete with the seven Key Team Members alone. We determined that we needed to add two more proven leaders to our Stakeholder Engagement Team. We have already hired Mr. Ernesto Diaz and named him as our GeoFrame Stakeholder Liaison. This is the only full-time role that we have added to the organization chart included in the Scope of Services. Our approach emphasizes Stakeholder Engagement as the single most important factor for the GeoFrame Program's success, including sustainability, interoperability, and optimizing citizen services workflows. Our approach to Component 1 will draw heavily on Mr. Diaz's experience, success, and lessons learned as Executive Director for the Puerto Rico Climate Change Council (PRCCC). This







includes developing solutions for technical and administrative tasks that will interact with the SDI daily rather than applying a top-down approach to end user adoption. We also selected one of Tetra Tech's best program managers in Puerto Rico, *Ms. Christina Connor Cerezo, as Communications Manager, based on her Island relationships and her ability to tailor messaging for both stakeholders and citizen outreach.*She will contribute her advanced skills in facilitation and mediation to stakeholder charrettes. She will also advise and assist Mr. Dragoni and Mr. Arancibias with contractual matters, based on her relationships with Vivienda and experience managing CDBG-DR funded contracts. Mr. Dragoni and Mr. Arancibia will rely heavily on the experience and relationships of Mr. Diaz and Ms. Connor Cerezo and consider them part of Tetra Tech's GeoFrame Program leadership team.

Finally, when considering the scale and complexity of the GeoFrame Program, we decided to include several experts from Tetra Tech's Global Support Network in targeted, part-time advisory roles. These individuals will be available to Mr. Dragoni and the delivery team for reach-back support, recommendations, and reviews, and will also have a limited number of hours budgeted to travel to Puerto Rico and support major project milestones:

- Ms. Ellen Yount (Communications SME) is a dynamic and seasoned international development and communications expert with extensive experience in designing and implementing global communications and strategic planning and messaging campaigns. For more than a decade, she served as a Senior Advisor to USAID, launching the Agency's approach to communications with foreign audiences and building capacity with more than 750 staff worldwide. She will contribute to the GeoFrame Program's operational effectiveness when engaging the stakeholders of Puerto Rico.
- Mr. Ian Rose (Land Use SME) is a senior land tenure and property rights expert with 20 years of experience in implementing land sector legal reform, policy analysis, land registration and administration, conflict dispute resolution, resettlement, institutional strengthening, and access to justice projects in Mozambique, Cabo Verde, Ethiopia, Zambia, Lebanon, Nicaragua, Ghana, Egypt, Colombia, Indonesia, and Guatemala. On the GeoFrame Program, he will work with our local Legal Consultant and the Stakeholder Engagement team to guide the legal and regulatory framework analysis, assessing early stakeholder inputs against his international experience to provide additional context and lessons learned. His insights will likewise be reflected in the final analysis. Mr. Rose will also help facilitate charrettes and workshops based on his areas of expertise, and will be instrumental in drafting and reviewing the SDI Strategic Plan, memoranda of understanding (MOUs), and data sharing agreements.
- Dr. Jolyne Sanjak (Land Use SME) has more than 30 years of experience providing technical, research, and managerial services related to rural and urban land governance with specialized







expertise in land markets, land tenure, land policy, property registration, land administration systems, and impact evaluation. She has hands-on experience assessing needs; designing, implementing, and reviewing projects; and providing review and feedback on the design and implementation of land administration reforms and related software solutions (e.g., GLTN, Trimble, and Thomson Reuters). On the GeoFrame Program, she will provide senior program management insights and perspectives from large programs such as our USAID Colombia project reference with the Land Node geodatabase. She will contribute to charrettes and workshops for designing SDI components for interoperability and sustainability. She will also take a leading role in establishing our proposed Interagency Governance Board if that recommendation is accepted by the stakeholders.

5.0 References (RFP 6.2.4)

Tetra Tech's submitted list of Client References are included because their projects have scopes relevant to the GeoFrame Program; all large-scale projects involving GIS, cadaster, photogrammetry, GIS database creation and integration, within the past 10 years. The client references and projects listed below are brief snapshots of Tetra Tech's roles and responsibilities. For detailed descriptions on Client References as they relate to the GeoFrame Program and significant Tetra Tech accomplishments, see Exhibit L (Reference Information) submitted with this proposal in **Tab H.**

- Played a catalytic role in building the technical capacity of GOC institutions and in addressing issues facing women and other vulnerable populations. LRDP showcased Tetra Tech's ability to implement a multi-dimensional land tenure project in an environment complicated by post-conflict transitions, illicit crops, and a general lack of social mobility, capital, and interconnectedness. This program works closely with the GOC at the national, regional, and local levels to formalize land and property rights, improve the capacity of GOC institutions to restitute land to victims of the conflict, and improve local service delivery related to rural development.
- USAID; Guatemala Urban Municipal Governance (UMG). UMG seeks to reduce high levels of violence in municipalities most at risk of violent crime through enhanced municipal governance, increased coverage and quality of municipal services, and greater citizen participation and oversight in 17 communities. Tetra Tech is working with the Southern Municipalities Commonwealth to prepare specifications for the satellite images required to update property information that will improve tax collection system, increase municipal revenues, and result in a well-developed information system that assists cadaster land administration and management and aids in assessing community needs and effective service delivery. Other Tetra Tech responsibilities include improving







the Cadastral Information Registry in each municipality, supporting tax registration and collection, and leading community outreach.

- Recovery Program Management. Tetra Tech provides environmental reviews; assessment of the feasibility of proposed project(s); permitting and compliance documentation; evaluation of potential environmental impacts of proposed activities; environmental site assessments; inspections and risk assessments for asbestos, radon, and lead-based paint in accordance with federal and state regulatory standards; and completion of historical and archaeological surveys in support of the Island's efforts to recover from both Hurricanes Irma and María which, combined, caused an estimated \$60 billion in damage and are eligible for federal assistance from the HUD CDBG-DR grant program.
- United States Coast Guard (USCG); Utility Inventory, Condition Assessment, and Mapping (ICAM). Tetra Tech provided technical engineering, GIS, and data collection support to develop and implement a new, enterprise-wide utility system ICAM initiative to gain visibility of existing utility system assets through a comprehensive inventory and mapping effort; assess the condition of existing utility system components to estimate remaining useful life; develop repair and rehabilitation recommendations based on condition assessment results; develop a repeatable Plant Replacement Value (PRV) model and update the PRV for each utility system; and provide a web-based GIS platform to visualize, utilize, and maintain ICAM data in the future.
 - Commonwealth of Puerto Rico, Commonwealth Office of Recovery, Reconstruction, and Resiliency (COR^3); FEMA Public Assistance Project Formulation and Grant Management. Tetra Tech was selected by the Commonwealth of Puerto Rico to provide grant management and project formulation services (as a subcontractor to ICF) to State Agencies, and Puerto Rico's 78 municipalities, in support of the Island's effort to recover from Hurricanes Irma and María that caused an estimated \$60 Billion in damages. Tetra Tech's proprietary RecoveryTracTM system is a vital key component to the success of the program and does so by streamlining the process of data collection at site visits and eliminating data entry delays while maintaining a high degree of accuracy. Tetra Tech's scalable, fully featured disaster management application enables rapid, accurate, completion of Damaged Description and Dimensions (DDD) forms and decreases the time it takes to move projects from the site-visit phase to an approved DDD in accordance with FEMA's 428 Alternate Procedures as it is specifically designed to address the operational challenges faced during a disaster recovery project.





GOVERNMENT OF PUERTO RICO Department of Housing

ATTACHMENT C

ATTACHMENT 1 SCOPE OF SERVICES

Request for Proposals
GeoFrame GIS Services
Community Development Block Grant – Disaster Recovery
Puerto Rico Department of Housing
CDBG-DR-RFP-2020-06

This document defines the Scope of Services that a team of highly qualified Geographic Information System (GIS), Planning, remote sensing (orthophotography/LiDAR) and land survey professionals must perform in order to support the Puerto Rico Department of Housing (PRDOH) with the implementation of the Puerto Rico Geospatial Framework (GeoFrame) Program.

The GeoFrame Program responds to numerous data and hazard mitigation needs of Puerto Rico's citizenry, government, non-government organizations and businesses in the Disaster Impact Areas (DIA) of Hurricanes Irma and María. The objective consists of consolidating all existing Island geospatial data and stakeholder needs within a singular, standardized system—a centralized and open database—resilient to crisis scenarios, fiscal hardship, and enabling efficient and unobstructed collaboration and data access to municipalities, state agencies and public entities during and after local and whole-island emergencies. The Program seeks to create a comprehensive data system and database, online mapping portal and map analyses, and cohesive set of spatial data infrastructure tools to support all aspects of Puerto Rico's ongoing recovery and resilience.

The PRDOH reserves the right to select more than one qualified Proposer that accomplishes all requirements for this Request for Proposals (RFP). The scope of services presented in this document is based upon circumstances existing at the time the RFP is released. PRDOH reserves the right to modify or delete the tasks listed and, if appropriate, add additional tasks prior to and during the term of the contemplated contract. The Proposers, if contracted, will be directly responsible for ensuring the accuracy, timeliness, and completion of all tasks presented in this scope of services.

Since the selected Proposer(s) will support the PRDOH GeoFrame Program, they are required to access the GeoFrame Program website to familiarize with all available documentation for this program. A detailed description of the program can be obtained at https://www.cdbg-dr.pr.gov/en/municipal-recovery/.

Program Overview

The GeoFrame Program uses the term "planning" to describe a process by which local agencies, central government and municipalities collaborate to streamline necessary information, land-use administration and updated geo-spatial data to ensure the success of long-term rebuilding efforts, and guide policies pertaining to structures, property and land settlement patterns, while enhancing the safety of the island's residents.

The impacts of Hurricanes Irma and Maria in 2017 exposed and exacerbated vulnerabilities and gaps in data sets related to permitted and unpermitted structures, titles and deeds, parcels, physical addresses, roads, land use, vulnerable populations, evacuation routes, flood zones and other high-risk areas within Puerto Rico. Where data related to these topics does exist, it is generally housed across multiple governmental agencies and may be collected according to varied quality and accuracy standards. Additionally, at this point in time, there is no centralized GIS database for new information to be added to or to house existing information. Together, the



outcomes of the GeoFrame Program will support a comprehensive, cohesive Spatial Data Infrastructure (SDI) for Puerto Rico.

Spatial Data Infrastructure (SDI) is defined as the technology, policies, standards, human and administrative resources necessary to secure, discover, visualize, evaluate, and access geospatial data and adapt these resources to societal needs and Island interests. In Puerto Rico, the SDI includes geospatial databases, public and private entities who collect and use geospatial data, the hardware and software necessary to store and use geospatial data, data collection and sharing agreements between entities and citizens, policies that protect people and their land, and quality standards for the data itself. A complete SDI includes cadastral data and additional contextual geospatial data, as well as all the policies and procedures related to collection, dissemination and use of data.

In Puerto Rico, the SDI is historically fractured, with numerous government and non-governmental agencies without statewide data creation protocols or standards. Puerto Rico's existing cadaster is limited by inaccurate or inaccessible geospatial data. The GeoFrame Program will compile, collect and create data necessary to develop a complete, standardized GIS database and mapping portal. The database will include datasets related to structures, parcels, title issues, roads, physical addresses, land use and hazards in Puerto Rico, among others. This data and analysis will be made accessible to the Municipalities through a mapping portal to support emergency management and rescue services, identify properties without titles, ensure that structures are correctly permitted, planned, inspected, and insured, and allow for effective planning, land use and zoning controls to be utilized. The GeoFrame Program will then work with relevant entities to establish protocols and policies necessary for the ongoing upkeep and maintenance of the systems.

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The GeoFrame Program will support the development of a complete and fully accessible SDI – including agency partnerships, cutting edge software and subject matter experts, collaborative systems and protocols, and a complete cadaster with supporting, redundant geospatial data – to further the goal of a spatially enabled Puerto Rico.

GeoFrame Program Outcomes and Methods

The GeoFrame Program will result in five (5) primary outcomes:

Outcome A. Puerto Rico's Spatial Data Infrastructure Strategic Plan

Outcome B. GeoFrame Database 1.0 [INTERIM]

Outcome C. GeoFrame Database 2.0 [FINAL]

Outcome D. Web-based Geoportal

Outcome E. Spatial Data Infrastructure Management Tools



The GeoFrame Program Outcomes and Methods will be accomplished with subrecipient partnerships, data sharing agreements and the procured Geoframe GIS Services. It will be accomplished in phases and will develop iteratively, increasing the scale of operations and outputs as information is gathered and analyzed. This increases the opportunity for stakeholder

collaboration, builds administrative capacity and benefits the final scope of a spatial data infrastructure and thoughtful GIS product.

To accomplish GeoFrame Program deliverables, PRDOH is seeking a team of highly qualified GIS, Planning, remote sensing (orthophotography/LiDAR) and land survey professionals who have in depth experience with all emerging and established aspects of multiuse cadastral GIS data development, maintenance, management and utilization within or compatible with the ESRI Enterprise GIS platform. This platform is considered the standard GIS software for GIS power users as MS Office (Word, PowerPoint, Excel) is the standard office platform for word processing, presentations and spreadsheets. Currently, the federal agencies that support the recovery process of Puerto Rico, such as FEMA, USACE and USGS, as well as state agencies such as COR3, PRPB, DNER, PREPA, PRASA, PRHA, CRIM, use ESRI GIS products as their main geodatabase management system. To maintain compatibility, interoperability and efficient data exchanges between critically aligned state and federal agencies, PRDOH must acquire and manage data from the same ESRI system, thereby ensuring the success of its CDBG-DR program.

The Selected Proposer will be responsible for providing additional expertise and guiding any future program approach, legislative or policy-based requirements, and data collection standards, including consolidation of existing data, building databases, and analyzing results. The Selected Proposer will also perform all necessary data collection activities and geodatabase creation. PRDOH will ultimately identify a State Agency or Partner entity to inherit the responsibility of maintaining the standards and integrity of the proposed spatial data infrastructure and all routine upgrades.

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The Program is going to be divided into three (3) stages. Stage I consists on the developing of tasks 1.1 through 5.1 with a twelve (12) months duration. During Stage II will continue the developing of the Component 1 (Stakeholder Outreach) and tasks 5.2 and 5.3 with a twenty-four (24) months duration. At Stage 3, also the Stakeholder Outreach continues as well as Component 5 (Data Production) with a twenty-four (24) months duration.

The PRDOH aim to contract, at its discretion and in the best interest of the program implementation, one or more firm(s) for a term of three (3) years with the option of annual extensions up to two (2) years. The performance periods under this contract will be as follows: (i) Stage I, Period of Performance of 12 months, (ii) Stage II, Period of Performance of 24 months, and (iii) Stage III, Period of Performance of 24 months.

Funding for the services to be contracted will be available as per the funding allocation schedule followed by HUD in the First, Second and subsequent Grant Agreements. As such, Stage II and Stage III performance periods will be authorized as per funding schedule. Therefore, the Selected Contractor will be only authorized to commence works for Stage I.

GeoFrame Services Stages Resume Table

	Components and Tasks	Outcomes and Deliverables	Additional
			Activities
Stage	Component 1: Stakeholder	Outcome A: Puerto Rico's	 Outreach
1	Outreach	Spatial Data Infrastructure	 GIS Licenses
		Strategic Plan	



	Components and Tasks	Outcomes and Deliverables	Additional Activities
	 1.1 – Perform Stakeholder/Partner analysis and conduct ongoing Stakeholder/Partner engagement 1.3 – Conduct ongoing citizen engagement Component 2: Technical Standard Creation 2.1 – Define PRDOH Geodatabase Components and Standards 2.2 – Define data collection, metadata and security standards 2.2 – Define data collection 3.1 – Consolidate existing cadastral and geospatial data Component 4: Gap Analysis 4.1 – Identify spatial and quality gaps in existing datasets 4.2 – Develop prioritized data production strategy for interim and comprehensive Cadaster Component 5: Data Production 5.1 – Obtain written approval for data production strategy 	Deliverable 1: Comprehensive SDI Plan	• IT Infrastructure
Stage 2	Component 1: Stakeholder Outreach 1.1 – Perform Stakeholder/Partner analysis and conduct ongoing Stakeholder/Partner engagement 1.2 – Develop and perform Stakeholder/Partner training 1.3 – Conduct ongoing citizen engagement Component 5: Data Production	Outcome B: GeoFrame Database 1.0 [INTERIM] Deliverable 2: Interim GIS Database Outcome D: Begin Activities Web-based Geoportal Outcome E: Begin Activities Spatial Data Infrastructure Management Tools	 Outreach GIS Maintenance IT Infrastructure Mapping Technologies Hazard Maps Surveyor Process





Component 5: Data Production

	Components and Tasks	Outcomes and Deliverables	Additional Activities
Stage 3	5.2 – Produce all additional data necessary for Interim and Comprehensive Cadaster 5.3 – Create GIS files for complete datasets Component 1: Stakeholder Outreach 1.1 – Perform Stakeholder/Partner analysis and conduct ongoing Stakeholder/Partner engagement 1.2 – Develop and perform Stakeholder/Partner training 1.3 – Conduct ongoing citizen engagement Component 5: Data Production 5.1 – Obtain written approval for data production strategy 5.2 – Produce all additional data necessary for Interim and Comprehensive Cadaster 5.3 – Create GIS files for complete datasets	Outcome C: GeoFrame Database 2.0 [FINAL] • Deliverable 3: Comprehensive GIS Database/Cadaster Outcome D: Web-based Geoportal • Deliverable 4: Map Analysis and Portfolio • Deliverable 5: Web-based Geoportal Outcome E: Spatial Data Infrastructure Management Tools • Deliverable 6: Consolidate Standards for Geospatial Data and Database • Deliverable 7: Legal and Regulatory Analysis and Framework for SDI • Deliverable 8: Data Management Protocols	THE THE THE TOTAL CONTROL OF THE CON
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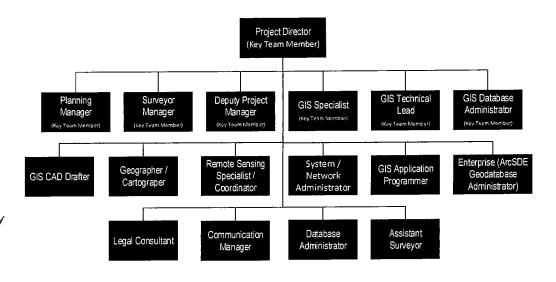
Training and Education





The Proposer must submit to the PRDOH an initial organizational chart detailing the identity of each person (whether employed or subcontracted by Proposer) who will perform GeoFrame GIS Services required in this RFP. The PRDOH have initially identified key positions that each vendor team must provide following the organizational structure of resources as presented in **Figure 1**.

Figure 1. GeoFrame GIS Services Organizational Structure





The Proposer's Key Team Members and Key Staff must be ready to begin working within two (2) weeks after the contemplated contract execution date. Only Key Team Members will be authorized to work. Key Staff will require a written authorization from the PRDOH before they can work. Any work performed without PRDOH's written authorization cannot be invoiced and will not be paid.

Initially, the Key Staff will meet with the PRDOH to coordinate work. Proposers shall have or will secure, at its own expense, all personnel required to perform the services under the GeoFrame GIS Services contract.



The Proposer shall demonstrate the ability to adequately staff and scale each functional area to supply adequate number of resources for the required service levels throughout the life of the GeoFrame Program. The following represents general descriptions of standard planning GeoFrame GIS Services for the staff to be utilized in the Proposal and, if awarded, the resulting contract:

Project Director Qty:

Roles and Responsibilities: Must provide overall management for all contracted work and GIS implementation tasks. Will serve as a liaison to PRDOH and outside agencies. Must lead public presentations and facilitate public meetings, including those with municipal boards and commissions, concerned and engaged stakeholder groups, and Puerto Rican agencies and organizations. Must interact with PRDOH staff to understand contract and program requirements in order to ensure that project deliverables meet quality standards.

Must maintain accurate communication with PRDOH and provide all required project documentation. Respond to PRDOH staff enquiries and concerns promptly and professionally. Must serve as the PRDOH's primary point of contact. Will oversee the project team and manage GIS services themselves providing on-time and on-budget deliverables. Will estimate and proactively manage GIS-related services requirements. Must supervise project team in application design, development, testing and deployment. Analyze GIS problems and provide immediate resolutions. Must lead, participate in and support problem resolution.

<u>Requirements</u>: Must have a bachelor's degree in engineering, planning, surveying, computer science, geography or a related field. Masters is Preferred. Must have at least ten (10) years of experience, four to six (4-6) years of related GIS experience and four to six (4-6) years' experience managing and supervising projects. Must be fluent in English and Spanish language.

Other Requirements: Must have in depth knowledge and experience with the development and management of cadastral datasets, orthophotography data management and applications of these products for local government and regional use and analyses. Must have experience with the development of enterprise geodatabases within the ESRI Enterprise platform and familiar with the collaborative solutions that ArcGIS Online and Portal products can provide.

Deputy Project Manager

Qty: 1

Roles and Responsibilities: Develop contract solutions to meet program needs. Work with PRDOH staff and project team to determine project scope, budget, schedule and deliverables. Oversee risk management and quality assurance activities. Supervise project team in application design, development, testing and deployment. Develop project work plans and determine resource requirements. Monitor and control project expenses within allotted budget. Plan, coordinate and oversee project activities to ensure on-time delivery of deadlines. Ensure that project deliverables meet quality standards and business requirements. Develop and enforce policies and GIS standards. Maintain accurate client communication and project documentations. Respond to customer enquiries and concerns promptly and professionally.

<u>Requirements</u>: Must have a bachelor's degree, in engineering, planning, surveying, computer science, geography or a related field. Masters is Preferred. Must have at least ten (10) years of experience, four to four to five (4-5) years of related GIS experience and four to five (4-5) years of experience managing or supervising projects. Must be fluent in English and Spanish languages.

Other Requirements: Must have in depth knowledge and experience with the development and management of cadastral datasets, orthophotography data management and applications of these products for local government and regional use and analyses.

Planning Manager

Qtv: 1

Roles and Responsibilities: Responsible of system and protocol development for database maintenance and updates, as well as coordination of program components related to relationship building and outreach to the agencies, municipalities, and citizens. Serve as the overseeing and/or lead planner and/or designer on a multitude of projects and must





deliver creative solutions to the Geoframe GIS team. Responsible for leading a team of professionals, depending on the complexity of the project. Projects range from areas of zoning, master planning, economic development, and placemaking, to special projects in planning, design, economic development, community development, and recovery and resilience. Must assign work, collaborate with, and communicate effectively and frequently with project collaborators, including Project Managers, GIS analysts or technicians, mapping specialists, and administrative staff. If necessary, assist in the delivery public presentations and facilitate public meetings, including those to municipal boards and commissions, concerned and engaged stakeholder groups, and Puerto Rican agencies and organizations. Understand the proper application of GIS related technologies.

<u>Requirements</u>: Must have a Master's degree in Planning. Must be a Licensed Professional Planner in Puerto Rico (PLL). Must have at least five (5) years of planning experience.

GIS Technical Lead

Qtv: 1

Roles and Responsibilities: Plan and coordinate GIS activities to meet outlined Program goals. Must provide the GIS services related to collecting, processing, editing, correcting, documenting and analyzing the cadastral data needed for this Program. Will be an integral member of the team in collecting GIS data related to the Program from various sources, consolidating that data, performing quality assurance checks and subsequently creating a data gap analysis. Develop quality control and assurance standards and methods. Will design digital maps and produce GIS based reports. Must conceive plans, cartographic maps and conduct research in problem areas of considerable scope and complexity. Responsible for identifying, implementing, and managing GIS data within the ESRI platform.

<u>Requirements:</u> Must have a degree in Computer Science, Geography, Surveying, Engineering or related field and/or a Diploma in Geographic Information Systems. Minimum of eight (8) years of experience. Proficiency within the ESRI ArcGIS platform (ArcGIS Desktop/Pro, ArcGIS Server, ArcGIS Portal/Online).

Other Requirements: Experience with the utilization of orthophotography within the context of parcel data development. Experience with mobile data collection processes, GPS, and survey data integration. Experience with web mapping, python scripting, remote sensing analysis and classification. Understanding of different types of geographic datasets and ability to perform data conversions. Thorough understanding of coordinate systems and projections.

GIS Specialist

Qty: 1

Roles and Responsibilities: Support the GIS Technical Lead in GIS duties related to the Program. Support in the design, creation and maintenance of ESRI geodatabases and maintain established quality control standards. Perform data capture, updates, and analysis within ArcGIS. Manage and document geodatabases and keep metadata updated. Perform aerial photography interpretation and capture GIS data from the raster datasets. Design and develop maps on an as needed basis for both hardcopy and website use. Will use various remote sensing data, including LiDAR products, to enhance maps, update elevations, and assign surface type classifications. Must be familiar with GPS data collection techniques, ESRI mobile solutions and have experience with incorporating survey data into a geodatabase. Will extract and develop data from a variety of sources





including engineering drawings, survey plats, tax records, and plat maps. Will georeferenced a variety of image types (aerial photos, scanned maps, etc.).

<u>Requirements:</u> Bachelor's degree in engineering, planning and development, science or GIS related field from four-year college or university; and two to three (2-3) years related GIS experience and/or training.

Other Requirements: A thorough and competent understanding of cadastral data creation and editing using the ESRI ArcGIS (ArcMap/ArcGIS Pro/Catalog/Toolbox, etc.) platform is necessary. Through knowledge of GIS spatial projections and datums is required (defining when necessary and projecting).

Surveyor Manager Qty:

Roles and Responsibilities: Coordinate and manage any field survey tasks and personnel. Establish field survey standards and specifications and perform the final quality assurance and quality control procedures on any survey data created for the Program. Perform necessary research and calculations for the resolution of boundaries and rights of ways. Preparation and review of right of way plans and legal descriptions for right of way acquisition. Preparation and review of topographic mapping. Perform calculations for field crews and mapping as needed. Analyze deeds and research materials to produce surveys. Additional responsibilities include; developing and monitoring project scope, quality control for survey projects from the proposal stage through final deliverables; providing oversight of survey activities to ensure assignments meet performance goals.

<u>Requirements:</u> Minimum of five (5) years of experience managing and supervising work of survey crews, or ten (10) years of land surveying experience. Understand how the survey data needs to be incorporated into the GIS geodatabase. Must be registered as a Land Surveyor (LS) Licensed Professional Surveyor and/or Mapper (PSM).

Other Requirements Have experience with Public Works projects, Site Development and ALTA surveys. Experience with MicroStation and GEOPAK, AutoDesk and AutoCad Map including Civil 3D, Autodesk Map 3D or equivalent surveying software.

GIS Database Administrator (DBA)

Qty: 1

Roles and Responsibilities: Responsible for the day to day spatial and tabular data maintenance within the ESRI Enterprise/SQL Server geodatabase. Will oversee the data model design, approve design changes, establish topology criteria, define relationship classes, domains, and subtypes within an ESRI Enterprise geodatabase. Will manage versions, spatial indices, and generation of statistics. Will tune the enterprise geodatabase to work with ESRI Web mapping applications. The DBA will work with end users (both GIS personnel and website users) to implement data standards and quality assurance standards by creating and updating the data dictionary and automated data validation processes. Will document methodologies used in the management of databases and reporting. Will work closely with the Enterprise (ArcSDE) Geodatabase Administrator to keep databases performing efficiently.

Requirements: Bachelor's degree in computer science, software engineering, geography, engineering, planning and development, science or GIS related field from four-year college or university; minimum of three (3) years' experience in ESRI ArcGIS Server, ArcGIS Enterprise/Portal, and ArcGIS Desktop/ArcGIS Pro applications; three (3) years full-time





experience managing ESRI Enterprise geodatabase using SQL Server; Enterprise experience including: registering and maintaining databases using ESRI and SQL Server (Oracle, MSSQL or other major related database management systems), working with spatial data types, managing feature classes, managing relationship classes, structuring queries and spatial views, spatial analysis methods and geoprocessing tools. Familiarity with SQL Server Management Studio.

Other Requirements: Experience with ArcGIS Online, Collector and Survey123 or Workforce is a plus. Familiarity with programming languages such as XML or .NET is a plus.

Enterprise (ArcSDE) Geodatabase Administrator

Roles and Responsibilities: Will provide support for the implementation of Enterprise GIS capabilities for the Program. Will provide software and system architecture plans, perform research, data analysis, data security, web service creation, application testing and troubleshooting, overall system administration and configuration, application deployment and documentation. Will lead needs assessment and requirements task and document solutions for GIS Enterprise use. Will perform software installation and performance tuning services. Will install and configure ArcGIS Server and extensions (Image Server, GeoEvent, Portal) on servers. Provide support for Enterprise Geodatabases on SQL Server. Provide technical recommendations and produce standard operating procedures and help documents. Troubleshoot solution errors and support end users.

Requirements: Bachelor's degree in computer science, software engineering, Geography/GIS, engineering or related field from four-year college or university; minimum of five (5) years of administering an ESRI ArcGIS Server/Enterprise Geodatabase and ArcGIS Portal administration in the creation of users and role assignment, and map and web application creation and administration; three years development experience in Python scripting, ArcPy and the use of Structured Query Language (SQL); experience in consulting, solution design, software configuration, and operational support.

GIS Application Programmer

Roles and Responsibilities: Develops and maintains custom GIS scripts and geoprocessing tools within the ESRI suite of applications. Will create tools for visualization, analysis, data updates, and presentations. Will help the Team identify, build, test and deploy GIS solutions on ArcGIS Desktop/ArcGIS Pro, ArcGIS Server, ArcGIS Online/Portal, Web AppBuilder and mobile solutions. Will work with GIS personnel and end users to develop application requirements and specifications. Will deploy solutions to end users and perform code maintenance and documentation. Will analyze user issues and provide resolutions. Will create GIS web applications, develop custom reports, perform testing and troubleshooting tasks. Will stay current with latest GIS developments and recommend new technologies and techniques for application development.

Requirements: Bachelor's degree in Computer Science, Software Engineering, Geography/GIS, Engineering or related field from four-year college or university; development experience using several of the following: Python, JavaScript, .NET (C# and VB.NET), SQL, CSS and their associated APIs; experience creating custom reports from SQL Server; knowledge of geospatial and mapping concepts such as spatial analysis, map projections, spatial views, etc.; experience with current technology implementation practices including cloud based platforms; ability to clearly communicate technical ideas to both technical and non-technical staff; experience interfacing web-based applications



with SQL Server relational databases and creating queries and views in SQL Server is a must.

Other Requirements: Three (3) years of developing GIS based desktop and web applications within ESRI Enterprise architecture; development experience using ESRI ArcObjects or ESRI software including ArcGIS Enterprise, ArcGIS Desktop/Pro/Portal/Online, and ArcGIS Runtime APIs.

System/Network Administrator

Roles and Responsibilities: Hardware-Procurement, installation, and configuration. Network infrastructure-installation, configuration and tuning. Server system performance tuning/troubleshooting. Server operating system installation and maintenance. Storage subsystem management/configuration performance. Creates system backup, recovery and security plan and performs those tasks according to procedures. Installs, configures and maintains IPS/IDS, Firewall, Anti-Virus, Anti-Spam, Anti-Malware, etc. for maximum network protection. Windows Terminal Server/Citrix installation/configuration. Other related software (upgrades and service packs).

Requirements: Bachelor's degree in computer science, information science, or software engineering from four-year college or university; minimum of five (5) years of IT experience maintaining an IT Server network; experience on cloud environments deployments; experience in a user-facing role such as help desk analyst or IT specialist. Must be able to work independently and communicate effectively. Microsoft Certification is a plus.

Database Administrator

Roles and Responsibilities: Database configuration, Data model implementation, Database security, Performance tuning, Data backup and recovery, Data replication, DBMS software upgrades and service packs.

<u>Requirements:</u> Bachelor's degree in Computer Information Systems (CIS), Computer Science or Computer Engineering, Database Administration or a related field of study; minimum of five (5) years of professional experience; advance knowledge of database structure and theory; experience with MS SQL Server, ORACLE or PostgreSQL.

Other Requirements: Basic understanding of disaster recovery and database backup procedures; familiarity with reporting tools. Must be able to work independently with minimal supervision and assistance.

Remote Sensing Specialist/Coordinator

Roles and Responsibilities: Oversee any orthophotography/LiDAR contract which may be required, create Statement of Work, data requirements/specifications and associated RFP, be involved in orthophotography contractor selection. Manage orthophotography contract and associated deliverables. Understand the utility of orthophotography to the cadastral data development process and the standards required to capture the data needed. Create data management plan to house and maintain extensive data holdings. Perform QA/QC on deliverables (DEM, DSM digital surface model, LiDAR point collections) to make sure specifications are met. Perform various analyses utilizing both orthophotography and LiDAR to create derived datasets. Integrate remote sensing products into the Enterprise Geodatabase.





<u>Requirements</u>: Bachelor's degree in engineering, science or GIS related field from fouryear college or university; and five (5) years related GIS experience in remote sensing techniques and management.

Other Requirements: Experience managing very large raster datasets and processing techniques and the computing resources necessary to perform tasks. Experience with raster analytics and 3D visualization within the ESRI platform. Experience with aerial photo interpretation and classification. Thorough knowledge of industry/national standards and specifications for capturing and processing data for the creation of orthophotography products. Experience with Aerial Unmanned Vehicles (AUV).

Geographer / Cartographer

Roles and Responsibilities: Gather geographic data through field observations, maps, photographs, satellite imagery, and censuses. Use quantitative methods, such as statistical analysis, in their research. Use qualitative methods, such as surveys, interviews, and focus groups, in their research. Create and modify maps, graphs, diagrams, or other visual representations of geographic data. Analyze the geographic distribution of physical and cultural characteristics and occurrences. Use geographic information systems (GIS) to collect, analyze, and display geographic data. Write reports and present research findings. Assist, advise, or lead others in using GIS and geographic data. Combine geographic data with data about a particular specialty, such as economics, the environment, health, or politics

<u>Requirements:</u> Minimum of five (5) years of experience performing both physical and cultural spatial analysis for project work. Must have a degree in Geography, Geo-Analytics, or GIS. Excellent written and analytical skills for report writing and production. An extensive knowledge of Puerto Rico geography and fluency in Spanish is required.

Other Requirements: Proficiency with the analytical and map creation tools of ESRI ArcGIS Desktop/Pro and extensions or focused business applications (Business Analyst, GeoPlanner, Insights, CityEngine, etc.).

GIS CAD Drafter

Roles and Responsibilities: Create a digital database of geographic and non-geographic element. Digitalize surveyor's analog or digital form of maps and geographic feature elements such as boundary parcels, roads, buildings, fences, topography, electric power utilities elements such as poles, electric lines; communications infrastructure such as communication towers; etc. Interpreted surveyors field work maps and notation.

<u>Requirements:</u> Associates degree or Certificate in AutoCAD, MicroStation or equivalent, and ESRI Technical Certification or equivalent. Experience with GIS based design platforms. Ability to convey GIS/spatial information to non-GIS/technical people. Strong Verbal and Written communication skills. Previous experience working in telecom computer aided design, 3GIS, FROGS, NDS, ARAMIS-DT, AutoCAD, MicroStation, and/or other telecom CAD applications/systems.

Other Requirements: Experience with GIS based design platforms. Analytical Skills - The ability to solve problems using the GIS suite of tools. Research various websites for GIS data applicable to each project. Understanding of communications engineering and related





systems is desired. Ability to read and interpret underground and aerial telecom facilities records on maps and fielding notes.

Legal Consultant

Roles and Responsibilities: Specify internal governance policies and regularly monitor compliance. Give accurate and timely counsel to Program in a variety of legal topics, including but not limited to Legal and Regulatory Analysis and Framework for SDI (Deliverable 7). Research and evaluate different risk factors regarding Program decisions and operations. Provide clarification on legal language or specifications. Maintain current knowledge of alterations in legislation.

<u>Requirements</u>: Must have a Juris Doctor J.D. degree, and be admitted to practice Law in Puerto Rico by the Supreme Court of Puerto Rico. Eight (8) years of experience as a Legal Counsel in government services. Sound judgement and ability to analyze situations and information. Outstanding communication skills.

Other Requirements: Experience on database campus will be considered an advantage.

Communication Manager

Roles and Responsibilities: Work with Stakeholder Engagement component, manage engagement with multiple governmental and non-governmental entities, as well as citizens. Development and successful delivery of Stakeholder Engagement plan in accordance with the overarching Stakeholder Engagement strategy. Manage Stakeholder mapping and prepare communications to Stakeholders and respond to Stakeholder enquiries. Provide briefings and support to technical teams for meetings with Stakeholders. Ensure accurate audit trail maintained of all Stakeholder Engagement and all contact/activities are recorded on Stakeholder database. Attend client-facing meetings, collaborative planning workshops and expedite actions arising.

Requirements: Bachelor's degree in Marketing, Communications, or similar field. Minimum of seven (7) years of experience in Marketing, Communication or similar field. Master's degree preferred. Significant experience of managing engagement with multiple stakeholder group on major high-profile public sector governmental agencies.

Other Requirements: Experience in developing and successfully implementing Stakeholder Engagement plans. A clear understanding of issues pertaining to Program development. Proven ability to work and multi-task under pressure, respond quickly to changing situations in complex Program environments, prepare responses/narrative quickly and clearly and use personal initiative. Good interpersonal and networking skills, highly articulate team player. Strong project management and people management skills. Ability to schedule work and deliver to tight deadlines. Broader project communication experience. Strong presentation and communication skills. Demonstrated ability to use social media channels effectively to deliver marketing content.

Assistant Surveyor

Roles and Responsibilities: Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation





or dimension of land or land features on or near earth's surface for engineering, mapmaking, land evaluation, and other purposes. Collects data and makes maps of the earth's surface, visits sites to take measurement of the land and uses geographic data to create maps. Prepare and maintain sketches, maps and reports. Verify the accuracy of survey data in order to establish legal boundaries for properties, based on legal deeds and titles. Record the results of surveys, including the shape, contour, location, elevation and dimensions of land or land features. Calculate heights, depths, relative positions, property lines and other characteristics of terrain. Prepare or supervise preparation of all data, charts, plots, maps, records and documents related to surveys.

<u>Requirements</u>: Associates Degree in Science or Technical Diploma. Minimum of five (5) years of practical experience.

GeoFrame Process Components and Outcomes

This section defines the GeoFrame Program required Process Components and expected Outcomes that the Selected Proposer must submit to accomplish the requirements of this RFP.

Process Components refer to the types of activities that are necessary in order to build towards and achieve the Program goals. Each Process Component has associated Tasks with Expected Submissions. Outcomes refer to the achieved goals of the program, which have been broken down into discreet Deliverables.

The Selected Proposer will be directly responsible for ensuring the accuracy, timeliness, and completion of all Expected Submissions and Deliverables assigned for requested services. Proposers must work closely with PRDOH's staff and/or assigned representative to accomplish identified tasks and deliverables. The Proposer may be required to coordinate with other agencies that will provide information or other related services regarding the CDBG-DR Program.

It is expected that many of the Process Components will overlap their Task sequencing and duration, and that Components will inform multiple Outcomes and Deliverables. The Selected Proposer will be expected to develop a detailed schedule and work breakdown structure that incorporates all Process Components and Outcomes; and which provides a submission and review timeline for each Expected Submission and Deliverable. For every Deliverable, the GeoFrame Proposer(s) must expect reasonable comments or revisions (request for changes) of required delivered documents. The GeoFrame Proposer(s) must account for revisions or clarifications requests by PRDOH related to required deliveries. Revisions must be resolved and accepted by the PRDOH before staff time, tasks, or deliveries are invoiced to PRDOH.

The Selected Proposer will be expected to comply with the following Process Components and associated Tasks, and/or to propose any and all adjustments, amendments, or changes to the Process Components or Outcomes, according to professional judgement.

Table 1. Summary of Tasks for GeoFrame GIS Services

COMPONENTS	TASK
COMPONENT 1. STAKEHOLDER	Task 1.1: Perform Stakeholder/Partner analysis and conduct ongoing Stakeholder/Partner engagement
OUTREACH	Task 1.2: Develop and perform Stakeholder/Partner training





COMPONENTS	TASK			
	Task 1.3: Conduct ongoing citizen engagement			
COMPONENT 2. TECHNICAL	Task 2.1: Define PRDOH Geodatabase Components and Standards			
STANDARD CREATION	Task 2.2: Define data collection, metadata and security standards			
COMPONENT 3. DATA COLLECTION	Task 3.1: Consolidate existing cadastral and geospatial data			
	Task 4.1: Identify spatial and quality gaps in existing datasets			
COMPONENT 4. GAP ANALYSIS	Task 4.2: Develop prioritized data production strategy for Interim Database and Final Cadaster			
	Task 5.1: Obtain written approval for data production strategy			
COMPONENT 5. DATA PRODUCTION	Task 5.2: Produce all additional data necessary for Interim Database and Final Cadaster			
	Task 5.3: Create GIS files for complete datasets			



Component 1: Stakeholder Outreach

Stakeholder and citizen engagement is a critical component to the successful execution of the GeoFrame Program. Multiple governmental and non-governmental entities, as well as citizens will be impacted and asked to contribute to the development and execution of all defined outcomes.

Relationship building with and between stakeholder groups and citizens, and soliciting appropriate levels of input into various program components will be an ongoing component of the program. Stakeholder groups will be impacted by the requests for data, the provision of data, and the incorporation of established workflows into a Spatial Data Infrastructure Plan. Citizens will be impacted by several components of this program, including, as examples, the process of surveying and mapping the Island, address recordation and assignation, possible adjustments to permitting or other established processes. Through all of this, it will be necessary to provide information regularly and to solicit feedback where appropriate.



All tasks of this component will require the Proposer to collaborate closely with several governmental entities, including Municipalities and Agencies, as well as other stakeholders and private entities. All data, information and tools will be property of the government and will be managed and governed using the best practices within an existing or proposed legal framework. At PRDOH's discretion, the data will be shared with other relevant entities and/or agencies.

The following tasks and subtasks describe requirements for Component 1 services.

Task 1.1: Perform Stakeholder/Partner analysis and conduct ongoing engagement

Subtask 1: Develop complete stakeholder analysis and relationship map of current roles and responsibilities related to geospatial and cadastral data. Stakeholder analysis should include their staff capacity to participate in GeoFrame Program, the currently Information

Technology (IT) infrastructure, the current knowledge of SDI and other land use, technology, policy, or methods and other factors as deemed necessary.

Subtask 2: Establish a plan for Stakeholder outreach, including outreach tactics (meeting schedule, information materials, events, online presence, social and traditional media) and tools for each stakeholder group (high, medium and low engagement) to allow stakeholders to effectively participate in and contribute to Program objectives. The Proposer should plan activities around Program milestones to provide unique opportunity to reach Stakeholders with news, updates, progress reports and other important information. All outreach and engagement will need to be tracked and recorded in PRDOH Communications Log.

Subtask 3: Engage in ongoing collaboration directly with Stakeholders to assist them in identifying their data, geodatabase and cadastral needs, and in participating in and contributing to Component 2, Technical Standard Creation. All outreach and engagement will need to be tracked and recorded in PRDOH Communications Log.

Subtask 4: Engage with relevant stakeholders to map and record data-related workflows and processes.

Subtask 5: Collaborate and work directly with PRDOH and the Stakeholder Engagement Team on all necessary communication, media, contact persons, locations of communication events as frequently as needed throughout Program duration.

Subtask 6: Evaluate outreach impact in coordination with PRDOH to understand which activities reach the Stakeholders and evaluate effectiveness.

Task 1.1 Expected Submission: Stakeholder Analysis, Stakeholder Engagement Plan, key takeaways of stakeholder engagement activities, and all developed outreach and engagement materials and evaluation tools. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation. Stakeholder engagement and relationship building is an ongoing Component of the program, and it is expected that the Selected Proposer will coordinate closely with PRDOH to execute all engagement and outreach activities, will track all activities in the PRDOH Engagement Log, and be able to provide PRDOH with status updates at any time.

Task 1.2: Develop and perform Stakeholder/Partner training

Subtask 1: Provide training and training materials for Agencies, Municipalities and/or entities involved in the Program. In particular, training must be provided for those entities who will engage in managing, updating or contributing to the interim and/or comprehensive cadaster, the geoportal, or any data management tools.

Task 1.2 Expected Submission: Final Training materials. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated



before submission preparation. Training is an ongoing Component of the program, and it is expected that the Selected Proposer will coordinate closely with PRDOH to execute all Training activities, will track all activities in the PRDOH Training Log, and be able to provide PRDOH with status updates at any time.

Task 1.3: Conduct ongoing citizen engagement

Subtask 1: Develop communications and messaging strategy to effectively engage with citizens and connect all relevant audiences to process and outcomes of the GeoFrame Program.

Subtask 2: Develop all communications and messaging materials, including talking points, press releases, graphic presentations, hand-outs, and other necessary written and visual materials. Materials should be designed appropriately for target audience; most materials should be designed for lay person understanding. All public-facing materials should be submitted in both English and Spanish language versions.

Task 1.3 Expected Submission: Communications material and strategies. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation. Citizen engagement and relationship building is an ongoing Component of the program, and it is expected that the Selected Proposer will coordinate closely with PRDOH to execute all engagement and outreach activities, will track all activities in the PRDOH Engagement Log, and be able to provide PRDOH with status updates at any time.

Component 2: Technical Standard Creation

This component will result in a comprehensive list of data and attributes necessary for a comprehensive GIS database, and the quality targets for data production. These standards depend on extensive industry knowledge and stakeholder engagement to ensure that the requirements and needs of all end-users are taken into consideration in the design of the Database and accompanying tools and systems. Many or all components of this task could require the Proposer to collaborate closely with Program Partners, multiple State Agencies, Municipalities, and other public entities to ensure that the data and database will meet their needs and the needs of the Program.

The following tasks and subtasks describe requirements for Component 2 services.

Task 2.1: Define PRDOH Geodatabase Components and Standards:

Subtask 1: Identify all attributes necessary for an interim and complete database. Interim database must be available in the immediate term and may include existing datasets related to physical addresses and location, provisional identification of occupancy and informal boundaries, and tagging properties for legal resolution. The Interim database should reflect in their schema definition the components that serve Stakeholder needs. Complete database will encompass, at a minimum, all structures, parcels, parcel registration status, roads/ linear reference system and its related attributes, physical addresses, land use, special populations and environmental hazards in Puerto Rico. These database attributes must be developed in concert with PRDOH, Program Partners and





Stakeholders and should reflect best available emerging and established technology and standards.

Subtask 2: Research and recommend overarching GIS geodatabase model design and standards, including but not limited to a uniform spatial reference system, geographic coordinate system at its updated datum for Puerto Rico, projections and transformations. This subtask will also include recommended standards for the creation or integration of GIS data layers, including but not limited to common identification fields and attribute domains for all base maps and elevation, feature, road and linear reference system, imagery layers and environmental natural risk layers. The geodatabase design must be developed in concert with PRDOH, Program Partners and Stakeholders and should reflect best available emerging and established technology and standards.

Subtask 3: Research and recommend GIS database governance standards, including but not limited to a set of techniques and timelines for database operations, systematic updating, processing and distribution of data, database storage and warehousing, and security data management and protocols. These governance standards must be developed in concert with PRDOH, Program Partners and Stakeholders and should reflect best available emerging and established technology and standards.

Task 2.1 Expected Submission: A comprehensive report that encompasses the information and recommendations described in Subtasks 1-3 above. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation.

Task 2.2: Define data collection, metadata and security standards:

Subtask 1: Research and recommend comprehensive metadata standards appropriate for cadastral and geospatial datasets. These standards must be developed in concert with PRDOH, Program Partners and Stakeholders and should reflect best available emerging and established technology and standards.

Subtask 2: Research and recommend quality, accuracy and collection standards for each attribute within the interim and comprehensive database. These standards should reflect the necessity to perform sophisticated and detailed analysis with the data and should consider ease of updating and maintenance balanced against the benefits of utilizing best available emerging and established technology for the collection of multiuse cadastral GIS data. This subtask should define how "good" the data needs to be in order to provide information necessary to support PRDOH and Partners in emergency management and rescue services, identify properties without titles, ensure that structures are correctly permitted, planned, inspected, locatable with its physical address, insured, and allow for effective planning, land use and zoning controls to be utilized, particularly in relation to critical infrastructure, special populations and environmentally high-risk areas. This data will also need to be granular enough to develop a high-quality mapping portal that is viewable by Municipalities and other units of Government. The collection standard must consider the creation of certified properties survey maps to be perform in Component 5, in relation to the properties that will be flagged as candidates to be enter in the title registry system. These standards must be developed in concert with PRDOH,

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Program Partners and Stakeholders and should reflect best available emerging and established technology and standards.

Task 2.2 Expected Submission: A comprehensive report that encompasses the information and recommendations described in Subtasks 1-2 above. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation.

Component 3: Data Collection

The Data Consolidation Component will result in a comprehensive aggregation of all relevant, existing geospatial data for Puerto Rico. Many or all components of this task will require the Proposer to collaborate closely with Program Partners, multiple State Agencies, Municipalities, and other public entities, to collect and consolidate existing data into a single location for analysis. All data, information and tools will be the property of PRDOH and at PRDOH's discretion, it will be shared with other relevant entities and/or agencies.

The following tasks and subtasks describe requirements for Component 3 services.

Task 3.1: Consolidate existing cadastral and geospatial data

Subtask 1: Identify and work with relevant entities that currently collect, hold or use cadastral and geo-spatial data to identify ownership and location of any/all currently existing data and attributes identified as necessary in Task 2.1.

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Subtask 2: Collaborate with relevant entities to consolidate the data into a single location and build the data into a Relational Database Management System (RDBMS). This could require mining relevant data from digital or paper parcel maps, historic parcel data and information, zoning or future plan use maps, community or small area plans or other types of plans, real estate property transaction data, property assessment data, related permit process data, existing structure and property classifications, transportation features, economic development data, census data, and/or any others as deemed relevant. Proposer will provide the IT infrastructure, enabling spatial data sharing, and licenses for participating stakeholders. The IT infrastructure is defined as the combination of hardware (e.g. servers, communication) and software or applications including, but not limited to, Relational Database Management Systems.

Task 3.1 Expected Submission: A complete electronic file of all collected data in original format, a RDBMS with all consolidated data, and comprehensive report that encompasses the information described in Subtasks 1-2 above. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation.



Component 4: Gap Analysis

The Data Gap Analysis Component of the GeoFrame Program seeks to identify and understand the aggregated, existing need for cadastral and spatial data, and to single out those attributes or datasets that are missing or unusable due to age, quality, accuracy, or other concern.

The following tasks and subtasks describe requirements for Component 4 services.

Task 4.1: Identify spatial and quality gaps in existing datasets

Subtask 1: Perform comparative analysis of data collected and consolidated during Component 3 and the necessary datasets and attributes established in Component 2, referencing required quality standards established in Component 2.

Subtask 2: Develop comprehensive assembly of all identified gaps in existing data, including, at a minimum, an identification of missing datasets, quality gaps (accuracy, precision, age and relevance of data), geographic gaps and datasets or attributes that do not conform to quality standards established in Component 2.

Task 4.1 Expected Submission: A comprehensive report that encompasses the information described in Subtasks 1-2 above. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation.

Task 4.2: Develop prioritized data production strategy for interim and comprehensive Cadaster

Subtask 1: Propose methodologies to collect all data identified as a "gap" in Task 4.1. Methodologies should reflect best available emerging and established techniques, technology, strategies and /or and standards that will yield high quality data, in conformance with quality standards established in Component 2.

Subtask 2: Propose priorities for data collection based on timeline concerns, necessity of data for interim or final cadaster, opportunities to leverage existing and near-term data collection initiatives, time necessary to collect data and information, cost to collect data and information, availability of required personnel, access to technology or equipment, replicability and SDI maintenance workflow protocols, and other factors deemed relevant by PRDOH, Partners and Stakeholders or Proposer.

Strategy and methodologies must be communicated with PRDOH, should be reasonable in its scope and is subject to prior approval (Task 5.1).

Task 4.2 Expected Submission: A comprehensive report that encompasses the information described in Subtasks 1-2 above. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation.

Component 5: Data Production

Many or all components of this task will require the Proposer to collaborate closely with other governmental entities, including Municipalities and Agencies, as well as property owners, Universities and/or other stakeholders in order to properly collect and create new data sets. All data, information and tools will be the property of the Government of Puerto Rico through PRDOH and at PRDOH's discretion, it may be shared with other relevant entities and/or agencies using the best practices and within the actual or proposed legal framework.





The data creation process should provide the certified survey maps with its respective digital signature validation in accordance with the law and regulation of Puerto Rico, that will made possible the inscription of the real estate property within the Puerto Rico entities that regulate the permit, land use, tax collection revenue and property registry.

The following tasks and subtasks describe requirements for Component 5 services.

Task 5.1: Obtain written approval for data production strategy

Subtask 1: Obtain written letter of approval from designated PRDOH representative to engage in and proceed with complete or amended data production strategy as described in Task 4.2 Prioritized Data Production Strategy.

Task 5.1 Expected Submission: Written letter of approval from designated PRDOH representative to engage in and proceed with data production strategy as described. The Selected Proposer must upload this submission to the required, secure location. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation.

Task 5.2: Produce all additional data necessary for Interim and Comprehensive Cadaster
Subtask 1: Collaborate with existing and pending data collection efforts by Puerto Rican or Federal government agencies or other relevant entities.

Subtask 2: Collect and create new datasets as identified and approved by PRDOH and, when possible, in collaboration with identified Partners, Stakeholders and/or other efforts. New data collected must meet the database and data quality standards described in Components 1 and 2, and follow methodologies described in Component 4.

Task 5.2 Expected Submission: A complete electronic file of all data collected and a comprehensive report that encompasses the information described in Subtasks 1-2 above. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation.

Task 5.3: Create GIS files for Complete Datasets

Subtask 1: Create geodatabase files for all data. Geodatabase files must comply with overarching database and metadata standards identified in Components 1 and 2. This could include converting existing datasets or spreadsheets that meet data quality standards into spatial layers, editing existing spatial datasets to meet the database standards described, or creating new spatial layers based on new data collected.

Task 5.3 Expected Submission: A complete electronic file of all GIS files collected or created to date, and comprehensive report that encompasses the information described in Subtasks 1 above. The Selected Proposer must upload this submission to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the submission, such as contents, file type, document type and format, paper size, font type and size, logos, etc. must be presented, discussed and coordinated before submission preparation.

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Additional Activities to accomplish Outcomes and Deliverables and Program Allowances

In addition to the tasks described above, there are additional activities necessary for the Proposer to execute in order to complete the Program outcomes and deliverables. These activities are divided between the three stages as needed.

Outreach/Media

The GeoFrame Program will require an outreach and media campaign aimed at raising awareness about the goals of the Program and how citizens may get involved. The GeoFrame Program will request information from property owners, renters, businesses and other citizens related to structures, parcels, addresses, title, use and occupancy, among other things. The Program will also result in changes to processes and protocols related to land use, addressing permitting, and taxation; while these changes will provide better services and increased transparency, it will also impact the way that citizens do business on the island. The Program needs a comprehensive campaign related to the issues stated above, particularly the way it impacts the property transactions, taxation, addresses, delivery of goods and the provision of emergency or first responder services. The campaign should blend traditional and social media methods to reach all relevant stakeholders. As described in Task 1.1, 1.2 and 1.3, stakeholder and citizen outreach will be required throughout the Program duration.

GIS and Software licenses

The GeoFrame Program requires an Enterprise GIS solution capable of maintaining the integrity of all collected data in a secure and interconnected network. This system must support the individual workflow of each participating entity as well as integrate each entity into a larger IT infrastructure system. The Selected Proposer is expected to provide all necessary GIS and Software licenses for all the participating entities. It is estimated that fifteen (15) total agencies and/or entities that will be part of the GeoFrame Program. The GIS and Software Licenses Acquisition activity is required only during the first stage, and includes the licenses needed for entities data sharing.

NOTE: This activity will be in coordination with PRDOH and requires prior approval. Portal Licenses will be activated as needed with the charging fee started from the day of activation. Individual services will be required by PRDOH according to needs to start the activation period.

IT Infrastructure

The GeoFrame Program requires the Selected Proposer to purchase, configure, install, and provide training for an IT infrastructure that is capable of supporting the relational database network of all participating entities. It is estimated that fifteen (15) total agencies and/or entities that will be part of the GeoFrame Program. The IT Infrastructure activity is also needed throughout the Program duration.

NOTE: This activity is related to the GIS and Software licenses activity described above. It will also need PRDOH coordination and prior approval.

GIS Maintenance

GIS Maintenance for all software and licenses acquired will be necessary in stages 2 and 3 of the GeoFrame Program. Software and license maintenance include all required updates, software issue resolution, and technical support from the GIS software developer in the event of system failures and major problems.

NOTE: Please refer to GIS and Software licenses activity note.





Mapping Activities

Mapping activities include using innovative technologies such as LiDAR, photogrammetry, 3- and 4-D imaging, or data collection using drones and mobile sensor devices. Technologies should provide visual analysis and feature extraction of geographic and topographic elements such as landcover and buildings, and other man-made elements such as electric infrastructure or road alignment and conditions. This may include products and technologies that assist in the inspection of buildings, allow measurements of field or building elements, and support rapid damage assessment after natural disaster events. It is expected for the vendor to deliver 360 deg images, and that LiDAR and feature identification and extraction will include all road systems and other relevant elements with emphasis on areas with a high concentration of informal building areas and structures. Mapping activities may include knowledge transfer to the organizations, non-profits, universities, state agencies or other entities designated by PRDOH. All technology will be property of the Government of Puerto Rico at the close of the Program. The Mapping Technologies activity belongs to stages 2 and 3.

Hazard Map

The GeoFrame Program seeks to update and incorporate the natural hazard database into the interim and final GeoFrame Database. These hazards could earthquakes and related hazards (liquefaction, seismic wave amplification), flooding areas outside the ones identified by FEMA, landslide and sinkhole potential, and costal erosion. This improvement in the natural hazard database should include a guideline document that can be used by stakeholder in the matter of land use planning and Permit process. Hazard Map activity is required at stage 2 only.



Surveyor Process/Certified Engineering Parcel Surveys

The GeoFrame Program seeks certified engineering surveys for the approximately 78,000 informal or unregistered buildings or properties on the Island. Although the GeoFrame Program will not provide the property title, the Selected Proposer will be expected to locate, map, survey, and register all unregistered properties and informal or unpermitted structures. This process should be done in compliance with Puerto Rico regulations for survey certifications and must be able to be used as part of the Puerto Rico Title Registry, as well as Ad Valorem assessment protocols. The Surveyor Process activity in stages 2 and 3 refers to the approximated 78,000 informal structures needed to be surveyed and recorded.

Allowances

An allowance has been taken into consideration for Travel and Representation outside Puerto Rico throughout the Program duration. A Request for Approval (RFA) would be required from the Proposer prior to use.



Another allowance for any additional training needed for Stakeholders has been taken into consideration throughout the Program duration. A Request for Approval (RFA) would be required from the Proposer prior to use.

Table 2. Summary of Deliverables for GIS Proposer activities

REQUIRED OUTCO	DMES	DELIVERABLES					
Outcome A. Puerto Rico's Spatial Data Infrastructure Plan		Deliverable 1: Comprehensive SDI Plan					
	OUTCOME B [INTERIM]	. GEOFRAME DATABASE 1.0	DELIVERABLE 2: INTERIM GIS DATABASE				
	Outcome C	. GeoFrame Database 2.0 [FINAL]	Deliverable 3: Comprehensive GIS Database and Cadaster				
		W. I. I. and Connected	Deliverable 4: Map Analysis and Portfolio				
SPATIAL DATA INFRASTRUCTURE - SDI	Outcome D	. Web-based Geoportal	Deliverable 5: Web-based Geoportal				
			Deliverable 6: Consolidated Standards for Geospatial Data and Database				
DATA IN			Deliverable 7: Legal and Regulatory Analysis and Framework for SDI				
SPATIAL	Outcome E. Spatial Data Infrastructure Management Tools		Deliverable 8: Data Management Protocols				
	Manageme	111 10013	Deliverable 9: Portfolio of Technologies				
			Deliverable 10: Policies and Procedures of the SDI				
			Deliverable 11: Portfolio of Outreach, Training and Education				



The Selected Proposer will be expected to comply with the following Outcomes and associated Deliverables:

Outcome A: Puerto Rico's Spatial Data Infrastructure Strategic Plan

This Outcome results in a comprehensive Spatial Data Infrastructure Strategic Plan that provides a roadmap for the accomplishment of short, medium and long-term goals of the Spatial Data Infrastructure for Puerto Rico.

Deliverable 1: Comprehensive SDI Strategic Plan

Puerto Rico's Spatial Data Infrastructure Plan is defined by the technology, policies, standards, human and administrative resources necessary to secure, discover, visualize,

evaluate, and access geospatial data and adapt these resources to societal needs and Island interests. The SDI Strategic Plan will synthesize a high-quality approach to near-to-long term initiatives, programs and products to guide the sustainable and iterative development of Puerto Rico's SDI, forecasting societal and governance needs through 2040. A successful plan will utilize updated, post-hurricane, data and information, and leverage agreements with Puerto Rico's municipalities and agencies to deploy a comprehensive strategic plan, designed to manage and monitor SDI architecture and construction, in tandem with policy reform, within and beyond the scope of the Program.

The Selected Proposer will work with PRDOH and all relevant stakeholders to develop a strategy to implement all program Process Components and achieve the Outcomes of the GeoFrame Program. The Strategic Plan will consider the near and medium term objectives of this program as well as the long term ownership and maintenance of the program, cost, time, change management, cost recovery, and a Business Continuity Plan (BCP) to ensure data security in all known and predicted use, misuse, and crisis scenarios, as well as other considerations.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Outcome B: GeoFrame Database 1.0 [INTERIM]

To accomplish this outcome, the GIS Vendor will integrate information produced in above Process Components to result in two Deliverables, an Interim and a Comprehensive GIS Database or Cadaster. The purpose of the Interim Database is to quickly assemble critical data and information necessary for effective emergency response into a single location, easily accessible to all relevant parties. The composition of the Interim Database will include, at a minimum, available data related to addresses and parcels and occupancy status if available, as well as any additional data that can be collected in a timely and economical manner. Given that the goal of Interim Database is to provide emergency response teams to effectively respond in the case of a need, this database must be deployed immediately, and should be added to as new or updated information becomes available. The system architecture of the Interim GIS Databases must be structured to allow it to scale iteratively and evolve into the final Comprehensive Cadaster.

Deliverable 2: Interim GIS Database

The interim database must be available for use by emergency response personnel within 12-18 months of GeoFrame Program Launch. It will serve Puerto Rico in the near to immediate term and may include existing datasets related to physical addresses, provisional identification of occupancy status and informal boundaries, and tagging properties for legal resolution.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Outcome C: GeoFrame Database 2.0 [FINAL]

The Comprehensive GIS Database/Cadaster must be built to serve the purposes of multiple agencies that depend on or contribute to land use, property, structure, address or other cadastral





or geospatial data. The Comprehensive Cadaster must serve the needs established in Component 1, and conform to standards developed in Component 2. This Cadaster will be made available through a Geoportal, describe in Outcome 3. Best practices and standards may be viewed in the National and International Resources Section of the GeoFrame Program Guidelines.

Deliverable 3: Comprehensive GIS Database/Cadaster

Comprehensive database/cadaster will encompass, at a minimum, all structures, parcels, parcel registration status, property boundaries, roads, physical addresses, land use, special populations, title issues, and hazard risks in Puerto Rico. This cadaster will be built using input from Component 1, standards developed in Component 2, and data collected and organized in Components 3, 4 and 5. The Successful Proposer will make publicly appropriate data in the database/cadaster available and accessible to all levels of government using a secure, cloud-hosted website.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Outcome D: Web-based Geoportal

The GeoFrame Program will develop a dynamic geoportal powered by the Comprehensive GIS Database and Cadaster. This mapping portal will make relevant land use and cadastral data viewable and accessible to State Agencies, Emergency Responders, Municipalities, and the Public, as appropriate to protect privacy and ensure security. The geoportal should illustrate multiple layers of geospatial information, including but not limited to: property ownership rights, parcel dimensions and boundaries, built objects, topographic objects, land values, administrative areas (e.g. zoning), and legal and political provisions¹.

A component of this geoportal will be selected map analysis layers to aid data-driven decision-making related to specific concerns such as title issues and hazard areas, economic development among others. Importantly, the geoportal and maps will also need to support improved emergency response during and after a disaster by providing location and address information for both formally and informally constructed homes.

Deliverable 4: Map Analysis and Portfolio

Map Analysis Portfolio will include, at a minimum:

- Municipal Boundary Map
- Parcel and Roads Map
- Structure Map
- Physical Address Map
- Special Populations Map
- Title Issues Map
- Environmental Hazards and Flood Risk Map
- Land use Map
- Social Vulnerability Index Map
- Demographic Maps





¹ One example of a dynamic geoportal is used and updated by the City of New Orleans, in Louisiana. It can be viewed at www.property.nola.gov.

- Aerial Imagery Catalog
- Additional maps may be identified by PRDOH

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Deliverable 5: Web-based Geoportal

Dynamic, interactive mapping portal, powered by the comprehensive GIS Database and Cadaster, available to users in both interactive map and download form, and informed by the results of Process Components 1-5. Geoportal must make available to stakeholders the Deliverable 4: Map Analysis Portfolio. Proposer must propose a phased approach to implementation, with cost analysis and budget attached. Web-based Geoportal should reflect the interagency workflow and dynamics updates of the data presented in the Portal. Approach must be reviewed and approved by PRDOH prior to further development.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Outcome E: Spatial Data Infrastructure Management Tools

Puerto Rico's SDI will be maintained by a portfolio of technology, policies, procedures, and standards. Upon adoption, these tools will need to reinforce the system's efficiency, interoperability, implementation and refinement. A portfolio of tools will specify best practices to assist system maintenance, input, use, security and future data regeneration, as well as educational resource. These deliverables are inter-dependent.

SDI Management Tools must institutionalize agile development to incorporate new and emerging technologies, user needs, policy adjustments, and data standards necessary to secure, discover, visualize, evaluate, and access geospatial data.

Deliverable 6: Consolidated Standards for Geospatial Data and Database

The Standards for Geospatial Data and Database developed in Component 2 will be formalized in Deliverable 6, and potentially expanded to include maintenance and update methodologies. These standards will guide the iterative scaling of the database as it moves from Interim to Comprehensive, the frequency that data is updated, the minimum quality standards that must be adhered to with the addition of new data to the database, and all metadata requirements.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Deliverable 7: Regulatory Analysis and Legal Framework for SDI

The Program will use the building blocks of existing State laws, programs and datasets to understand potential legal, regulatory or policy-based solutions that will support and maintain the GeoFrame Program into the future. Analysis must include a detailed description of roles, responsibilities and authority of relevant existing governmental and no-





governmental entities, analysis of existing laws, regulations and policies that impact the outcomes or goals of this program, and a map of existing workflows and processes related to existing geo-spatial or cadastral datasets. The Selected Proposer will also provide a recommended legal and regulatory framework for the SDI, taking into account PRDOH and stakeholder needs, over the short, medium and long term.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Deliverable 8: Data Management Protocols

Deliverable 8: Data Management Protocols include the policies and procedures for data and metadata production and management. In particular, this Deliverable will work with Municipalities and State Government Agencies, and other relevant entities, to recommend and establish, at a minimum, agreed-upon systems and protocols necessary to maintain and update the interactive mapping portal, designate physical address, input new or updated datasets and attributes into the cadaster, incorporate combined or subdivided parcel data, and update risk-hazard and vulnerabilities as new information becomes available, as well as any other processes and protocols deemed necessary. The Selected Proposer will also establish yearly goals and written procedures to keep the database platform and SDI updated and maintained with regularity.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Deliverable 9: System (SDI) Management Protocols

System Management Protocols include the policies and procedures for SDI governance and workflows. Policies and procedures will include the aggregation, compilation and organization of all systems, standards, policies, processes, and protocols related to geospatial and cadastral data or technologies in Puerto Rico. It will be structured in a manner that allows it to be "adopted" by governmental and/or non-governmental entities, streamline planning and permitting processes, and will include methods for the SDI to adapt and thrive in changing circumstances and technologies. These Policies and Procedures may be published in multiple media and formats

Deliverable must be submitted by uploading to the required, secure location. *The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH.* Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Deliverable 10: Portfolio of Technologies

The Selected Proposer will make available to stakeholders a suite of technologies designed to encourage data integration, facilitate analysis, expedite modeling and enrich visualizations. This portfolio must address inherited issues pertaining, but not limited to, land and title recordation, physical address, and undocumented tenure.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to

93



PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

Deliverable 11: Portfolio of Outreach, Training and Education

Portfolio of outreach, training and education will include all material used to engage with citizens and stakeholders during the program. It will also include additional materials developed to provide ongoing or long-term support or education related to creation and use of geospatial data in Puerto Rico.

Deliverable must be submitted by uploading to the required, secure location. The contents of this deliverable must be presented in a Power Point or other presentation style format to PRDOH. Specific requirements of the deliverables, must be presented, discussed and coordinated before deliverable preparation.

GeoFrame Services Timeline Milestones

The PRDOH requires that the selected Proposer submits and delivers all documentation during the development of the GeoFrame GIS Services per stages. All deliveries will be submitted for all described tasks in this RFP. PRDOH's or its representative will coordinate with the selected Proposer a calendar of deliveries according to the standard timeline milestones and deliverables for stages s described in this RFP. Figure 2 provides an example of the general milestones to be considered as the maximum timeframe for deliveries within twelve (12) months of start date for stage 1. PRDOH reserves the right to amend Proposer's contract to add next stages according to funds availability.



Figure 2. Standard Timeline Milestones and Deliverables for GeoFrame GIS Services

	Stage 1 (12 months)	Stage 2 (24 months)	Stage 3 (24 months)
COMPONENTS			
Component 1: Stakeholder Outreach	Entire duration	Entire duration	Entire duration
Component 2: Technical Standard Creation	Complete Within Stage 1	-	-
Component 3: Data Collection	Complete Within Stage 1	-	-
Component 4: Gap Analysis	Complete Within Stage 1	- .	-



	Stage 1 (12 months)	Stage 2 (24 months)	Stage 3 (24 months)
Component 5: Data Production	-	Initial activities complete within Stage 2	Further activities contemplated during Stage 3
OUTCOMES			
Outcome A: Puerto Rico's Spatial Data Infrastructure Strategic Plan	Complete Within Stage I	-	-
Outcome B: GeoFrame Database 1.0 [INTERIM]	-	Initial database complete within Stage 2	-
Outcome C: GeoFrame Database 2.0 [FINAL]	-	-	Comprehensive database complete within Stage 3
Outcome D: Web-based Geoportal	-	Begin within Stage 2	Complete within Stage 3
Outcome E: Spatial Data Infrastructure Management Tools	-	Begin within Stage 2	Complete within Stage 3



END OF SCOPE OF SERVICES





Proposer's Initials: _



GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING

Exhibit O - COST FORM

Request for Proposals for GeoFrame GIS Services Community Development Block Grant – Disaster Recovery CDBG-DR-RFP-2020-06 (Revised)

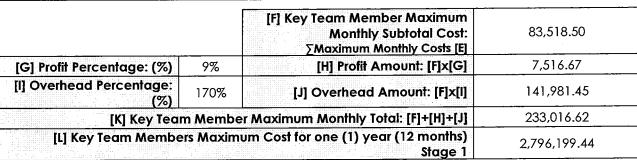
Name of Proposer:

Tetra Tech, Inc.

Stage I Cost Forms

Cost Form 1. Cost for Key Team Members – Stage I

[A] siResource Position	[B] FTE	[C] Monthly Hours	[D] Labor Rate	[F] Maximum Monthly Cost [B]x[C]x[D]
Project Director	1	195	82.35	16,058.25
Deputy Project Director	1	195	68.25	13,308.75
Planning Manager	1	195	83.20	16,224.00
Surveyor Manager	1	195	43.95	8,570.25
GIS Specialist	1	195	49.70	9,691.50
GIS Technical Lead	1	195	49.70	9,691.50
GIS Database Administrator	1	195	51.15	9,974.25



Notes: (Notes refers only to the specific cost form where they are shown.)

Labor Rate required in [D] must consider only direct labor hourly cost with fringe benefits.

Overhead percentage in [I] must include royalties, reimbursements, taxes, travel, as well as any other additional fees and administrative costs applicable to the services.

Timeframe of one (1) year considered in[L] will be used for cost estimate evaluation purpose only, PRDOH reserve the right to establish a shorter or longer contract term with selected Proposer(s).



^{1.} Selected Proposer(s) must receive written authorization from PRDOH before using any FTE. Costs incurred by the selected Proposer(s) without PRDOH's previous authorization will not be compensated.

Maximum Monthly Cost in [E] will be used for cost estimate evaluation purpose only, final cost established in selected Proposer(s) contracts may vary after negotiations.

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Exhibit O – Cost Form CDBG-DR-RFP-2020-06 Community Development Block Grant – Disaster Recovery Page 2 of 16

Name of Proposer:

Tetra Tech, Inc.

Cost Form 2. Cost per Tasks for Stage 1

[A] Suggested Resource Position	[B] Hourly Cost		[D] Task 1.1	[E] Task 1.3	[F] Task 2.1	[G] Task 2.2	[H] Task 3.1	[I] Task 4.1	[J] Task 4.2	[K] Task 5.1	[L] Total Hours
		Hours	1,998.00	966.00	154.00	170.00	224.00	122,00	790.00	100.00	1 50 1 00
Planners	80.00	Cost	159,840.00	77,280.00	12,320.00	13,600.00	17,920.00	9,760.00	63,200.00	8,000.00	4,524.00
	/ / 00	Hours	40.00	00	100.00	100.00	60.00	60.00	60.00	60.00	400.00
Surveyors	64.00	Cost	2,560.00	00	6,400.00	6,400.00	3,840.00	3,840.00	3,840.00	3,840.00	480.00
Assistant	05.00	Hours	00	00	100.00	00	300.00	300.00	300.00	00	1 000 00
Surveyors	'≛''' 35.30 ⊨	Cost	00	00	3,530.00	00	10,590.00	10,590.00	10,590.00	00	1,000.00
	10.05	Hours	00	00	120.00	00	1,360.00	250.00	250.00	20.00	0.000.00
GIS Specialists	49.25	Cost	00	00	5,910.00	00	66,980.00	12,312.50	12,312.50	985.00	2,000.00
Geographer/	10.05	Hours	00	00	90.00	90.00	00	500.00	500.00	20.00	1 000 00
Cartographer	49.25	Cost	00	00	4,432.50	4,432.50	00	24,625.00	24,625.00	985.00	1,200.00
Remote Sensing		Hours	24.00	00	16.00	16.00	16.00	16.00	32.00	00	100.00
Specialist/ Coordinator	98.75	Cost	2,370.00	00	1,580.00	1,580.00	1,580.00	1,580.00	3,160.00	00	120.00
Database		Hours	00	00	480.00	480.00	480.00	480.00	480.00	480.00	0.000.00
Administrator 41.20	Cost	00	00	19,776.00	19,776.00	19,776.00	19,776.00	19,776.00	19,776.00	2,880.00	
System/Networ	41.00	Hours	00	00	480.00	480.00	480.00	480.00	480.00	480.00	0.000.00
k Administrator	41.20	Cost	00	00	19,776.00	19,776.00	19,776.00	19,776.00	19,776.00	19,776.00	2,880.00





Exhibit O – Cost Form CDBG-DR-RFP-2020-06

Community Development Block Grant - Disaster Recovery

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[A] Suggested Resource Position	[B] Hourly Cost		[D] Task 1.1	[E] Task 1.3	[F] Task 2.1	[G] Task 2,2	[H] Task 3.1	[I] Task 4.1	[J] Task 4.2	[K] Task 5.1	[L] Total Hours
GIS Application	45.90	Hours	00	00	480.00	480.00	320.00	240.00	00	00	1,520.00
Programmer	45.70	Cost	00	00	22,032.00	22,032.00	14,688.00	11,016.00	00	00	1,520.00
Enterprise (ArcSDE		Hours	1,560.00	48.00	104.00	120.00	224.00	72.00	160.00	40.00	
Geodatabase Administrator)	57.15	Cost	89,154.00	2,743.20	5,943.60	6,858.00	12,801.60	4,114.80	9,144.00	2,286.00	2,328.00
Legal	104.00	Hours	105.00	105.00	45.00	45.00	45.00	45.00	45.00	85.00	E00.00
Consultant	104.00	Cost	10,920.00	10,920.00	4,680.00	4,680.00	4,680.00	4,680.00	4,680.00	8,840.00	520.00
Communicatio	83.00	Hours	2,200.00	2,120.00	00	00	00	00	00	160.00	4 490 00
n Manager	63.00	Cost	182,600.00	175,960.00	00	00	00	00	00	13,280.00	4,480.00

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Notes: (Notes refers only to the specific cost form where they are shown.)

- 6. Resources included in [A] are used for comparison purposes and a) shall be assumed as a resource available to perform work for listed Tasks.

 See additional information for hourly rates determination in Table: General b) Requirements for Resources Positions.
- 7. Hourly cost to be provided in [B] must consider only direct labor c) with fringe benefits and shall not include overhead costs or profit.
- 8. If determined necessary, the Proposer shall indicate total hours d) each Resource Position per Task. If Resource Position is not required, the Proposer must indicate 0 (zero) hours and the calculation must indicate e) \$0 (zero dollars). Fields left in blank will be considered as zero hours and zero cost.
- 9. Cost for each Resource Position per task shall be calculated by multiplying the determined hours per task by the hourly cost in [B].
- 10. Each Task Unit Costs in [C] shall be obtained for each Task by summing all costs of resources calculated for each Task without including h)

Table: General Requirements for Resources Positions:

- Planning Manager: Position requirements as defined in Scope of Services (RFP Attachment A)
- Surveyor Manager: Position requirements as defined in Scope of Services (RFP Attachment A)
- Assistant Surveyor: Position requirements as defined in Scope of Services (RFP Attachment A)
- GIS Specialist: Position requirements as defined in Scope of Services (RFP Attachment A)
- e) Geographer/ Cartographer: Position requirements as defined in Scope of Services (RFP Attachment A)
- f) Remote Sensing Specialist/ Coordinator: Position requirements as defined in Scope of Services (RFP Attachment A)
- Database Administrator: Position requirements as defined in Scope of Services (RFP Attachment A)
- System/Network Administrator: Position requirements as defined in Scope of Services (RFP Attachment A)



costs of overhead or profit. The results shall be used for completing Cost i) Form 3.

Exhibit O – Cost Form CDBG-DR-RFP-2020-06

Community Development Block Grant – Disaster Recovery

Page 4 of 16

- GIS Application Programmer: Position requirements as defined in Scope of Services (RFP Attachment A)
- Enterprise (ArcSDE Geodatabase Administrator): Position requirements as defined in Scope of Services (RFP Attachment A)

 k) Legal Consultant: Position requirements as defined in Scope of Services (RFP
- Attachment A)
- Communication Manager: Position requirements as defined in Scope of Services (RFP Attachment A)





Exhibit O – Cost Form CDBG-DR-RFP-2020-06 Community Development Block Grant – Disaster Recovery Page 5 of 16

Name of Proposer:

Tetra Tech, Inc.

Cost Form 3. Cost for Stage 1 Tasks

[A] Task Id	[B] Task Unit Cost (\$/Unit)
Task - 1.1	447,444.00
Task - 1.3	266,903.20
Task - 2.1	106,380.10
Task - 2.2	99,134.50
Task - 3.1	172,631.60
Task - 4.1	122,070.30
Task - 4.2	171,103.50
Task - 5.1	77,768.00

		[C] Subtotal Cost (\$): ∑Task Costs [B]	1,463,435.20
[D] Profit Percentage: (%)	9%	[E] Profif Amount: [C]x[D]	131,709.17
[F] Overhead Percentage: (%)	170%	[G] Overhead Amount: [C]x[F]	2,487,839.84
[H] Total Cost	for Tasl	cs Stage 1: [C]+[E]+[G]	4,082,984.21

Notes: (Notes refers only to the specific cost form where they are shown.)

11. Task Unit Cost value in [B] shall be obtained from Cost Form 2.

12. Overhead percentage in [F] must include royalties, reimbursements, taxes, travel, as well as any other additional fees and administrative costs applicable to the services.

Name of Proposer:

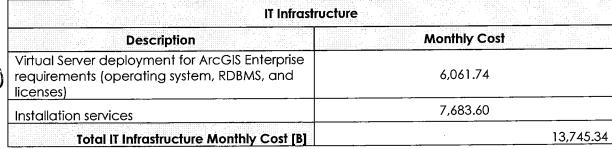
Tetra Tech, Inc.

Cost Form 4. Costs for Additional Activities at Stage I

Outreach/Media				
Description	Information	Monthly Cost		
Billboards	18 (14x48) around the Island. Color.	48,874.06		
Written Newspapers advertising	Color Full Page	6,712.04		
Digital Newspapers advertising		13,198.71		
Social Media advertising		4,751.64		
	Total Outreach/Media Monthly Cost [B]	73,536.45		

GIS and Software licenses					
Description	Per License Cost				
Enterprise GIS licenses (Server, Portal, Web Adaptor, Data Storage)	127,434.60				
ArcGIS Desktop Advanced	41,814.48				
Image Server	29,867.48				
Network Analyst (if required) with the solution	3,733.44				
Spatial Analyst (if required) with the solution	3,733.44				
Enterprise Software installation services	7,683.60				
Total GIS and Software licenses Cost [B]	214,267.04				







4,261,387.08

	Costs fo	r Additional Activiti	es at Stage 1
[A] Activity Id	[B] Unit Cost (S)	[C] Number of Units	[D] Activity Cost [B]x[C] (\$)
Outreach/Media	73,536.45	12 months	882,437.40
GIS and Software licenses	214,267.04	15 licenses	3,214,005.60
IT Infrastructure	13,745.34	12 months	164,944.08

Notes: (Notes refers only to the specific cost form where they are shown.)
13. For detailed description on Additional Activities refer to SOW.
16. To detailed description of the description of t

[E] Total Cost for Additional Activities at Stage 1: ∑ Activity Cost [D]





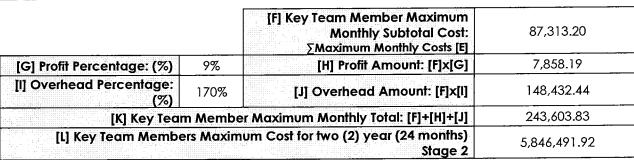
Name of Proposer:

Tetra Tech, Inc.

Stage II Cost Forms

Cost Form 5. Cost for Key Team Members – Stage II

[A] Resource Position	[B] FTE	[C] Monthly Hours	[D] Labor Rafe	[E] Maximum Monthly Cost [B]x[C]x[D]
Project Director	1	195	86.08	16,787.55
Deputy Project Director	1	195	71.35	13,913.25
Planning Manager	1	195	86.98	16,961.10
Surveyor Manager	1	195	45.95	8,960.25
GIS Specialist	1	195	51.96	10,132.20
GIS Technical Lead	1	195	51.96	10,132.20
GIS Database Administrator	1	195	53.47	10,426.65



Notes: (Notes refers only to the specific cost form where they are shown.)

15. Labor Rate required in [D] must consider only direct labor hourly cost with fringe benefits.

16. Maximum Monthly Cost in [E] will be used for cost estimate evaluation purpose only, final cost established in selected Proposer(s) contracts may vary after negotiations.

17. Overhead percentage in [I] must include royalties, reimbursements, taxes, travel, as well as any other additional fees and administrative costs applicable to the services.

fees and administrative costs applicable to the services.

18. Timeframe of two (2) years considered in [L] will be used for cost estimate evaluation purpose only, PRDOH reserve the right of establish a shorter or longer contract term with selected Proposer(s).



^{14.} Selected Proposer(s) must receive written authorization from PRDOH before using any FTE. Costs incurred by the selected Proposer(s) without PRDOH's previous authorization will not be compensated.





Exhibit O – Cost Form CDBG-DR-RFP-2020-06 Community Development Block Grant – Disaster Recovery Page 9 of 16

Name of Proposer:

Tetra Tech, Inc.

Cost Form 6. Cost per Tasks for Stage II

[A] Suggested Resource Position	[B] Hourly Cost		[D] Task 1.1	[E] Task 1.2	[F] Task 1.3	[G] Task 5.2	[H] Task 5.3	[I] Total Hours
Districts	04.40	Hours	1,960.00	1,048.00	1,144.00	640.00	448.00	5 0 40 00
Planners	84.60	Cost	165,816.00	88,660.80	96,782.40	54,144.00	37,900.80	5,240.00
Cumumum (OC)	45.50	Hours	192.00	192.00	192.00	192.0	192.00	0/0.00
Surveyors (QC)	65.50	Cost	12,576.00	12,576.00	12,576.00	12,576.00	12,576.00	960.00
مامنانید در مرکزی	51.40	Hours	00	160.00	00	1,360.00	560.00	2 000 00
GIS Specialists	51.49	Cost	00	8,238.40	00	70,026.40	28,834.40	2.080.00
	24.00	Hours	00	100.00	00	2,200.00	700.00	2 000 00
GIS CAD Drafters	36.90	Cost	00	3,690.00	00	81,180.00	25,830.00	3,000.00
Ca a swamb aw/ Cawka awamb ay	51.40	Hours	00	180.00	00	2,640.00	240.00	0.040.00
Geographer/Cartographer	51.49	Cost	00	9,268.20	00	135,933.60	12,357.60	3,060.00
Remote Sensing Specialist/	00.75	Hours	96.00	96.00	96.00	144.00	96.00	500.00
Coordinator	99.75	Cost	9,576.00	9,576.00	9,576.00	14,364.00	9,576.00	528.00
Database Administrator 43.	10.07	Hours	960.00	288.00	144.00	1,920.00	1,920.00	5.000.00
	43.07	Cost	41,347.20	12,404.16	6,202.08	82,694.40	82,694.40	5,232.00
	40.07	Hours	960.00	288.00	144.00	1,920.00	1,920.00	
System/Network Administrator 43.07	Cost	41,347.20	12,404.16	6,202.08	82,694.40	82,694.40	5,232.00	





Exhibit O – Cost Form CDBG-DR-RFP-2020-06 Community Development Block Grant – Disaster Recovery Page 10 of 16

[A] Suggested Resource Position	[B] Hourly Cost		[D] Task 1.1	[E] Task 1.2	[F] Task 1.3	[G] Task 5.2	[H] Task 5.3	[I] Total Hours
CIS Application Programmer	47.00	Hours	00	00	00	960.00	960.00	1 000 00
GIS Application Programmer	47.99	Cost	00	00	00	46,070.40	46,070.40	1,920.00
Enterprise (ArcSDE Geodatabase	FO 75	Hours	960.00	288.00	144.00	240.00	448.00	2.222.22
Administrator)	59.75	Cost	57,360.00	17,208.00	8,604.00	14,340.00	26,768.00	2,080.00
Longit Consultant		Hours	200.00	120.00	200.00	120.00	120.00	7.40.00
Legal Consultant	107.00	Cost	21,400.00	12,840.00	21,400.00	12,840.00	12,840.00	760.00
	07.77	Hours	2,440.00	2,100.00	2,440.00	00	00	4 000 00
Communication Manager	86.77	Cost	211,718.80	182,217.00	211,718.80	00	00	6,980.00

Notes: (Notes refers only to the specific cost form where they are shown.)

19. Resources included in [A] are used for comparison purposes and shall be assumed as a resource available to perform work for listed Tasks. See additional information for hourly rates determination in Table: General Requirements for Resources Positions.

20. Hourly cost to be provided in [B] must consider only direct labor with o) fringe benefits and shall not include overhead costs or profit.

- 21. If determined necessary, the Proposer shall indicate total hours p) each Resource Position per Task. If Resource Position is not required, the Proposer must indicate 0 (zero) hours and the calculation must indicate q) \$0 (zero dollars). Fields left in blank will be considered as zero hours and zero cost.
- 22. Cost for each Resource Position per task shall be calculated by multiplying the determined hours per task by the hourly cost in [B].
- 23. Each Task Unit Costs in [C] shall be obtained for each Task by summing all costs of resources calculated for each Task without including costs of overhead or profit. The results shall be used for completing Cost Form 7.

Table: General Requirements for Resources Positions:

- m) Planning Manager; Position requirements as defined in Scope of Services (RFP Attachment A)
- Surveyor Manager: Position requirements as defined in Scope of Services (RFP Attachment A)
- O) GIS Specialist: Position requirements as defined in Scope of Services (RFP Attachment A)
- p) GIS CAD Drafter: Position requirements as defined in Scope of Services (RFP Attachment A)
- Geographer/ Cartographer: Position requirements as defined in Scope of Services (RFP Attachment A)
- Remote Sensing Specialist/ Coordinator: Position requirements as defined in Scope of Services (RFP Attachment A)
- Database Administrator: Position requirements as defined in Scope of Services (RFP Attachment A)
- System/Network Administrator: Position requirements as defined in Scope of Services (RFP Attachment A)





Exhibit O – Cost Form CDBG-DR-RFP-2020-06

Community Development Block Grant – Disaster Recovery Page 11 of 16

- GIS Application Programmer: Position requirements as defined in Scope of Services (RFP Attachment A)
- v) Enterprise (ArcSDE Geodatabase Administrator): Position requirements as defined in Scope of Services (RFP Attachment A)

 w) Legal Consultant: Position requirements as defined in Scope of Services (RFP)
- Attachment A)
- Communication Manager: Position requirements as defined in Scope of Services (RFP Attachment A)





Exhibit O – Cost Form CDBG-DR-RFP-2020-06 Community Development Block Grant – Disaster Recovery Page 12 of 16

Name of Proposer:

Tetra Tech, Inc.

Cost Form 7. Cost for Stage II Tasks

[A] Task ld	[B] Task Unit Cost (\$/Unit)
Task - 1.1	561,141.20
Task - 1.2	369,082.72
Task – 1.3	373,061.36
Task – 5.2	606,863.20
Task – 5.3	378,142.00

		[C] Subtotal Cost (\$): ∑Task Costs [B]	2,288,290.48
[D] Profit Percentage: (%)	9%	[E] Profit Amount: [C]x[D]	205,946.14
[F] Overhead Percentage: (%)	170%	[G] Overhead Amount: [C]x[F]	3,890,093.82
[H] Total Cost	for Tasl	ks Stage 1: [C]+[E]+[G]	6,384,330.44

Notes: (Notes refers only to the specific cost form where they are shown.)
24. Task Unit Cost value in [B] shall be obtained from Cost Form 6.
25. Overhead percentage in [F] must include royalties, reimbursements, taxes, travel, as well as any other additional fees and administrative costs applicable to the services.

Name of Proposer:

Tetra Tech, Inc.

Cost Form 8. Costs for Additional Activities at Stage II

	Outreach/Media	
Description	Information	Monthly Cost
Billboards	18 (14x48) around the Island. Color.	48,874.06
Written Newspapers advertising	Color Full Page	6,712.04
Digital Newspapers advertising		9,899.03
Social Media advertising		2,375.82
	otal Outreach/Media Monthly Cost [B]	67,860.95

	Mapping Activities		
Description	Number of Units	Unit Cost	Total Cost
Total Municipal miles in PR as of 2019 (21,378) approx. Vertical Lidar and 360° images	21,378	250.34	5,351,768.52
Aerial Imagery (100x35) miles	1	1,207,123.65	1,207,123.65
Storage Terabytes Azure	100 TB	140	14,000.00
	Total Mappi	ng Activities Cost [B]	6,572,892.17



IT Infrastru	cture
Description	Monthly Cost
VM OS and RDBMS maintenance	12,456.88
Total IT Infrastructure Monthly Cost [B]	12,456.88

	Hazard Map		
Suggested Positions	Number of Hours (24 month duration)	Hourly Cost	Total Cost
Geologist	4,160.00	80.34	334,217.40
Geomorphologist	2,080.00	138.44	287,955.20
Geotechnical Engineering	300.00	176.47	52,941.00
On site studies	N/A	N/A	00
	Total Ho	ızard Map Cost [B]	675,110.60



GIS Main	tenance
Description	Monthly Cost
ArcGIS Enterprise maintenance	34,845.39
Total GIS Maintenance Monthly Cost [B]	34,845.39

Surveyor Process/	Certified Engineering Parce	l Surveys
Description	Qty	Unit Cost
Surveyor Process/Certified Engineering Parcel Surveys	39,000 buildings/properties	478.32
	Total Cost [B]	18,654,480.00

Costs for Additional Activities at Stage 2			
[A] Activity Id	[B] Unit Cost (\$)	[C] Number of Units	[D] Activity Cost [B]x[C] (\$)
Outreach/Media	67,860.95	24 months	1,628,662.80
Mapping Activities	6,572,892.17	LS	6,572,892.17
IT Infrastructure	12,456.88	24 months	298,965.12
Hazard Map	675,110.60	LS	675,110.60
GIS Maintenance	34,845.39	24 months	836,289.36
Surveyor Process/Certified Engineering Parcel Surveys	478.32	39,000 buildings/ properties	18,654,480.00



	- M
■ 10.00	
	es at Stage 2: 28 666 400 05
	es at Stage 2: 1 28 666 400 05
[E] Total Cost for Additional Activitie	
The Control of the Co	

Notes: (Notes refers only to the specific cost form where they are shown.)

- 26. For detailed description on Additional Activities refer to SOW.
 27. LS refers to Lump Sum (total cost) for additional activities during Stage duration.



Cost Form 9. Total Proposal Cost

[A] Stages	[B] Total Costs per Key Team Members	[C] Total Costs for Tasks	[D] Total Costs for Additional Activities	[E] Total Cost per Stage [B]+[C]+[D]
Stage I	2,796,199	4,082,984	4,261,387	11,140,570
Stage II	5,846,492	6,384,330	28,666,400	40,897,222

[P] Total Proposal Cost: ∑ Total Cost per Stage [E]	52,037,792.00
--	---------------

STAGE 1	\$11,140,570.00
STAGE II	\$40,897,222
ALLOWANCES (Travel and representation outside Puerto Rico)	\$200,000.00
TRAININGS (Stakeholders after authorization from PRDOH)	\$100,000.00
TOTAL	\$52,337,792.00

TOTAL PROPOSAL COST

\$52,337,792.00



Sum of (a) Key Team Members Maximum Cost for Stage I one (1) year (12 months); plus, (b) Key Team Members Maximum Cost for Stage II two (2) years (24 months); plus (c) Key Team Members Maximum Cost for Stage III two (2) years (24 months); plus, (d) Cost for Tasks Unit Cost for Stage I; plus (e) Cost for Tasks Unit Cost for Stage II; plus (g) Costs for Additional Activities at Stage I; plus (h) Costs for Additional Activities at Stage III; plus (i) Costs for Additional Activities at Stage III

Notes on TOTAL PROPOSAL COST:



- 1. The TOTAL PROPOSAL COST represents the potential total cost for the three (2) Stages of the GeoFrame GIS Services.
- 2. Per Bid Board Resolution, this contract is for services for Stage 1 and Stage 2, plus allowances for a total contract amount of \$52,337,792. During the contract term and subject to funds availability, the PRDOH will amend the contract to authorize services at Stage 3 for a maximum amount of \$38,407,611 with a performance period of 24 months.

Exhibit O – Cost Form CDBG-DR-RFP-2020-06 Community Development Block Grant – Disaster Recovery Page 16 of 16







ATTACHMENT E

OSPA Request for Proposals GeoFrame GIS Services Community Development Block Grant – Disaster Recovery Puerto Rico Department of Housing Secretary for Legal Affairs Insurance Section

SPECIAL INSURANCE AND BONDING SPECIFICATIONS FOR PROFESSIONAL SERVICES

LICITATION NUMBER -

A. The successful bidder before commencing work or receiving a written notice to proceed with, or being allowed to start to work, must submit to the *Department of Housing*, two (2) certified copies of the hereafter mentioned insurance policies and/or bonds, thus including all endorsements and agreements required under the special contractual conditions as per the following:

1. (X) State Insurance Fund Workmen's Compensation Insurance Policy

In accordance with the Workmen's Compensation Act No. 45, to facilitate its acquisition, the *Department of Housing* shall provide a letter to the successful bidder addressed to the State Insurance Fund.

X

2. (X) <u>Commercial General Liability (Broad Form) including the following insurance coverage</u>

COVERAGE	LIMIT
I. Commercial General Liability:	\$1,000,000.00
General Aggregate	\$2,000,000.00
Products & Complete Operations	\$1,000,000.00
 Personal Injury & Advertising 	\$1,000,000.00
Each Occurrence	\$1,000,000.00
Fire Damage	\$100,000.00 (Any one Fire)
Medical Expense	\$10,000.00 (Any one person)
II. Employer's Liability Stop Gap:	
Bodily Injury by Accident Each Employee Each Accident	\$1,000,000.00 \$1,000,000.00
Bodily Injury by Disease	\$1,000,000.00



COVERAGE	LIMIT
Each Employee	\$1,000,000.00
Each Accident	

3. (X) Comprehensive Automobile Liability Form including the following insurance coverages

	LIMIT	
•	Auto Liability - \$1,000,000.00	
•	Physical Damages - \$1,000,000.00	
•	Medical Payments - \$10,000.00	
The Commercial Auto cover must be applied to the following symbols:		
symbols:		
symbols:	Liability Coverage -1	
symbols:	Liability Coverage -1 Physical Damages – 2 and 8	
symbols:		

4. (X) Professional General Liability and/or Errors and Omissions Policy

(X) A. Risk, interest, location and limits

(X) A.1 Description of work to be done

(X) A.2 Limit:

(X) each occurrence

\$1,000,000

(X) aggregate

\$5,000,000

(X) deductible

\$5,000.00

(X) A.3 Certification that the insurance contract has been given as surplus lines coverage under the Commonwealth Insurance Code, when applicable.

5. (X) Umbrella

Limit - \$2,000,000.00

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- 6. (X) The policies to be obtained must contain the following endorsements including as additional insured the Department of Housing, U.S. Department of Housing and Urban Development (HUD), and the Government of Puerto Rico.
 - (X) a. Breach of warranty
 - (X) b. Waiver and / or Release of Subrogation

- (X) c. Additional Insured Clause
- (X) d. Hold Harmless Agreement
- (X) e. 30 Days Cancellation Clause
- 7. (X) The insurance carrier or carriers which will present said certificates of insurance must have at least a B+ rating according to the Best Rating Guide.

B. IMPORTANT NOTICE TO INSURANCE AND SURETY COMPANIES AND THEIR REPRESENTATIVES

All insurance companies and all guarantors who issue policies or bonds under our special contractual conditions are subject to:

- 1. Be authorized to do business within the Commonwealth of Puerto Rico and have the corresponding license issued by the Commissioner of Insurance.
- 2. To be enjoying a good economic situation and to be classified under the Category of B+ by the "Best Rating Guide".
- 3. Submit to the *Department of Housing* a written certification as evidence of full payment of premiums by the Contractor. Mention each risk coverage premium separately.
- **4.** Avoid sub-contractual obligations of premium financing or any other kind, which may be detrimental to the public interest.
- 5. Avoid any request for cancellation by the contractor prior to the expiration date of the policy, without the consent of the Insurance Section of the *Department* of *Housing*: Discuss any refund of unearned premium.
- **6.** Follow all Federal Bail and Acceptance Insurance Regulations, when applicable.
- 7. Indicate in the appropriate place of all insurance policies and/or bonds, the full description of the project, work or service to be rendered.
- **8.** Not to make any amendments to insurance policies and bonds issued under the special conditions mentioned above, unless approved by the Insurance Section of the Department of Housing.
- 9. To ensure that all insurance policies or bonds are issued to comply with all of our special insurance conditions with respect to the period of coverage, type of risk coverage, as well as all limits, as specified, and also to eliminate those exclusions in accordance with our request.

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- **10.** Clarify any questions regarding insurance requirements by any means of communication with the Insurance Section of the Department of Housing under the Secretary for Legal Affairs.
- C. EVIDENCE OF INSURANCE COVERAGE OF EACH SUBCONTRACTOR TO BE SUBMITTED BY THE SUCCESSFUL BIDDER AS THE PRIME CONTRACTOR:

The successful bidder, as the prime contractor, has the duty to require each of the subcontractors or subcontractors to maintain in force all insurance policies and/or bonds necessary to cover their individual participation in the risk or risks related to the subcontracted work or service to be rendered.

Therefore, we emphasize that prior to commencing work or receiving written notice to proceed with such work or being authorized to commence work, the successful prime contractor has the responsibility to provide the *Department of Housing* with evidence to the effect that all insurance and/or bonds required under the special conditions or required under the sub-contract to each of the sub-contractors or sub-sub-contractors are current and duly approved by the Insurance Section of the *Department of Housing*.

All insurance policies shall remain in effect for the entire contractual period, so that with any order of change and/or amendment resulting in alteration of the original project completion date or total original cost, the prime contractor shall take the necessary steps to request the insurer to include such changes in all related insurance policies and/or bonds and to submit evidence by appropriate endorsements with effective dates. Cancellations without consent are not accepted.

The **Department of Housing** reserves the right to stop any work or service under contract until the breach of these requirements has been remedied, so that any delay in the performance of the contract based on any breach of the insurance coverage requirements shall be deemed the sole responsibility of the Main Contractor.

D. CONFLICT OR DIFFERENCE BETWEEN THE SPECIFICATIONS OF THE TENDERING, PROCEDURE AND SPECIAL INSURANCE CONDITIONS AND BONDS, FORM DV-OSPA-78-5

In the event of any conflict or difference in the description of coverage or in amounts or limits, etc., with respect to insurance requirements, the "Special Conditions of Insurance and Bonds" as set forth in this Form (DV-OSPA-78-5) shall prevail over any other insurance specifications.

E. CERTIFICATE OF INSURANCE SECTION

We hereby certify, to our best knowledge and understanding, that we have prepared the aforementioned "Insurance and Bonds Special Conditions" after a proper evaluation of the related risks, based on the information of the nature of the project and description submitted to us, as requested by the Contracting Program through a written application.

DESCRIPTION OF THE SERVICES:

GeoFrame GIS Services

September 29, 2020

Date

Arlyn Rodríguez Fuentes Insurance Section

Secretary for Legal Affairs





ATTACHMENT

CDBG-DR Program **HUD General Provisions** Page 1 / 18

HUD GENERAL PROVISIONS

Given that the Contract involves funds for which the U.S. Department of Housing and Urban Development (HUD) is the oversight agency, the following terms and conditions may apply to this Contract. In addition, Contractor shall comply with the Federal Labor HUD-4010, available **Standards** Provisions set forth in Form https://www.hudexchange.info/resource/2490/hud-form-4010-federal-labor-standardsprovisions/

The CONTRACTOR shall include these terms and conditions in all subcontracts or purchase orders directly servicing the Contract.

These general provisions may be updated from time to time. It is the sole responsibility of the CONTRACTOR to be aware of any changes hereto, to amend and implement such changes and to ensure subcontracts terms and conditions are modified as necessary, if any.

General Provisions:



PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion or correction.

STATUTORY AND REGULATORY COMPLIANCE

CONTRACTOR shall comply with all laws and regulations applicable to the Community Development Block Grant-Disaster Recovery funds appropriated by: the Continuing Appropriations Act, 2018, and Supplemental Appropriations for Disaster Relief Requirements, 2017 (Pub. L. 115-56) approved on September 8, 2017, as amended; the Bipartisan Budget Act of 2018 (Pub. L. 115-123) approved on February 9, 2018, as amended; the Additional Supplemental Appropriations for Disaster Relief Act, 2019, (Pub. L. 116-20) approved on June 6, 2019, as amended; as well as including, but not limited ,to the applicable Office of Management and Budget Circulars, which may impact the administration of funds and/or set forth certain cost principles, including if certain expenses are allowed.



BREACH OF CONTRACT TERMS

The Puerto Rico Department of Housing (PRDOH) reserves its right to all administrative, contractual, or legal remedies, including but not limited to suspension or termination of

this Contract, in instances where the CONTRACTOR or any of its subcontractors violate or breach any Contract term. If the CONTRACTOR or any of its subcontractors violate or breach any Contract term, they shall be subject to such sanctions and penalties as may be appropriate. The duties and obligations imposed by the Contract documents, and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

4. REPORTING REQUIREMENTS

The CONTRACTOR shall complete and submit all reports, in such form and according to such schedule, as may be required by PRDOH and/or the Government of Puerto Rico. The CONTRACTOR shall cooperate with all the PRDOH and/or the Government of Puerto Rico efforts to comply with HUD requirements and regulations pertaining to reporting, including but not limited to 24 C.F.R. §§ 85.40-41 (or 84.50-52, if applicable) and § 570.507, when applicable.

5. ACCESS TO RECORDS

The Government of Puerto Rico, the PRDOH, HUD, the Comptroller General of the United States, or any of their duly authorized representatives, shall have, at any time and from time to time during normal business hours, access to any work product, books, documents, papers, and records of the CONTRACTOR which are related to this Contract, for the purpose of inspection, audits, examinations, and making excerpts, copies and transcriptions.

6. MAINTENANCE/RETENTION OF RECORDS

All records (files, data, work product) connected with this Contract will be turned over to PRDOH following the Agreement termination to be maintained for the remainder of the grant and post grant closeout.

7. SMALL AND MINORITY FIRMS, WOMEN'S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS

The CONTRACTOR will take necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used in subcontracting when possible. Steps include, but are not limited to:

- (i) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (ii) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;





- (iii) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;
- (iv) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises; and
- (v) Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.

Additionally, for contracts of \$10,000 or more, the CONTRACTOR shall file Form HUD 2516 (Contract and Subcontract Activity) with the PRDOH on a quarterly basis.

8. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 C.F.R. Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements", and any implementing regulations issued by HUD.



9. TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

The Proposer will comply with the provisions of Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin in any program or activity that receives Federal funds or other Federal financial assistance. Programs that receive Federal funds cannot distinguish among individuals on the basis of race, color or national origin, either directly or indirectly, in the types, quantity, quality or timelines of program services, aids or benefits that they provide or the manner in which they provide them. This prohibition applies to intentional discrimination as well as to procedures, criteria or methods of administration that appear neutral but have a discriminatory effect on individuals because of their race, color, or national origin. Policies and practices that have such an effect must be eliminated unless a recipient can show that they were necessary to achieve a legitimate nondiscriminatory objective.

10. SECTION 109 OF THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974

The CONTRACTOR shall comply with the provisions of Section 109 of the Housing and Community Development Act of 1974. No person in the United States shall on the grounds of race, color, national origin, religion or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title. Section 109 further provides that discrimination on the basis of age under the Age Discrimination Act of 1975 or with



respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, as amended, is prohibited.

11. SECTION 504 OF THE REHABILITATION ACT OF 1973

The CONTRACTOR shall comply with Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794), as amended, and any applicable regulations.

The CONTRACTOR agrees that no qualified individual with handicaps shall, solely on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives Federal financial assistance from HUD.

12. AGE DISCRIMINATION ACT OF 1975

The CONTRACTOR shall comply with the Age Discrimination Act of 1975 (42 U.S.C. § 6101 et seq.), as amended, and any applicable regulations. No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to, discrimination under, any program or activity receiving Federal financial assistance.



13. DEBARMENT, SUSPENSION, AND INELIGIBILITY

The CONTRACTOR represents and warrants that it and its subcontractors are not debarred or suspended or otherwise excluded from or ineligible for participation in Federal assistance programs subject to 2 C.F.R. Part 2424.

14. CONFLICTS OF INTEREST

The CONTRACTOR shall notify the PRDOH as soon as possible if this Contract or any aspect related to the anticipated work under this Contract raises an actual or potential conflict of interest (as defined at 2 C.F.R. Part 215 and 24 C.F.R. § 85.36 or 84.42, if applicable). The CONTRACTOR shall explain the actual or potential conflict in writing in sufficient detail so that the PRDOH is able to assess such actual or potential conflict. The CONTRACTOR shall provide the PRDOH any additional information necessary to fully assess and address such actual or potential conflict of interest. The CONTRACTOR shall accept any reasonable conflict mitigation strategy employed by the PRDOH, including but not limited to the use of an independent subcontractor(s) to perform the portion of work that gives rise to the actual or potential conflict.



When subcontracting, the CONTRACTOR shall solicit for and contract with such subcontractors in a manner providing for fair competition. Some of the situations considered to be restrictive of competition include, but are not limited to:

- (i) Placing unreasonable requirements on firms in order for them to qualify to do business;
- (ii) Requiring unnecessary experience and excessive bonding;
- (iii) Noncompetitive pricing practices between firms or between affiliated Companies;
- (iv) Noncompetitive awards to consultants that are on retainer contracts,
- (v) Organizational conflicts of interest;
- (vi) Specifying only a brand name product instead of allowing an equal product to be offered and describing the performance of other relevant requirements of the procurement; and
- (vii) Any arbitrary action in the procurement process.

The CONTRACTOR represents to the PRDOH that all work shall be performed by personnel experienced in the appropriate and applicable profession and areas of expertise, taking into account the nature of the work to be performed under this Contract.

The CONTRACTOR will include these HUD General Provisions in every subcontract issued by it, so that such provisions will be binding upon each of its subcontractors as well as the requirement to flow down such terms to all lower-tiered subcontractors.



16. ASSIGNABILITY

The CONTRACTOR shall not assign any interest in this Agreement, and shall not transfer any interest in the same (whether by assignment or novation) without prior written approval of the PRDOH.

17. INDEMNIFICATION

The CONTRACTOR shall indemnify, defend, and hold harmless the Government of Puerto Rico and PRDOH, its agents and employees, from and against any and all claims, actions, suits, charges, and judgments arising from or related to the negligence or willful misconduct of the CONTRACTOR in the performance of the services called for in this Contract.

18. COPELAND "ANTI-KICKBACK" ACT

(Applicable to all construction or repair contracts)

Salaries of personnel performing work under this Contract shall be paid unconditionally and not less often than once a month without payroll deduction or rebate on any account except only such payroll deductions as are mandatory by law or permitted by the applicable regulations issued by the Secretary of Labor pursuant to the Copeland "Anti-Kickback Act" of June 13, 1934 (48 Stat. 948; 62 Stat. 740; 63 Stat. 108; Title 18 U.S.C. § 874; and Title 40 U.S.C. § 276c). The CONTRACTOR shall comply with all applicable "Anti-Kickback" regulations and shall insert appropriate provisions in all subcontracts covering



work under this Agreement to ensure compliance by subcontractors with such regulations, and shall be responsible for the submission of affidavits required of subcontractors thereunder except as the Secretary of Labor may specifically provide for variations of or exemptions from the requirements thereof.

19. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

(Applicable to construction contracts exceeding \$2,000 and contracts exceeding \$2,500 that involve the employment of mechanics or laborers.)

The CONTRACTOR shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 3701-3708) as supplemented by Department of Labor regulations (29 C.F.R. Part 5).

All laborers and mechanics employed by CONTRACTORS or subcontractors shall receive overtime compensation in accordance with and subject to the provisions of the Contract Work Hours and Safety Standards Act, and the CONTRACTORS and subcontractors shall comply with all regulations issued pursuant to that act and with other applicable Federal laws and regulations pertaining to labor standards.



20. DAVIS-BACON ACT

(Applicable to construction contracts exceeding \$2,000 when required by Federal program legislation.)

The CONTRACTOR shall comply with the Davis Bacon Act (40 U.S.C. §§ 3141, et seq.) as supplemented by Department of Labor regulations (29 C.F.R. Part 5).

All laborers and mechanics employed by CONTRACTORs or subcontractors, including employees of other governments, on construction work assisted under this Contract, and subject to the provisions of the federal acts and regulations listed in this paragraph, shall be paid wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor in accordance with the Davis-Bacon Act.

On a semi-annual basis, the CONTRACTOR shall submit Form HUD 4710 (Semi-Annual labor Standards Enforcement Report) to PRDOH.

21. TERMINATION FOR CAUSE

(Applicable to contracts exceeding \$10,000)

If, through any cause, the CONTRACTOR shall fail to fulfill in a timely and proper manner his or her obligations under this Contract, or if the CONTRACTOR shall violate any of the covenants, agreements, or stipulations of this Contract, the PRDOH shall thereupon have the right to terminate this Contract by giving written notice to the CONTRACTOR of such termination and specifying the effective date thereof, at least five (5) days before the



effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the CONTRACTOR under this Agreement shall, at the option of the PRDOH, become the PRDOH's property and the CONTRACTOR shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder. Notwithstanding the above, the CONTRACTOR shall not be relieved of liability to the Government of Puerto Rico and PRDOH for damages sustained by the Government of Puerto Rico and/or PRDOH by virtue of any breach of the Agreement by the CONTRACTOR, and the Government of Puerto Rico and/or PRDOH may withhold any payments to the CONTRACTOR for the purpose of set-off until such time as the exact amount of damages due to the Government of Puerto Rico and/or PRDOH from the CONTRACTOR is determined.

22. TERMINATION FOR CONVENIENCE

(Applicable to contracts exceeding \$10,000)

The PRDOH may terminate this Contract at any time by giving at least ten (10) days' notice in writing to the CONTRACTOR. If the Contract is terminated by the PRDOH as provided herein, the CONTRACTOR will be paid for the time provided and expenses incurred up to the termination date.



23. SECTION 503 OF THE REHABILITATION ACT OF 1973 (Applicable to contracts exceeding \$10,000)

The CONTRACTOR shall comply with Section 503 of the Rehabilitation Act of 1973 (29 U.S.C. § 793), as amended, and any applicable regulations.

Equal Opportunity for Workers with Disabilities:

- The CONTRACTOR will not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The CONTRACTOR agrees to take affirmative action to employ, advance in employment and otherwise treat qualified individuals with disabilities without discrimination based on their physical or mental disability in all employment practices, including the following:
 - (i) Recruitment, advertising, and job application procedures;
 - (ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
 - (iii) Rates of pay or any other form of compensation and changes in compensation;



- (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
- (v) Leaves of absence, sick leave, or any other leave;
- (vi) Fringe benefits available by virtue of employment, whether or not administered by the CONTRACTOR;
- (vii) Selection and financial support for training, including apprenticeship, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
- (viii) Activities sponsored by the CONTRACTOR including social or recreational programs; and
- (ix) Any other term, condition, or privilege of employment.
- 2) The CONTRACTOR agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
- 3) In the event of the CONTRACTOR's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
- 4) The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, provided by or through the contracting officer. Such notices shall state the rights of applicants and employees as well as the CONTRACTOR'S obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants with disabilities. The CONTRACTOR must ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the CONTRACTOR may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair).
- 5) The CONTRACTOR will notify each labor organization or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the CONTRACTOR is bound by the terms of Section 503 of the Rehabilitation Act of 1973, as amended, and is committed to take affirmative action to employ and advance in employment individuals with physical or mental disabilities.
- The CONTRACTOR will include the provisions of this clause in every subcontract or purchase order in excess of \$10,000, unless exempted by the rules, regulations, or orders of the Secretary issued pursuant to Section 503 of the act, as amended, so that such provisions will be binding upon each subcontractor or vendor. The

CONTRACTOR will take such action with respect to any subcontract or purchase order as the Deputy Assistant Secretary for Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

24. EQUAL EMPLOYMENT OPPORTUNITY

(Applicable to construction contracts and subcontracts exceeding \$10,000)

The CONTRACTOR shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 C.F.R. chapter 60).

During the performance of this Agreement, the CONTRACTOR agrees as follows:

- 1) The CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The CONTRACTOR shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 2) The CONTRACTOR shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by Contracting Officer setting forth the provisions of this non-discrimination clause. The CONTRACTOR shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- 3) The CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- 4) The CONTRACTOR will send to each labor union or representative of workers with which he or she has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers representative of the CONTRACTOR's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

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- 5) The CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
- 6) The CONTRACTOR will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to books, records and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- 7) In the event of the CONTRACTOR's non-compliance with the non-discrimination clause of this Agreement or with any of such rules, regulations or orders, this Agreement may be cancelled, terminated or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order 11246 and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.
- 8) CONTRACTOR shall incorporate the provisions of 1 through 7 above in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor so that such provisions shall be binding on such subcontractor. The CONTRACTOR will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for non-compliance, provided, however, that in the event the CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

25. CERTIFICATION OF NONSEGREGATED FACILITIES (Applicable to construction contracts exceeding \$10,000)

The CONTRACTOR certifies that it does not maintain or provide for its establishments, and that it does not permit employees to perform their services at any location, under its control, where segregated facilities are maintained. It certifies further that it will not maintain or provide for employees any segregated facilities at any of its establishments, and it will not permit employees to perform their services at any location under its control



where segregated facilities are maintained. The CONTRACTOR agrees that a breach of this certification is a violation of the equal opportunity clause of this Agreement.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason.

The CONTRACTOR further agrees that (except where it has obtained for specific time periods) it will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause; that it will retain such certifications in its files; and that it will forward the preceding notice to such proposed subcontractors (except where proposed subcontractors have submitted identical certifications for specific time periods).



26. CERTIFICATION OF COMPLIANCE WITH CLEAN AIR AND WATER ACTS (Applicable to contracts exceeding \$100,000)

The CONTRACTOR and all subcontractors shall comply with the requirements of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq., the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 C.F.R. Part 15 and 32, as amended, Section 508 of the Clean Water Act (33 U.S.C. § 1368) and Executive Order 11738.

In addition to the foregoing requirements, all nonexempt contractors and subcontractors shall furnish to the owner, the following:

- 1) A stipulation by the CONTRACTOR or subcontractors, that any facility to be utilized in the performance of any nonexempt contract or subcontract, is not listed on the Excluded Party Listing System pursuant to 40 C.F.R. Part 32 or on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 C.F.R. Part 15, as amended.
- 2) Agreement by the CONTRACTOR to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 U.S.C. § 7414) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 U.S.C. § 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified



in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.

- 3) A stipulation that as a condition for the award of the Agreement, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized, or to be utilized for the Agreement, is under consideration to be listed on the Excluded Party Listing System or the EPA List of Violating Facilities.
- 4) Agreement by the CONTRACTOR that he or she will include, or cause to be included, the criteria and requirements in paragraph (1)through (4) of this section in every nonexempt subcontract and requiring that the CONTRACTOR will take such action as the government may direct as a means of enforcing such provisions.

27. ANTI-LOBBYING

(Applicable to contracts exceeding \$100,000)

By the execution of this Contract, the CONTRACTOR certifies, to the best of his or her knowledge and belief, that:

- 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the CONTRACTOR, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the CONTRACTOR shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities", in accordance with its instructions.
- 3) The CONTRACTOR shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.



This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

28. BONDING REQUIREMENTS (Applicable to construction and facility improvement contracts exceeding \$100,000)

The CONTRACTOR shall comply with Puerto Rico bonding requirements, unless they have not been approved by HUD, in which case the CONTRACTOR shall comply with the following minimum bonding requirements:

- 1) A bid guarantee from each bidder equivalent to five percent (5%) of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his or her bid, execute such contractual documents as may be required within the time specified.
- 2) A performance bond on the part of the CONTRACTOR for one hundred percent (100%) of the Agreement price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the CONTRACTOR's obligations under such contract.
- 3) A payment bond on the part of the CONTRACTOR for one hundred percent (100%) of the Agreement price. A "payment bond" is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

29. SECTION 3 OF THE HOUSING AND URBAN DEVELOPMENT ACT OF 1968 (As required by applicable thresholds)

1) The work to be performed under this Agreement is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

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- 2) The parties to this Agreement agree to comply with HUD's regulations in 24 C.F.R. Part 75 which implement Section 3. As evidenced by their execution of this Agreement, the parties to this Agreement certify that they are under no contractual or other impediment that would prevent them from complying with the Part 75 regulations.
- 3) The CONTRACTOR agrees to send to each labor organization or representative of workers with which the CONTRACTOR has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the CONTRACTOR's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- 4) The CONTRACTOR agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. Part 75, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. Part 75. The CONTRACTOR will not subcontract with any subcontractor where the CONTRACTOR has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. Part 75.
- 5) The CONTRACTOR will certify that any vacant employment positions, including training positions, that are filled: (1) after the CONTRACTOR is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 C.F.R. Part 75 require employment opportunities to be directed, were not filled to circumvent the CONTRACTOR's obligations under 24 C.F.R. Part 75.
- 6) Noncompliance with HUD's regulations in 24 C.F.R. Part 75 may result in sanctions, termination of this Agreement for default, and debarment or suspension from future HUD assisted contracts.
- 7) With respect to work performed in connection with Section 3 covered Indian housing assistance, Section 7(b) of the Indian Self-Determination and Education Assistance Act (46 U.S.C. § 5307) also applies to the work to be performed under this Agreement. Section 7(b) requires that to the greatest extent feasible: (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian





organizations and Indian-owned Economic Enterprises. Parties to this Agreement that are subject to the provisions of Section 3 and Section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with Section 7(b).

8) For contracts exceeding \$100,000, the CONTRACTOR shall submit Form HUD 60002 (Section 3 Summary Report) to PRDOH on a quarterly basis, notwithstanding the annual reporting requirement set forth in that form's instructions.

30. FAIR HOUSING ACT

CONTRACTOR shall comply with the provisions of the Fair Housing Act of 1968, as amended. The act prohibits discrimination in the sale or rental of housing, the financing of housing or the provision of brokerage services against any person on the basis of race, color, religion, sex, national origin, handicap or familial status. The Equal Opportunity in Housing Act prohibits discrimination against individuals on the basis of race, color, religion, sex or national origin in the sale, rental, leasing or other disposition of residential property, or in the use or occupancy of housing assisted with Federal funds.

31. ENERGY POLICY AND CONSERVATION ACT

CONTRACTOR shall comply with mandatory standards and policies relating to energy efficiency as contained in the Government of Puerto Rico's energy conservation plan, issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201 et seq).

32. HATCH ACT

CONTRACTOR agrees to comply with mandatory standards and policies relating to Hatch Act, Public Law 76-252, as amended.

The Hatch Act applies to political activities of certain state and local employees. As a Puerto Rico Department of Housing CONTRACTOR, you may do any of the following activities: be a candidate in nonpartisan elections; attend political meetings and conventions; contribute money; campaign in partisan elections; and hold office in political parties.

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The CONTRACTOR may not do the following activities: be a candidate in partisan elections; use official influence to interfere in elections; coerce political contributions from subordinates in support of political parties or candidates. The office of special counsel operates a website that provides guidance concerning hatch act issues.

33. HEALTH AND SAFETY STANDARDS

All parties participating in this project agree to comply with Sections 107 and 103 of the Contract Work Hours and Safety Standards Act. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions, which are unsanitary, hazardous, or dangerous to his or her health and safety as determined under construction, safety, and health standards promulgated by the Secretary of Labor. These requirements do not apply to the purchase of supplies or materials or articles ordinarily available on the open market, or contracts for transportation.

34. PERSONNEL

The CONTRACTOR represents that it has, or will secure at its own expense, all personnel required in performing the services under this Agreement. Such personnel shall not be employees of, or have any contractual relationship with, the contracting party. All the services required hereunder will be performed by the CONTRACTOR or under its supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under State and local law to perform such services. No person who is serving sentence in a penal or correctional institution shall be employed on work under this Contract.

35. WITHHOLDING OF WAGES

If in the performance of this Agreement, there is any underpayment of wages by the CONTRACTOR or by any subcontractor thereunder, the PRDOH may withhold from the CONTRACTOR out of payment due to him or her an amount sufficient to pay to employees underpaid the difference between the wages required thereby to be paid and the wages actually paid such employees for the total number of hours worked. The amounts withheld may be disbursed by the PRDOH for and on account of the CONTRACTOR or subcontractor to the respective employees to whom they are due.

36. CLAIMS AND DISPUTES PERTAINING TO WAGE RATES

Claims and disputes pertaining to wage rates or to classifications of professional staff or technicians performing work under this Contract shall be promptly reported in writing by the CONTRACTOR to the PRDOH for the latter's decision, which shall be final with respect thereto.

37. DISCRIMINATION BECAUSE OF CERTAIN LABOR MATTERS

No person employed on the services covered by this Agreement shall be discharged or in any way discriminated against because he or she has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable hereunder to his or her employer.





38. INTEREST OF MEMBERS OF LOCAL PUBLIC AGENCY AND OTHERS

The CONTRACTOR agrees to establish safeguards to prohibit employees from using positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have a family, business, or other tie. The CONTRACTOR will be aware of and avoid any violation of the laws of this State which prohibit municipal officers and employees from having or owning any interest or share, individually or as agent or employee of any person or corporation, either directly or indirectly, in any contract made or let by the governing authorities of such municipality for the construction or doing of any public work, or for the sale or purchase of any materials, supplies or property of any description, or for any other purpose whatsoever, or in any subcontract arising therefrom or connected therewith, or to receive, either directly or indirectly, any portion or share of any money or other thing paid for the construction or doing of any public work, or for the sale or purchase of any property, or upon any other contract made by the governing authorities of the municipality, or subcontract arising therefore or connected therewith.

The CONTRACTOR will also be aware of and avoid any violation of the laws of this State which prescribe a criminal penalty for any public officer who has an interest in any contract passed by the board of which he or she is a member during the time he or she was a member and for one year thereafter.

39. INTEREST OF CERTAIN FEDERAL OFFICERS

No member of, or delegate to, the Congress of the United States and no Resident Commissioner shall be admitted any share or part of this Agreement or to any benefit to arise therefrom.

40. INTEREST OF CONTRACTOR

The CONTRACTOR agrees that it presently has no interest and shall not acquire any interest, direct or indirect, in the above described project or any parcels therein or any other interest which would conflict in any manner or degree with the performance of the Work hereunder. The CONTRACTOR further agrees that no person having any such interest shall be employed in the performance of this Agreement.

41. POLITICAL ACTIVITY

The CONTRACTOR will comply with the provisions of the Hatch Act (5 U.S.C. § 1501 et seq.), which limits the political activity of employees.

42. RELIGIOUS ACTIVITY



The CONTRACTOR agrees to abstain from using any funds related to this Agreement for inherently religious activities prohibited by 24 C.F.R. § 570.200(j), such as worship, religious instruction, or proselytization.

43. FLOOD DISASTER PROTECTION ACT OF 1973

The CONTRACTOR will ensure that procedures and mechanisms are put into place to monitor compliance with all flood insurance requirements as found in the Flood Disaster Protection Act of 1973, 24 C.F.R. § 570.605.

44. LEAD BASED PAINT

The CONTRACTOR must comply with the regulations regarding lead-based paint found at 24 C.F.R. Part 35 on LEAD-BASED PAINT POISONING PREVENTION IN CERTAIN RESIDENTIAL STRUCTURES with regards to all housing units assisted using CDBG-DR funds.

45. VALUE ENGINEERING

(Applicable to construction contracts exceeding \$2,000 when required by Federal program legislation.)

The CONTRACTOR must comply with the regulations regarding systematic and organized approach to analyze functions of systems, equipment, facilities, services, and materials to ensure they achieve their essential functions at the lowest cost consistent to life cycle in execution, reliability, quality, and safety, in accordance with 24 C.F.R. § 200.318(g).





ATTACHMENT G

APPENDIX C CONTRACTOR CERTIFICATION FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO CONTRACTS REVIEW POLICY

TETRA TECH, INC.

The following is hereby certified to the Oversight Board regarding the request for authorization for **GeoFrame GIS Services** contract by and between the **Puerto Rico Department of Housing** and **Tetra Tech, Inc.**:

1. The expected subcontractor(s) in connection with the proposed contract¹ is (are) the following:

#1

Name of subcontractor: Agrimensor Luis S. Berrios Montes y Asociados

Business ID: 583306736

Principal company stakeholders: Luis S Berrios Montes, PLS = 100% ownership

Address: Urb. Hacienda La Arboleda, Vega Baja, PR 00693

Principal terms and conditions of contractual relationship: 1st tier subcontractor

Subcontractor Role: Key team member surveys/Parcel Surveys

Period of performance: 60 months

Proposed subcontract amount: \$30,428,276.00

#2

Name of subcontractor: The Sanborn Map Co., Inc.

Business ID: 133980333

Principal company stakeholders: Mr John R. Copple, President/CEO= 100% ownership

Address: 1935 Jamboree Dr., Ste 100, Colorado Springs, CO 80920

Principal terms and conditions of contractual relationship: 1st tier subcontractor

Subcontractor Role: Serial LIDAR Surveys

Period of Performance: 48 months



¹ As used herein, the term "contract" is inclusive of any amendments, modifications or extensions.

Proposed subcontract amount: \$1,293,825.00

#3

Name of subcontractor: e3 Consulting, Inc.

Business ID: 660717771

Principal company stakeholders: Alberto J. Cordero = 100%

Address: 1510 Ponce de Leon, Ste 6A, San Juan, PR 00909

Principal terms and conditions of contractual relationship: 1st tier subcontractor

Subcontractor Role: GIS and Network Administrator Support

Period of Performance: 60 months

Proposed subcontract amount: \$2,449,282.24

#4

Name of subcontractor: Strategic Minds International, LLC

Business ID: 660816137

Principal company stakeholders: Hebe Lugo= 100% ownership

Address: 1509 F.D. Roosevelt, Guaynabo, PR 00968-2612

Principal terms and conditions of contractual relationship: 1st tier subcontractor

Subcontractor Role: Community Outreach/Marketing

Period of Performance: 48 months

Proposed subcontract amount: \$1,364,145.00

#5

Name of subcontractor: CSA Architects & Engineers, LLP

Business ID: 660378904

Principal company stakeholders: Jesus J. Suarez = 98% ownership ,Annette Alfonso and

Roberto Leon

Address: 1511 Ponce de Leon, Suite 23, San Juan, PR 00909

Principal terms and conditions of contractual relationship: 1st tier subcontractor

Subcontractor Role: GIS CAD Drafter/Surveys

Period of Performance: 60 months

Proposed subcontract amount: \$683,194.40





2. Neither the contractor nor any of its owners², partners, directors, officials or employees, has agreed to share or give a percentage of the contractor's compensation under the contract to, or otherwise compensate, any third party, whether directly or indirectly, in connection with the procurement, negotiation, execution or performance of the contract, except as follows:

Not applicable

- 3. To the best knowledge of the signatory (after due investigation), no person has unduly intervened in the procurement, negotiation or execution of the contract, for its own benefit or that of a third person, in contravention of applicable law.
- 4. To the best knowledge of the signatory (after due investigation), no person has: (i) offered, paid, or promised to pay money to; (ii) offered, given, or promised to give anything of value to; or (iii) otherwise influenced any public official or employee with the purpose of securing any advantages, privileges or favors for the benefit of such person in connection with the contract (such as the execution of a subcontract with contractor, beneficial treatment under the contract, or the written or unwritten promise of a gift, favor, or other monetary or non-monetary benefit).
- 5. Neither the contractor, nor any of its owners, partners, directors, officials or employees or, to the best of its knowledge (after due investigation), its representatives or subcontractors, has required, directly or indirectly, from third persons to take any action with the purpose of influencing any public official or employee in connection with the procurement, negotiation or execution of the contract, in contravention of applicable law.
- 6. Any incorrect, incomplete or false statement made by the contractor's representative as part of this certification shall cause the nullity of the proposed contract and the contractor must reimburse immediately to the Commonwealth any amounts, payments or benefits received from the Commonwealth under the proposed contract.



² For purposes of this certification, a contractor's "owner" shall mean any person or entity with more than a ten percent (10%) ownership interest in the contractor.

I hereby certify under penalty of perjury that the foregoing is complete, true and correct on this 27th day of October of 2021.

	October 27, 2021
Signature	Date
Fernando I. Pagés Rangel, PE, D.CE	Director of Puerto Rico and Caribbean Operations
Printed Name	Position

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