

AGREEMENT BETWEEN THE COUNTY OF SAN MATEO AND FEDERAL ENGINEERING, INC.

This Agreement is entered into this _____ day of **March, 2023**, by and between the County of San Mateo, a political subdivision of the state of California, hereinafter called "County," and Federal Engineering, Inc., hereinafter called "Contractor."

* * *

Whereas, pursuant to Section 31000 of the California Government Code, County may contract with independent contractors for the furnishing of such services to or for County or any Department thereof; and

Whereas, it is necessary and desirable that Contractor be retained for the purpose of providing microwave and land mobile radio project management and subject matter expert consulting services.

Now, therefore, it is agreed by the parties to this Agreement as follows:

1. Exhibits and Attachments

The following exhibits and attachments are attached to this Agreement and incorporated into this Agreement by this reference:

- Exhibit A—Services
- Exhibit B—Payments, Rates, and Invoicing
- Attachment IP—Intellectual Property Rights

2. Services to be performed by Contractor

In consideration of the payments set forth in this Agreement and in Exhibit B, Contractor shall perform services for County in accordance with the terms, conditions, and specifications set forth in this Agreement and in Exhibit A.

3. Payments

In consideration of the services provided by Contractor in accordance with all terms, conditions, and specifications set forth in this Agreement and in Exhibit A, County shall make payment to Contractor based on the rates and in the manner specified in Exhibit B. County reserves the right to withhold payment if County determines that the quantity or quality of the work performed is unacceptable. In no event shall County's total fiscal obligation under this Agreement exceed **FIVE HUNDRED THIRTY-SIX THOUSAND THREE HUNDRED DOLLARS (\$536,300)**. In the event that the County makes any advance payments, Contractor agrees to refund any amounts in excess of the amount owed by the County at the time of contract termination or expiration. Contractor is not entitled to payment for work not performed as required by this agreement. Should additional funds be required to complete approved tasks; the contract shall be amended in writing by both parties.

4. Term

Subject to compliance with all terms and conditions, the term of this Agreement shall be from **March 28, 2023, through June 30, 2025**.

5. Termination

This Agreement may be terminated by Contractor or by the County's Information Services Department (ISD), Chief Information Officer (CIO) or CIO's designee at any time without a requirement of good cause upon thirty (30) days' advance written notice to the other party. Subject to availability of funding, Contractor shall be entitled to receive payment for work/services provided prior to termination of the Agreement. Such payment shall be that prorated portion of the full payment determined by comparing the work/services actually completed to the work/services required by the Agreement.

County may terminate this Agreement, or a portion of the services referenced in the Attachments and Exhibits based upon the unavailability of Federal, State, or County funds by providing written notice to Contractor as soon as is reasonably possible after County learns of said unavailability of outside funding.

County may terminate this Agreement for cause. In order to terminate for cause, County must first give Contractor notice of the alleged breach. Contractor shall have five business days after receipt of such notice to respond and a total of ten calendar days after receipt of such notice to cure the alleged breach. If Contractor fails to cure the breach within this period, County may immediately terminate this Agreement without further action. The option available in this paragraph is separate from the ability to terminate without cause with appropriate notice described above. In the event that County provides notice of an alleged breach pursuant to this section, County may, in extreme circumstances, immediately suspend performance of services and payment under this Agreement pending the resolution of the process described in this paragraph. County has sole discretion to determine what constitutes an extreme circumstance for purposes of this paragraph, and County shall use reasonable judgment in making that determination.

6. Contract Materials

At the end of this Agreement, or in the event of termination, all finished or unfinished documents, data, studies, maps, photographs, reports, and other written materials (collectively referred to as "contract materials") prepared by Contractor under this Agreement shall become the property of County and shall be promptly delivered to County. Upon termination, Contractor may make and retain a copy of such contract materials if permitted by law.

7. Relationship of Parties

Contractor agrees and understands that the work/services performed under this Agreement are performed as an independent contractor and not as an employee of County and that neither Contractor nor its employees acquire any of the rights, privileges, powers, or advantages of County employees.

8. Hold Harmless

a. General Hold Harmless

Contractor shall indemnify and save harmless County and its officers, agents, employees, and servants from all claims, suits, or actions of every name, kind, and description resulting from this Agreement, the negligent or wrongful performance of any work or services required of Contractor under this Agreement, or payments made pursuant to this Subsection brought for, or on account of, any of the following:

(A) injuries to or death of any person, including Contractor or its employees/officers/agents;

(B) damage to any property of any kind whatsoever and to whomsoever belonging;

(C) any sanctions, penalties, or claims of damages resulting from Contractor's failure to comply, if applicable, with the requirements set forth in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and all Federal regulations promulgated thereunder, as amended; or

(D) any other loss or cost, including but not limited to that caused by the concurrent active or passive negligence of County and/or its officers, agents, employees, or servants. However, Contractor's duty to indemnify and save harmless under this Section shall not apply to injuries or damage for which County has been found in a court of competent jurisdiction to be solely liable by reason of its own negligence or willful misconduct.

The duty of Contractor to indemnify and save harmless as set forth by this Section shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

b. Intellectual Property Indemnification

Contractor hereby certifies that it owns, controls, and/or licenses and retains all right, title, and/or interest in and to any intellectual property it uses in relation to this Agreement, including the design, look, feel, features, source code, content, and/or other technology relating to any part of the services it provides under this Agreement and including all related patents, inventions, trademarks, and copyrights, all applications therefor, and all trade names, service marks, know how, and trade secrets (collectively referred to as "IP Rights") except as otherwise noted by this Agreement.

Contractor warrants that the services it provides under this Agreement do not infringe, violate, trespass, or constitute the unauthorized use or misappropriation of any IP Rights of any third party. Contractor shall defend, indemnify, and hold harmless County from and against all liabilities, costs, damages, losses, and expenses (including reasonable attorney fees) arising out of or related to any claim by a third party that the services provided under this Agreement infringe or violate any third-party's IP Rights provided any such right is enforceable in the United States. Contractor's duty to defend, indemnify, and hold harmless under this Section applies only provided that: (a) County notifies Contractor promptly in writing of any notice of any such third-party claim; (b) County cooperates with Contractor, at Contractor's expense, in all reasonable respects in connection with the investigation and defense of any such third-party claim; (c) Contractor retains sole control of the defense of any action on any such claim and all negotiations for its settlement or compromise (provided Contractor shall not have the right to settle any criminal action, suit, or proceeding without County's prior written consent, not to be unreasonably withheld, and provided further that any settlement permitted under this Section shall not impose any financial or other obligation on County, impair any right of County, or contain any stipulation, admission, or acknowledgement of wrongdoing on the part of County without County's prior written consent, not to be unreasonably withheld); and (d) should services under this Agreement become, or in Contractor's opinion be likely to become, the subject of such a claim, or in the event such a third party claim or threatened claim causes County's reasonable use of the services under this Agreement to be seriously endangered or disrupted, Contractor shall, at Contractor's option and expense, either: (i) procure for County the right to continue using the services without infringement or (ii) replace or modify the services so that they become non-infringing but remain functionally equivalent.

Notwithstanding anything in this Section to the contrary, Contractor will have no obligation or liability to County under this Section to the extent any otherwise covered claim is based upon: (a) any aspects of the services under this Agreement which have been modified by or for County (other than modification performed by, or at the direction of, Contractor) in such a way as to cause the alleged infringement at issue; and/or (b) any aspects of the services under this Agreement which have been used by County in a manner prohibited by this Agreement.

The duty of Contractor to indemnify and save harmless as set forth by this Section shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

9. Assignability and Subcontracting

Contractor shall not assign this Agreement or any portion of it to a third party or subcontract with a third party to provide services required by Contractor under this Agreement without the prior written consent of County. Any such assignment or subcontract without County's prior written consent shall give County the right to automatically and immediately terminate this Agreement without penalty or advance notice.

10. Insurance

a. General Requirements

Contractor shall not commence work or be required to commence work under this Agreement unless and until all insurance required under this Section has been obtained and such insurance has been approved by County's Risk Management, and Contractor shall use diligence to obtain such insurance and to obtain such approval. Contractor shall furnish County with certificates of insurance evidencing the required coverage, and there shall be a specific contractual liability endorsement extending Contractor's coverage to include the contractual liability assumed by Contractor pursuant to this Agreement. These certificates shall specify or be endorsed to provide that thirty (30) days' notice must be given, in writing, to County of any pending change in the limits of liability or of any cancellation or modification of the policy.

b. Workers' Compensation and Employer's Liability Insurance

Contractor shall have in effect during the entire term of this Agreement workers' compensation and employer's liability insurance providing full statutory coverage. In signing this Agreement, Contractor certifies, as required by Section 1861 of the California Labor Code, that (a) it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and (b) it will comply with such provisions before commencing the performance of work under this Agreement.

c. Liability Insurance

Contractor shall take out and maintain during the term of this Agreement such bodily injury liability and property damage liability insurance as shall protect Contractor and all of its employees/officers/agents while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as any and all claims for property damage which may arise from Contractor's operations under this Agreement, whether such operations be by Contractor, any subcontractor, anyone directly or indirectly employed by either of them, or an agent of either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall not be less than the amounts specified below:

- (a) Comprehensive General Liability..... \$1,000,000
- (b) Motor Vehicle Liability Insurance..... \$1,000,000
- (c) Professional Liability..... \$1,000,000

County and its officers, agents, employees, and servants shall be named as additional insured on any such policies of insurance, which shall also contain a provision that (a) the insurance afforded thereby to County and its officers, agents, employees, and servants shall be primary insurance to the full limits of liability of

the policy and (b) if the County or its officers, agents, employees, and servants have other insurance against the loss covered by such a policy, such other insurance shall be excess insurance only.

In the event of the breach of any provision of this Section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, County, at its option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work and payment pursuant to this Agreement.

11. Compliance With Laws

All services to be performed by Contractor pursuant to this Agreement shall be performed in accordance with all applicable Federal, State, County, and municipal laws, ordinances, regulations, and executive orders, including but not limited to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Federal Regulations promulgated thereunder, as amended (if applicable), the Business Associate requirements set forth in Attachment H (if attached), the Americans with Disabilities Act of 1990, as amended, and Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of disability in programs and activities receiving any Federal or County financial assistance, as well as any required economic or other sanctions imposed by the United States government or under state law in effect during the term of the Agreement. Such services shall also be performed in accordance with all applicable ordinances and regulations, including but not limited to appropriate licensure, certification regulations, provisions pertaining to confidentiality of records, and applicable quality assurance regulations. In the event of a conflict between the terms of this Agreement and any applicable State, Federal, County, or municipal law, regulation, or executive order, the requirements of the applicable law, regulation, or executive order will take precedence over the requirements set forth in this Agreement.

Contractor will timely and accurately complete, sign, and submit all necessary documentation of compliance.

12. Non-Discrimination and Other Requirements

a. General Non-discrimination

No person shall be denied any services provided pursuant to this Agreement (except as limited by the scope of services) on the grounds of race, color, national origin, ancestry, age, disability (physical or mental), sex, sexual orientation, gender identity, marital or domestic partner status, religion, political beliefs or affiliation, familial or parental status (including pregnancy), medical condition (cancer-related), military service, or genetic information.

b. Equal Employment Opportunity

Contractor shall ensure equal employment opportunity based on objective standards of recruitment, classification, selection, promotion, compensation, performance evaluation, and management relations for all employees under this Agreement. Contractor's equal employment policies shall be made available to County upon request.

c. Section 504 of the Rehabilitation Act of 1973

Contractor shall comply with Section 504 of the Rehabilitation Act of 1973, as amended, which provides that no otherwise qualified individual with a disability shall, solely by reason of a disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in the performance of any

services this Agreement. This Section applies only to contractors who are providing services to members of the public under this Agreement.

d. Compliance with County's Equal Benefits Ordinance

Contractor shall comply with all laws relating to the provision of benefits to its employees and their spouses or domestic partners, including, but not limited to, such laws prohibiting discrimination in the provision of such benefits on the basis that the spouse or domestic partner of the Contractor's employee is of the same or opposite sex as the employee.

e. Discrimination Against Individuals with Disabilities

The nondiscrimination requirements of 41 C.F.R. 60-741.5(a) are incorporated into this Agreement as if fully set forth here, and Contractor and any subcontractor shall abide by the requirements of 41 C.F.R. 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

f. History of Discrimination

Contractor certifies that no finding of discrimination has been issued in the past 365 days against Contractor by the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or any other investigative entity. If any finding(s) of discrimination have been issued against Contractor within the past 365 days by the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or other investigative entity, Contractor shall provide County with a written explanation of the outcome(s) or remedy for the discrimination prior to execution of this Agreement. Failure to comply with this Section shall constitute a material breach of this Agreement and subjects the Agreement to immediate termination at the sole option of the County.

g. Reporting; Violation of Non-discrimination Provisions

Contractor shall report to the County Executive Officer the filing in any court or with any administrative agency of any complaint or allegation of discrimination on any of the bases prohibited by this Section of the Agreement or the Section titled "Compliance with Laws". Such duty shall include reporting of the filing of any and all charges with the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or any other entity charged with the investigation or adjudication of allegations covered by this subsection within 30 days of such filing, provided that within such 30 days such entity has not notified Contractor that such charges are dismissed or otherwise unfounded. Such notification shall include a general description of the circumstances involved and a general description of the kind of discrimination alleged (for example, gender-, sexual orientation-, religion-, or race-based discrimination).

Violation of the non-discrimination provisions of this Agreement shall be considered a breach of this Agreement and subject the Contractor to penalties, to be determined by the County Executive Officer, including but not limited to the following:

- i. termination of this Agreement;
- ii. disqualification of the Contractor from being considered for or being awarded a County contract for a period of up to 3 years;
- iii. liquidated damages of \$2,500 per violation; and/or
- iv. imposition of other appropriate contractual and civil remedies and sanctions, as determined by the County Executive Officer.

To effectuate the provisions of this Section, the County Executive Officer shall have the authority to offset all or any portion of the amount described in this Section against amounts due to Contractor under this Agreement or any other agreement between Contractor and County.

h. Compliance with Living Wage Ordinance

As required by Chapter 2.88 of the San Mateo County Ordinance Code, Contractor certifies all contractor(s) and subcontractor(s) obligated under this contract shall fully comply with the provisions of the County of San Mateo Living Wage Ordinance, including, but not limited to, paying all Covered Employees the current Living Wage and providing notice to all Covered Employees and Subcontractors as required under the Ordinance.

13. Compliance with County Employee Jury Service Ordinance

Contractor shall comply with Chapter 2.85 of the County's Ordinance Code, which states that Contractor shall have and adhere to a written policy providing that its employees, to the extent they are full-time employees and live in San Mateo County, shall receive from the Contractor, on an annual basis, no fewer than five days of regular pay for jury service in San Mateo County, with jury pay being provided only for each day of actual jury service. The policy may provide that such employees deposit any fees received for such jury service with Contractor or that the Contractor may deduct from an employee's regular pay the fees received for jury service in San Mateo County. By signing this Agreement, Contractor certifies that it has and adheres to a policy consistent with Chapter 2.85. For purposes of this Section, if Contractor has no employees in San Mateo County, it is sufficient for Contractor to provide the following written statement to County: "For purposes of San Mateo County's jury service ordinance, Contractor certifies that it has no full-time employees who live in San Mateo County. To the extent that it hires any such employees during the term of its Agreement with San Mateo County, Contractor shall adopt a policy that complies with Chapter 2.85 of the County's Ordinance Code." The requirements of Chapter 2.85 do not apply unless this Agreement's total value listed in the Section titled "Payments", exceeds two-hundred thousand dollars (\$200,000); Contractor acknowledges that Chapter 2.85's requirements will apply if this Agreement is amended such that its total value exceeds that threshold amount.

14. Retention of Records; Right to Monitor and Audit

(a) Contractor shall maintain all required records relating to services provided under this Agreement for three (3) years after County makes final payment and all other pending matters are closed, and Contractor shall be subject to the examination and/or audit by County, a Federal grantor agency, and the State of California.

(b) Contractor shall comply with all program and fiscal reporting requirements set forth by applicable Federal, State, and local agencies and as required by County.

(c) Contractor agrees upon reasonable notice to provide to County, to any Federal or State department having monitoring or review authority, to County's authorized representative, and/or to any of their respective audit agencies access to and the right to examine all records and documents necessary to determine compliance with relevant Federal, State, and local statutes, rules, and regulations, to determine compliance with this Agreement, and to evaluate the quality, appropriateness, and timeliness of services performed.

15. Merger Clause; Amendments

This Agreement, including the Exhibits and Attachments attached to this Agreement and incorporated by reference, constitutes the sole Agreement of the parties to this Agreement and correctly states the rights, duties, and obligations of each party as of this document's date. In the event that any term, condition, provision, requirement, or specification set forth in the body of this Agreement conflicts with or is inconsistent with any term, condition, provision, requirement, or specification in any Exhibit and/or Attachment to this Agreement, the provisions of the body of the Agreement shall prevail. Any prior agreement, promises, negotiations, or representations between the parties not expressly stated in this document are not binding. All subsequent modifications or amendments shall be in writing and signed by the parties.

16. Controlling Law; Venue

The validity of this Agreement and of its terms, the rights and duties of the parties under this Agreement, the interpretation of this Agreement, the performance of this Agreement, and any other dispute of any nature arising out of this Agreement shall be governed by the laws of the State of California without regard to its choice of law or conflict of law rules. Any dispute arising out of this Agreement shall be venued either in the San Mateo County Superior Court or in the United States District Court for the Northern District of California.

17. Notices

Any notice, request, demand, or other communication required or permitted under this Agreement shall be deemed to be properly given when both: (1) transmitted via facsimile to the telephone number listed below or transmitted via email to the email address listed below; and (2) sent to the physical address listed below by either being deposited in the United States mail, postage prepaid, or deposited for overnight delivery, charges prepaid, with an established overnight courier that provides a tracking number showing confirmation of receipt.

In the case of County, to:

Name/Title: **Michael Wentworth, Chief Information Officer, Information Services Department**
Address: 455 County Center, 3rd Floor, Redwood City, CA 94063
Telephone: 650-363-4548
Facsimile: 650-363-7800
Email: mwentworth@smcgov.org

In the case of Contractor, to:

Name/Title: **Ronald F. Bosco, President and Chief Executive Officer, Federal Engineering, Inc.**
Address: 10560 Arrowhead Drive, #100, Fairfax, VA 22030
Telephone: 703-359-8200
Facsimile:
Email: rbosco@fedeng.com

18. Electronic Signature

Both County and Contractor wish to permit this Agreement and future documents relating to this Agreement to be digitally signed in accordance with California law and County's Electronic Signature Administrative

Memo. Any party to this Agreement may revoke such agreement to permit electronic signatures at any time in relation to all future documents by providing notice pursuant to this Agreement.

19. Payment of Permits/Licenses

Contractor bears responsibility to obtain any license, permit, or approval required from any agency for work/services to be performed under this Agreement at Contractor's own expense prior to commencement of said work/services. Failure to do so will result in forfeit of any right to compensation under this Agreement.

* * *

In witness of and in agreement with this Agreement's terms, the parties, by their duly authorized representatives, affix their respective signatures:

FOR CONTRACTOR: FEDERAL ENGINEERING, INC

Ronald F. Bosco
Contractor Signature

2/18/2023
Date

Ronald F. Bosco, President & CEO
Contractor Name (please print)

COUNTY OF SAN MATEO

By:
President, Board of Supervisors, San Mateo County

Date:

ATTEST:

By:
Clerk of Said Board

Exhibit A

SERVICES

In consideration of the payments set forth in Exhibit B, Contractor shall provide the following services for the County:

Description of Services to be provided by Contractor

1. Engagement Overview

1.1 Summary

Contractor shall be retained for the purpose of providing consulting and project management services. Assignments shall include general consultancy for the County's Microwave (MW) Upgrade Project and potentially other Land Mobile Radio (LMR) Projects. Contractor shall perform a wide variety of tasks to include project management, reporting, maintaining project finances, project monitoring, issue resolution, provider/staff coordination and additional tasks as assigned. Requested services shall be on an as needed consulting basis.

The Objectives of the County's Microwave Project are as follows:

- To provide highly reliable microwave communications equipment and to establish/upgrade communications/data links amongst the various sites throughout the County.
- To successfully migrate existing communications traffic onto the new system, and to prepare for the installation of future interfaced equipment at all sites.
- To provide an inter-site data and communications back-haul transport system to the County.

Contractor shall provide a subject matter expert and a project manager for overall project execution and support to include working with the County selected microwave vendor and LMR system manufacturer, Motorola, to conduct upgrade planning, liaison, design, factory coordination, and engineering. In addition, final path surveys, FCC Part 101 frequency coordination, internal project management, hardware, software, integration/conversion assistance, installation labor, training, travel, and warranty services described or implied through this specification are included. Contractor understands that all tasks are designed to ensure delivery, installation, and maintenance of a fully operational microwave network. At all times, the Contractor provided resource engaged in this service shall act as the County advocate to ensure the selected microwave upgrade vendor acts in accordance with best practices and consistently minimizing radio system user impacts when engaging in and completing project tasks.

1.2 Microwave System

As a part of the microwave Project, the County shall be upgrading the Astro P25 Trunk and Conventional System into IP/MPLS transport. The County's microwave backbone is a 10 site, 10 hops of OC3 11 GHz non-protected Harris MegaStar SONET in a loop configuration. Loop protection is provided by Fujitsu FLM150 OC3 Multiplexers connected directly to each MegaStar microwave radio via multimode fiber optic cables. Current capacity is 84 DS1, divided into 3 groups of STS1 each

with 28 DS1 capacity. Currently there are 69 active DS1 on the microwave network. The entire microwave network consists of 38 hops throughout the county. Each site provides a specific service based on the end user needs. Each site radio frequencies and capacity are based on user's need and geographical locations. They consist of Harris Constellation, and MicroStar radios with 8 DS1 to 28 DS1 capacity at 6, 11, and 18 GHz frequencies.

2. Scope of Services

Contractor to provide the following as needed consulting services but not be limited to, the following:

2.1 Project Management

- Responsible for setting, coordinating, and implementation of Kickoff Meeting to discuss project goals, objectives, expectations, tasks, schedule, and deliverables
- Participate in weekly project status teleconferences, or as required
- Participate in on-site project status meetings, as required by ISD Leadership
- Assist in the development of project execution processes as they relate to milestone processing, effective communications across teams, roles and responsibilities, and documentation formats
- Review frequency plans and license applications as required
- Maintain an independent Requirements Tracking Matrix and punch list
- Monitor and track the project milestones and compliance of the defined deliverables
- Assist the County in resolving vendor issues, oversee the vendor's punch list development and resolution process, identify any vendor performance issues, and make appropriate recommendations to the County
- Regularly coordinate with County's project management team
- Deploy access to **FEClientNet™** Website. **FEClientNet™** is a Web-enabled program management service with a broad range of capabilities that provide real-time reporting of status and information, a repository for program documents, and a rapid and efficient method of collecting information or transferring sizeable reports. During the project initiation meeting, County and Contractor will determine the use of this service.
- Apply and ensure Quality Assurance (QA) measures to all phases of the project
- Interface with all levels of the organization from technical to executive staff in all aspects of design and project execution
- Adhere to a strict communications strategy and when requested to chair meetings as well as both formal and informal discussions
- Skill and experience in leading Microwave installation or upgrade projects, engineering teams, third-party proposers generally associated with Microwave site construction and operations
- Provide project documentation and reports (e.g., status reports, financials, spend plan, minutes, etc.)
- Forecast and plan to keep the project on track
- Maintain the project spend plan and tracking financials
- Facilitate communication/ coordination with stakeholders such as the County's Radio Services Division, Public Safety Departments (all divisions when required), ISD Security, ISD Networking on project status
- Develop and present a high-level project support plan based on the County's priorities and the microwave project schedule

- Define deliverables, identify the required resource skills and staffing levels, estimate hours necessary for completing identified tasks, and agree upon the schedule for completion of identified tasks. When required tasks shall be provided either on-site or remotely as determined by ISD Management.

Project Schedule

- Upon award, Contractor shall review the project schedule prepared by the microwave vendor, identifying any areas of concern, contingencies, and strategies for the County and microwave vendor to consider in order to maintain the schedule.

Contractor's resource shall have the following key skills:

- Good understanding of telecommunications network fundamentals to include at a minimum transport technology (TDM, MPLS, IP) and options available for wireless and terrestrial backhaul
- Able to develop and maintain necessary project management functions to drive a project to completion as per the PMBOK/SCRUM practices
- Project Management Professional (PMP) certification, or similar certification or extensive experience equaling at least ten (10) years

2.2 Microwave Radio Subject Matter Expert

- Work with Engineering Teams, Microwave and Backhaul, FCC and State/Federal Regulatory Compliance, and Third-Party Proposers associated with Microwave site construction and operations
- Advise on FCC and State/Federal Regulatory Compliance issues
- Assist County with communication site acquisition and development
- Shelter installation and siting
- Advise on Microwave and Backhaul
- Electromagnetic engineering and spectrum analysis
- DC power systems engineering
- Interference analysis and resolution
- In-building wireless Distributive Antenna Systems

Microwave Design Package

- Review microwave vendor's Design Package as per County's requirements to include evaluate path profiles, acceptability of the proposed frequency plans, system test plan, cutover plan, system block diagrams, updates of any previously submitted designs, acceptance test plan (ATP), detailed equipment list, and interface requirements with the Astro 25 system as the County is upgrading into IP/MPLS transport.
- Work with the County and microwave vendor to identify areas of deficiency, document them in the punch list and provide recommended actions to correct deficiencies.
- Evaluate the completeness of the microwave vendor's proposed tasks, duration, critical path dependencies, and risk contingencies.
- Review and evaluate microwave vendor's proposed timeline for the implementation and migration to the new microwave system for compliance to the County's operational guidelines so that existing services are not adversely affected.

Microwave Frequency Licensing

- Contractor's Spectrum Center of Excellence (SCOE) serves the County by assisting in spectrum or regulatory matters. With immediate access to FCC and other frequency databases, Contractor is constantly apprised of issues surrounding frequency acquisition and use.

- Monitor the FCC's rules and regulations, as well as the latest reports, orders, notices, and memoranda that pertain to the wireless regulatory arena.
- Contractor's SCOE experts shall assess spectrum alternatives proposed by the microwave vendor on public safety communications systems, including potential interference issues. Solutions utilizing currently authorized frequencies and antenna locations may or may not require FCC license modification. If a solution requires new sites or frequencies, Contractor shall support the County during the frequency coordination and application process for new licenses, managed by the selected vendor. The SCOE team performs licensing related activities and shall keep County stakeholders informed of the status of documentation during the application process through the regulatory agencies

Path Profiles

- Model vendor-proposed backhaul paths for the new system, taking into consideration both municipal (building) and terrain clutter using FENetwork™.
- Discuss their findings with County personnel and the microwave vendor if discrepancies or areas of concern are identified from the microwave vendor's proposed design. Computer-generated point-to-point path profiles shall be created to evaluate path feasibility.

Factory and System Acceptance Test Plans

- Assess microwave vendor-provided test plans to assure that they incorporate proper testing techniques and processes, stress the systems appropriately, identify any deficiencies within the system, and produce test results and documentation that are quantitative and can be validated against equipment specifications and system requirements.
- Review the following plans:
 - System Factory ATP
 - System Field ATP
 - Infrastructure Installation Test Plan
 - Maintenance Training Plan
 - Preventative Maintenance Plan
 - User Training Plan
 - System Migration, Transition, and Deployment Plan
 - System Availability Test Plan
 - Full System ATP
- Attend factory staging of the system at the vendor's facility acting as the County's technical advisor and observe equipment staging to confirm that the system components meet specifications and that the entire system functions as designed, prior to shipment.

System Installation and Construction

- Verify that microwave vendor has submitted the necessary applications for site permissions/access to install system equipment at non-County owned sites.
- As applicable, Contractor shall review site zoning applications. If necessary, Contractor to evaluate microwave vendor reports to address NEPA/environmental impact issues.
- Prior to start of installation, Contractor shall participate with County in a project site survey to determine each site's readiness, evaluate that it meets installation requirements for the new equipment, and confirm equipment location with each space.

- Conduct an independent inventory of equipment upon delivery to each site to determine if the County is receiving what they paid for
- Oversee the microwave system and other infrastructure vendors' project implementation tasks to assess timely completion and adherence to schedule. Items to be inventoried shall include but not be limited to the following:
 - Site documentation and manuals for completeness particularly sensitive to as built drawings and ensure that they reflect the site conditions
 - FCC licenses and other regulatory permits and documentation
 - Electronics and ancillary equipment, including radios, equipment racks, power and signaling cabling, transmission lines and wave guides, antennas, grounding, and surge suppression
 - Infrastructure including shelter, antenna support structure, commercial power, emergency power, HVAC, site security, cable ladders and ice bridges, lighting, and fire suppression
- Following installation, Contractor shall inspect each site and systems, equipment, and infrastructure to assure that system equipment is present, and that work has been performed in accordance with industry and good workmanship standards using site-specific quality checklists. Contractor shall verify that the installation consists of a complete tested system. For inspection-related activities as identified in the microwave vendor's schedule, Contractor shall complete the following:
 - Review shelter preparation activities to assess if they have been performed correctly and in time for installations
 - Determine if the required facility improvements have been made and the installation complies with applicable standards, including those for seismic bracing
 - Determine if site support systems, such as power supplies, batteries, emergency backup systems, and other hardware, adapters, or required connection devices, are properly installed and operating
 - Inspect site installations and internal and external grounding and verify the equipment installation complies with applicable standards
 - Inspect the site equipment installation including antenna, transmission line, placement of cabling, microwave equipment, terminal equipment, and other specified infrastructure equipment
 - Inspect equipment and shelters following installation to verify that the microwave vendor has thoroughly cleaned equipment and devices, repaired any damage to finishes, and cleaned the equipment shelter and building floors
 - Witness and assess the results of the microwave vendor's final site tests
- Contractor shall create and maintain a master punch list including items that fail the inventory, inspection, or site testing criteria. The punch list shall call out the item, its owner, its deficiency, intended resolution, planned resolution date, and tentative re-inspection and/or retesting date if known. Deficiencies that lend themselves to visual evidence shall be photographed and included in the punch list. Contractor shall report discrepancies to the County and verify that corrective actions are taken before any punch list items are removed. If site rework is needed, Contractor shall periodically check progress against the implementation schedule and monitor any delays, so they are quickly identified, and mitigation plans developed. Upon substantial system completion, Contractor shall assist the County in the final inspection and approval of the installation.

Implementation/Migration/Cutover Plan

- Contractor shall review the microwave vendor's proposed migration plan for the network rollout and assess the proposed labor and support from existing systems to the new system. Contractor shall review and comment upon the activities identified by the microwave vendor to implement the network, the logical groupings of implementation activities, the proposed schedule and procedures associated with the transition, and the planned rollout by each user agency. Contractor shall identify critical path dependencies for the network implementation, including identification of systems that affect ongoing operations and adequacy of plans to transition each operational user group with minimal operational impact.
- Contractor shall evaluate and comment upon activities needed to migrate users successfully from the current system to the new network, including the microwave vendor's plan to address Standard Operating Procedures (SOPs), training, and risk mitigation. In coordination with the County and the microwave vendor, Contractor shall assist in the finalization of a migration plan that shall maximize the efficiency of the implementation while minimizing disruptions to radio communications around the county. Contractor shall review and make any recommendations for changes to the microwave vendor's proposed migration plan.

Final Acceptance Testing

- Contractor shall assess the Final Acceptance Test Plan to assure that it shall stress the systems appropriately, identify any deficiencies within the system, and produce test results that are quantitative and can be validated against equipment specifications and system requirements. Prior to testing, Contractor shall review microwave vendor records to assess if equipment, hardware, and software have the latest factory revisions prior to final system acceptance. Contractor shall report any discrepancies to the County.
- Contractor shall assess the vendor's acceptance test procedures and oversee the field acceptance testing and shall supervise testing of the following:
 - System Functionality
 - System Performance
 - System Reliability
 - System Loading
- Contractor shall participate, review, evaluate and provide recommendations regarding the results of the final system acceptance test inspection and certification. Contractor shall assess field testing results and make recommendations to the County regarding system acceptance or for resolution of any non-compliance and maintain these issues in the punch list. Contractor shall recommend any retest of individual failed tests or the retest of the entire acceptance test plan, as deemed appropriate. Contractor shall identify any non-compliance or test failure, and provide recommendations for complete, partial, or non-acceptance of the system.

Decommissioning, Removal, and Disposal of Legacy Equipment

- The decommissioning and removal of old equipment shall be required from the microwave vendor. Once it has been verified that the cutovers have been successfully executed, the new system meets the operational performance requirements, the users have expressed satisfaction with the new system and the system has been accepted, legacy systems/equipment decommissioning, and removal can commence. Contractor shall monitor the decommissioning process and assist the County in verifying that the microwave vendor has removed all legacy equipment from each site following the "burn-in" period.

As-Built Documentation

- At the completion of each implementation phase, Contractor shall review the microwave vendor's as-built documentation to verify that it contains the following:
 - Detailed list of equipment provided
 - Plan and elevation drawings of all equipment including antennas on towers
 - Shelter floor plans
 - Cabling and terminations
 - Block and level diagrams
 - Network e.g., MPLS diagrams
 - Setup, configuration, and alignment information, to include commissioning, provisioning, test, and turn-up
 - Successfully completed, signed, and dated system and final acceptance test plans

Microwave Documentation Contract Compliance

- Throughout the project, Contractor shall review microwave vendor-provided documentation to determine compliance to agreed-upon contractual requirements. Specific examples include the following:
 - At the completion of equipment ordering, review the site-by-site equipment list, compare it with the equipment provided during the completion of the corresponding implementation phase, and report discrepancies to the County
 - Review factory testing documentation and verify to the County that it has been provided for each piece of equipment
 - Review installation and optimization documents that were completed by the microwave vendor during installation and verify to the County that it was provided with the appropriate as built documentation. Verify that the microwave vendor has provided the following:
 - Site drawings, including room layouts, cable runs, and grounding on a site-by-site basis
 - Equipment rack diagrams
 - Tower drawings, including antenna and coaxial cable loading information, antenna center line heights, and any other equipment mounted on the tower on a site-by-site basis
 - Tower structural analysis results for towers where loading may be questionable
 - Required tower structure documents detailing modifications for any tower that fails analysis
 - Review cabling details and verify to the County that there is a complete record of the installation
 - Review system installation, optimization, operation, and maintenance manuals and verify to the County that they have been provided for all equipment

System Acceptance

- Assist the County in assessing that all required testing has been successfully completed, all documentation has been received, punch list items have been successfully closed, and all vendor contractual obligations met.
- Support the County in determining when the new microwave system is ready for final acceptance.

Contractor's resource shall have the following key skills:

- Professional credentials in the wireless/electronics field (FCC, APCO, PE, IEEE)
- Experience with tower or other communication structures

3. Phases

Contractor to provide as needed consulting services to align and support the Microwave System Upgrade Project at the following phases:

- Planning
- Design and Build
- Installation and Integration
- Testing and Cutover
- Close Out

4. Transition Support

- Support the transference of the equipment to the County's ownership by reviewing the contractual documents governing the agreement.
- Contractor's work and knowledge, as well as that of the respective vendors, shall be transitioned to the County through the as-built documentation, planned maintenance contracts and prior records, and information captured and stored in the network management system (NMS). Contractor shall support the County as primary staff and users undergo training and train-the-trainer programs that shall facilitate knowledge transfer from the microwave vendor to the County.

5. County's Responsibilities

- Provide a primary point of contact (POC) for the project
- Schedule and coordinate County's resources (if applicable)
- Provide contractor requested documentation or information necessary to adhere to project schedule
- Coordinate and provide any necessary access (remote and/or onsite) with the required approval/ clearance from ISD Security Team to County systems that are relevant to this project (if applicable)
- Review deliverables within the timeframe of the mutually agreed upon project timeline
- Attend all mutually agreed upon required scheduled project meetings
- County has the right to request replacements for Contractor's resources to include Project Manager (PM)

6. Contractor's Responsibilities

- Contractor's ability to fulfill assigned tasks depend, in part, on the willingness and ability of the County, the County participants, equipment vendors, service providers, third parties, and others to provide information in a timely manner, and upon the accuracy of the information as supplied. The County understands and acknowledges that Contractor cannot verify the accuracy of input data, whether provided in electronic or hard copy form, and the recommendations, actions, system designs, system procurements, and license filings resulting therefrom. The County understands and acknowledges that Contractor does not accept liability with respect to any information or related content delivered

- by Contractor to third parties.
- Contractor's resources shall apply and secure the required security clearances from the County.
 - Contractor's resources shall comply to the County's minimum background check requirements. In some instances, fingerprinting may be required (if applicable).
 - When required, Contractor to provide all applicable licenses and license numbers, certificates relevant to the assigned project, name of the holders of those licenses and certificates, and the names of the agencies issuing the licenses and certificates. If requested by County, a copy of these licenses and certificates.
 - Contractor's resources shall work remotely or on site at County offices depending upon the tasks to be performed. The Contractor's resources are expected to go to the field sites as required by the needs of the project.
 - Contractor shall comply with all applicable County safety and security policies and procedures.
 - Contractor shall not charge the following expenses to this engagement namely: airfare, lodging, mileage, meals, shipping, photocopies, tolls and parking, and travel time.
 - Contractor shall inform the County of any critical risk factors that will affect scheduling delays.
 - Contractor to attend all mutually agreed upon required scheduled project meetings
 - Normally services shall be provided during regular business hours Monday through Friday, 8am to 5pm PT, however afterhours work may be required particularly during site go-lives and for other activities.

Any additional services and change orders, requested, and approved by the County, not included in this Agreement, shall be quoted on as needed basis.

Any additional services and change orders will be submitted by the Contractor and must be pre-approved by the Chief Information Officer (CIO), or CIO's designee in writing, prior to commencing work.

The methods and techniques used to provide the services indicated herein to the County are within the Contractor's discretion, but subject to the County Information Services Department's technology policies, guidelines, and requirements. The amount of time, specific hours, and location of the performance of Contractor's services are left to the Contractor's discretion provided that the Contractor coordinates with County Information Services Department as needed.

Exhibit B

PAYMENTS, RATES, AND INVOICING

In consideration of the services provided by Contractor described in Exhibit A and subject to the terms of the Agreement, County shall pay Contractor based on the following fee schedule and terms:

AS NEEDED CONSULTING SERVICES

Federal Engineering, Inc. Resource Description/Role	Hourly Rate
Director/Chief Consultant	\$250.00
Senior Consultant	\$210.00
Consultant	\$180.00
Senior Analyst	\$150.00
Analyst	\$110.00
Administrative/Computer Services	\$76.00

MILESTONES/PHASES

Milestone	Estimated Amount
Planning Phase	\$58,000
Design and Build Phase	\$129,600
Installation and Integration	\$236,000
Testing and Cutover	\$87,500
Close Out	\$25,200
TOTAL	\$536,300

Total Not to Exceed Amount for this Agreement is \$536,300.

INVOICING

Contractor shall invoice on a monthly basis. Prior to sending an invoice, Contractor shall request approval/confirmation via email for the Contractor's Resource's monthly time report from the County's designated Point of Contact (POC). Once approval/confirmation has been secured, Contractor shall send an invoice together with the County's designated POC's email approval/confirmation.

Each monthly time report must include the following information:

- Hours
- Bill Rate and Billed Amount
- Description of tasks/work performed

Additionally, County may require Contractor's Resource to track time in County's time tracking system.

Each invoice submitted must include the following information, at a minimum:

- Invoice Number and Date
- Agreement Number and/or Purchase Order Number
- Detailed statement of actual services

- Total amount of invoice

The County shall submit payment within net thirty (30) days of receipt of invoice, for services rendered conditioned upon the approval of services performed during the billing cycle.

Invoices shall be sent to ISD-Vendor-Invoices@smcgov.org. Processing time may be delayed if invoices are not submitted electronically and without email approval/confirmation from County's designated POC.

Attachment IP

Intellectual Property Rights

1. The County of San Mateo (“County”), shall and does own all titles, rights and interests in all Work Products created by Contractor and its subcontractors (collectively “Vendors”) for the County under this Agreement. Contractor may not sell, transfer, or permit the use of any Work Products without the express written consent of the County.
2. “Work Products” are defined as all materials, tangible or not, created in whatever medium pursuant to this Agreement, including without limitation publications, promotional or educational materials, reports, manuals, specifications, drawings and sketches, computer programs, software and databases, schematics, marks, logos, graphic designs, notes, matters and combinations thereof, and all forms of intellectual property.
3. Contractor shall not dispute or contest, directly or indirectly, the County’s exclusive right and title to the Work Products nor the validity of the intellectual property embodied therein. Contractor hereby assigns, and if later required by the County, shall assign to the County all titles, rights and interests in all Work Products. Contractor shall cooperate and cause subcontractors to cooperate in perfecting County’s titles, rights or interests in any Work Product, including prompt execution of documents as presented by the County.
4. To the extent any of the Work Products may be protected by U.S. Copyright laws, Parties agree that the County commissions Vendors to create the copyrightable Work Products, which are intended to be work-made-for-hire for the sole benefit of the County and the copyright of which is vested in the County.
5. In the event that the title, rights, and/or interests in any Work Products are deemed not to be “work-made-for-hire” or not owned by the County, Contractor hereby assigns and shall require all persons performing work pursuant to this Agreement, including its subcontractors, to assign to the County all titles, rights, interests, and/or copyrights in such Work Product. Should such assignment and/or transfer become necessary or if at any time the County requests cooperation of Contractor to perfect the County’s titles, rights or interests in any Work Product, Contractor agrees to promptly execute and to obtain execution of any documents (including assignments) required to perfect the titles, rights, and interests of the County in the Work Products with no additional charges to the County beyond that identified in this Agreement or subsequent change orders. The County, however, shall pay all filing fees required for the assignment, transfer, recording, and/or application.
6. Contractor agrees that before commencement of any subcontract work it will incorporate this **ATTACHMENT IP** to contractually bind or otherwise oblige its subcontractors and personnel performing work under this Agreement such that the County’s titles, rights, and interests in Work Products are preserved and protected as intended herein.