SYSTEM PURCHASE AGREEMENT
(Radio Systems with Maintenance and Lifecycle Services) (Lease Version)

THIS AGREEMENT ("Agreement") is made and entered into this _____ day of _____, by and between Motorola Solutions, Inc., a Delaware corporation duly authorized to conduct business in the State of Texas ("Motorola" or "Seller") and Webb County, Texas, a body corporate and politic ("Purchaser").

WITNESSETH:

WHEREAS, the Purchaser desires to purchase a Communications System; and

WHEREAS, Motorola desires to sell a Communications System to Purchaser; and

WHEREAS, Houston-Galveston Area Council ("H-GAC"), acting as the agent for various local governmental entities who are "End Users" under interlocal agreements (including the Purchaser) has solicited proposals for radio communications equipment and conducted discussions with Motorola concerning its proposal and, where applicable, in accordance with the competitive procurement procedures of Texas law; and

WHEREAS, H-GAC and Motorola entered into that certain Contract dated as of May 1, 2018 (the "Contract"), which provided that End Users may purchase radio communications equipment from Motorola pursuant to certain terms contained therein; and

WHEREAS, pursuant to Article 6 of the Contract, Motorola and Purchaser now wish to enter into this System Purchase Agreement to delineate the specific terms of the purchase of radio communications equipment from Motorola by the Purchaser.

THEREFORE, the parties hereby enter into an agreement pursuant to which Motorola shall perform the work and furnish the equipment and services as more fully set forth herein and in the following exhibits, which are either attached hereto or incorporated by reference and hereby made a part of this Agreement:

Exhibit A General Provisions.

Exhibit B Motorola Software License Agreement.

Exhibit C Technical and Implementation Documents, consisting of: Sections 1-8 of Motorola's P25 System Upgrade Proposal dated March 24, 2020, and amended on October 6, 2020.

Exhibit D Motorola/H-GAC Contract dated May 1, 2018.

Exhibit E Warranty, Post-Warranty and Service Terms and Conditions. (Itemized in Section 9 of Motorola's P25 System Upgrade Proposal dated March 24, 2020, and amended on October 6, 2020)

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, the parties agree as follows:

Section 1 SCOPE OF WORK

A. Motorola shall furnish all of the equipment, software and services as outlined in Exhibits C and E, and provide the tools, supplies, labor and supervision necessary for the installation of the items purchased in accordance with Exhibits C and E.

B. ADDITIONAL EQUIPMENT OR SOFTWARE. For three (3) years after the Effective Date, Purchaser may order additional Equipment or Software if it is then available. Each order must refer to this Agreement and must specify the pricing and delivery terms. Notwithstanding any additional or contrary terms in the order, the applicable provisions of this Agreement (except for pricing, delivery, passage of title and risk of loss to Equipment, warranty commencement, and payment terms) will govern the purchase and sale of the additional Equipment or Software. Title and risk of loss to additional Equipment will pass at shipment, warranty will commence upon delivery, and payment is due within twenty (20) days after the invoice date. Motorola will send Purchaser an invoice as the additional Equipment is shipped or Software is licensed. Alternatively, Purchaser may register with and place orders through Motorola Online ("MOL"), and this Agreement will be the "Underlying Agreement" for those MOL transactions rather than the MOL On-Line Terms and Conditions of Sale. MOL registration and other information may be found at http://www.motorola.com/businessandgovernment/ and the MOL telephone number is (800) 814-0601.

C. PERFORMANCE AND PAYMENT BONDS. Motorola shall, within 30 days after mutual contract execution, furnish a performance bond to the benefit of Purchaser prior to the commencement of the Scope of Work under Section 1(A) above. This performance bond shall be in the amount of the total System price of this Agreement. The performance bond obligation will cease upon System Acceptance. Additionally Motorola shall, within 30 days after mutual contract execution, furnish a payment bond to the benefit of Purchaser prior to the commencement of the Scope of Work under Section 1(A) above. This payment bond shall be in the amount sufficient to cover all work performed by Motorola's subcontractors. The payment bond obligation will cease upon System Acceptance.

D. MAINTENANCE SERVICE. During the Warranty Period, in addition to warranty services, Motorola will provide maintenance services for the Equipment and support for the Motorola Software pursuant to Exhibit E and Section 9 of Motorola's P25 System Upgrade Proposal dated March 24, 2020, and amended on October 6, 2020. Those services and support are included in the contract price. If Purchaser wishes to purchase additional maintenance and support services for the Equipment during the Warranty Period, or any maintenance and support services not included in the Six years of Maintenance and Lifecycle Services for the Equipment after the Warranty Period, the description of and pricing for the services will be set forth in a separate document. Unless otherwise agreed by the parties in writing, the terms and conditions applicable to the Six years of Maintenance and Lifecycle Services and those other maintenance,

support or software subscription services will be Motorola's standard Service Terms and Conditions located in Exhibit E, together with the appropriate statements of work.

E. In addition to responsibilities described in the Statement of Work, Purchaser shall perform the following coincident with the performance of this Agreement:

(1) Provide a designated Project Director.

(2) Provide ingress and egress to Purchaser's facilities and/or sites as requested by Motorola and have such facilities available for installation of the equipment to be installed.

(3) Provide adequate telephone or other communications lines (including modem access and adequate interfacing networking capabilities) for the installation, operation and support of the equipment.

(4) Provide adequate space, air conditioning and other environmental conditions, and adequate and appropriate electrical power outlets, distribution, equipment and connections for the installation, operation and support of the equipment. Motorola shall provide a as a condition precedent to this paragraph the specifications needed for the specific Equipment to be installed at a tower location so that the County may negotiate the lease of the tower and request the specifications that Motorola needs to complete the project. The County shall not be held liable for any delays due to Motorola not providing the specifications in advance.

(5) Provide a designated work area with adequate heat and light, and a secure storage area for equipment delivered to the Purchaser. The Purchaser shall be solely liable for loss or damage to equipment prior to, during and following installation when such equipment is on or within Purchaser's facilities and/or vehicles. Motorola shall provide a as a condition precedent to this paragraph the specifications for the amount of space needed for the specific Equipment to be installed at a tower location so that the County may negotiate the lease of the tower and request the space or prepare a location that Motorola needs to complete the project. The County shall not be held liable for any delays due to Motorola not providing the specifications in advance.

Section 2 SITES

This Agreement is predicated on the utilization of sites and site configurations, which have been selected either by the Purchaser or by Motorola and set forth in Exhibit C (Section 1 of Motorola's P25 System Upgrade Proposal dated March 24, 2020, and amended on October 6, 2020). In either situation, should it be determined by either Motorola or Purchaser during the course of performance on this Agreement that the sites or configuration selected are no longer available or desired, new or replacement sites or configuration will be selected and approved by both Motorola and the Purchaser. If any price or schedule adjustments are necessary as a result of these new or replacement sites, such adjustments will be added to this Agreement by change order in accordance with Section 4 of the General Provisions.

Section 3 SUBSURFACE/STRUCTURAL CONDITIONS

This Agreement is predicated upon normal soil conditions defined by E.I.A. standard RS-222 (latest revision). Should Motorola encounter subsurface, structural, adverse environmental and/or latent conditions at any site differing from those indicated on the specifications, or as used in the preparation of the bid price, the Purchaser will be given immediate notice of such conditions before they are further disturbed. Thereupon, Motorola and the Purchaser shall promptly investigate the conditions and, if found to be different, will adjust the plans and/or specifications as may be necessary. Any changes that cause an adjustment in the contract price or in time required for the performance of any part of the contract shall result in a contract modification in accordance with Section 4 of the General Provisions.

Section 4 PERIOD OF PERFORMANCE

A. Motorola's preliminary estimation is that it will be able to obtain final acceptance and completion of the Acceptance Test Plan within fourteen months from project kick-off. A more detailed timeline shall be provided to Purchaser after the design review and customer kick-off meeting.

B. Whenever a party knows or reasonably should know that any actual or potential condition due to circumstances beyond its control is delaying or threatens to delay the timely performance of the work, the party shall within thirty (30) days give the other party notice thereof and may request an extension of time to perform the work.

C. In order to successfully integrate and implement this project, shipments will be made Freight on Board ("F.O.B.") Destination to Purchaser facilities, local Motorola staging facilities, warehousing facilities, or any combination thereof. It is agreed that this plan is acceptable to Purchaser and that Motorola will advise prior to shipment of actual destination and that Purchaser will accept shipment and make payment as required by this Agreement.

D. It is also agreed that equipment shipping dates reflected in this Agreement are estimates only, and that shipment may be made at any time prior to, or subsequent to these estimated shipping dates.

E. The Period of Performance to reach System Acceptance is estimated to be fourteen months in the complete absence of any delays by either Party for any reason. Following System Acceptance, there is a one year Warranty Period followed by six years of post-warranty maintenance and lifecycle services.

Section 5 ACCEPTANCE CRITERIA

A. Motorola will test the Communications System in accordance with the Field Acceptance Test Plan. System acceptance will occur upon the successful completion of such testing ("System Acceptance") at which time both parties shall promptly execute a certificate of system acceptance. If the Field Acceptance Test Plan includes separate tests for individual subsystems or phases of the System, both parties shall promptly execute certificates of subsystem acceptance

upon the successful completion of testing of such subsystems or phases. Minor omissions or variances in performance which do not materially affect the operation of the Communications System as a whole will not postpone System Acceptance. Purchaser and Motorola will jointly prepare a list of such omissions and variances which Motorola will correct according to an agreed upon schedule. Failure on the part of Motorola to complete the omissions and variances identified by Purchaser shall extend the limitations period to sue Motorola by Webb County for breach of contract. The limitations will only begin when all omissions and variances are cured in accordance with this Agreement. The confirmation of an omission or variance must be in writing and signed by an authorized representative of Webb County.

B. Motorola agrees to notify Purchaser when the Communications System is ready for acceptance testing. Motorola and Purchaser agree to commence acceptance testing within ten (10) business days after receiving such notification. If testing is delayed for reasons within the control of Purchaser or its employees, contractors, agents or consultants for more than ten (10) business days after notification, final payment will be due within thirty (30) days after such notification and the Warranty Period will commence immediately. For the purposes of this paragraph notice to the Purchaser is not effective unless the Webb County through an authorized representative has confirmed receipt of the notice.

C. Motorola may, but is not obligated to, issue written authorization for Purchaser to use the Communications System or its subsystem(s) for limited training or testing purposes, prior to the completion of testing by Motorola. Notice of authorization to Purchaser shall be to Purchasers Designated

Section 6 PAYMENT SCHEDULE

A. Motorola agrees to sell all of the equipment and perform the services as outlined in the Scope of Work, and Purchaser agrees to buy the aforementioned equipment and services for the sum of Five Million, Four Hundred Fifty Four Thousand, One Hundred Eighty Dollars ($ 5,454,180.00), which includes the H-GAC administration fee. The System price $5,454,180.00 and the price for the Six (6) years of Maintenance and Lifecycle Services price is Included, based on initial System design. Customer affirms that a purchase order or notice to proceed is not required for contract performance or for subsequent years of service, if any, and that Customer will appropriate funds. The Customer will pay all invoices as received from Motorola and any changes in scope will be subject to the change order process as described in this Agreement. At the time of execution of this Agreement, the Customer will provide any additional and necessary reference information to include on invoices for payment in accordance with this Agreement. Such additional information can include the cost of tax per item when taxes are applicable to be paid by Webb County.

The final price may be adjusted by change orders. With respect to the Maintenance and Lifecycle Services, all post warranty maintenance services and upgrades found in Exhibit E shall remain at the same price with no increase in rate.

B. Customer will make a down payment of $ __0.00___ in the form of a wire transfer, check, or cashier's check from a U.S. financial institution. The balance of the purchase price will be paid via the disbursement of the financing proceeds pursuant to the Equipment Lease-Purchase Agreement No 24764 executed between the parties. For customer's reference, the Federal Tax Identification number for Motorola is 36-1115800.

C. In the event of failure or delay by the Purchaser in providing sites, space, approvals, licenses, or any other Purchaser obligations required preceding delivery of Motorola equipment, it is agreed that Motorola, at its sole discretion, may ship equipment as planned and that the Purchaser will accept the equipment and make payment in accordance with the terms of this Agreement. Any additional costs incurred by Motorola for storage of equipment will be invoiced and paid by Purchaser.

D. Payments to Motorola shall be made as follows:

(i) Motorola shall immediately forward an invoice for the payment requested in Section 6(B) above to Purchaser.

(ii) Purchaser shall pay the Motorola invoice within thirty (30) calendar days of receipt. The Invoice will only be payable by the Purchaser if Motorola's invoice is itemized referencing equipment and services in this Agreement. Webb County shall provide in writing a reqeust for clarification within ten (10) working days of any defects in relation to the invoice submitted by Motorola.

E. Motorola will pay H-GAC's administrative fee in accordance with the payment terms of Motorola/H-GAC Contract dated May 1, 2018.

F. TERM. Unless terminated in accordance with other provisions of this Agreement or extended by mutual agreement of the Parties, the term of this Agreement begins on the date as set forth above at the top of the first page and continues until completion of Six years of the Maintenance and Lifecycle Services.

Section 7 PROJECT MANAGEMENT

A. If the size or complexity of the project warrants, Motorola will assign a Project Manager, who is authorized to exercise technical direction of this project at its own expense. Motorola, at any time, may designate a new or alternate Project Manager with written notice to Purchaser and H-GAC.

B. All matters affecting the terms of this Agreement or the administration thereof shall be referred to Motorola's cognizant Contract Administrator who shall have authority to negotiate changes in or amendments to this Agreement.

Section 8 NOTICE ADDRESSES

A. Motorola Solutions, Inc.
500 W. Monroe Street, 43rd Floor
Chicago, IL 60661
Attn.: Law Department

B. Webb County Texas
Attention: Webb County Radio System Agreement
1000 Houston St. Fl 3rd
Laredo, Texas 78040

C. Houston-Galveston Area Council
3555 Timmons Lane, Suite 120
Houston, Texas 77027
Attn.: Public Services Manager

Section 9 ORDER OF PRECEDENCE

In the event of an inconsistency in this Agreement, the inconsistency shall be resolved in the following order:

The main body of this Agreement.

Exhibit A General Provisions.

Exhibit B Motorola Software License.

Exhibit C Technical and Implementation Documents, consisting of: P25 System Upgrade Proposal dated March 24, 2020 and amended on October 6, 2020.

Exhibit E Warranty, Post-Warranty and Service Terms and Conditions.

Exhibit D Motorola/H-GAC Contract dated May 1, 2018.

Section 10 DISPUTES

Motorola and the Purchaser will attempt to settle any claim or controversy arising out of this Agreement through consultation and negotiation in good faith and a spirit of mutual cooperation.

Any dispute which cannot be resolved between the parties through negotiation within two (2) months of the date of the initial demand for it by one of the parties may then be submitted to a State District Court of competent jurisdiction in Webb County, Texas or in the Federal District Court in the Southern District of Texas. Both Motorola and Purchaser consent to jurisdiction over it by such a court. All communications pursuant to the negotiation and mediation will be

treated as compromise and settlement negotiations for purposes of applicable rules of evidence and any additional confidentiality protections provided by applicable law. In the event and or the use of any Alternative Dispute Resolution ("ADR") procedures will not be considered under the doctrine of laches, waiver or estoppel to affect adversely the rights of either party. Nothing shall prevent either of the parties from resorting to the judicial proceedings mentioned in this paragraph if (a) good faith efforts to attempt resolution of the dispute under these procedures have been unsuccessful or (b) interim relief from the court is necessary to prevent serious and irreparable injury to one of the parties or others.

Section 11 SEVERABILITY

If any portion of this Agreement or any exhibits hereto is held to be invalid, such provision or portion of such provision shall be considered severable, and the remainder of this Agreement shall not be affected.

Section 12 HEADINGS AND SECTION REFERENCES

The headings given to the paragraphs are inserted for convenience only and are in no way to be construed as part of this Agreement or as a limitation of the scope of the particular paragraph to which the heading refers.

Section 13 SURVIVAL OF TERMS

The following provisions will survive the expiration or termination of this Agreement for any reason: Section 6 (Payment Schedule) if any payment obligations exist; Section 9 (Order of Precedence); Section 10 (Disputes); Section 11 (Severability); Section 12 (Headings and Section References); Section 13 (Survival of Terms) and Section 14 (Full Agreement).

Section 14 FULL AGREEMENT

This Agreement and its Exhibits constitute the final expression of the agreement of the parties and supersedes all previous agreements and understandings, whether written or oral, relating to the work. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which shall constitute one and the same instrument. A facsimile copy or computer image, such as a PDF or tiff image, or a signature shall be treated as and shall have the same effect as an original signature. In addition, a true and correct facsimile copy or computer image of this Agreement shall be treated as and shall have the same effect as an original signed copy of this document. This Agreement may not be altered, amended, or modified except by written instrument signed by duly authorized representatives of the parties. The preprinted terms and conditions found on any Purchaser purchase order, acknowledgment or other form will not be considered an amendment or modification of this Agreement, even if a representative of each party signs that document.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the last day and year written below.

MOTOROLA SOLUTIONS, INC.	**PURCHASER**
By: _____ (Signature)	By: _____ (Signature)
Name: _____ (Print - Block Letters)	Name: _____ (Print - Block Letters)
Title: _____ (Print - Block Letters)	Title: _____ (Print - Block Letters)
Date: _____	Date: _____

EXHIBIT A
GENERAL PROVISIONS
MOTOROLA SOLUTIONS, INC.

Section 1 STANDARDS OF WORK

Motorola agrees that the performance of work described in this Agreement and pursuant to this Agreement shall be done in a professional manner and shall conform to professional standards. All packaging and packing shall be in accordance with good commercial practice.

Section 2 TAXES

Purchaser is a tax-exempt entity and will provide a tax-exempt certificate to Motorola upon request.

Section 3 SHIPPING, TITLE AND RISK OF LOSS

All sales and deliveries are F.O.B. Destination. Motorola reserves the right to make deliveries in installments and the Agreement shall be severable as to such installments. Title to the equipment shall pass to the Purchaser upon receipt at the F.O.B. Destination. After delivery to the F.O.B. Destination, risk of loss and damage to the articles shall be borne by the Purchaser. The above notwithstanding, title to software and any third party supplied software shall not pass upon payment of the license fee therefor or under any circumstances.

Section 4 CHANGES IN THE WORK

A. The Purchaser may, at any time, by written order, make changes within the general scope of the work, including but not limited to revisions of, or additions to, portions of the work, or changes in method of shipment or packaging and place of delivery.

B. If any order under this Section 4 causes an increase or decrease in the cost of or time required for the performance of any part of the work under this Agreement, an equitable adjustment shall be made in the Agreement price or delivery schedule, or both, and the Agreement shall be modified in writing accordingly. Motorola is not obligated to comply with any order hereunder unless and until the parties reach agreement as to the equitable adjustment and same is reflected as an addendum to this Agreement.

Section 5 LIMITATION OF LIABILITY

Except for personal injury or death, Motorola's total liability whether for breach of contract, warranty, negligence, indemnification, strict liability in tort or otherwise, is limited to the full contract value ($5,403,180). IN NO EVENT WILL MOTOROLA BE LIABLE FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE,

COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW. This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision. No action shall be brought for any breach of this contract more than four (4) years after the accrual of such cause of action except for money due upon an open account.

Section 6 EXCUSABLE DELAYS

A. Neither Motorola nor the Purchaser shall be responsible for delays or lack of performance resulting from acts beyond the reasonable control of the party or parties. Such acts shall include, but are not be limited to, acts of God; fire; strikes; material shortages; compliance with laws or regulations; riots; acts of war; or any other conditions beyond the reasonable control of the party or parties.

B. Delays as identified herein may cause an impact on the Period of Performance stated in the Agreement. Such delays will be subject to an Agreement addendum as described in Section 4. Such Excusable Delays shall reference this Section and contain the entire paragraph entitled Section 4 - Changes in the Work. Motorola shall have a duty to mitigate any loss of time or expense by continuing to perform another task that is identified in the Scope of Work.

Section 7 DEFAULT

A. If either party fails to perform a material obligation under this Agreement, the other party may consider the non-performing party to be in default (unless such failure has been caused by the conditions set forth in Section 6 of these General Provisions) and may assert a default claim by giving the non-performing party a written and detailed notice of default. Except for a default by Purchaser for failing to pay any amount when due under this Agreement which must be cured immediately, the defaulting party will have thirty (30) days after receipt of the notice of default to either cure the default or, if the default is not curable within thirty (30) days, provide a written cure plan. The defaulting party will begin implementing the cure plan immediately after receipt of notice by the other party that it approves the plan. If Purchaser is the defaulting party, Motorola may stop work on the project until it approves the Purchaser's cure plan.

B. If a defaulting party fails to cure the default as provided above in Section 7.A, unless otherwise agreed in writing, the non-defaulting party may terminate any unfulfilled portion of this Agreement. In the event of termination for default, the defaulting party will promptly return to the non-defaulting party any of its confidential information. If Purchaser is the non-defaulting party, terminates this Agreement as permitted by this Section, and completes the System through a third party, Purchaser may recover from Motorola reasonable costs incurred to complete the System to a capability not exceeding that specified in this Agreement less the unpaid portion of the contract

price. Purchaser will mitigate damages and provide Motorola with detailed invoices substantiating the charges.

Section 8 DELAYS BY PURCHASER

If the Purchaser is responsible for delays in the schedule set forth in the Agreement, the Purchaser shall be liable for actual costs incurred by Motorola resulting from these delays if Motorola requests compensation. Such charges may include, but are not limited to, additional Engineering; rescheduling charges; storage charges; maintenance charges; and transportation charges. The Purchaser shall have the option to attempt to minimize actual costs incurred by storing and transporting equipment at its own expense. Such delays will be subject to an Agreement addendum as described in Section 4. Purchaser shall not be liable under this paragraph due to the enforcement of any official order or regulatory mandate that is issued by a governmental entity during the COVID-19 pandemic to protect the health and safety of Webb County, Texas citizens.

Section 9 LICENSES/AUTHORIZATION

The Purchaser is solely responsible for obtaining any licenses or other authorizations required by the Federal Communications Commission and for complying with FCC rules. Neither Motorola nor any of its employees is an agent or representative of the Purchaser in FCC matters or otherwise. Motorola, however, may assist in the preparation of the license application at no charge to the Purchaser. Purchaser acknowledges that project implementation is predicated on receipt of proper FCC licensing. Any delay caused under this paragraph shall not be a grounds for breach of contract by either party.

Section 10 INDEMNIFICATION

Motorola agrees to and hereby indemnifies and saves Purchaser harmless from all liabilities, judgments, costs, damages and expenses which may accrue against, be charged to, or recovered from the Purchaser by reason of or on account of damage to the tangible property of the Purchaser or the property of, injury to, or death of any person, to the extent and in the proportion that such damage or injury is caused by Motorola's negligent acts or omissions or that of its employees, subcontractors, or agents while on the premises of the Purchaser, or on the premises of the Radio Towers that are identified in Section 1.2 entitled Proposed Site Locations, during the delivery and installation of the communications equipment.

Section 11 WARRANTIES

A. WARRANTY PERIOD. Upon System Acceptance, the System Functionality representation described below is fulfilled. The Equipment and Motorola Software is warranted for a period of one (1) year after System Acceptance ("Warranty Period") in accordance with the applicable limited warranties shown below. Purchaser must notify Motorola in writing if Equipment or Motorola Software does not conform to these warranties no later than one month after the expiration of the Warranty Period.

B. SYSTEM FUNCTIONALITY. Motorola represents that the Communications System will satisfy the functional requirements in Exhibit C. Upon System Acceptance, this System Functionality representation is fulfilled. After System Acceptance, the Warranty Period will commence.

Motorola will not be responsible for performance deficiencies of the System caused by ancillary equipment not furnished by Motorola which is attached to or used in connection with the System provided hereunder. Additionally, Motorola will not be responsible for System performance when the functionality is reduced for reasons beyond Motorola's control including, but not limited to, i) an earthquake, adverse atmospheric conditions or other natural causes; ii) the construction of a building that adversely affects the microwave path reliability or Radio Frequency ("RF") coverage; iii) the addition of additional frequencies at System sites that cause RF interference or intermodulation; iv) Purchaser changes to load usage and/or configuration outside the parameters specified in Exhibit C (Sections 1 and 5); v) any other act beyond Motorola's control, including Purchaser or Purchaser's employees.

C. EQUIPMENT WARRANTY. Motorola warrants the Equipment against material defects in material and workmanship under normal use and service during the Warranty Period. Unless otherwise specified in writing, the Warranty Period for non-Motorola manufactured Equipment will be as stated in this Section. At no additional charge and at its option, Motorola will either repair the defective Equipment, replace it with the same or equivalent Equipment, or, as an option of last resort refund the purchase price of the defective Equipment, and such action on the part of Motorola will be the full extent of Motorola's liability hereunder. Repaired or replaced Equipment is warranted for the balance of the original applicable warranty period. All of the removed/replaced parts of the Equipment shall become the property of Motorola.

THIS WARRANTY DOES NOT APPLY TO

a) Defects or damage resulting from use of the Equipment in other than its normal and customary manner.

b) Defects or damage occurring from misuse, accident, liquids (for indoor based Equipment), neglect or acts of God.

c) Defects or damage occurring from testing, maintenance, installation, alteration, modification, or adjustment not provided or subcontracted by Motorola pursuant to this System Purchase Agreement.

d) Breakage of or damage to antennas unless caused directly by defects in material or workmanship.

e) Equipment that has been subjected to unauthorized modifications, disassembly or repairs (including the addition to the Equipment of non-

Motorola supplied equipment if not authorized by Motorola) which adversely affect performance of the Equipment or interfere with Motorola's normal warranty inspection and testing of the Equipment to verify any warranty claim.

f) Equipment that has had the serial number removed or made illegible.

g) Batteries (because they carry their own separate limited warranty).

h) Freight costs to the repair depot, except for any freight costs for Equipment that is covered by the Maintenance and Lifecycle Services.

i) Equipment that has been subject to illegal or unauthorized alteration of the software/firmware in the Equipment.

j) Scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment.

k) Software.

l) Normal or customary wear and tear.

D. Motorola Software Warranty. Motorola Software is warranted in accordance with the terms of the Software License Agreement attached as Exhibit B.

E. These express limited warranties as set forth in this Section are extended by Motorola to the original end user purchasing or leasing the System for commercial, industrial, or governmental use only, and are not assignable or transferable. These are the complete warranties for the Equipment and Software provided pursuant to this Agreement.

F. THESE WARRANTIES ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY UNLESS SUCH DISCLAIMERS ARE CONTRARY TO FEDERAL AND OR TEXAS STATE LAW.

Section 12 CONFIDENTIAL INFORMATION

Motorola proprietary computer programs will be released in accordance with the Software License provisions set forth elsewhere, if applicable. All other material and information of confidential nature marked Motorola PROPRIETARY and/or CONFIDENTIAL will be released as necessary under the following conditions:

(1) Purchaser shall exercise reasonable and prudent measures to keep these items in confidence.

(2) Purchaser shall not disclose these items to third parties without prior written permission, unless Motorola makes them public or Purchaser learns them rightfully from sources independent of Motorola, or it is required by law to be disclosed.

(3) Motorola, where necessary, retains the right to recommend specific security measures for the Purchaser to follow to maintain the confidentiality.

In the event disclosure of such information is necessary, a separate Non-Disclosure Agreement will be required.

Section 13 SOFTWARE LICENSE

A. Motorola Software. Any Motorola Software furnished will be licensed to Purchaser solely according to the terms and restrictions of the Software License Agreement attached as Exhibit B. Purchaser hereby accepts all of the terms and restrictions of the Software License Agreement.

B. Non-Motorola Software. Any Non-Motorola Software furnished by Motorola will be subject to the terms and restrictions of its copyright owner unless such copyright owner has granted to Motorola the right to sublicense such Non-Motorola Software pursuant to the Software License Agreement, in which case the Software License Agreement (including any addendum to satisfy such copyright owner's requirements) shall apply and the copyright owner will have all of Motorola's rights and protections under the Software License Agreement.

Section 14 PATENT INDEMNIFICATION

A. Motorola will defend at its expense any suit brought against Purchaser to the extent it is based on a third-party claim alleging that the Equipment manufactured by Motorola or the Motorola Software ("Motorola Product") directly infringes a United States patent or copyright ("Infringement Claim"). Motorola's duties to defend and indemnify are conditioned upon: Purchaser promptly notifying Motorola in writing of the Infringement Claim; Motorola having sole control of the defense of the suit and all negotiations for its settlement or compromise; and Purchaser providing to Motorola cooperation and, if requested by Motorola, reasonable assistance in the defense of the Infringement Claim. In addition to Motorola's obligation to defend, and subject to the same conditions, Motorola will pay all damages finally awarded against Purchaser by a court of competent jurisdiction for an Infringement Claim or agreed to, in writing, by Motorola in settlement of an Infringement Claim.

B. If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense: (a) procure for Purchaser the right to continue using the Motorola Product; (b) replace or modify the Motorola Product so that it becomes non-infringing while providing functionally equivalent performance; or (c) accept the return of the Motorola Product and, as an option of last resort, grant Purchaser

a credit for the Motorola Product, less a reasonable charge for depreciation. The depreciation amount will be calculated based upon generally accepted straight-line accounting standards.

C. Motorola will have no duty to defend or indemnify for any Infringement Claim that is based upon: (a) the combination of the Motorola Product with any software, apparatus or device not furnished by Motorola; (b) the use of ancillary equipment or software not furnished by Motorola and that is attached to or used in connection with the Motorola Product; (c) Motorola Product designed or manufactured in accordance with Purchaser's designs, specifications, guidelines or instructions, if the alleged infringement would not have occurred without such designs, specifications, guidelines or instructions; (d) a modification of the Motorola Product by a party other than Motorola; (e) use of the Motorola Product in a manner for which the Motorola Product was not designed or that is inconsistent with the terms of this Agreement; or (f) the failure by Purchaser to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. Purchaser represents that it does not earn royalties payable on a per use basis or any other revenues generally through its administration of the radio system.

D. This Section 14 provides Purchaser's sole and exclusive remedies and Motorola's entire liability in the event of an Infringement Claim. Purchaser has no right to recover and Motorola has no obligation to provide any other or further remedies, whether under another provision of this Agreement or any other legal theory or principle, in connection with an Infringement Claim. In addition, the rights and remedies provided in this Section 14 are subject to and limited by the restrictions set forth in Section 5.

Section 15 DISCLAIMER OF PATENT LICENSE

Nothing contained in this Agreement shall be deemed to grant, either directly or by implication, estoppel, or otherwise, any license under any patents or patent applications of Motorola, except that Purchaser shall have the normal non-exclusive royalty-free license to use that is implied, or otherwise arises by operation of law, in the sale of a product.

Section 16 WAIVER

Failure or delay on the part of Motorola or Purchaser to exercise a right or power hereunder shall not operate as a waiver of the right or power. For a waiver of a right or power to be effective, it must be in a writing signed by the waiving party. An effective waiver of a right or power will not be construed as either a future or continuing waiver of that same right or power, or the waiver of any other right or power. Motorola and Purchaser acknowledge that all waivers of right or power that contain a signature of a Purchaser's representative must be with the expressed authority of a majority vote of the Webb County Commissioners Court after presentment in the form of an agenda item.

Section 17 GOVERNING LAW, JURISDICTION, & VENUE

This Agreement shall be governed by and construed in accordance with the laws of the State of Texas. Jurisdiction and venue shall lie in Webb County, Texas State District Court or the Southern Federal District Court of Texas regardless of where the transaction is alleged to have occurred, the amount in controversy or the residency of the parties.

Section 18 ASSIGNABILITY

Except as provided herein, neither party may assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other party, which consent will not be unreasonably withheld. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Notwithstanding the foregoing, Motorola may assign this Agreement to any of its affiliates or its right to receive payment without the prior consent of Purchaser, so long as such a transfer is not in direct violation of the Texas Purchasing Act. In addition, in the event Motorola separates one or more of its businesses (each a "Separated Business"), whether by way of a sale, establishment of a joint venture, spin-off or otherwise (each a "Separation Event"), Motorola may, without the prior written consent of the other party and at no additional cost to Motorola, assign this Agreement such that it will continue to benefit the Separated Business and its affiliates (and Motorola and its affiliates, to the extent applicable) following the Separation Event. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement.

Section 19 SURVIVAL OF TERMS

The following provisions will survive the expiration or termination of this Agreement for any reason: Section 2 (Taxes); Section 5 (Limitation of Liability); Section 7 (Default); Subsection 11.F (Disclaimer of Implied Warranties); Section 12 (Confidential Information); Section 13 (Software License); and Section 16 (Waiver); Section 17 (Governing Law) and Section 19 (Survival of Terms).

Section 20 ADMINISTRATOR LEVEL ACCOUNT ACCESS

Motorola will provide Purchaser with Administrative User Credentials. Purchaser agrees to only grant Administrative User Credentials to those personnel with the training or experience to correctly use the access. Purchaser is responsible for protecting Administrative User Credentials from disclosure and maintaining Credential validity by, among other things, updating passwords when required. Purchaser may be asked to provide valid Administrative User Credentials when in contact with Motorola System support. Purchaser understands that changes made as the Administrative User can significantly impact the performance of the System. Purchaser agrees that it will be solely responsible for any negative impact on the System or its users by any such changes. System issues occurring as a result of changes made by an Administrative User may impact Motorola's ability to perform its obligations under the Agreement or its Maintenance and Support Agreement. In such cases, a revision to the appropriate provisions of the Agreement, including the Statement of Work, may be necessary. To the extent Motorola provides assistance to correct any issues caused by or arising out of the use of or failure to maintain Administrative User Credentials, Motorola will be entitled to

bill Purchaser and Purchaser will pay Motorola on a time and materials basis for resolving the issue.

Exhibit B

Software License Agreement

This Exhibit B, Software License Agreement ("Agreement") is between Motorola Solutions, Inc., (“Motorola"), and WEBB COUNTY, Texas__ (“Licensee”).

For good and valuable consideration, the parties agree as follows:

Section 1 DEFINITIONS

1.1 “Designated Products” means products provided by Motorola to Licensee with which or for which the Software and Documentation is licensed for use.

1.2 “Documentation” means product and software documentation that specifies technical and performance features and capabilities, and the user, operation and training manuals for the Software (including all physical or electronic media upon which such information is provided).

1.3 “Open Source Software” means software with either freely obtainable source code, license for modification, or permission for free distribution.

1.4 “Open Source Software License” means the terms or conditions under which the Open Source Software is licensed.

1.5 “Primary Agreement” means the Agreement to which this exhibit is attached.

1.6 “Security Vulnerability” means a flaw or weakness in system security procedures, design, implementation, or internal controls that could be exercised (accidentally triggered or intentionally exploited) and result in a security breach such that data is compromised, manipulated or stolen or the system damaged.

1.7 “Software” (i) means proprietary software in object code format, and adaptations, translations, de-compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third-party software provided under separate license or third-party software not licensable under the terms of this Agreement.

Section 2 SCOPE

Motorola and Licensee enter into this Agreement in connection with Motorola's delivery of certain proprietary Software or products containing embedded or pre-loaded proprietary Software, or both. This Agreement contains the terms and conditions of the license Motorola is providing to Licensee, and Licensee’s use of the Software and Documentation.

Section 3 GRANT OF LICENSE

3.1. Subject to the provisions of this Agreement and the payment of applicable license fees, Motorola grants to Licensee a personal, limited, non-transferable (except as permitted in Section 7) and non-exclusive license under Motorola’s copyrights and Confidential Information (as defined in the Primary Agreement) embodied in the Software to use the Software, in object code form, and the Documentation solely in connection with Licensee's use of the Designated Products. This Agreement does not grant any rights to source code.

3.2. If the Software licensed under this Agreement contains or is derived from Open Source Software, the terms and conditions governing the use of such Open Source Software are in the Open Source Software Licenses of the copyright owner and not this Agreement. If there is a conflict between the terms and conditions of this Agreement and the terms and conditions of the Open Source Software Licenses governing Licensee's use of the Open Source Software, the terms and conditions of the license grant of the applicable Open Source Software Licenses will take precedence over the license grants in this Agreement. If requested by Licensee, Motorola will use commercially reasonable efforts to: (i) determine whether any Open Source Software is provided under this Agreement; (ii) identify the Open Source Software and provide Licensee a copy of the applicable Open Source Software License (or specify where that license may be found); and, (iii) provide Licensee a copy of the Open Source Software source code, without charge, if it is publicly available (although distribution fees may be applicable).

Section 4 LIMITATIONS ON USE

4.1. Licensee may use the Software only for Licensee's internal business purposes and only in accordance with the Documentation. Any other use of the Software is strictly prohibited. Without limiting the general nature of these restrictions, Licensee will not make the Software available for use by third parties on a "time sharing," "application service provider," or "service bureau" basis or for any other similar commercial rental or sharing arrangement.

4.2. Licensee will not, and will not allow or enable any third party to: (i) reverse engineer, disassemble, peel components, decompile, reprogram or otherwise reduce the Software or any portion to a human perceptible form or otherwise attempt to recreate the source code; (ii) modify, adapt, create derivative works of, or merge the Software; (iii) copy, reproduce, distribute, lend, or lease the Software or Documentation to any third party, grant any sublicense or other rights in the Software or Documentation to any third party, or take any action that would cause the Software or Documentation to be placed in the public domain; (iv) remove, or in any way alter or obscure, any copyright notice or other notice of Motorola's proprietary rights; (v) provide, copy, transmit, disclose, divulge or make the Software or Documentation available to, or permit the use of the Software by any third party or on any machine except as expressly authorized by this Agreement; or (vi) use, or permit the use of, the Software in a manner that would result in the production of a copy of the Software solely by activating a machine containing the Software. Licensee may make one copy of Software to be used solely for archival, back-up, or disaster recovery purposes; *provided* that Licensee may not operate that copy of the Software at the same time as the original Software is being operated. Licensee may make as many copies of the Documentation as it may reasonably require for the internal use of the Software.

4.3. Unless otherwise authorized by Motorola in writing, Licensee will not, and will not enable or allow any third party to: (i) install a licensed copy of the Software on more than one unit of a Designated Product; or (ii) copy onto or transfer Software installed in one unit of a Designated Product onto one other device. Licensee may temporarily transfer Software installed on a Designated Product to another device if the Designated Product is inoperable or malfunctioning if Licensee provides written notice to Motorola of the temporary transfer and identifies the device on which the Software is transferred. Temporary transfer of the Software to another device must be discontinued when the original Designated Product is returned to operation and the Software must be removed from the other device. Licensee must provide prompt written notice to Motorola at the time temporary transfer is discontinued.

4.4. INTENTIONALLY OMITTED.

4.5. Licensee will maintain, during the term of this Agreement and for a period of two years thereafter, accurate records relating to this license grant to verify compliance with this Agreement. Motorola or an independent third party ("Auditor") may inspect Licensee's directly pertinent premises, books and records pertaining only to Software licensed under this Agreement upon reasonable prior notice to Licensee, during Licensee's normal business hours and subject to Licensee's facility and security regulations. Motorola is responsible for the payment of all expenses and costs of the Auditor. Any information obtained by

Motorola and the Auditor will be kept in strict confidence by Motorola and the Auditor and used solely for the purpose of verifying Licensee's compliance with the terms of this Agreement.

Section 5 OWNERSHIP AND TITLE

Motorola, its licensors, and its suppliers retain all of their proprietary rights in any form in and to the Software and Documentation, including, but not limited to, all rights in patents, patent applications, inventions, copyrights, trademarks, trade secrets, trade names, and other proprietary rights in or relating to the Software and Documentation (including any corrections, bug fixes, enhancements, updates, modifications, adaptations, translations, de-compilations, disassemblies, emulations to or derivative works from the Software or Documentation, whether made by Motorola or another party, or any improvements that result from Motorola's processes or, provision of information services). No rights are granted to Licensee under this Agreement by implication, estoppel or otherwise, except for those rights which are expressly granted to Licensee in this Agreement. All intellectual property developed, originated, or prepared by Motorola in connection with providing the Software, Designated Products, Documentation or related services, remains vested exclusively in Motorola, and Licensee will not have any shared development or other intellectual property rights.

Section 6 LIMITED WARRANTY; DISCLAIMER OF WARRANTY

6.1. The commencement date and the term of the Software warranty will be in accordance with the Warranty Period as described in Section 11 of Exhibit A. If Licensee is not in breach of any of its obligations under this Agreement, Motorola warrants that the unmodified Software, when used properly and in accordance with the Documentation and this Agreement, will be free from a reproducible defect that eliminates the functionality or successful operation of a feature critical to the primary functionality or successful operation of the Software. Whether a defect occurs will be determined by Motorola solely with reference to the Documentation. Motorola does not warrant that Licensee's use of the Software or the Designated Products will be uninterrupted, error-free, completely free of Security Vulnerabilities, or that the Software or the Designated Products will meet Licensee's particular requirements. Motorola makes no representations or warranties with respect to any third party software included in the Software.

6.2 Motorola's sole obligation to Licensee and Licensee's exclusive remedy under this warranty is to use reasonable efforts to remedy any material Software defect covered by this warranty. These efforts will involve either replacing the media or attempting to correct significant, demonstrable program or documentation errors or Security Vulnerabilities. If Motorola cannot correct the defect within a reasonable time, then at Motorola's option, Motorola will replace the defective Software with functionally-equivalent Software, license to Licensee substitute Software which will accomplish the same objective, or, as an option of last resort, terminate the license and refund the Licensee's paid license fee.

6.3. Warranty claims are as described in Section 11 of Exhibit A to this Agreement.

6.4. The express warranties set forth in this Section 6 are in lieu of, and Motorola disclaims, any and all other warranties (express or implied, oral or written) with respect to the Software or Documentation. In addition, Motorola disclaims any warranty to any person other than Licensee with respect to the Software or Documentation.

Section 7 TRANSFERS

Licensee will not transfer the Software or Documentation to any third party without Motorola's prior written consent. Motorola's consent may be withheld at its discretion and may be conditioned upon transferee paying all applicable license fees and agreeing to be bound by this Agreement. If the Designated Products are Motorola's radio products and Licensee transfers ownership of the Motorola radio products to a third party, Licensee may assign its right to use the Software (other than RSS and Motorola's FLASHport® software) which is embedded in or furnished for use with the radio products and the related Documentation; *provided* that Licensee transfers all copies of the Software and Documentation to the

transferee, and Licensee and the transferee sign a transfer form to be provided by Motorola upon request, obligating the transferee to be bound by this Agreement.

Section 8 TERM AND TERMINATION

8.1 Licensee's right to use the Software and Documentation will begin when the Primary Agreement is signed by both parties and will continue for the life of the Designated Products with which or for which the Software and Documentation have been provided by Motorola, unless Licensee breaches this Agreement, in which case this Agreement and Licensee's right to use the Software and Documentation may be terminated immediately upon notice by Motorola.

8.2 Within thirty (30) days after termination of this Agreement, Licensee must certify in writing to Motorola that all copies of the Software have been removed or deleted from the Designated Products and that all copies of the Software and Documentation have been returned to Motorola or destroyed by Licensee and are no longer in use by Licensee.

8.3 If Licensee breaches this Software License Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity.

Section 9 UNITED STATES GOVERNMENT LICENSING PROVISIONS

This Section applies if Licensee is the United States Government or a United States Government agency. Licensee's use, duplication or disclosure of the Software and Documentation under Motorola's copyrights or trade secret rights is subject to the restrictions set forth in subparagraphs (c)(1) and (2) of the Commercial Computer Software-Restricted Rights clause at FAR 52.227-19 (JUNE 1987), if applicable, unless they are being provided to the Department of Defense. If the Software and Documentation are being provided to the Department of Defense, Licensee's use, duplication, or disclosure of the Software and Documentation is subject to the restricted rights set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 (OCT 1988), if applicable. The Software and Documentation may or may not include a Restricted Rights notice, or other notice referring to this Agreement. The provisions of this Agreement will continue to apply, but only to the extent that they are consistent with the rights provided to the Licensee under the provisions of the FAR or DFARS mentioned above, as applicable to the particular procuring agency and procurement transaction.

Section 10 CONFIDENTIALITY

Licensee acknowledges that the Software and Documentation contain Motorola's valuable proprietary and confidential information and are Motorola's trade secrets. Licensee will not disclose the Software and Documentation to any third party except as permitted by this Agreement or expressly in writing by Motorola. Licensee will take necessary and appropriate precautions to maintain the confidentiality and guard against the unauthorized disclosure of the Software and Documentation. Licensee will limit access to the Software and Documentation only to Licensee's employees who "need to know" and are authorized to use the Software and Documentation as permitted by this Agreement. Disclosure of said software and documentation will create a risk of system vulnerability and said documentation should not be released to the public.

Section 11 LIMITATION OF LIABILITY

The Limitation of Liability provision is described in the Primary Agreement.

Section 12 NOTICES

Notices are described in the Primary Agreement.

Section 13 GENERAL

13.1. COPYRIGHT NOTICES. The existence of a copyright notice on the Software will not be construed as an admission or presumption of publication of the Software or public disclosure of any trade secrets associated with the Software.

13.2. COMPLIANCE WITH LAWS. Licensee acknowledges that the Software is subject to the laws and regulations of the United States and Licensee will comply with all applicable laws and regulations, including export laws and regulations of the United States. Licensee will not, without the prior authorization of Motorola and the appropriate governmental authority of the United States, in any form export or re-export, sell or resell, ship or reship, or divert, through direct or indirect means, any item or technical data or direct or indirect products sold or otherwise furnished to any person within any territory for which the United States Government or any of its agencies at the time of the action, requires an export license or other governmental approval. Violation of this provision is a material breach of this Agreement.

13.3. ASSIGNMENTS AND SUBCONTRACTING. Motorola may assign its rights or subcontract its obligations under this Agreement, or encumber or sell its rights in any Software, without prior notice to or consent of Licensee.

13.4. GOVERNING LAW. This Agreement is governed by the laws of the United States to the extent that they apply and otherwise by the internal substantive laws of the State of Texas. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply.

13.5. THIRD PARTY BENEFICIARIES. This Agreement is entered into solely for the benefit of Motorola and Licensee. No third party has the right to make any claim or assert any right under this Agreement, and no third party is deemed a beneficiary of this Agreement. Notwithstanding the foregoing, any licensor or supplier of third-party software included in the Software will be a direct and intended third party beneficiary of this Agreement.

13.6. SURVIVAL. Sections 4, 5, 6.4, 7, 8, 9, 10, 11 and 13 survive the termination of this Agreement.

13.7. ORDER OF PRECEDENCE. In the event of inconsistencies between this Exhibit and the Primary Agreement, the parties agree that this Exhibit prevails, only with respect to the specific subject matter of this Exhibit, and not the Primary Agreement or any other exhibit as it applies to any other subject matter.

13.8 SECURITY. Motorola uses reasonable means in the design and writing of its own Software and the acquisition of third-party Software to limit Security Vulnerabilities. While no software can be guaranteed to be free from Security Vulnerabilities, if a Security Vulnerability is discovered, Motorola will take the steps set forth in Section 6 of this Agreement.

Exhibit C

Technical and Implementation Documents

MOTOROLA SOLUTIONS

WEBB COUNTY

P25 SYSTEM UPGRADE

MARCH 24, 2020 - AMMENDED OCTOBER 6, 2020

Motorola Solutions, Inc.
7904 N. Sam Houston Parkway West # 325
Houston, TX 77064

March 23, 2020

Mr. Adelaido "Lalo" Uribe, III
Chief Executive Administrator
Webb County Judge's Office

RE: P25 Radio System Lifecycle Plan

Dear Mr. Uribe:

Motorola Solutions, Inc. ("Motorola") is pleased to have the opportunity to provide Webb County with a proposal that will provide for an Astro P25 five Site Simulcast System and Extended Maintenance. The Motorola project team has taken great care to propose a solution that will allow your system to continue to be connected and interoperate with the South Texas Development Council / Greater Austin-Travis County Regional P25 Radio System including proposed upgrades to GATRRS.

This proposal includes

- Upgrading of your existing single 4 channel RF site, and the addition of 4 new RF sites in a 6 channel Simulcast configuration.
- A new RF site backhaul microwave system using licensed frequencies for increased reliability.
- A 6 operator position MCC7500E Console System to be installed at the Sheriff's new dispatch facility.
- Extended Maintenance and System Upgrade Assurance (SUA) for 4 or 6 years after the initial one year system warranty.

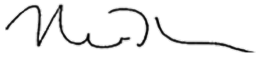
This proposal was prepared based upon the pricing in the Houston Galveston Area Council (HGAC) Contract. This proposal is subject to the enclosed HGAC System Purchase Agreement. Webb County may accept the proposal by returning to Motorola a signed copy of the aforementioned agreement. This proposal is valid through June 15, 2020.

Alternatively, Motorola would be pleased to address any concerns that Webb County may have regarding the proposal. Any questions can be directed to your local Account Executive, Carlos Craig at 210-488-1667.

We thank you for the opportunity to furnish Webb County with this proposal for "Best-in-Class" solutions for mission critical public safety communications and look forward to working with you on this project.

Sincerely,

MOTOROLA SOLUTIONS, INC



Neil Thomas
MSSSI Vice President

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SECTION 1

SYSTEM DESCRIPTION

1.1 INTRODUCTION

In response to Webb County's Coverage expansion request, Motorola is proposing a 5 site 6 Channel ASTRO P25 FDMA Simulcast System in the VHF band. The site locations are South Tower, North Tower, Lobo Tower, Calton Road Tower and Mirando City tower. The existing 4 Channel ESS, Antenna assembly and Combiner/Multicoupler with added expansion cavities will be re-used at the South Tower. Two additional Channels and software upgrade for the existing base radios and site controllers is included as part of this proposal. Each of the four remaining RF sites will consist of a new 6 Channel GTR8000 ESS with antenna assembly and combining. The proposal also includes the Edge solution that provides backup wide area trunking services in the event of a Master Site Zone core failure. This proposal includes a microwave backhaul that will be used for connectivity between the RF Sub Sites and the Prime Site. The proposed system will tie into the GATRRS 7.17 master site via customer provided redundant Ethernet links. Customer will also provide connectivity from the dispatch center to the South Tower Prime Site as shown in the overview diagram below. Motorola will provide the minimum bandwidth required and minimum specifications for the backhaul links. The existing tower and equipment shelter will be utilized at all locations. The proposal also includes 6 new MCC7500E console positions with eight consolettes. The console positions will be located at the new dispatch facility that the County will be moving in to soon.

For backhaul between the Prime Site and Simulcast sites, Motorola is proposing an all-indoor licensed 6GHz Microwave system in a ring topology(The ring will be completed by customer provided backhaul from dispatch center to the prime site).

The VHF transmit combining scheme, receiver multi coupler and quantity of required antennas are subject to change in equipment type and price depending upon the final frequency selection for the new channels. VHF frequencies typically require custom radio frequency distribution systems (RFDS). As such, a VHF RFDS design is included with this proposal with very specific frequency requirements listed below. The VHF frequencies selected must adhere to these requirements. Should the actual licensed channels not meet these requirements then design changes to the system will be required at an additional cost.

- Transmit-to-Transmit (T-T) frequency separation must be at least 250 kHz apart.
- Closest Transmit-to-Receive (T-R) frequency separation must be at least 4 MHz apart.
- Frequencies must NOT have any 3rd, 5th or 7th order intermodulation products or cause these products to occur at any existing site used on the system.
- Frequencies must be in the range of 136.0000 MHz – 174.0000 MHz. Additionally, the specific frequencies of 140.0000 MHz and 160.000 MHz are not supported in the proposed hardware

If the licensed frequencies require the antenna patterns to change then additional costs may be incurred for new antennas. Should the licensed frequencies not fall into the Motorola designed radio frequency distribution system, a revised proposal with the additional costs identified will be necessary.

1.2 PROPOSED SITE LOCATIONS

The proposed RF simulcast remote site locations are listed below with corresponding site information:

South Tower Site

- Latitude: 27°23’56.7” N, Longitude: 99°26’2.30” W.
- Proposed Antenna Heights: TX: 460ft, RX: 3420ft.

North Tower Site

- Latitude: 27°48’4.50” N, Longitude: 99°27’39.20” W.
- Proposed Antenna Heights: TX: 360ft, RX: 400ft.

Mirando Tower Site (TxDOT)

- Latitude: 27°24’10.0” N, Longitude: 98°59’9.00” W.
- Proposed Antenna Heights: TX: 258ft, RX: 290ft.

Calton Road Tower Site (AEP)

- Latitude: 27°32’40.10” N, Longitude: 99°30’36.20” W.
- Proposed Antenna Heights: TX: 135ft, RX: 175ft.

Lobo Tower Site (AEP)

- Latitude: 27°34’36.90” N, Longitude: 99°16’32.20” W.
- Proposed Antenna Heights: TX: 235ft, RX: 275ft.

Figure 1-1 shows a graphical view of the proposed system architecture.

NOTE:

The following **Alternate Site Locations** are a list of Webb County assets to be considered in lieu of the Calton Road and Lobo tower sites owned by AEP. At the County’s sole discretion, the alternate site locations described below or any other tower site that Webb County designates can be considered during or after the project Kick-off and CDR (Customer Design Review). The project change-order process can be utilized to accommodate client changes after the Kick-off and CDR.

- Road & Bridge with existing shelter and tower
- Jail building with existing conduit and rooftop for tower
- Future Dispatch Center (HEB bldg) with shelter/conduit and rooftop for tower
- JP Pcnt #4 off I-35

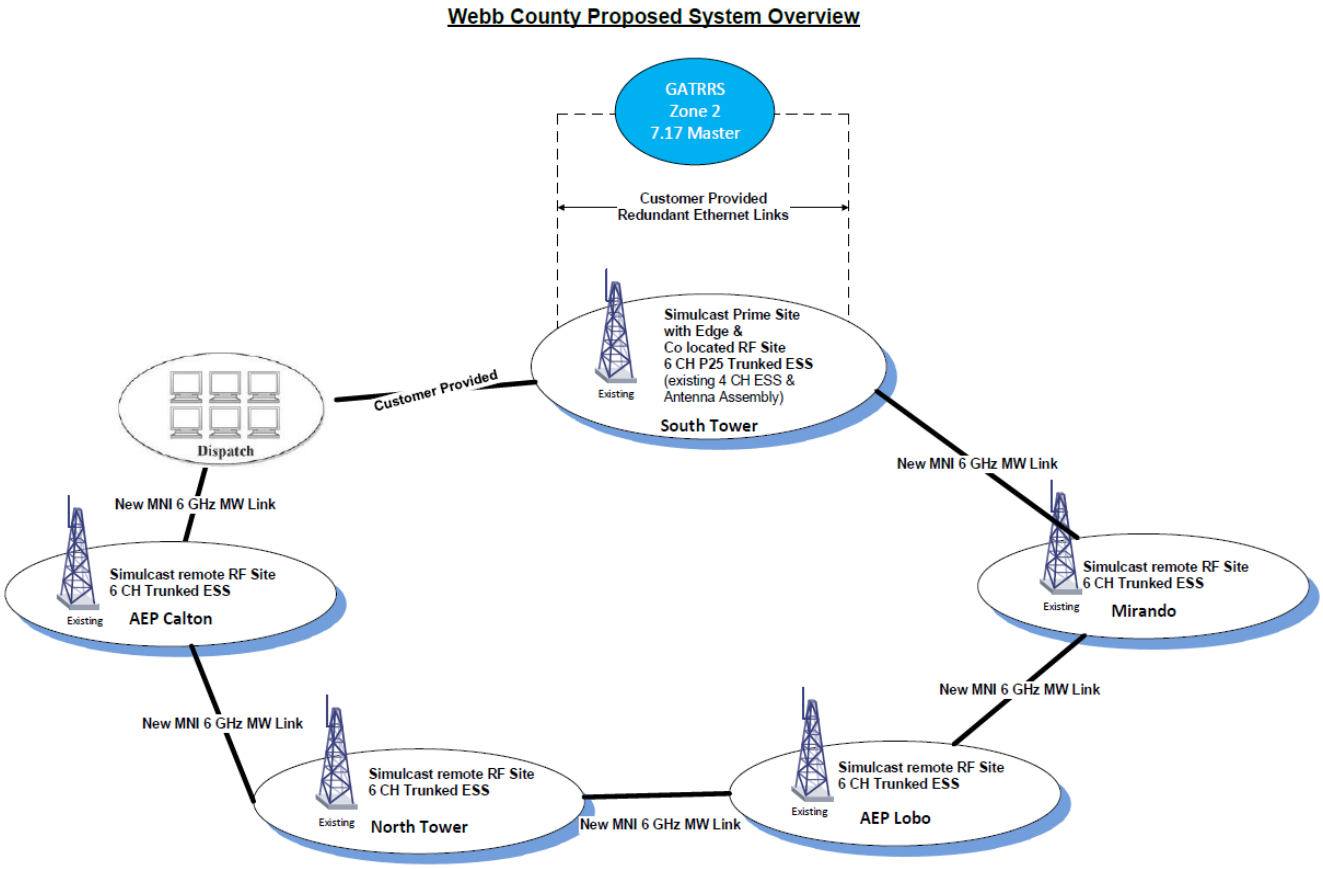


Figure 1-1: Webb County Simulcast Cell

1.3 INFRASTRUCTURE SYSTEM DESCRIPTION

1.3.1 ASTRO 25 IP Simulcast Subsystem

A simulcast land mobile radio system provides continuous coverage over a large geographic region using a single set of frequencies. The proposed design for the Webb County simulcast system consists of five VHF sites tying into the GATRRS Master site. Each site will have Six (6) VHF radio channels. One radio channel at each site is allocated to be the control channel. The remaining five radio channels are used for voice calls.

Trunked simulcast was developed by Motorola to meet the needs of users who were outgrowing their single-site radio systems. Simulcast offers the following advantages:

- **Improved Coverage -** One radio site may not provide the coverage necessary for the application in question. Simulcast expands the coverage area by expanding the number of radio sites without adding additional frequencies.
- **Efficient Use of Frequencies -** Adding sites typically requires more frequencies. In a simulcast system, the same frequencies are used at every site in the system. This makes very efficient use of the available spectrum.

- **Simplified Radio Operation -** Because the simulcast architecture operates like a single-site system, operations are simplified and radios are easy to use.

1.3.2 IP Simulcast Prime Site

The simulcast prime site acts as a control and digitized audio center for the simulcast subsystem. Audio is routed to the Prime Site from each Simulcast RF Remote Site. To ensure that the best audio from the simulcast receivers is used, a voting comparator processes the received signals from each RF Site and selects the best signal for retransmission

1.3.3 GATRRS Master Site Licenses

- Master Site Licenses are included for:
  - Five (5) Simulcast sites.
  - Ten (10) MCC 7500 Console Position Licenses.
  - UNC device licenses Qty 10 – each license comes with 10 pack

1.3.4 North Tower Remote RF Site

An ASTRO 25 IP simulcast remote RF site will be located at North Tower site. This location has an existing tower that will be reused. The existing shelter with generator will be reused as well. The equipment includes:

- Two (2) GGM8000 site routers
- Two (2) Site switches
- TX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- RX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- One 6 channel GTR 8000 Expandable Site Subsystem.
- One (1) 9100 TRAK GPS Unit
- Two (2) 7.5’ Open Face Racks.
- Two (2) 2700W softwired UPS’s
- Microwave Equipment with its own rack.

1.3.5 South Tower Simulcast Prime Site

The prime site will be collocated with a Simulcast RF site.

Proposed components for the Prime Site:

- Six (6) GCM 8000 Comparators.
- One (1) 9100TRAK unit.
- Two (2) Backhaul switches.
- Two (2) Site access routers.
- Two (2) Site routers.

- Two (2) Site switches.
- Two (2) GCP 8000 Site Controllers.
- Rack and PDUs.
- Two (2) 2700W softwired UPS's
- One (1) Edge Server

1.3.6 South Tower Simulcast Remote RF Site – Collocated with the Prime Site

An ASTRO 25 IP simulcast remote RF site will be located at the South Tower site. This location has an existing tower that will be reused. The existing shelter with generator will be reused as well. The existing 4 channel ESS will be converted to simulcast configuration. The SW on site controllers will be refreshed. We will also add two channels to the existing VHF ESS to make it a 6 channel ESS.

Proposed components for the Simulcast RF Site:

- Two (2) GGM8000 site routers
- Two (2) Site switches
- TX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- RX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- Four (4) GTR8000 Base radio Software refresh
- Two (2) Site Controllers Software refresh
- Two (2) GTR8000 channel add on
- One (1) X-Hub
- One (1) 9100 TRAK GPS Unit
- Two (2) 7.5' Open Face Racks.
- Microwave Equipment with its own rack.
- Two (2) 2700W Softwired UPS's

1.3.7 Mirando Remote RF Site

An ASTRO 25 IP simulcast remote RF site will be located at the Mirando Tower site. This location has an existing tower that will be reused. The existing shelter with generator will be reused as well.

Proposed components for the Simulcast RF Site:

- Two (2) GGM8000 site routers
- Two (2) Site switches
- TX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- RX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- One 6 channel GTR 8000 Expandable Site Subsystem.

- One (1) 9100 TRAK GPS Unit
- Two (2) 7.5’ Open Face Racks.
- Microwave Equipment with its own rack.
- Two (2) Softwired UPS’s

1.3.8 Lobo Tower Remote RF Site

An ASTRO 25 IP simulcast remote RF site will be located at the Lobo Tower site. This location has an existing tower that will be reused. The existing shelter with generator will be reused as well.

Proposed components for the Simulcast RF Site:

- Two (2) GGM8000 site routers
- Two (2) Site switches
- TX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- RX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- One 6 channel GTR 8000 Expandable Site Subsystem.
- One (1) 9100 TRAK GPS Unit
- Two (2) 7.5’ Open Face Racks.
- Microwave Equipment with its own rack.
- Two (2) Softwired UPS’s

1.3.9 Calton Road Remote RF Site

An ASTRO 25 IP simulcast remote RF site will be located at the Calton Road Tower site. This location has an existing tower that will be reused. The existing shelter with generator will be reused as well.

Proposed components for the Simulcast RF Site:

- Two (2) GGM8000 site routers
- Two (2) Site switches
- TX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- RX Antenna System:
  - One (1) Omni Antenna.
  - Antenna, antenna lines and RFDS equipment.
- One 6 channel GTR 8000 Expandable Site Subsystem.
- One (1) 9100 TRAK GPS Unit
- Two (2) 7.5’ Open Face Racks.
- Microwave Equipment with its own rack.
- Two (2) Softwired UPS’s

1.3.10 Webb County Dispatch Site

The following equipment is included for the Webb County Dispatch location:

- Six (6) MCC7500E Dispatch Console positions.
- Two (2) Switches.
- Two (2) GGM8000 routers.
- Six (6) Z2 Mini workstations.
- Six (6) Basic Console operational licenses.
- Six (6) Trunking operational licenses.
- Six (6) Secure operational licenses with ADP & AES encryption support.
- Six (6) Advanced Conventional licenses.
- Six (6) 160 resource licenses.
- Six (6) Enhanced Instant recall recorder license with speakers.
- Six (6) 24” Touch screen monitors.
- One (1) Conventional Site Controller
- One (1) Enhanced CCGW.
- Ancillary items such as speakers, Noise cancellation head phones, goose neck microphone, foot switch
- Standby Spares - Z2 Mini, CCGW, AIM spare units

1.4 EDGE AVAILABILITY

1.4.1 Edge Availability Overview

Edge Availability is a new ASTRO 25 7.17 system release feature that provides continuous site-to-site communications, roaming, and wireline dispatch by grouping together local sites (“subsystems”). Edge Availability maintains the maximum level of trunking services, coverage, and access to talkgroups, even when sites are detached from the ASTRO 25 Core.

ENSURE THE HIGHEST LEVELS OF RESILIENCY FOR YOUR MOST CRITICAL SITES AND CONSOLES

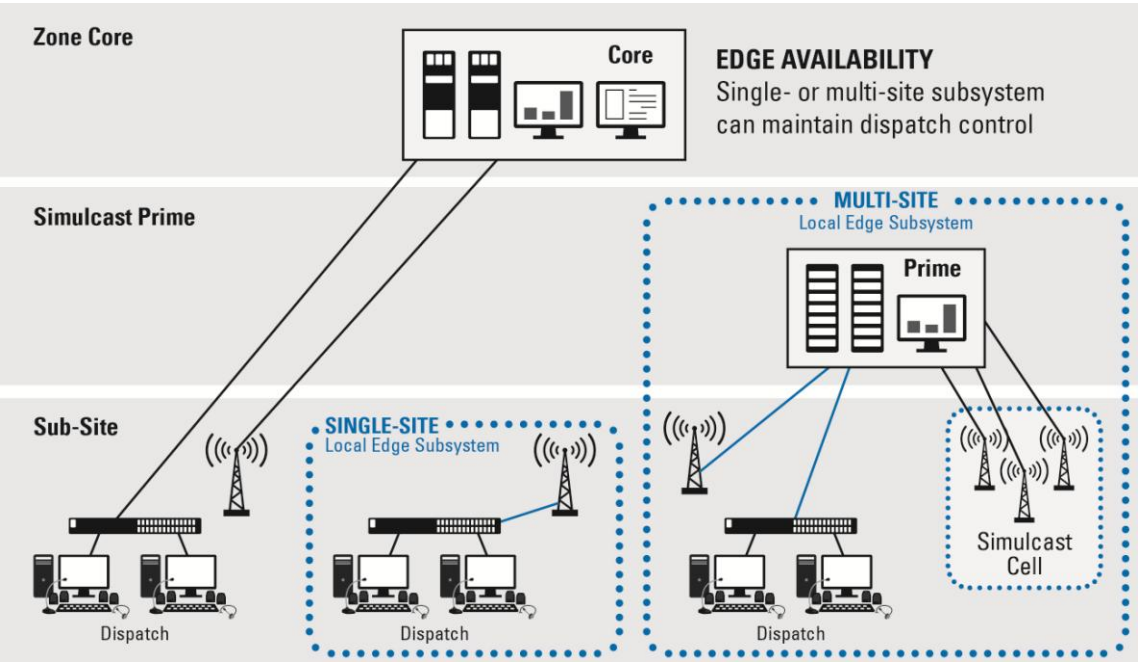
Edge Availability provides a new fallback feature that increases the resiliency of a traditional ASTRO 25 trunking system design, which is centralized around a core. Should the ASTRO 25 Core become unavailable due to loss of transport connectivity or zone controller failures, Edge Availability will pass call control outward from the central core to the edges, creating a collection of trunking subsystems (“edge subsystems” or “Tsubs").

These edge subsystems will provide continuous communications for regional dispatch and RF site users until access to the ASTRO 25 Core is restored. Edge subsystems provide multi-site communications and continuous access to all talkgroups, while maintaining Emergency Alarm Indications, Console Priority, and Radio Access Controls. For Webb County, the edge subsystem will consist of the 5-site simulcast subsystem and MCC 7500E dispatch site.

1.4.2 Edge Availability Operation

The simulcast prime site and MCC 7500E site connect to the GATRRS Zone 2 Core. When the proposed sites are in wide area trunking operation, all calls are processed via the zone controller at the GATRRS Core. If connectivity is lost to the GATRRS Core for any reason, Web County's simulcast subsystem and dispatch site revert to Site Trunking operation.

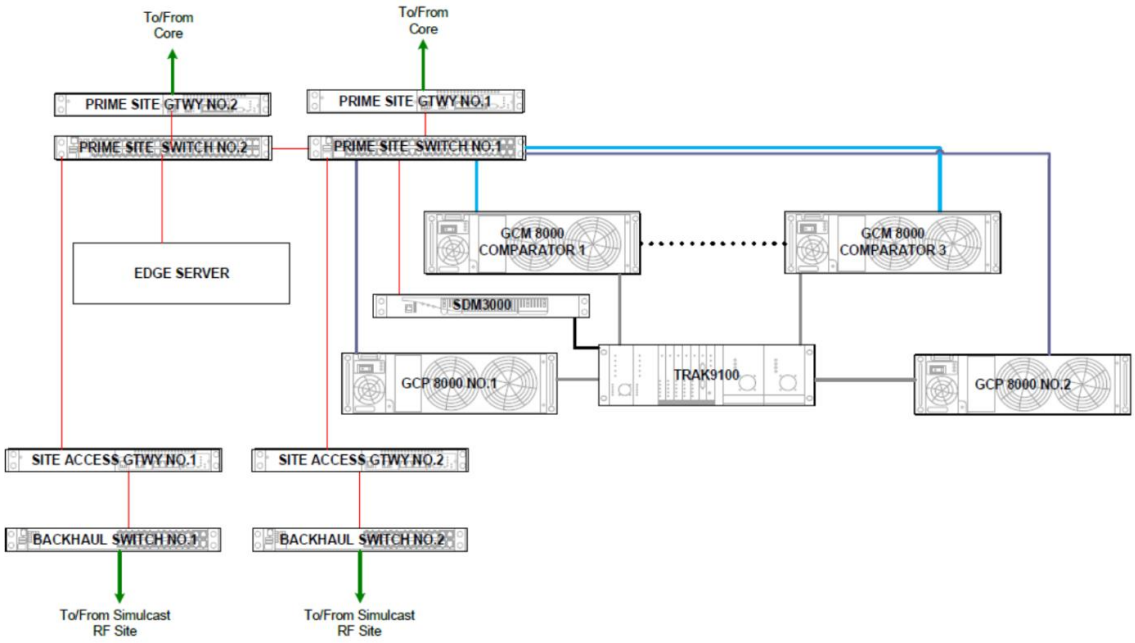
Edge Availability offers an enhanced level of operations to Site Trunking. The "Edge Controller" maintains local call processing, voice-only trunking and conventional services to a local edge subsystem. Maintaining wireline communications between local sites significantly reduces the need for control stations. When the GATRRS Core becomes unavailable, the Edge Controller will be activated automatically and dispatchers will receive a notification that "Edge Availability Mode" has been activated. Radio users will not receive a notification so it is the responsibility of the dispatchers to inform the radio users of the impaired system state. The same automated process is used once the ASTRO 25 Core is restored. The figure below shows how Edge Availability enables different groups of remote sites to maintain communications with dispatch even when the ASTRO 25 Core is unavailable.



1.4.3 Edge Availability Architecture

Edge subsystem architecture is similar to IP simulcast subsystem architecture and consists of a prime site and subsites.

The Edge prime site provides connectivity between the GATRRS core and the Edge subsites and serves as the central control point when the sites are operating in Edge Availability Mode. The proposed Edge Controller will be located at South Tower and will take over and provide local area control upon loss of connectivity to the GATRRS core. Below is a overview diagram for the Edge Prime Site at South Tower.



1.5 MICROWAVE BACKHAUL SOLUTION

Motorola has partnered with Microwave Networks Inc (MNI) to provide a licensed digital microwave backhaul network that provides Ethernet site connectivity for the proposed Simulcast system. The proposed microwave is an all-indoor configuration and due to some of the links being very long, the links would require spatial diversity.

The wireless backhaul network consists of five (5) all- indoor links in a ring configuration. Each of the microwave links has been designed using 1+0 configuration to be part of a network Ring. Customer to provide backhaul connection from the dispatch site to the South Tower Prime Site.

1.6 CUTOVER PLAN

In order to incorporate the proposed Simulcast system and the Dispatch Site into the GATRRS master site, Webb County and Motorola will need to develop a cutover plan. This plan, when executed precisely, will allow the integration to go as smoothly as possible and with minimal interruption to the day-to-day operation. Motorola will closely work with the County and provide a cutover plan during the implementation phase of the project.

1.7 RACK, ANTENNA LINE DRAWINGS AND POWER CALCULATIONS

Motorola will provide the final rack, antenna line layout drawings and power calculations for the proposed equipment during the Contract Design Review.

1.8 WEBB COUNTY RESPONSIBILITIES

- Webb County is responsible to provide backhaul connection from the dispatch site to the south tower prime site.
- Webb County is responsible for all lease agreements for the land access and tower use.
- Webb County is responsible for programming of their Subscriber fleet before the radio system is cut over to the simulcast configuration.
- Webb County shall coordinate the activities of all of their users, vendors or other contractors as applicable.
- Approved Local, State, or Federal permits as may be required for the installation and operation of the proposed equipment are the responsibility of Webb County.
- Webb County is responsible to provide 6 VHF frequency pairs that meet the requirements for this system Webb County is responsible for putting together FCC licensing application, Frequency coordination, and contour analysis to work with the APCO coordinator. Webb County will be responsible for paying licensing costs to the FCC.
- Webb County is responsible for tower site owner negotiations for the additional vertical and ground spaces.
- Webb County will be responsible for any tower and site improvements required at the proposed sites.
- All work is to be performed during normal work hours, Monday through Friday 8:00 a.m. to 5:00 p.m.
- Webb County is responsible to provide sufficient power, backup power and HVAC services at all proposed RF sites and dispatch site location.
- Webb County will provide a minimum of three rack spaces at all RF site locations.

1.9 ASSUMPTIONS

- Motorola is not responsible for interference caused or received by the Motorola provided equipment except for interference that is directly caused by the Motorola provided transmitter(s) to the Motorola receiver(s). Should the customer's system experience interference, Motorola can be contracted to investigate the source and recommend solutions to mitigate the issue.
- It is also assumed that the existing shelters have adequate space, power, back-up power, HVAC services capable to support the proposed RF equipment.
- Motorola has included Structural analysis and tower mapping for all sites with existing towers. Any remediation required to accommodate the proposed antenna(s) and microwave dishes loading will be the responsibility of Webb County.
- No coverage guarantee is included in this proposal. Motorola will perform spot-checking of the coverage around the RF sites to verify Roundtrip BER for information purposes only.
- Subscriber programming is the responsibility of Webb County.

SECTION 2

COVERAGE MAPS

Motorola has included the Coverage maps below on the following pages.

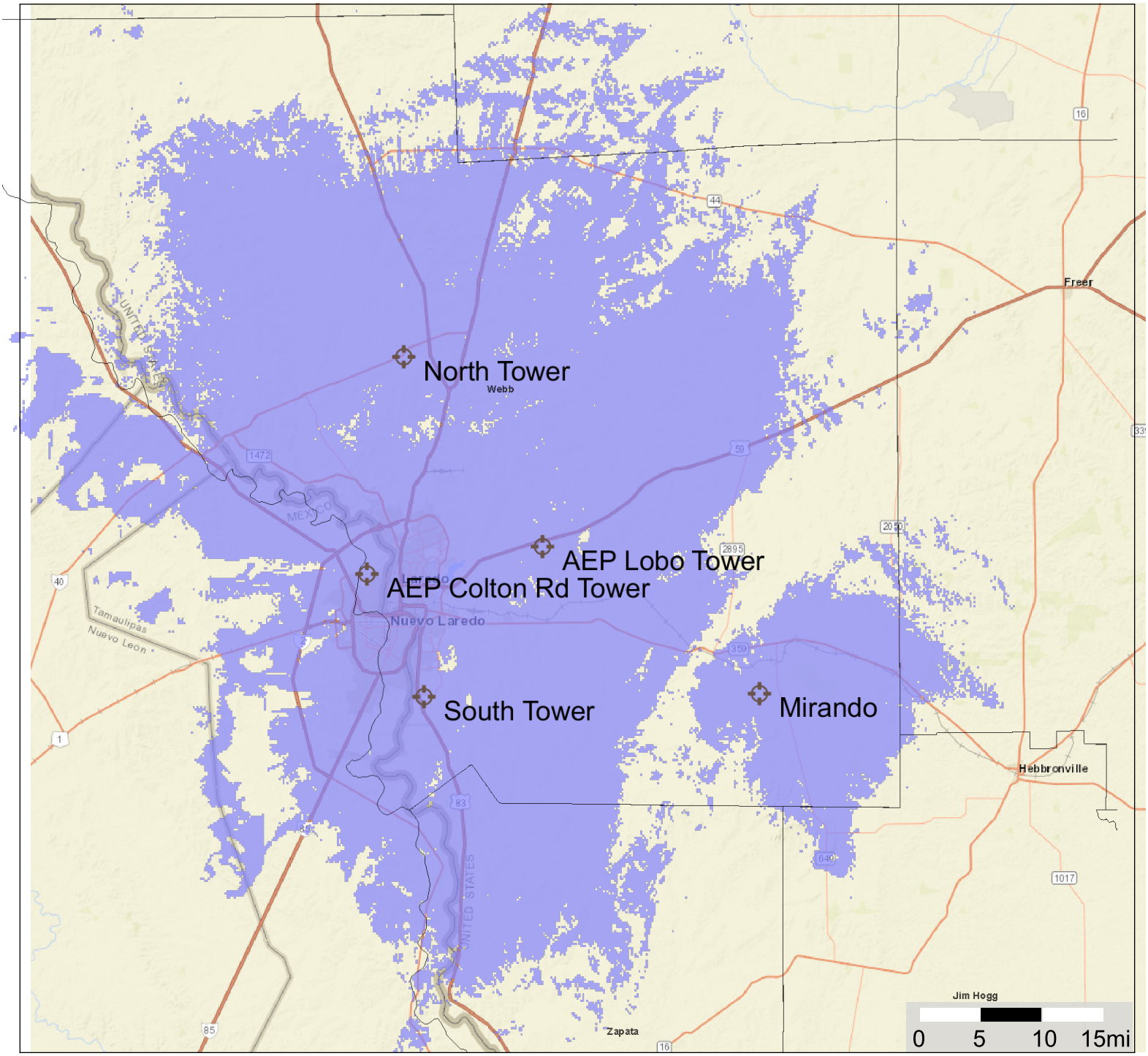
- Round-trip Portable On-street Coverage map – 5 site simulcast
- Round-trip Mobile Coverage map – 5 site simulcast
- Round-trip Portable On-Street Coverage map – 4 site simulcast with 1 ASR site (alternate)
- Round-trip Mobile Coverage map – 4 site simulcast with 1 ASR site (alternate)

MOTOROLA

Webb County, TX

For Informational Purposes Only

P25 5-Site VHF FDMA Simulcast System



Tiles © ArcGIS

Scale 1 : 728153

Legend

95% Area round_trip Mobile

Round Trip Coverage Shown for APX 6500
Mobile Subscriber @50 W with 1/4 Wave Antenna on Roof Center

Solution: Webb County - Coverage
Project: Hy5_(Design_10)_(Webb County)
Design: Design 11 Final Design 7-

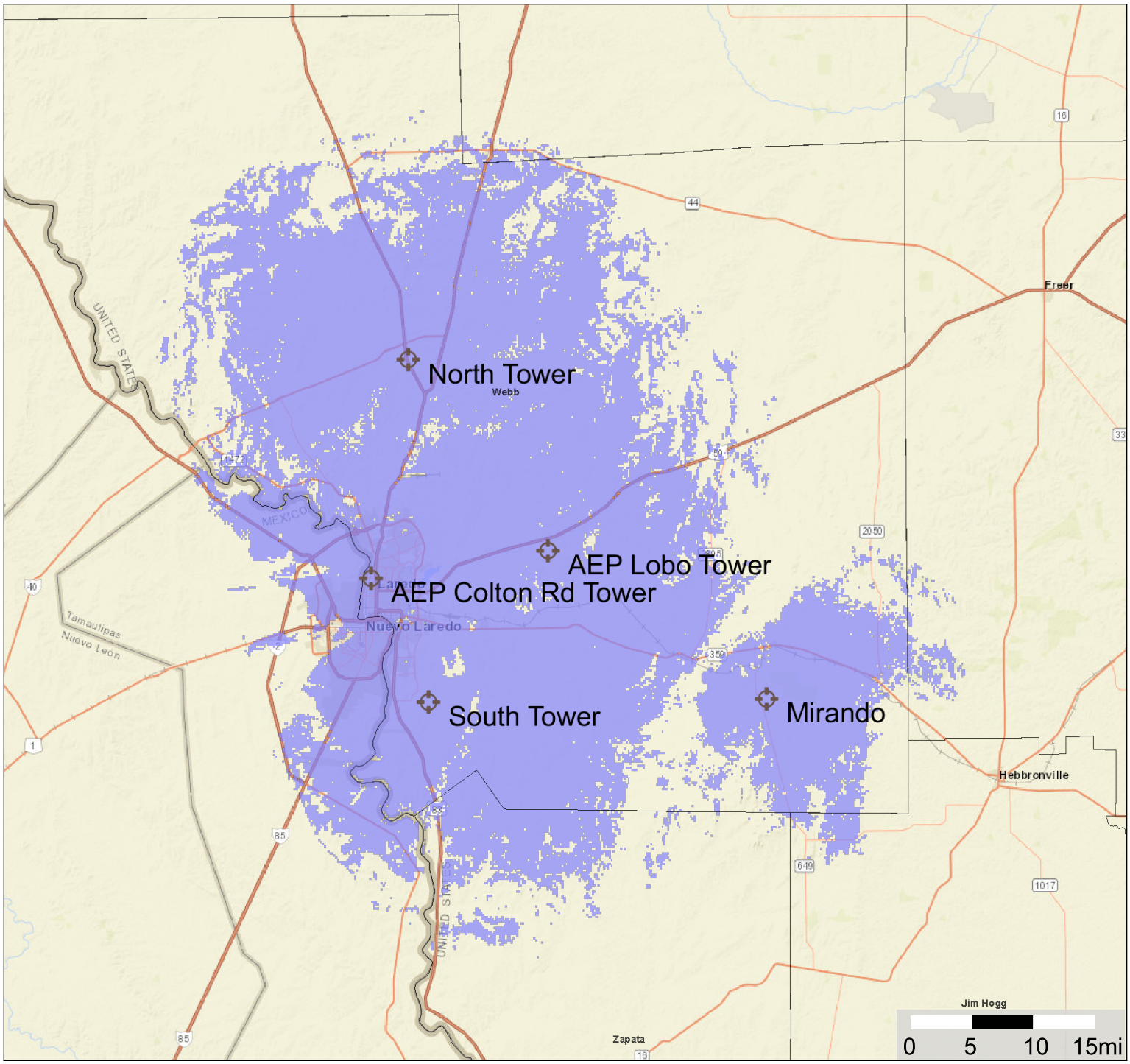
Job ID: 7787635439.1.Design 11 Final Design 7-
System version: 20191112, N/A, 2.6.8
Printed: 11/25/2019

MOTOROLA

Webb County, TX

For Informational Purposes Only

P25 5-Site VHF FDMA Simulcast System



Tiles © ArcGIS

Scale 1 : 728153

Legend

95% Area round_trip RSM Portable

Round Trip Coverage Shown for APX 6000
Portable Subscriber @6 W with Swivel Case RSM with TX/RX at hip level

Solution: Webb County - Coverage
Project: Hy5_(Design_10)_(Webb County)
Design: Design 11 Final Design 7-

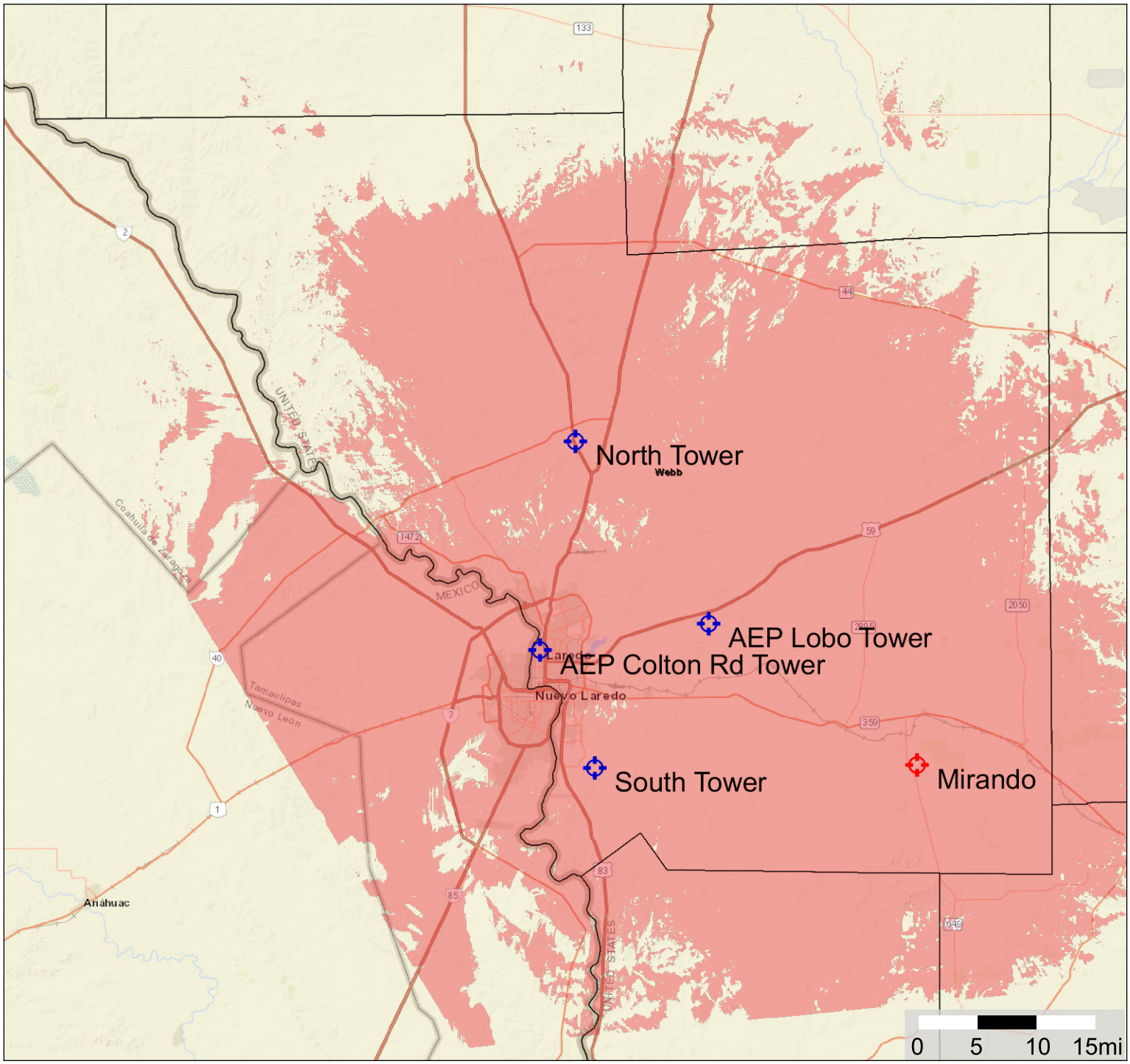
Job ID: 7787635439.1.Design 11 Final Design 7-
System version: 20191112, N/A, 2.6.8
Printed: 11/25/2019

MOTOROLA

Webb County, TX

For Informational Purposes Only

P25 4-Site VHF FDMA Simulcast System with 1 ASR (Mirando)



Tiles © ArcGIS

Scale 1 : 763104

Legend

95% Area round_trip Mobile

Round Trip Coverage Shown for APX 6500
Mobile Subscriber @ 50W with 1/4 Antenna Mounted at Roof Center

Solution: Webb County - Coverage

Project: Webb County

Design: Design 34

Job ID: 2605547975.1.Design 34

System version: 20191112, N/A, 2.6.8

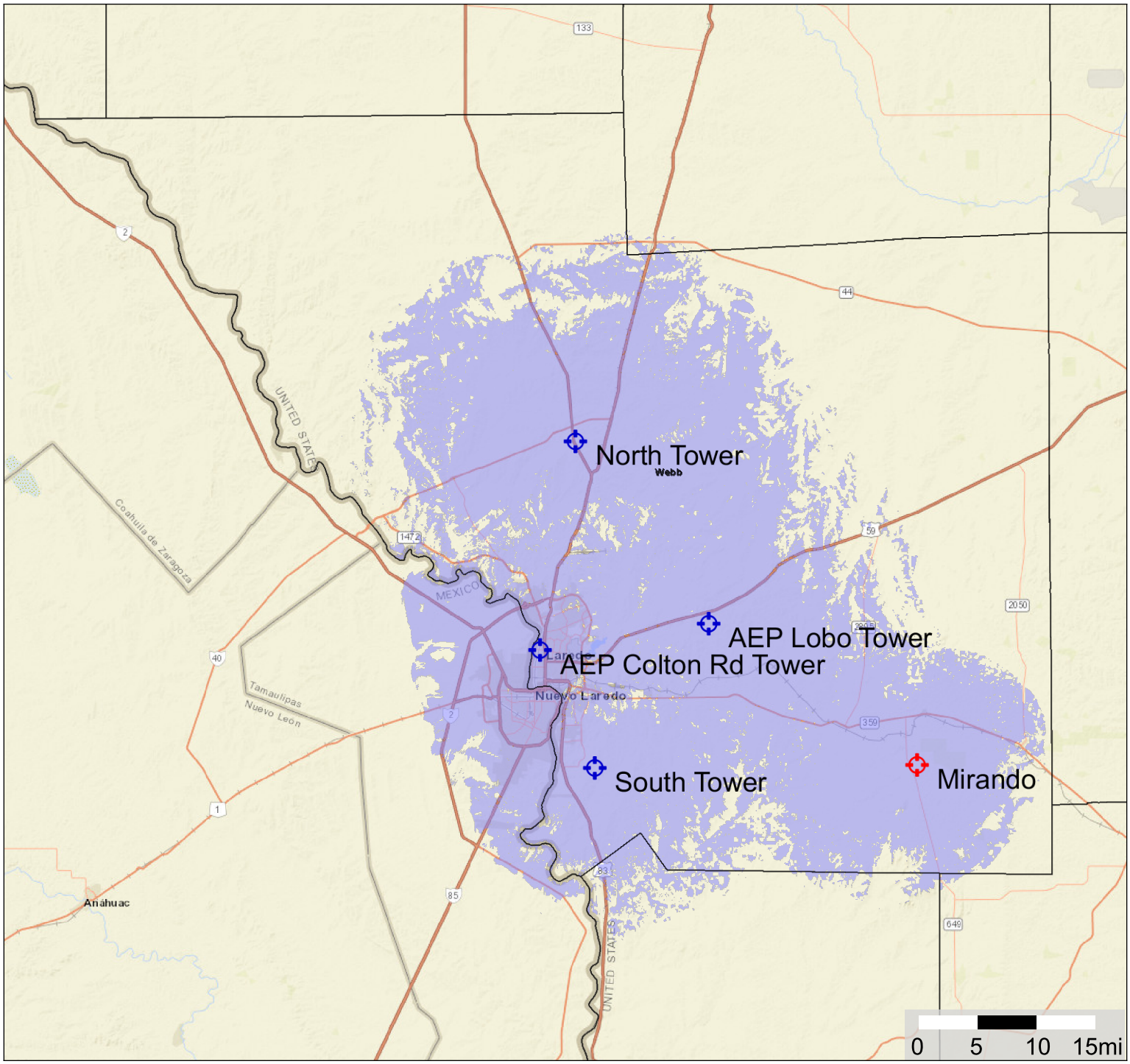
Printed: 11/25/2019

MOTOROLA

Webb County, TX

For Informational Purposes Only

P25 4-Site VHF FDMA Simulcast System with 1 ASR (Mirando)



Tiles © ArcGIS

Scale 1 : 763104

Legend

95% Area round_trip RSM Portable

Round Trip Coverage Shown for APX Portable
@6W with Swivel Case with RSM configuration, TX/RX at Hip Level

Solution: Webb County - Coverage | Project: Webb County | Design: Design 34

Job ID: 2605547975.1.Design 34 | System version: 20191112, N/A, 2.6.8 | Printed: 11/25/2019

SECTION 3

BIT ERROR RATE (BER) MEASUREMENTS

Motorola has proposed collecting roundtrip Bit Error Rate (BER) measurements for the Webb County service area to perform the coverage measurements. Webb County data will be collected for informational purposes only, with a portable radio using Motorola's Voyager tool for the randomly selected locations on roadways within the County boundaries.

3.1 COVERAGE AREA

The coverage area is the geographical region in which communications will be provided which meets or exceeds the specified Channel Performance Criterion at the specified reliability for the specified equipment configuration(s). Radio systems are typically designed to maximize the coverage area within the customer's service area (users' operational area, jurisdictional boundaries, etc.) {TSB-88.1-C, Section 5.1}.

3.1.1 Determine the Coverage Area Reliability for Information Purposes Only

After all accessible tiles in the service area have been tested; the service area reliability percentage will be determined by dividing the number of tiles that pass by the total number of tiles tested. {TSB-88.3-C, Section 5.1, equation 1}. Motorola will share this calculated number with Webb County for informational purposes only.

3.1.2 Coverage Measurement Documentation

During the coverage measurements, Voyager℠ generates computer files that include the Reference Tile Levels for each test tile. A copy of this raw data will be provided to Webb County for informational purposes only at the conclusion of the coverage test. Motorola will submit to Webb County a report detailing the coverage measurements.

SECTION 4

EQUIPMENT LIST

4.1 P25 TRUNKED SIMULCAST SYSTEM, MCC7500E DISPATCH, CONSOLETTES, MASTER SITE LICENSES, MICROWAVE EQUIPMENT

QTY	NOMENCLATURE	DESCRIPTION
1	DSIGMX5TAC	MX5 AC CHASSIS, TIMING SUPPORT
1	DSIGMX5PWRUS	J-SERIES POWER CABLE US
4	DSIGSFP1GESX	SFP OPTIC MODULE - 1G SX
8	DSIGSFP1GEFE	SFP 10/100/1000 COPPER
7	DSIGMX5ACSVCND	JNPR CARE ND SUPT MX5-T-AC
1	B1948	MCC 7500E DISPATCH POSITION LICENSES
6	UA00653AA	ADD: BASIC CONSOLE OPERATION
6	UA00654AA	ADD: ASTRO 25 TRUNKING OPERATION
6	UA00655AA	ADD: ADVANCED CONVENTIONAL OPERATION
6	UA00659AA	ADD: ADP/AES/DES-OFB ENCRYPTION
6	UA00658AA	ADD: SECURE OPERATION
6	UA00652AA	ADD: 160 RADIO RESOURCES LICENSE
6	UA00661AA	ADD: ENHANCED IRR
6	DSLOGITECHZ130	LOGITECH Z130 SPEAKERS
2	B1949	MCC 7500E SOFTWARE DVD
12	B1952	SPEAKER, DESKTOP, USB
12	CA03405AA	ADD: POWER SUPPLY WITH DC CORD
12	CA03406AA	ADD: AC LINE CORD, NORTH AMERICA
12	CA03413AA	ADD: USB CABLE, TYPE A TO TYPE C, 4.5M
6	B1941	USB AUDIO INTERFACE MODULE
6	B1914	MCC SERIES DESKTOP GOOSENECK MICROPHONE
6	B1913	MCC SERIES HEADSET JACK
6	RLN6098	HDST MODULE BASE W/PTT, 15 FT CBL
6	RMN5151A	OVER-THE-HEAD, BINAURAL, NOISE-CANCELING HEADSET
6	DSTWIN6328A	PROVIDES ONE DUAL PEDAL FOOTSWITCH FOR USE WITH MOTOROLA MCC 7500 DISP
6	DSUSB31000S	STARTECH USB 3.0 TO GIGABIT ETHERNET ADAPTER
6	DSST7300U3M	STARTECH 7 PORT USB 3.0 HUB
6	DSEV241B	TECH GLOBAL EVOLUTION SERIES 24INCH WITH TOUCH
1	DSF2B56AA	USB EXTERNAL DVD DRIVE

QTY	NOMENCLATURE	DESCRIPTION
6	DSY7B61AA	HP Z2 MINI ARM WALL VESA MOUNT
6	TT3492	Z2 G4 MINI WORKSTATION NON RETURNAB
6	DS9PXXT0630N011S	UPS, 9PX, 630W, 120V, SOFTWIRED, 11MIN RUNTIMETOWER
2	CLN1868	2930F 24-PORT SWITCH
2	CLN1866	FRU: 1M DAC CABLE
2	SQM01SUM0205	GGM 8000 GATEWAY
2	CA01616AA	ADD: AC POWER
1	T7038	GCP 8000 SITE CONTROLLER
1	CA00719AA	ADD: ASTRO SYSTEM RELEASE 7.19
1	CA00303AA	ADD: QTY (1) SITE CONTROLLER
1	CA01136AA	MCC 7500 CONVEN SITE OPER
1	X153AW	ADD: RACK MOUNT HARDWARE
1	SQM01SUM0205	GGM 8000 GATEWAY
1	CA01616AA	ADD: AC POWER
1	CA02086AA	ADD: HIGH DENSITY ENH CONV GATEWAY
1	TRN7343	SEVEN AND A HALF FOOT RACK
1	DS11011188	PDU, 120/240 SPLIT PH OR N+1 REDUNDANT, 60A MAX PER PHASE, SIX DEDICAT
10	DS3750297	BREAKER, 15 AMP, CB UL 489 LISTED FOR AC EDGE II (1101- 1188)
2	DSRMP615A	SPD, TYPE 3, 120V RACK MOUNT, 15A PLUG-IN W/ (6) 15A NEMA 5-15 OUTLETS
1	DSTSJADP	RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS
4	0784469Y02	BRKT, CBL SUPPORT
1	3182602Y06	GROUNDING BUS BAR
1	SQM01SUM0205	GGM 8000 GATEWAY
1	CA01616AA	ADD: AC POWER
1	CA02086AA	ADD: HIGH DENSITY ENH CONV GATEWAY
1	B1941	USB AUDIO INTERFACE MODULE
2	B1952	SPEAKER, DESKTOP, USB
1	B1914	MCC SERIES DESKTOP GOOSENECK MICROPHONE
1	B1913	MCC SERIES HEADSET JACK
1	TT3492	Z2 G4 MINI WORKSTATION NON RETURNAB
1	CLN1868	2930F 24-PORT SWITCH
1	CLN1866	FRU: 1M DAC CABLE
1	SQM01SUM0273	ASTRO MASTER SITE
1	CA02629AC	ADD: EXPAND 7.17 M CORE

QTY	NOMENCLATURE	DESCRIPTION
2	UA00156AA	ADD: MCC7500 CONSOLE LICENSES (QTY 5)
1	CA01471AA	ADD: WINDOWS SUPPLEMENTAL TRANS CONFIG
6	T7885	MCAFEE WINDOWS AV CLIENT
8	L37TSS9PW1 N	ALL BAND CONSOLETTE
8	GA05509	DEL: DELETE UHF BAND
8	G806	ENH: ASTRO DIGITAL CAI OP APX
8	G51	ENH: SMARTZONE OPERATION APX
8	G361	ENH: P25 TRUNKING SOFTWARE APX
8	G996	ENH: OVER THE AIR PROVISIONING
8	GA01767	APX MOBILE RADIO AUTHENTICATION
8	G851	ADD: AES/DES-XL/DES-OFB ENCRYPTION
8	G298	ENH: ASTRO 25 OTAR W/ MULTIKEY
8	L999	ADD: FULL FP W/05/KEYPAD/CLOCK/VU
8	G90	ADD: NO MICROPHONE NEEDED
8	CA01598	ADD: AC LINE CORD US
8	G78	ADD: 3Y ESSENTIAL SERVICE
8	HKN6233C	APX CONSOLETTE RACK MOUNT KIT
8	H1926	MULTIPLEXER QMA APX CONSOLETTE
1	DSATCGC7V2OD7	OMNI ANTENNA, COLLINEAR ARRAY, 746-870 MHZ, 3 DBD, 7-16 DIN FEMALE
1	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
3	DSSG1212B2U	SG12-12B2U, SUREGROUND 1/2", 48"
1	DDN1091	L4TDF-PSA 7-16 DIN FEMALE PS FOR 1/2 IN CABLE
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
1	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
1	DDN1089	L4TNF-PSA TYPE N FEMALE PS FOR 1/2 IN CABLE
1	DSCS74860805SN	HYBRID CONTROL STATION COMBINER, 746-869 MHZ 8 CH.
8	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
8	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
325	DSLDF450ACABLE	CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
80	L1700	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
2	DSBA8041DIN	OMNI ANTENNA, COLLINEAR ARRAY, 746-870 MHZ, 3 DBD, 7-16 DIN FEMALE
2	DDN1091	L4TDF-PSA 7-16 DIN FEMALE PS FOR 1/2 IN CABLE
4	TDN9289	221213 CABLE WRAP WEATHERPROOFING

QTY	NOMENCLATURE	DESCRIPTION
6	DSSG1212B2U	SG12-12B2U, SUREGROUND 1/2", 48"
2	DDN1091	L4TDF-PSA 7-16 DIN FEMALE PS FOR 1/2 IN CABLE
2	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	DDN1089	L4TNF-PSA TYPE N FEMALE PS FOR 1/2 IN CABLE
2	DSBA8041DIN	OMNI, EXPOSED DIPOLE ARRAY, 6 DBD, 136-174 MHZ, PIM RATED
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
4	TDN9289	221213 CABLE WRAP WEATHERPROOFING
6	DSSG1212B2U	SG12-12B2U, SUREGROUND 1/2", 48"
2	TDN8810	F4PNF-C 1/2" TYPE N FEMALE CONNECTOR
2	DSIS50NXC2MA	RF SPD, 125-1000MHZ DC BLOCK FLANGE MT NM ANTENNA, NF EQUIPMENT SIDE
2	DDN1088	L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE
2	DDN1089	L4TNF-PSA TYPE N FEMALE PS FOR 1/2 IN CABLE
1	DSCS13150805SN	HYBRID CONTROL STATION COMBINER, 132-150 MHZ 8 CH.
16	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
16	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
400	DSLDF450ACABLE	CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
80	L1700	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
1	DSBA8041DIN	OMNI, EXPOSED DIPOLE ARRAY, 6 DBD, 136-174 MHZ, PIM RATED
1	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
3	DSSG1212B2U	SG12-12B2U, SUREGROUND 1/2", 48"
1	TDN8810	F4PNF-C 1/2" TYPE N FEMALE CONNECTOR
1	DSIS50NXC2MA	RF SPD, 125-1000MHZ DC BLOCK FLANGE MT NM ANTENNA, NF EQUIPMENT SIDE
1	DDN1088	L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE
1	DDN1089	L4TNF-PSA TYPE N FEMALE PS FOR 1/2 IN CABLE
1	F4543	SITE MANAGER BASIC
1	VA00874	ADD: AUX I-O SERV FW CURR ASTRO REL
1	V266	ADD: 90VAC TO 260VAC PS TO SM
3	V592	AAD TERM BLCK & CONN WI
1	T8476B	KVL 5000
1	CA00182AW	ADD: AES ENCRYPTION SOFTWARE
1	CA03358AA	ADD: ASTRO 25 MODE

QTY	NOMENCLATURE	DESCRIPTION
1	DQUUSBOTG	STARTECH.COM 5IN MICRO USB TO USB OTG HOST ADAPTER M/F - USB ADAPTER
1	CA03467AA	ADD: NORTH AMERICA MICRO USB CHARGER 100/240V
1	CA00243AJ	ADD: ADP PRIVACY
1	X423AG	ADD: DES/DES-XL/DES-OFB ENCRYPTION
1	PMKN4012B	PORTABLE PROGRAMMING CABLE
1	TKN8531C	CABLE FOR RNC, DIU MGEG
1	HKN6182B	CABLE KEYLOADING ADAPTER CGAI
1	PMNN4549A	BATT IMPRES 2 LIION 2925T
1	CB000262A01	CABLE,MICRO USB PROGRAMMING CABLE
1	PMPN4119A	CHARGER,CHGR VEHICULAR ADAPTER EXT USB CHGR 5VDC
0		**7.17 Master Site Licenses**
1	SQM01SUM0273	MASTER SITE CONFIGURATION
1	CA02629AC	ADD: EXPAND 7.17 M CORE
5	UA00407AA	ADD: CLASSIC DATA-P25 TRNK SITE
5	UA00153AA	ADD: ASTRO 25 FDMA SITE LICENSE
10	CA01316AA	ADD: UNC ADDTL DEVICE LIC (QTY 10)
0		**TRAK**
1	DSTRAK91008E	PRIME/MASTER SITE REDUNDANT MODULAR FREQUENCY TIMING SYSTEM AC
100	L1700	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
4	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
0		**Network**
4	CLN1868	2930F 24-PORT SWITCH
2	SQM01SUM0205	GGM 8000 GATEWAY
2	CA01616AA	ADD: AC POWER
0		**Comparators**
1	T7321	GCM 8000 COMPARATOR
1	CA00717AA	ADD: ASTRO SYSTEM RELEASE 7.17
2	CA01183AA	GCM 8000 COMPARATOR
2	CA01185AA	ADD: IP BASED MULTISITE OPERATION
1	X153AW	ADD: RACK MOUNT HARDWARE
1	T7321	GCM 8000 COMPARATOR
1	CA00717AA	ADD: ASTRO SYSTEM RELEASE 7.17
2	CA01183AA	GCM 8000 COMPARATOR
2	CA01185AA	ADD: IP BASED MULTISITE OPERATION
1	X153AW	ADD: RACK MOUNT HARDWARE

QTY	NOMENCLATURE	DESCRIPTION
1	T7321	GCM 8000 COMPARATOR
1	CA00717AA	ADD: ASTRO SYSTEM RELEASE 7.17
2	CA01183AA	GCM 8000 COMPARATOR
2	CA01185AA	ADD: IP BASED MULTISITE OPERATION
1	X153AW	ADD: RACK MOUNT HARDWARE
0		**Site Controllers (Re use existing site controllers)**
1	T7140	G-SERIES SOFTWARE UPGRADE
2	CA01196AA	ADD: IP BASED MULTISITE SITE CONTROLLER SOFTWARE UPGRADE
0		**Rack & PDU**
6	TRN7343	SEVEN AND A HALF FOOT RACK
1	DS11011188	PDU, 120/240 SPLIT PH OR N+1 REDUNDANT, 60A MAX PER PHASE, SIX DEDICAT
12	DS3750297	BREAKER, 15 AMP, CB UL 489 LISTED FOR AC EDGE II (1101- 1188)
1	DS1101990	SPD, SHIELDED RJ-45 JACK, SINGLE LINE GBE (1000MBPS) R56 COMPLIANT
1	DSTSJADP	RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS
4	0784469Y02	BRKT, CBL SUPPORT
1	3182602Y06	GROUNDING BUS BAR
0		**UPS**
2	DS9PXXR27002043S	UPS, 9PX, 2700W, 120V, SOFTWIRED, 43 MIN RUNTIME RACKMOUNT
0		Co located RF Site - South Tower
0		**Network**
2	CLN1868	2930F 24-PORT SWITCH
2	SQM01SUM0205	GGM 8000 GATEWAY
2	CA01616AA	ADD: AC POWER
0		**Existing 4 CH ESS SW Upgrade**
1	T7140	G-SERIES SOFTWARE UPGRADE
4	CA01195AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE UPGRADE
2	DLN6677	FRU: G-SERIES XHUB
0		**1 CH Add to existing 4 CH ESS**
1	T7071	GTR 8000 EXPANDABLE SITE SUB-SYSTEM CHANNEL ADDITION UPGRADE
6	CA00717AA	ADD: ASTRO SYSTEM RELEASE 7.17
6	X530BG	ADD: VHF (136-174 MHZ)
6	X301AE	ADD: QTY (1) GTR 8000 BASE RADIO

QTY	NOMENCLATURE	DESCRIPTION
6	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE
1	DQSPS2019	5 CH CAVITY COMBINER Upgrade
0		**UPS**
2	DS9PXXR27002043S	UPS, 9PX, 2700W, 120V, SOFTWIRED, 43 MIN RUNTIME RACKMOUNT
0		**Rack & PDU**
1	TRN7343	SEVEN AND A HALF FOOT RACK
1	DS11011188	PDU, 120/240 SPLIT PH OR N+1 REDUNDANT, 60A MAX PER PHASE, SIX DEDICAT
12	DS3750297	BREAKER, 15 AMP, CB UL 489 LISTED FOR AC EDGE II (1101- 1188)
1	DS1101990	SPD, SHIELDED RJ-45 JACK, SINGLE LINE GBE (1000MBPS) R56 COMPLIANT
1	DSTSJADP	RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS
4	0784469Y02	BRKT, CBL SUPPORT
1	3182602Y06	GROUNDING BUS BAR
0		RF Sub Site #2 (Jail)
0		**TRAK**
1	DSTRAK91008E	PRIME/MASTER SITE REDUNDANT MODULAR FREQUENCY TIMING SYSTEM AC
100	L1700	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
4	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
0		**Network**
2	CLN1868	2930F 24-PORT SWITCH
2	SQM01SUM0205	GGM 8000 GATEWAY
1	CA01616AA	ADD: AC POWER
0		**5 CH ESS**
1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM
1	CA00717AA	ADD: ASTRO SYSTEM RELEASE 7.17
1	X530BG	ADD: VHF (136-174 MHZ)
1	X305AC	ADD: QTY (5) GTR 8000 BASE RADIOS
5	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE
1	CA02686AA	ADD: AC DC POWER DISTRIBUTION
2	CA00884AA	ADD: QTY (1) XHUB
1	X882AH	ADD: 7.5 FT OPEN RACK, 48RU
1	DS11011188	PDU, 120/240 SPLIT PH OR N+1 REDUNDANT, 60A MAX PER PHASE, SIX DEDICAT
12	DS3750297	BREAKER, 15 AMP, CB UL 489 LISTED FOR AC EDGE II (1101- 1188)

QTY	NOMENCLATURE	DESCRIPTION
1	DS1101990	SPD, SHIELDED RJ-45 JACK, SINGLE LINE GBE (1000MBPS) R56 COMPLIANT
1	DSTSJADP	RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS
4	0784469Y02	BRKT, CBL SUPPORT
1	3182602Y06	GROUNDING BUS BAR
1	DQSPS2019	5 CH CAVITY COMBINER, 5 CH RX FILTER, 8 CH RXMC AC
0		**UPS**
2	DS9PXXR27002043S	UPS, 9PX, 2700W, 120V, SOFTWIRED, 43 MIN RUNTIME RACKMOUNT
10	DSTXRXANTMANUAL	Antennas at all sites
0		**TX**
0	DSDS1F00F36UD	ANTENNA, 150-164MHZ UNITY GAIN SINGLE VHF FIBERGLASS W/ 7/16 DIN CONNECTOR
15	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
185	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER,7/8 IN, BLACK PE JACKET
2	DSA5DFD	D-CLASS 7-16 DIN FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
1	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
1	DSVHF50DMAPGR	RF SPD, 100-512MHZ, DC BLOCK HIGH POWER DIN MALE ANT, DIN FEMALE EQUIP
25	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
0		**RX**
0	DSBA4041DIN	OMNI, EXPOSED DIPOLE ARRAY, 3 DBD, 136-174 MHZ, PIM RATED
15	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
1	DDN1088	L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE
1	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
202	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER,7/8 IN, BLACK PE JACKET
2	DSA5NFS	N FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
2	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP

QTY	NOMENCLATURE	DESCRIPTION
1	DSIS50NXC2MA	RF SPD, 125-1000MHZ DC BLOCK FLANGE MT NM ANTENNA, NF EQUIPMENT SIDE
25	L1702	FSJ4-50B CABLE: 1/2" SUPERFLEX POLY JKT PER FOOT
2	DDN9682	F4PNMV2-HC 1/2" TYPE N MALE PLATED CONNECTOR
0		**RF Sub Site #3 (North Tower)**
0		**TRAK**
1	DSTRAK91008E	PRIME/MASTER SITE REDUNDANT MODULAR FREQUENCY TIMING SYSTEM AC
100	L1700	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
4	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
0		**Network**
2	CLN1868	2930F 24-PORT SWITCH
2	SQM01SUM0205	GGM 8000 GATEWAY
1	CA01616AA	ADD: AC POWER
0		**5 CH ESS**
1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM
1	CA00717AA	ADD: ASTRO SYSTEM RELEASE 7.17
1	X530BG	ADD: VHF (136-174 MHZ)
1	X305AC	ADD: QTY (5) GTR 8000 BASE RADIOS
5	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE
1	CA02686AA	ADD: AC DC POWER DISTRIBUTION
2	CA00884AA	ADD: QTY (1) XHUB
1	X882AH	ADD: 7.5 FT OPEN RACK, 48RU
1	DS11011188	PDU, 120/240 SPLIT PH OR N+1 REDUNDANT, 60A MAX PER PHASE, SIX DEDICAT
12	DS3750297	BREAKER, 15 AMP, CB UL 489 LISTED FOR AC EDGE II (1101- 1188)
1	DS1101990	SPD, SHIELDED RJ-45 JACK, SINGLE LINE GBE (1000MBPS) R56 COMPLIANT
1	DSTSJADP	RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS
4	0784469Y02	BRKT, CBL SUPPORT
1	3182602Y06	GROUNDING BUS BAR
1	DQSPS2019	5 CH CAVITY COMBINER, 5 CH RX FILTER, 8 CH RXMC AC
0		**UPS**
2	DS9PXXR27002043S	UPS, 9PX, 2700W, 120V, SOFTWIRED, 43 MIN RUNTIME RACKMOUNT
0		**Antenna Assembly**
0		**TX**

QTY	NOMENCLATURE	DESCRIPTION
0	DSDS1F00F36UD	ANTENNA, 150-164MHZ UNITY GAIN SINGLE VHF FIBERGLASS W/ 7/16 DIN CONNECTOR
15	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
185	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER,7/8 IN, BLACK PE JACKET
2	DSA5DFD	D-CLASS 7-16 DIN FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
1	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
1	DSVHF50DMAPGR	RF SPD, 100-512MHZ, DC BLOCK HIGH POWER DIN MALE ANT, DIN FEMALE EQUIP
25	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
0		**RX**
0	DSBA4041DIN	OMNI, EXPOSED DIPOLE ARRAY, 3 DBD, 136-174 MHZ, PIM RATED
15	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
1	DDN1088	L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE
1	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
202	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER,7/8 IN, BLACK PE JACKET
2	DSA5NFS	N FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
2	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
1	DSIS50NXC2MA	RF SPD, 125-1000MHZ DC BLOCK FLANGE MT NM ANTENNA, NF EQUIPMENT SIDE
25	L1702	FSJ4-50B CABLE: 1/2" SUPERFLEX POLY JKT PER FOOT
2	DDN9682	F4PNMV2-HC 1/2" TYPE N MALE PLATED CONNECTOR
0		**RF Sub Site #4 (Autophone)**
0		**TRAK**
1	DSTRAK91008E	PRIME/MASTER SITE REDUNDANT MODULAR FREQUENCY TIMING SYSTEM AC
100	L1700	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
4	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
0		**Network**
2	CLN1868	2930F 24-PORT SWITCH

QTY	NOMENCLATURE	DESCRIPTION
2	SQM01SUM0205	GGM 8000 GATEWAY
1	CA01616AA	ADD: AC POWER
0		**5 CH ESS**
1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM
1	CA00717AA	ADD: ASTRO SYSTEM RELEASE 7.17
1	X530BG	ADD: VHF (136-174 MHZ)
1	X305AC	ADD: QTY (5) GTR 8000 BASE RADIOS
5	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE
1	CA02686AA	ADD: AC DC POWER DISTRIBUTION
2	CA00884AA	ADD: QTY (1) XHUB
1	X882AH	ADD: 7.5 FT OPEN RACK, 48RU
1	DS11011188	PDU, 120/240 SPLIT PH OR N+1 REDUNDANT, 60A MAX PER PHASE, SIX DEDICAT
12	DS3750297	BREAKER, 15 AMP, CB UL 489 LISTED FOR AC EDGE II (1101- 1188)
1	DS1101990	SPD, SHIELDED RJ-45 JACK, SINGLE LINE GBE (1000MBPS) R56 COMPLIANT
1	DSTSJADP	RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS
4	0784469Y02	BRKT, CBL SUPPORT
1	3182602Y06	GROUNDING BUS BAR
1	DQSPS2019	5 CH CAVITY COMBINER, 5 CH RX FILTER, 8 CH RXMC AC
0		**UPS**
2	DS9PXXR27002043S	UPS, 9PX, 2700W, 120V, SOFTWIRED, 43 MIN RUNTIME RACKMOUNT
0		**Antenna Assembly**
0		**TX**
0	DSDS1F00F36UD	ANTENNA, 150-164MHZ UNITY GAIN SINGLE VHF FIBERGLASS W/ 7/16 DIN CONNECTOR
15	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
300	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER,7/8 IN, BLACK PE JACKET
2	DSA5DFD	D-CLASS 7-16 DIN FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
1	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
1	DSVHF50DMAPGR	RF SPD, 100-512MHZ, DC BLOCK HIGH POWER DIN MALE ANT, DIN FEMALE EQUIP
25	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT

QTY	NOMENCLATURE	DESCRIPTION
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
0		**RX**
0	DSBA4041DIN	OMNI, EXPOSED DIPOLE ARRAY, 3 DBD, 136-174 MHZ, PIM RATED
15	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
1	DDN1088	L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE
1	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
320	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER,7/8 IN, BLACK PE JACKET
2	DSA5NFS	N FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
2	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
1	DSIS50NXC2MA	RF SPD, 125-1000MHZ DC BLOCK FLANGE MT NM ANTENNA, NF EQUIPMENT SIDE
25	L1702	FSJ4-50B CABLE: 1/2" SUPERFLEX POLY JKT PER FOOT
2	DDN9682	F4PNMV2-HC 1/2" TYPE N MALE PLATED CONNECTOR
0		**RF Sub Site #5 (Mirando)**
0		**TRAK**
1	DSTRAK91008E	PRIME/MASTER SITE REDUNDANT MODULAR FREQUENCY TIMING SYSTEM AC
100	L1700	FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT
4	DDN9769	F1TNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE
0		**Network**
2	CLN1868	2930F 24-PORT SWITCH
2	SQM01SUM0205	GGM 8000 GATEWAY
1	CA01616AA	ADD: AC POWER
0		**5 CH ESS**
1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM
1	CA00717AA	ADD: ASTRO SYSTEM RELEASE 7.17
1	X530BG	ADD: VHF (136-174 MHZ)
1	X305AC	ADD: QTY (5) GTR 8000 BASE RADIOS
5	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE
1	CA02686AA	ADD: AC DC POWER DISTRIBUTION
2	CA00884AA	ADD: QTY (1) XHUB
1	X882AH	ADD: 7.5 FT OPEN RACK, 48RU
1	DS11011188	PDU, 120/240 SPLIT PH OR N+1 REDUNDANT, 60A MAX PER PHASE, SIX DEDICAT

QTY	NOMENCLATURE	DESCRIPTION
12	DS3750297	BREAKER, 15 AMP, CB UL 489 LISTED FOR AC EDGE II (1101- 1188)
1	DS1101990	SPD, SHIELDED RJ-45 JACK, SINGLE LINE GBE (1000MBPS) R56 COMPLIANT
1	DSTSJADP	RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS
4	0784469Y02	BRKT, CBL SUPPORT
1	3182602Y06	GROUNDING BUS BAR
1	DQSPS2019	5 CH CAVITY COMBINER, 5 CH RX FILTER, 8 CH RXMC AC
0		**UPS**
2	DS9PXXR27002043S	UPS, 9PX, 2700W, 120V, SOFTWIRED, 43 MIN RUNTIME RACKMOUNT
0		**Antenna Assembly**
0		**TX**
0	DSDS1F00F36UD	ANTENNA, 150-164MHZ UNITY GAIN SINGLE VHF FIBERGLASS W/ 7/16 DIN CONNECTOR
15	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
185	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER,7/8 IN, BLACK PE JACKET
2	DSA5DFD	D-CLASS 7-16 DIN FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE
1	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
1	DSVHF50DMAPGR	RF SPD, 100-512MHZ, DC BLOCK HIGH POWER DIN MALE ANT, DIN FEMALE EQUIP
25	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
2	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
0		**RX**
0	DSBA4041DIN	OMNI, EXPOSED DIPOLE ARRAY, 3 DBD, 136-174 MHZ, PIM RATED
15	L1705	LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT
1	DDN1088	L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE
1	DDN1090	L4TDM-PSA 7-16 DIN MALE PS FOR 1/2 IN CABLE
2	TDN9289	221213 CABLE WRAP WEATHERPROOFING
202	DSAVA550	AVA5-50, COAXIAL CABLE, CORRUGATED COPPER,7/8 IN, BLACK PE JACKET
2	DSA5NFS	N FEMALE FOR AVA5-50 CABLE
5	DSSG7812B2U	SG78-12B2U SUREGROUND GROUNDING KIT FOR 7/8 IN COAXIAL CABLE

QTY	NOMENCLATURE	DESCRIPTION
2	DSL5SGRIP	L5SGRIP 7/8" SUPPORT HOIST GRIP
1	DSIS50NXC2MA	RF SPD, 125-1000MHZ DC BLOCK FLANGE MT NM ANTENNA, NF EQUIPMENT SIDE
25	L1702	FSJ4-50B CABLE: 1/2" SUPERFLEX POLY JKT PER FOOT
2	DDN9682	F4PNMV2-HC 1/2" TYPE N MALE PLATED CONNECTOR
0		**SPARES**
1	DLN6455	CONFIGURATION/SERVICE SOFTWARE
1	DLN6781	FRU: POWER SUPPLY
1	DLN6897	FRU: PA VHF
1	DLN6725	FRU: VHF 100W LINEAR PA
1	DLN6892	FRU: XCVR VHF V2
1	DLN6898	FRU: FAN MODULE
1	DLN6677	FRU: G-SERIES XHUB
1	CLN1868	2930F 24-PORT SWITCH
1	SQM01SUM0205	GGM 8000 GATEWAY
1	CA01616AA	ADD: AC POWER
0		**Microwave**
1	DQMNIWEBBMW	6 GHz; All Indoor; Non Protected 45 Mbps Microwave Backhaul
		Edge Server
1	SQM01SUM0299	EDGE CONTROLLER SERVER
1	CA03120AA	ADD: EDGE CONTROLLER BASE SOFTWARE
1	CA03121AA	ADD: EDGE CONTROLLER MULTI-SITE SW
1	CA03082AA	ADD: LXN OPEN RACK INSTALL KIT
		Network
2	SQM01SUM0205	GGM 8000 GATEWAY
2	CA01616AA	ADD: AC POWER

SECTION 5

STATEMENT OF WORK

5.1 P25 STATEMENT OF WORK

Motorola Solutions will install and configure the proposed equipment. The following table describes the tasks involved with installation and configuration.

Tasks	Motorola Solutions	Customer
PROJECT INITIATION		
Contract Finalization and Team Creation		
Execute contract and distribute contract documents.	X	X
Furnish a performance bond in the full amount of the contract price as security for the faithful performance of Motorola Solutions' contractual obligations.	X	
Purchase the required performance bond.	X	
Assign one main Project Manager as a single point of contact for decision and signoff authority.	X	X
Assign additional Project managers or support personnel as needed that will report to the main Project Manager.		X
Assign resources.	X	X
Schedule project kickoff meeting.	X	X
Deliverable: Signed contract, defined project team, and scheduled project kickoff meeting.		
Project Administration		
Ensure that project team members attend all meetings relevant to their role on the project.	X	X
Set up the project in the Motorola Solutions information system.	X	
Record and distribute project status meeting minutes.	X	
Maintain responsibility for third-party services contracted by Motorola Solutions.	X	
Complete assigned project tasks according to the project schedule.	X	X
Submit project milestone completion documents.	X	
Upon completion of tasks, approve project milestone completion documents. Webb County to sign off on milestone completion paperwork as milestones are achieved.		X
Conduct all project work Monday thru Friday, 7:30 a.m. to 5:00 p.m.).	X	

Tasks	Motorola Solutions	Customer
Deliverable: Completed and approved project milestones throughout the project.		
Project Kickoff		
Introduce team, review roles, and decision authority.	X	X
Present project scope and objectives.	X	
Review SOW responsibilities and project schedule.	X	X
Schedule Design Review.	X	X
Deliverable: Completed project kickoff and scheduled Design Review.		
Design Review		
Review the Customer's operational requirements.	X	X
Present the system design and operational requirements for the solution.	X	
Present installation plan.	X	
Present preliminary cutover plan and methods to document final cutover process.	X	
Present configuration and details of sites required by system design.	X	
Motorola will provide a check list to Webb County for required specifications to ensure sites can support the new equipment.	X	
Motorola with Webb County will perform site walks to validate that Customer sites can accommodate proposed equipment.	X	X
If the sites do not meet required specifications to accommodate the equipment, Motorola will provide an updated checklist of modifications that will need to be completed. It will be Webb County's responsibility to ensure the sites are brought up to required specification.		X
Provide approvals required to add equipment to proposed existing sites.		X
Review safety, security, and site access procedures.	X	
Finalize site acquisition and development plan.		X
Present equipment layout plans and system design drawings.	X	
Provide backhaul performance specifications and demarcation points.	X	
Provide heat load and power requirements for new equipment.	X	
Provide information on existing system interfaces.		X
Provide frequency and radio information for each site.		X

Tasks	Motorola Solutions	Customer
Assume responsibility for providing all information necessary for complete installation.		X
Assume responsibility for issues outside of Motorola Solutions' control. (Motorola does not expect the County to take on any responsibility, which belongs to Motorola. This statement basically defines any issues which are outside Motorola's control e.g. when putting up a new tower at the proposed locations, during the digging, Motorola finds Hazardous material at the site. Motorola will closely work with the County in this scenario to find a best possible solution for this issue.)		X
Complete the required forms required for frequency coordination and licensing.		X
Ensure that frequency availability and licensing meet project requirements, and pay licensing fees. Motorola will be responsible for the IM studies and Contour analysis and County is responsible for paying the FCC licensing Costs.	X	X
Review and update design documents, including System Description, Statement of Work, Project Schedule, and Acceptance Test Plan, based on Design Review agreements.	X	
Provide minimum acceptable performance specifications for customer provided hardware, software, LAN, WAN and internet connectivity.	X	
Execute Change Order in accordance with all material changes to the Contract resulting from the Design Review.	X	
Deliverable: Finalized design documentation based upon "frozen" design, along with any relevant Change Order documentation.		
SITE PREPARATION AND DEVELOPMENT		
Site Access		
Webb County to ensure Motorola has access to each installation site.		X
Webb County to ensure clear and stable entry to the sites. Ensure that sufficient space is available at the site for vehicles to maneuver under their own power, without assistance from other equipment. For sites not owned by Webb County, it is Webb County's responsibility to work with the site owners to ensure a clear and stable entry to the sites and allow for sufficient space for construction activities related to site installation.		X
Obtain site licensing and permitting, including site lease/ownership, zoning, permits, regulatory approvals, easements, power, and telco connections.		X
Deliverable: Access, permitting, and licensing necessary to install system equipment at each site.		
Site Planning		

Tasks	Motorola Solutions	Customer
Provide necessary buildings, equipment shelters, and towers for installation of system equipment.		X
Provide the R56 requirements for space, power, grounding, HVAC, and connectivity requirements at each site.	X	
Provide adequate electrical power in proper phase and voltage at sites.		X
Provide as-built structural and foundation drawings of the structures and site locations, along with geotechnical reports, in order to facilitate a structural analysis.		X
Perform structural analysis of towers to confirm that they are capable of supporting proposed and future antenna loads.	X	
Motorola will provide minimum specifications needed to support the new site equipment.	X	
Confirm that there is adequate utility service to support the new equipment and ancillary equipment. It will be Webb County's responsibility make any modifications needed to ensure there is adequate service.		X
If the structural analysis determines remediation is required, it is Webb County's responsibility to modify towers or any other structures to ensure the site is capable of supporting proposed and future antenna loads. If Webb County does not want to make modifications to the site, Motorola can work with Webb County to find an alternative site which may result in a change order to the contract.		X
Conduct site walks to collect pertinent information (e.g. location of telco, power, structures, etc.)	X	
Ensure that each Webb County owned site meets the R56 standards for space, grounding, power, HVAC, and connectivity requirements.		X
Prepare and submit Electromagnetic Energy (EME) plans for the site (as licensee) to demonstrate compliance with FCC RF Exposure Guidelines if applicable.		X
Prepare a lease exhibit and sketch of each site showing the proposed lease space and planned development at that site.		X
Obtain the permits needed to complete site development, including electrical, building		X
Pay for application fees, taxes, and recurring payments for lease/ownership of property.		X
Ensure that required rack space is available for installation of the new equipment. *The County is responsible for this task at all RF site locations and dispatch site.*		X

Tasks	Motorola Solutions	Customer
Deliverable: Information and permitting requirements completed at each site.		
General Facility Improvements		
Provide adequate HVAC, grounding, lighting, cable routing, and surge protection based upon Motorola Solutions' Standards and Guidelines for Communication Sites (R56). *The County is responsible for this task at all RF site locations and dispatch site. Motorola will provide power calculations of Power, BTU, and circuits needed at each location*		X
Ensure the resolution of environmental and hazardous material issues at each site including, but not limited to, asbestos, structural integrity (tower, rooftop, water tank, etc.), and other building risks.		X
Provide obstruction-free area for the cable run between the demarcation point and system equipment.		X
Provide structure penetrations (wall or roof) for transmission equipment (e.g. antennas, microwave radios, etc.).		X
Supply interior building cable trays, raceways, conduits, and wire supports. Motorola will utilize the existing cable trays and raceways. If the existing trays are not usable, then Motorola will provide Webb County with a change order to add additional trays etc.		X
Pay for any usage costs of power and generator fueling, both during project installation efforts and on an ongoing basis.		X
Provide mobilization of antenna install crews. If the sites are not ready for installation when crews arrive, a change order may be required.	X	
Deliverable: Sites meet physical requirements for equipment installation.		
SYSTEM INSTALLATION		
Equipment Order and Manufacturing		
Create equipment order and reconcile to contract.	X	
Manufacture Motorola Solutions-provided equipment necessary for system based on equipment order.	X	
Procure non-Motorola Solutions equipment necessary for the system.	X	
Deliverable: Equipment procured and ready for shipment.		
Field System Staging		

Tasks	Motorola Solutions	Customer
Ship all equipment needed for staging to the field (customer provided location or Motorola Service Shop (RZ Communications)	X	
Provide information on existing system interfaces, room layouts, or other information necessary for the assembly to meet field conditions.		X
Set up and rack the solution equipment on a site-by-site basis, as it will be configured in the field at each of the sites.	X	
Cut and label the cables with to/from information to specify interconnection for field installation and future servicing needs.	X	
Complete the cabling/connecting of the subsystems to each other (“connectorization” of the subsystems).	X	
Assemble required subsystems to assure system functionality.	X	
Power up, load application parameters, program, and test all staged equipment.	X	
Confirm system configuration and software compatibility with the existing system.	X	
Inventory the equipment with serial numbers and installation references.	X	X
Conduct site and system level testing.	X	
Deliverable: System staged and ready for shipment.		
Equipment Shipment and Storage		
Provide secure location for solution equipment.		X
Pack and ship solution equipment to the identified, or site locations.	X	
Receive solution equipment.		X
Inventory solution equipment.	X	
Deliverable: Solution equipment received and ready for installation		
General Installation		
Deliver solution equipment to installation location.	X	
Coordinate receipt of and inventory solution equipment with designated contact.	X	
Install all proposed fixed equipment as outlined in the System Description based upon the agreed-upon floor plans, connecting audio, control, and radio transmission cables to connect equipment to the power panels or receptacles, and audio/control line connection points. Installation performed in accordance with R56 standards and state/local codes.	X	

Tasks	Motorola Solutions	Customer
Provide system interconnections that are not specifically outlined in the system design, including dedicated phone circuits, microwave links, or other types of connectivity		X
Install and terminate all network cables between site routers and network demarcation points, including microwave, leased lines, and Ethernet.	X	
Connect installed equipment to the provided ground system.	X	X
Label equipment, racks, and cables.	X	
Perform preliminary audit of installed equipment to ensure compliance with requirements and R56 standards.	X	
Note any required changes to the installation for inclusion in the “as-built” system documentation.	X	
Remove, transport, and dispose of old equipment.	X	X
Deliverable: Equipment installed.		
Antenna and Transmission Line Installation		
Install antennas, including supplying and installing new side arm mounts	X	
Install transmission lines required for system.	X	
Provide structure penetrations for transmission equipment (e.g. antennas & microwave line.).		X
Install microwave waveguide and lines, as applicable.	X	
Perform sweep tests on transmission lines.	X	
Provide and install attachment hardware for supporting transmission lines on antenna support structure.	X	
Supply and install ground buss bar at the bottom of each antenna support structure.	X	
Deliverable: Antenna and Transmission Line installed.		
Prime and Remote Site Installation and Configuration		
Install fixed equipment contained in the equipment list and system description.	X	
Provide backhaul connectivity and associated equipment for all sites identified in this proposal with the exception of the following paths: - Consoles to the South Tower - South Tower to GATRRS Core	X	
Webb County is responsible for providing backhaul connectivity to the GATRRS Core from South Tower site and the link from the Consoles to the South Tower site.		X
Configure ASTRO 25 system to support the new RF sites.	X	

Tasks	Motorola Solutions	Customer
Verify site link performance, prior to the interconnection of the solution equipment to the link equipment.	X	
Provide list of subscriber IDs for loading into the Zone Controller.		X
Load subscriber IDs in the Zone Controller.	X	
Provide required radio ID and alias information to enable alias database setup for interface to consoles.		X
Integrate the RF sites into the system to ensure proper operation.	X	
Deliverable: ASTRO 25 core and remote site equipment installation completed.		
Console Installation and Configuration		
Identify circuits for connection to console and a demarcation point located within 25 feet of the console interface.		X
Connect console to circuit demarcation points.	X	
Install PC workstation w/ keyboard and mouse, and monitor.	X	
Install the purchased peripheral console equipment in accordance with R56 standards and state/local codes with guidance from Webb County.	X	X
Develop templates for console programming with guidance from Webb County.	X	
Perform console programming and configuration.	X	
Deliverable: Console equipment installation completed.		
Consolette Installation and Configuration		
Provide the locations of control stations at each site. Control Stations will be installed at the new Dispatch Center.		X
Survey mounting locations and develop consolette installation plan.	X	
Provide adequate space, grounding, and power for the consolette installation.		X
Properly install connectors and ground the cabling, which will be run to the outdoor antenna location using the least obtrusive method.	X	
Provide an elevated antenna mounting location, and adequate feed-line routing and support.		X
Install line (not greater than 100 feet in length) and antenna system (connectors, coax grounding kit, antenna, and surge protection).	X	
Perform consolette programming.	X	
Deliverable: Control station equipment installation completed.		

Tasks	Motorola Solutions	Customer
Logging Equipment Installation and Configuration		
No logging solution is supplied with this proposal	NA	NA
Deliverable: Logging equipment installation completed.		
Develop Console and User Radio Fleetmap		
Review and determine modifications to existing fleetmap.		X
Designate user group representatives for the user groups, to make timely decisions on their behalf.		X
Provide advisory input during fleetmap development. Motorola has allocated a day of RZ Communications time and a day of Motorola engineer to assist with any questions	X	
Develop templates.	X	X
Program the approved templates into a radio-programming template tool.	X	
Program sample radios with approved templates and deliver for evaluation by Customer. *Motorola will program 5 Portable and 5 Mobiles.*	X	
Install approved templates into the console and consolettes.	X	
Evaluate sample radios and provide feedback.		X
Deliverable: Fleetmap plan completed and approved by Customer.		
Mobile Radio Programming – County responsibility		
Portable Radio Programming– County responsibility		
Deliverable: Fixed Network Equipment installation completed and ready for optimization.		
SYSTEM OPTIMIZATION AND TESTING		
R56 Site Audit		
Perform R56 site-installation quality-survey, verifying proper physical installation and operational configurations.	X	
Create site evaluation report to verify site meets or exceeds requirements, as defined in Motorola Solutions' R56 Standards and Guidelines for Communication Sites.	X	
Deliverable: R56 Standards and Guidelines for Communication Sites audits completed successfully.		
Solution Optimization		
Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.	X	

Tasks	Motorola Solutions	Customer
Verify that all audio and data levels are at factory settings.	X	
Verify communication interfaces between devices for proper operation.	X	
Ensure that functionality meets manufacturers' specifications and complies with the final configuration established during design review or system staging.	X	
Deliverable: Completion of System Optimization.		
Functional Acceptance Testing		
Verify the operational functionality and features of the solution supplied by Motorola Solutions, as contracted.	X	
Witness the functional testing.		X
Document all issues that arise during the acceptance tests.	X	
If any major task for the system as contractually described fails during the Customer acceptance testing or beneficial use, repeat that particular task after Motorola Solutions determines that corrective action has been taken.	X	
Resolve any minor task failures before Final System Acceptance.	X	
Document the results of the acceptance tests and present for review.	X	
Review and approve final acceptance test results.		X
Deliverable: Completion of functional testing and approval by Customer.		
Coverage Testing – Information Purposes Only		
Determine the required number of test vehicles for simultaneous testing of the service area.	X	X
Perform coverage testing according to the Coverage Acceptance Test Plan (CATP), Submit test reports within the agreed period.	X	
Submit final test reports, according to the agreed period.	X	
Provide the required number of test vehicles, drivers, and resources to witness the coverage testing.		X
Deliverable: Completion of coverage testing and approval by Customer.		
PROJECT TRANSITION		
Training		
Finalize schedule for training coursework.	X	
Provide training facility.		X

Tasks	Motorola Solutions	Customer
Ensure that the training participants fulfill course prerequisites.		X
Conduct the training classes outlined in the Training Plan.	X	
Attend proposed training classes.		X
Deliverable: Training coursework completed.		
Cutover		
Finalize Cutover Plan.	X	X
Calibrate and tune existing mobile and portable radios to ensure good working order.		X
Provide Motorola Solutions with user radio information for input into the system database and activation, as required.		X
Provide programming of user radios and related services (i.e. template building, re-tuning, testing and installations), as needed, during cutover period.		X
Conduct cutover meeting with relevant personnel to address both how to mitigate technical and communication problem impacts to the users during cutover and during the general operation of the system.	X	
Notify the personnel affected by the cutover of the date and time planned for cutover.		X
Provide ongoing communication with users regarding the project and schedule.	X	X
Cutover users and ensure that user radios are operating on system.		X
Resolve punchlist items, documented during the Acceptance Testing phase, in order to meet all the criteria for final system acceptance.	X	
Assist Motorola Solutions with resolution of identified punchlist items by providing support, such as access to the sites, equipment and system, and approval of the resolved punchlist items.		X
Deliverable: Migration to new system completed, and punchlist items resolved.		
Transition to Warranty		
Review the items necessary for transitioning the project to warranty support and service.	X	
Motorola Solutions to provide services during year 1 warranty which align with the proposed services.	X	
Provide a Customer Support Plan detailing the warranty support associated with the contract equipment.	X	
Participate in the Transition Service/Project Transition Certificate (PTC) process.		X
Deliverable: Service information delivered and approved by Customer		

Tasks	Motorola Solutions	Customer
Finalize Documentation and System Acceptance		
Provide manufacturer's installation material, part list and other related material to Customer upon project completion.	X	
Provide an electronic as-built system manual on CD or other Customer preferred electronic media. The documentation will include the following: - Site Block Diagrams. - Site Floor Plans. - Site Equipment Rack Configurations. - Antenna Network Drawings for RF Sites (where applicable). - ATP Test Checklists. - Functional Acceptance Test Plan Test Sheets and Results. - Equipment Inventory List. - Console Programming Template (where applicable). - Maintenance Manuals (where applicable). - Technical Service Manuals (where applicable). Drawings will be delivered in Adobe PDF format.	X	
Receive and approve documentation.		X
Execute Final Project Acceptance.	X	X
Deliverable: All required documents are provided and approved. Final Project Acceptance.		

5.2 MICROWAVE STATEMENT OF WORK

5.2.1 General Requirements

Motorola has partnered with Microwave Networks Inc (MNI) to propose a Microwave Backhaul Solution which will meet Webb County's current and future needs.

This Scope of Work (SOW) details Motorola and Webb County, TX (Customer) responsibilities and tasks to be performed for the installation and commissioning of the proposed Microwave Networks Inc links.

Pricing and implementation are based on using a Motorola selected non-union work crew. Motorola intends to utilize this crew in all locations and for all tasks. The requirements and tasks listed below are considered standard.

The Motorola Program Manager (PM) will act as coordinator between the customer and the MNI Installation Supervisor. All requests or needs with regards to the implementation should be directed to the Motorola Program Manager. To avoid confusion, the customer is asked to identify to the Motorola Program Manager, in writing, all personnel who may authorize changes and perform site acceptance. This list is to be submitted to Motorola prior to the start of installation.

Installation work performed by Motorola or its authorized sub-contractors will conform to industry guidelines and will utilize quality materials from selected qualified suppliers. All special requirements are to be submitted in writing to the Motorola Program Manager prior to the start of installation.

No changes to the Scope of Work (SOW) will be authorized unless agreed upon by the customer project coordinator or authorized representative and the Motorola Program Manager. Changes to the SOW will be documented in writing by Motorola and MNI. If the change(s) affect the sub-contractor, a request for quotation will be issued. Upon determination of cost and schedule impact, a Project Change Order Authorization (PCOA) detailing the requested changes will be forwarded to the Customer's Project Coordinator or authorized representative for signature. No changes will be performed until customer authorization is obtained.

Additional labor to this SOW will be quoted, per occurrence. Delays, as defined in the contractual terms and conditions, may be billed.

Motorola will submit the SOW, which includes the project timeline (sequence of installation tasks with completion dates); to the Customer for approval at least two weeks prior to the scheduled start for installation. The customer is required to sign and return the SOW at least one week prior to the scheduled start date for installation to the Motorola Program Manager. Failure to return the approved SOW could cause Motorola to delay the start of installation until approval is obtained.

Site work will be performed in a progressive and contiguous manner without work stoppage due to non-Motorola related tasks. All additional mobilizations, beyond the initial one, that are not directly caused by Motorola, its contractors or MNI Networks delivered equipment, will require a Project Change Authorization (PCOA) generated by the Motorola Program Manager and a Customer purchase order prior to the additional mobilizations.

All superstructure, Main Station Grounding, and required cable rack are assumed to be existing.

Inspection of the site and verification of the installation design will be performed on initial entry to the site by Motorola personnel or Motorola's authorized subcontractor for engineering compliance.

General site cleanup will be performed by Motorola installers, on a daily basis with the trash neatly stacked for removal by the customer or placed in a customer provided receptacle.

5.2.2 General Assumptions

- All sites are accessible by 2-wheel drive vehicles.

5.2.3 Specific Requirements

Function	Motorola/ MNI	Webb County (Customer)
ENGINEERING		
Perform Transmission and System Engineering.	X	
Furnish building and plot plan drawings and directions to the sites, if available prior to the commencement of Path survey.	X	X
Furnish floor plans and office drawings of existing sites, Showing new equipment locations, term block & fuse panel assignments, etc.		X
Perform Path Survey.	X	
Perform Frequency Coordination and file PCN.	X	
Prepare Frequency Coordination Applications.	X	
Furnish one complete set of installation specifications and measurements for the proposed equipment ATP.	X	
TRANSPORTATION / STORAGE		
Provide transportation for equipment and materials from MNI factory to the final destination. - Freight charges per terms of Purchase Order.	X	
Deliver all proposed equipment to the customer location.	X	
Provide space to store the microwave equipment before they are transported to the RF sites for installation.		X
Transport the Microwave equipment from storage/customer location to the respective RF sites.	X	X
SITE PREPARATION		
Furnish all site improvements (fences, roads, grading, tree removal, etc.). Access roads to all work areas of each site shall be suitable and accessible to concrete trucks, truck-trailers, and all other construction equipment.		X
Provide suitable openings, channels, or ducts for cables and conductors for routing from floor-to-floor and from room-to-room.		X
Provide Ground Bar for the racks.	X	

Install Ground Bar on the racks.	X	
TOWERS		
Furnish and install all towers.		X
Determine structural capabilities of all towers and/or antenna mounting structures and perform all Structural modifications required to support, mount and adapt the proposed antennas.	X	
Furnish and install antenna Pipe Mount(s).	X	
ANTENNAS / TRANSMISSION LINE		
Install all antenna and transmission line including coax at radio end, terminated at Antenna port.	X	
Install Wall Feed-Thru's for coax/wave guide Transmission line.	X	
POWER & GROUND		
Provide AC power and breakers as required.		X
Provide ready access (within 50 feet (15 meters) of proposed Equipment locations) to a low resistance ground at each location.		X
Furnish and install adequate AC receptacle within 6 feet (2 meters) of the battery charger rack.		X
Install batteries and chargers as required by design.	X	
Furnish and install DC Power and Ground wiring to MNI Networks provided racks per specifications.	X	
Label DC breakers / fuses and newly installed wiring.	X	
RADIO EQUIPMENT		
Install cable and test all radio and auxiliary equipment proposed.	X	
TESTING/MISCELLANEOUS		
Provide complete set of Test Equipment consisting of; Digital Multi-Meter, BER Test Set (capable of the required data rates used in the system), VT-100 terminal for the duration of the test as applicable.	X	
Coordinate system test and alignment with the Customer. Such testing will only include acceptability of Motorola installed equipment.	X	
Optimize and test system to MNI Networks Acceptance Test Procedure (ATP).	X	
Record test data for inclusion in the "as built" Documentation.	X	
Prepare, submit and file, if applicable, all necessary environmental impact data (This is applicable to the new 350ft tower for the ASR 1025664 location).	X	
DOCUMENTATION		
Furnish one complete set of MNI Networks Operation and Maintenance manuals with drawings for each rack.	X	
Provide one complete set of vendor provided Operation and Maintenance literature with drawings for each location.	X	
Sign a project completion notice upon completion of the activities detailed in this Scope of Work. The project completion notice may apply to the project on a per hop or per system basis, as mutually agreed upon by Motorola and the Customer.	X	X

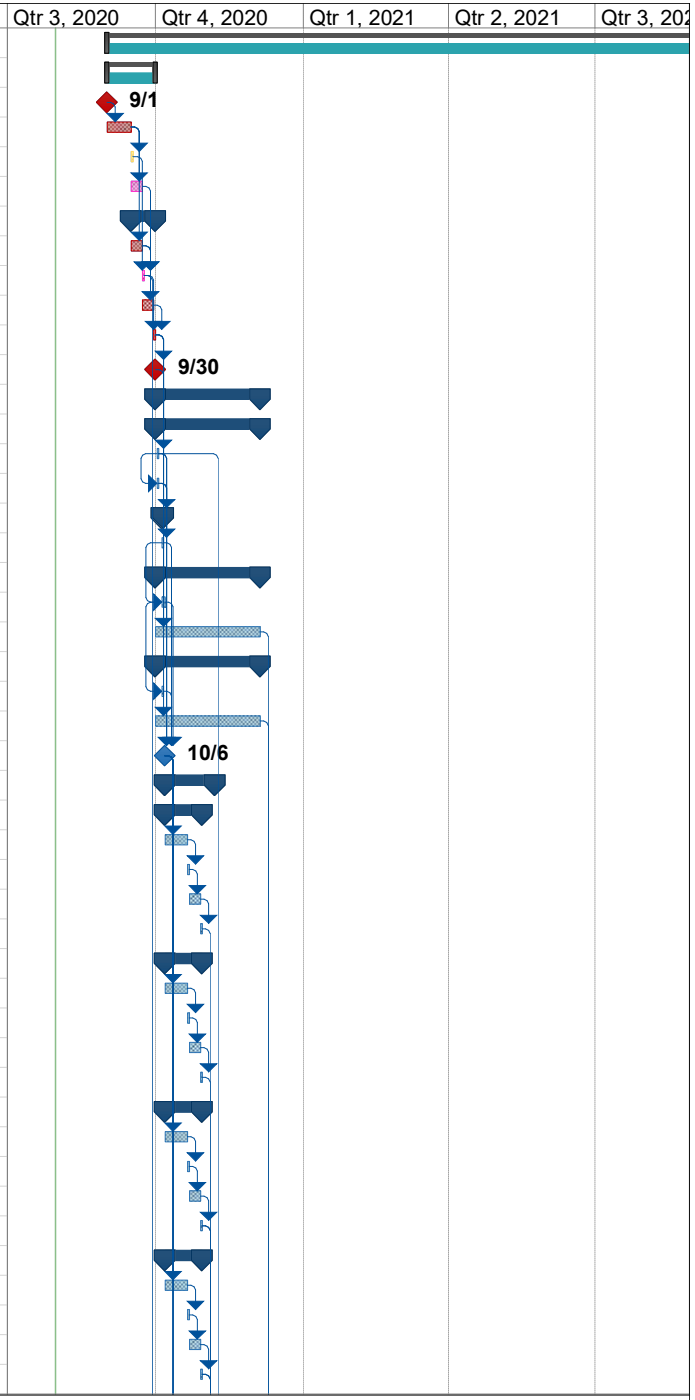
Prepare and submit a complete documentation package of equipment as installed and accepted (As Built), to the customer three (3) weeks after system acceptance.	X	
It is agreed that this Scope of Work (SOW) is correct and complete for the responsibilities described above. It is further agreed that this SOW supersedes all previous agreements, proposals and discussions.		

SECTION 6

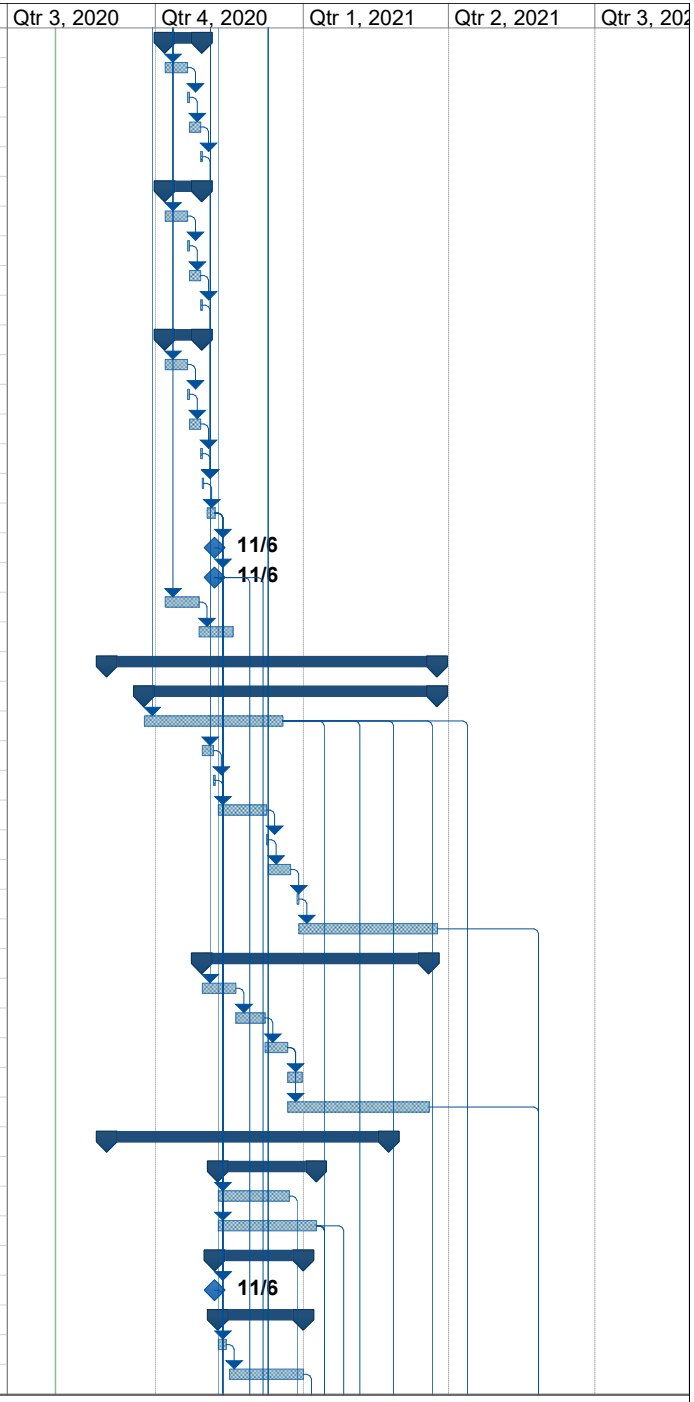
PROJECT SCHEDULE

Project Schedule is included on the pages that follow.

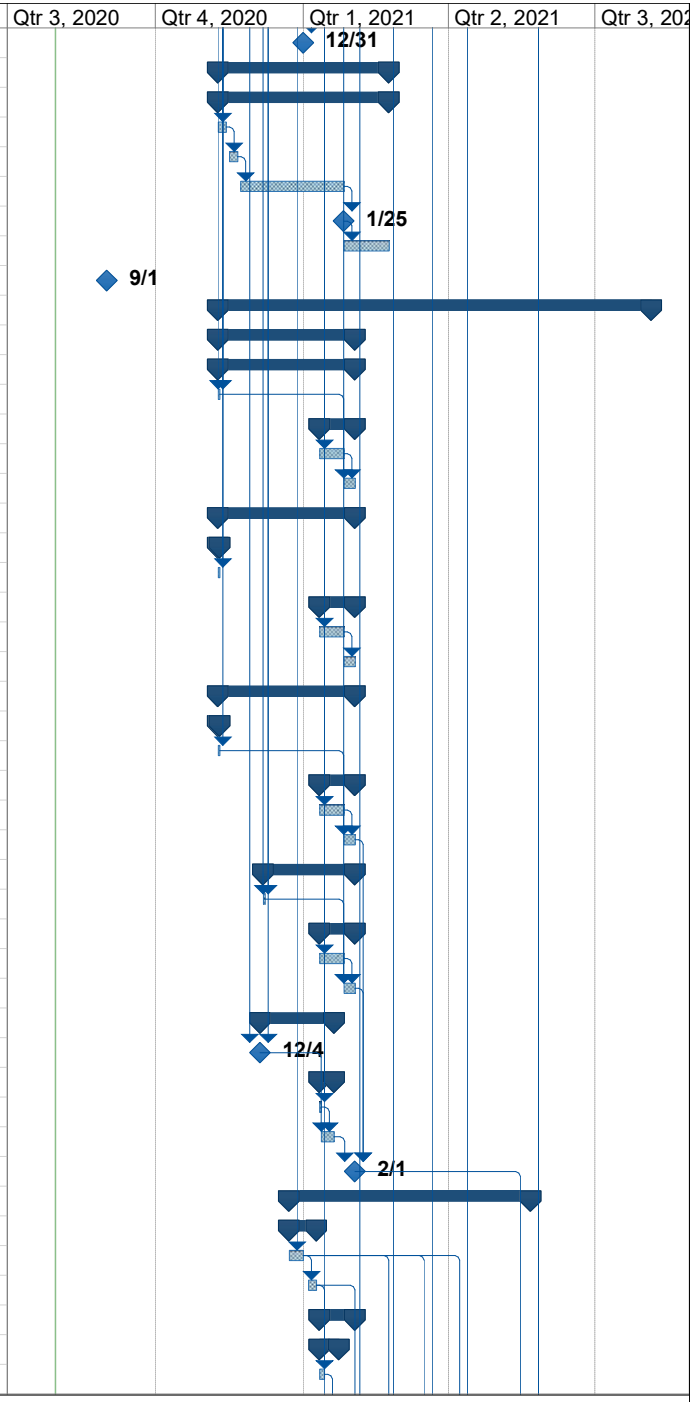
ID	Task Name	Duration	Start	Finish
1		**1022 d**	**Tue 9/1/20**	**Wed 9/11/24**
2	**Project Initiation**	**21 d**	**Tue 9/1/20**	**Wed 9/30/20**
3	Contract Award	0 d	Tue 9/1/20	Tue 9/1/20
4	Project Set Up	10 d	Tue 9/1/20	Tue 9/15/20
5	Post Sale Transition Meeting Completed	1 d	Wed 9/16/20	Wed 9/16/20
6	Internal Project Plan/Design Review	5 d	Wed 9/16/20	Tue 9/22/20
7	**Project Kick-off**	**11 d**	**Wed 9/16/20**	**Wed 9/30/20**
8	Kick-off Preparation	5 d	Wed 9/16/20	Tue 9/22/20
9	Internal Project Kick-off	1 d	Wed 9/23/20	Wed 9/23/20
10	Project Reports and Recurring Deliverables Established	5 d	Wed 9/23/20	Tue 9/29/20
11	Project Kick-off Conducted	1 d	Wed 9/30/20	Wed 9/30/20
12	Project Initiation Complete	0 d	Wed 9/30/20	Wed 9/30/20
13	**Project Planning**	**45 d**	**Thu 10/1/20**	**Fri 12/4/20**
14	**Site Surveys Conducted**	**45 d**	**Thu 10/1/20**	**Fri 12/4/20**
15	North Tower Site: Site Walk	1 d	Fri 10/2/20	Fri 10/2/20
16	South Tower Site: Site walk	1 d	Fri 10/2/20	Fri 10/2/20
17	**Calton Tower Site**	**1 d**	**Mon 10/5/20**	**Mon 10/5/20**
18	Site walk	1 d	Mon 10/5/20	Mon 10/5/20
19	**Lobo Tower Site**	**45 d**	**Thu 10/1/20**	**Fri 12/4/20**
20	Lobo Site Walk	2 d	Mon 10/5/20	Tue 10/6/20
21	Webb County Negogiation time with AEP	45 d	Thu 10/1/20	Fri 12/4/20
22	**MirandoTower Site**	**45 d**	**Thu 10/1/20**	**Fri 12/4/20**
23	Mirando Site Walk	1 d	Mon 10/5/20	Mon 10/5/20
24	Webb County Negogiation time with TXDOT	45 d	Thu 10/1/20	Fri 12/4/20
25	Site Surveys Complete	0 d	Tue 10/6/20	Tue 10/6/20
26	**Customer Design Review**	**23 d**	**Wed 10/7/20**	**Fri 11/6/20**
27	**System Description**	**17 d**	**Wed 10/7/20**	**Thu 10/29/20**
28	System Description Updated	10 d	Wed 10/7/20	Tue 10/20/20
29	System Description Delivered	1 d	Wed 10/21/20	Wed 10/21/20
30	System Description Comments Received	5 d	Thu 10/22/20	Wed 10/28/20
31	System Description Final Delivered	1 d	Thu 10/29/20	Thu 10/29/20
32	**Dispatch Subsystems**	**17 d**	**Wed 10/7/20**	**Thu 10/29/20**
33	Dispatch Subsystems Updated	10 d	Wed 10/7/20	Tue 10/20/20
34	Dispatch Subsystems Draft Delivered	1 d	Wed 10/21/20	Wed 10/21/20
35	Dispatch Subsystems Comments Received	5 d	Thu 10/22/20	Wed 10/28/20
36	Dispatch Subsystems Final Delivered	1 d	Thu 10/29/20	Thu 10/29/20
37	**Microwave Design**	**17 d**	**Wed 10/7/20**	**Thu 10/29/20**
38	Microwave Design Updated	10 d	Wed 10/7/20	Tue 10/20/20
39	Microwave Design Draft Delivered	1 d	Wed 10/21/20	Wed 10/21/20
40	Microwave Design Comments Received	5 d	Thu 10/22/20	Wed 10/28/20
41	Microwave Design Final Delivered	1 d	Thu 10/29/20	Thu 10/29/20
42	**RF Coverage Design**	**17 d**	**Wed 10/7/20**	**Thu 10/29/20**
43	RF Coverage Design Updated	10 d	Wed 10/7/20	Tue 10/20/20
44	RF Coverage Design Draft Delivered	1 d	Wed 10/21/20	Wed 10/21/20
45	RF Coverage Design Comments Received	5 d	Thu 10/22/20	Wed 10/28/20
46	RF Coverage Design Final Delivered	1 d	Thu 10/29/20	Thu 10/29/20



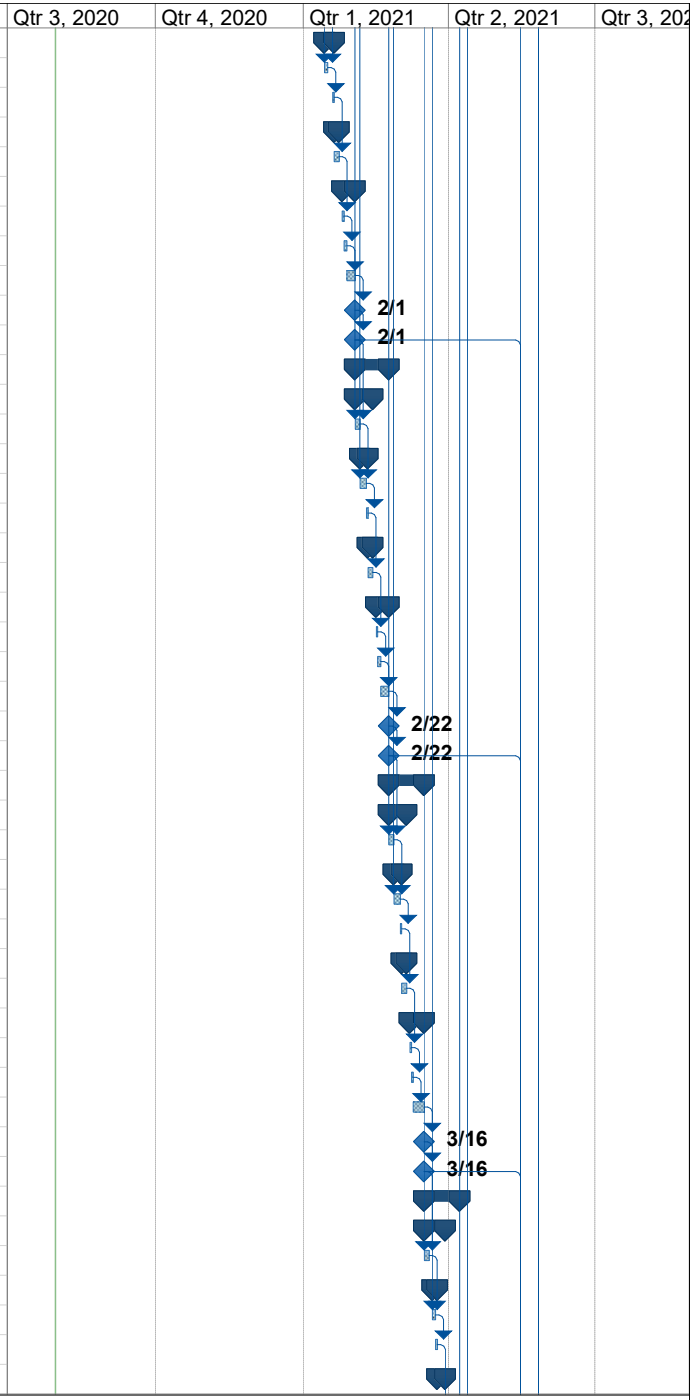
ID	Task Name	Duration	Start	Finish
47	**Acceptance Test Plans**	**17 d**	**Wed 10/7/20**	**Thu 10/29/20**
48	Acceptance Test Plans Finalized	10 d	Wed 10/7/20	Tue 10/20/20
49	Acceptance Test Plans Draft Delivered	1 d	Wed 10/21/20	Wed 10/21/20
50	Acceptance Test Plans Comments Received	5 d	Thu 10/22/20	Wed 10/28/20
51	Acceptance Test Plans Final Delivered	1 d	Thu 10/29/20	Thu 10/29/20
52	**Cutover / Transition Plan**	**17 d**	**Wed 10/7/20**	**Thu 10/29/20**
53	Cutover Planning Developed	10 d	Wed 10/7/20	Tue 10/20/20
54	Cutover Planning Draft Delivered	1 d	Wed 10/21/20	Wed 10/21/20
55	Cutover Planning Comments Received	5 d	Thu 10/22/20	Wed 10/28/20
56	Cutover Planning Final Delivered	1 d	Thu 10/29/20	Thu 10/29/20
57	**Training Plans**	**17 d**	**Wed 10/7/20**	**Thu 10/29/20**
58	Training Plans Updated	10 d	Wed 10/7/20	Tue 10/20/20
59	Training Plans Draft Delivered	1 d	Wed 10/21/20	Wed 10/21/20
60	Training Plans Comments Received	5 d	Thu 10/22/20	Wed 10/28/20
61	Training Plans Final Delivered	1 d	Thu 10/29/20	Thu 10/29/20
62	CDR Presentation Material Delivered	1 d	Fri 10/30/20	Fri 10/30/20
63	Customer Design Review Conducted and Approved	5 d	Mon 11/2/20	Fri 11/6/20
64	System Design and Implementation Plan Frozen	0 d	Fri 11/6/20	Fri 11/6/20
65	Coverage Design and Site Location Finalized	0 d	Fri 11/6/20	Fri 11/6/20
66	Contract Change Order Process	15 d	Wed 10/7/20	Tue 10/27/20
67	Update Project Plans (Post CDR)	15 d	Wed 10/28/20	Tue 11/17/20
68	**Project Execution**	**140 d**	**Tue 9/1/20**	**Wed 3/24/21**
69	**MW Frequency Coordination**	**124 d**	**Thu 9/24/20**	**Wed 3/24/21**
70	Webb County to procure leased line back to GATRRS	60 d	Thu 9/24/20	Fri 12/18/20
71	PCN Submittal Prep	5 d	Fri 10/30/20	Thu 11/5/20
72	PCN Submittal Approval	1 d	Fri 11/6/20	Fri 11/6/20
73	PCN Processing	20 d	Mon 11/9/20	Tue 12/8/20
74	PCN Approved & Equipment Info Ready	1 d	Wed 12/9/20	Wed 12/9/20
75	MW 601 Application Prep	10 d	Thu 12/10/20	Wed 12/23/20
76	MW 601 Application Submittal	1 d	Mon 12/28/20	Mon 12/28/20
77	MW FCC License Approval	60 d	Tue 12/29/20	Wed 3/24/21
78	**LMR Frequency Coordination and LMR Applications**	**95 d**	**Fri 10/30/20**	**Fri 3/19/21**
79	Frequency Search	15 d	Fri 10/30/20	Thu 11/19/20
80	Verify LMR Frequencies	10 d	Fri 11/20/20	Mon 12/7/20
81	Prepare LMR FCC 601 Applications	10 d	Tue 12/8/20	Mon 12/21/20
82	Applications Submitted to APCO for Coordination	5 d	Tue 12/22/20	Wed 12/30/20
83	FCC Review and Granting of Applications	60 d	Tue 12/22/20	Fri 3/19/21
84	**Manufacturing**	**118 d**	**Tue 9/1/20**	**Mon 2/22/21**
85	**Non-Staged Equipment**	**40 d**	**Mon 11/9/20**	**Fri 1/8/21**
86	Order, Manufacture and Ship to Field	30 d	Mon 11/9/20	Tue 12/22/20
87	Antennas: Order, Manufacture and Ship to Field	40 d	Mon 11/9/20	Fri 1/8/21
88	**MW Equipment Order, Manufacturing**	**35 d**	**Fri 11/6/20**	**Thu 12/31/20**
89	MW Notice to proceed	0 d	Fri 11/6/20	Fri 11/6/20
90	**MW Equipment Ordering and Manufacturing**	**35 d**	**Mon 11/9/20**	**Thu 12/31/20**
91	MW Make Order for Radio and Routers	5 d	Mon 11/9/20	Fri 11/13/20
92	MW Manufacture Equipment	30 d	Mon 11/16/20	Thu 12/31/20



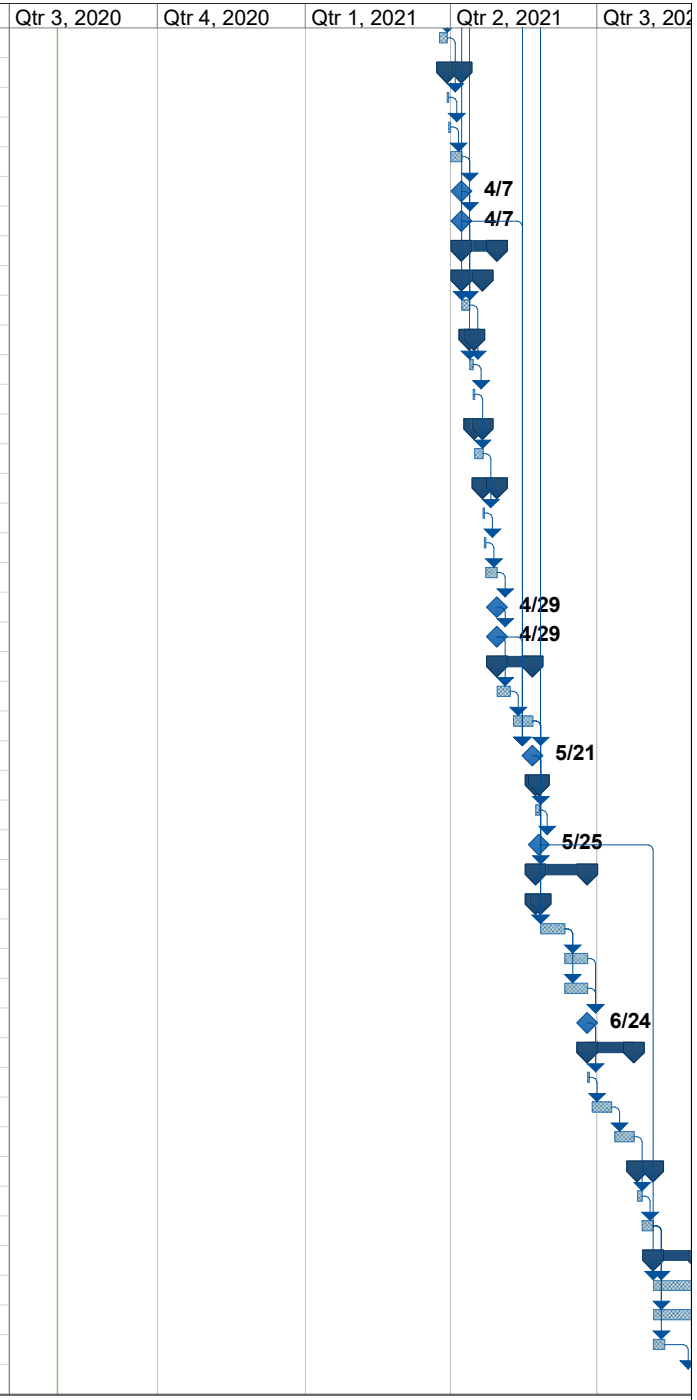
ID	Task Name	Duration	Start	Finish
93	MW Equipment Ordering and Manufacturing Complete	0 d	Thu 12/31/20	Thu 12/31/20
94	**FNE Equipment Order, Manufacturing**	**70 d**	**Mon 11/9/20**	**Mon 2/22/21**
95	**FNE Equipment Ordering and Manufacturing**	**70 d**	**Mon 11/9/20**	**Mon 2/22/21**
96	FNE Process Equipment List	5 d	Mon 11/9/20	Fri 11/13/20
97	FNE Make Order	5 d	Mon 11/16/20	Fri 11/20/20
98	FNE Manufacture Equipment	40 d	Mon 11/23/20	Mon 1/25/21
99	FNE Equipment Ordering and Manufacturing Complete	0 d	Mon 1/25/21	Mon 1/25/21
100	FNE Equipment shipped to Field	20 d	Tue 1/26/21	Mon 2/22/21
101	Manufacturing and Staging Complete	0 d	Tue 9/1/20	Tue 9/1/20
102	**Civil Work**	**186 d**	**Mon 11/9/20**	**Wed 8/4/21**
103	**North Tower Site:**	**55 d**	**Mon 11/9/20**	**Mon 2/1/21**
104	**North Tower Site: Pre-Construction**	**55 d**	**Mon 11/9/20**	**Mon 2/1/21**
105	North Tower Site: NTP from Customer	1 d	Mon 11/9/20	Mon 11/9/20
106	**North Tower Site: Antenna and Lines**	**15 d**	**Mon 1/11/21**	**Mon 2/1/21**
107	North Tower Site: Ship Antennas, Lines and Accessories to the Site	10 d	Mon 1/11/21	Mon 1/25/21
108	North Tower Site: RF Antennas and Lines Installation	5 d	Tue 1/26/21	Mon 2/1/21
109	**South Tower Site:**	**55 d**	**Mon 11/9/20**	**Mon 2/1/21**
110	**South Tower Site: Pre-Construction**	**1 d**	**Mon 11/9/20**	**Mon 11/9/20**
111	South Tower Site: NTP	1 d	Mon 11/9/20	Mon 11/9/20
112	**South Tower Site: Antenna and Lines**	**15 d**	**Mon 1/11/21**	**Mon 2/1/21**
113	South Tower Site: Ship Antennas, Lines and Accessories to the Site	10 d	Mon 1/11/21	Mon 1/25/21
114	South Tower Site: RF Antennas and Lines Installation	5 d	Tue 1/26/21	Mon 2/1/21
115	**Calton Tower Site:**	**55 d**	**Mon 11/9/20**	**Mon 2/1/21**
116	**Calton Tower Site: Pre-Construction**	**1 d**	**Mon 11/9/20**	**Mon 11/9/20**
117	Calton Tower Site: NTP from Customer	1 d	Mon 11/9/20	Mon 11/9/20
118	**Calton Tower Site: Antenna and Lines**	**15 d**	**Mon 1/11/21**	**Mon 2/1/21**
119	Calton Tower Site: Ship Antennas, Lines and Accessories to the Site	10 d	Mon 1/11/21	Mon 1/25/21
120	Calton Tower Site: RF Antennas and Lines Installation	5 d	Tue 1/26/21	Mon 2/1/21
121	**Lobo Tower Site: Development, Existing Tower and Shelter**	**37 d**	**Mon 12/7/20**	**Mon 2/1/21**
122	Lobo Tower Site: NTP from Customer	1 d	Mon 12/7/20	Mon 12/7/20
123	**Lobo Tower Site: Antenna and Lines**	**15 d**	**Mon 1/11/21**	**Mon 2/1/21**
124	Lobo Tower Site: Ship Antennas, Lines and Accessories to the Site	10 d	Mon 1/11/21	Mon 1/25/21
125	Lobo Tower Site: RF Antennas and Lines Installation	5 d	Tue 1/26/21	Mon 2/1/21
126	**MirandoTower Site:**	**28 d**	**Fri 12/4/20**	**Tue 1/19/21**
127	MirandoTower Site: NTP from Customer	0 d	Fri 12/4/20	Fri 12/4/20
128	**MirandoTower Site: Antenna and Lines**	**6 d**	**Mon 1/11/21**	**Tue 1/19/21**
129	MirandoTower Site: Ship Antennas, Lines and Accessories to the Site	1 d	Mon 1/11/21	Mon 1/11/21
130	MirandoTower Site: RF Antennas and Lines Installation	5 d	Tue 1/12/21	Tue 1/19/21
131	Civil Work Complete	0 d	Mon 2/1/21	Mon 2/1/21
132	**System Installation**	**104 d**	**Wed 12/23/20**	**Fri 5/21/21**
133	**Receipt and Inventory of Equipment**	**10 d**	**Wed 12/23/20**	**Fri 1/8/21**
134	Receive Non-Staged Equipment	5 d	Wed 12/23/20	Thu 12/31/20
135	Inventory equipment	5 d	Mon 1/4/21	Fri 1/8/21
136	**North Tower Site: Equipment Installation**	**15 d**	**Mon 1/11/21**	**Mon 2/1/21**
137	**North Tower Site: Installation**	**9 d**	**Mon 1/11/21**	**Fri 1/22/21**
138	North Tower Site: Install and Test DC Power	3 d	Mon 1/11/21	Wed 1/13/21

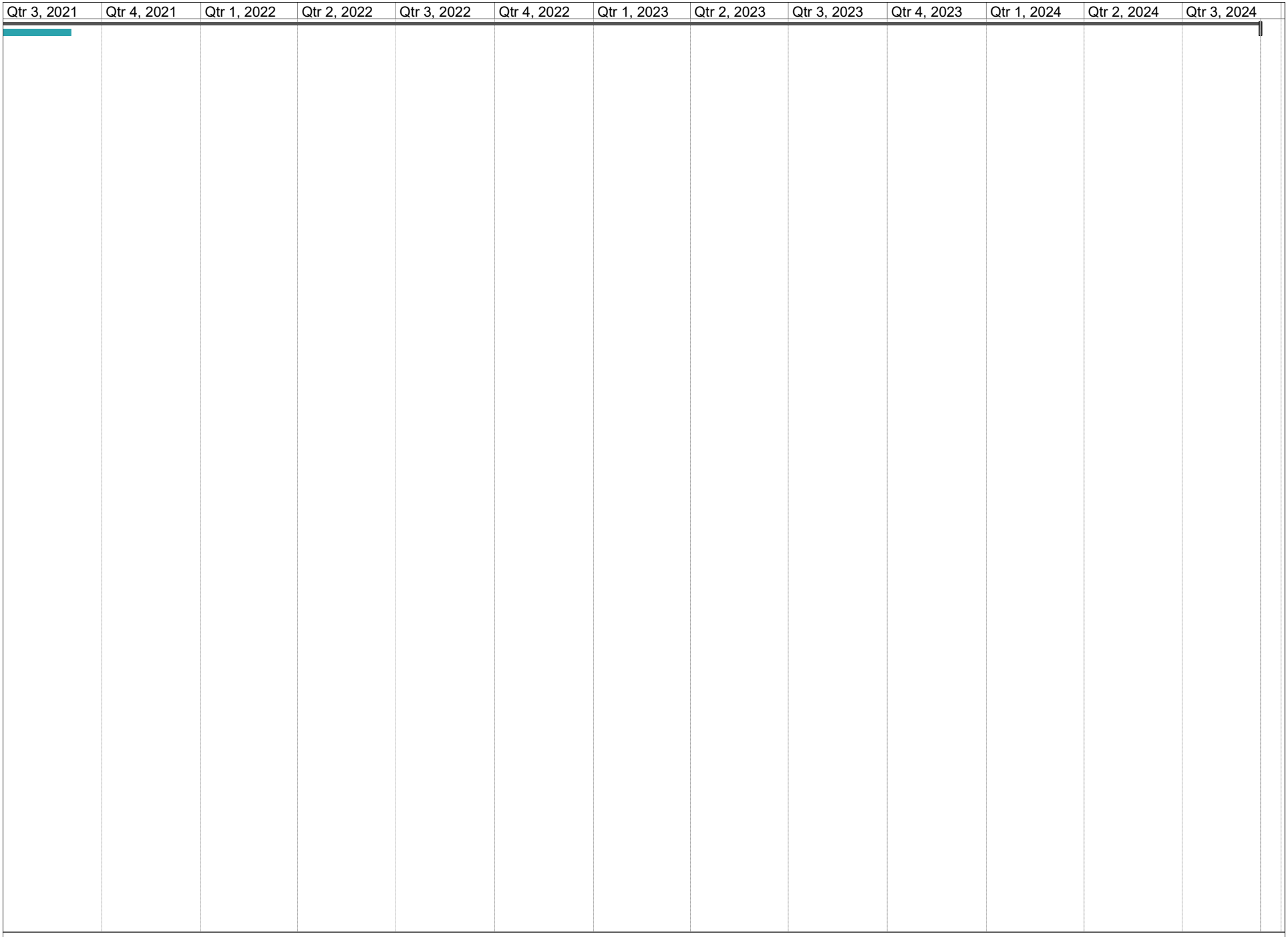


ID	Task Name	Duration	Start	Finish
139	**North Tower Site: Install and Test Microwave Equipment**	**3 d**	**Thu 1/14/21**	**Tue 1/19/21**
140	North Tower Site: Radio Rack Installation and Test	2 d	Thu 1/14/21	Fri 1/15/21
141	North Tower Site: Install and Test MPLS System	1 d	Tue 1/19/21	Tue 1/19/21
142	**North Tower Site: Install and Test LMR Equipment**	**3 d**	**Wed 1/20/21**	**Fri 1/22/21**
143	North Tower Site: Install and Test LMR Base Station Equipment	3 d	Wed 1/20/21	Fri 1/22/21
144	**North Tower Site: Site Optimization**	**6 d**	**Mon 1/25/21**	**Mon 2/1/21**
145	North Tower Site: FNE R-56 Inspection	1 d	Mon 1/25/21	Mon 1/25/21
146	North Tower Site: Site Configuration	2 d	Tue 1/26/21	Wed 1/27/21
147	North Tower Site: Program/Optimize Site	3 d	Thu 1/28/21	Mon 2/1/21
148	North Tower Site: Site Optimization Complete	0 d	Mon 2/1/21	Mon 2/1/21
149	North Tower Site: Site Installation Complete	0 d	Mon 2/1/21	Mon 2/1/21
150	**South Tower Site: Equipment Installation**	**15 d**	**Tue 2/2/21**	**Mon 2/22/21**
151	**South Tower Site: Installation**	**9 d**	**Tue 2/2/21**	**Fri 2/12/21**
152	South Tower Site: Install and Test DC Power	3 d	Tue 2/2/21	Thu 2/4/21
153	**South Tower Site: Install and Test Microwave Equipment**	**3 d**	**Fri 2/5/21**	**Tue 2/9/21**
154	South Tower Site: Radio Rack Installation and Test	2 d	Fri 2/5/21	Mon 2/8/21
155	South Tower Site: Install and Test MPLS System	1 d	Tue 2/9/21	Tue 2/9/21
156	**South Tower Site: Install and Test LMR Equipment**	**3 d**	**Wed 2/10/21**	**Fri 2/12/21**
157	South Tower Site: Install and Test LMR Base Station Equipment	3 d	Wed 2/10/21	Fri 2/12/21
158	**South Tower Site: Site Optimization**	**6 d**	**Mon 2/15/21**	**Mon 2/22/21**
159	South Tower Site: FNE R-56 Inspection	1 d	Mon 2/15/21	Mon 2/15/21
160	South Tower Site: Site Configuration	2 d	Tue 2/16/21	Wed 2/17/21
161	South Tower Site: Program/Optimize Site	3 d	Thu 2/18/21	Mon 2/22/21
162	South Tower Site: Site Optimization Complete	0 d	Mon 2/22/21	Mon 2/22/21
163	South Tower Site: Site Installation Complete	0 d	Mon 2/22/21	Mon 2/22/21
164	**Calton Tower Site: Equipment Installation**	**16 d**	**Tue 2/23/21**	**Tue 3/16/21**
165	**Calton Tower Site: Installation**	**9 d**	**Tue 2/23/21**	**Fri 3/5/21**
166	Calton Tower Site: Install and Test DC Power	3 d	Tue 2/23/21	Thu 2/25/21
167	**Calton Tower Site: Install and Test Microwave Equipment**	**3 d**	**Fri 2/26/21**	**Tue 3/2/21**
168	Calton Tower Site: Radio Rack Installation and Test	2 d	Fri 2/26/21	Mon 3/1/21
169	Calton Tower Site: Install and Test MPLS System	1 d	Tue 3/2/21	Tue 3/2/21
170	**Calton Tower Site: Install and Test LMR Equipment**	**3 d**	**Wed 3/3/21**	**Fri 3/5/21**
171	Calton Tower Site: Install and Test LMR Base Station Equipment	3 d	Wed 3/3/21	Fri 3/5/21
172	**Calton Tower Site: Site Optimization**	**7 d**	**Mon 3/8/21**	**Tue 3/16/21**
173	Calton Tower Site: FNE R-56 Inspection	1 d	Mon 3/8/21	Mon 3/8/21
174	Calton Tower Site: Site Configuration	1 d	Tue 3/9/21	Tue 3/9/21
175	Calton Tower Site: Program/Optimize Site	5 d	Wed 3/10/21	Tue 3/16/21
176	Calton Tower Site: Site Optimization Complete	0 d	Tue 3/16/21	Tue 3/16/21
177	Calton Tower Site: Site Installation Complete	0 d	Tue 3/16/21	Tue 3/16/21
178	**Lobo Tower Site: Equpment Installation**	**16 d**	**Wed 3/17/21**	**Wed 4/7/21**
179	**Lobo Tower Site: Installation**	**9 d**	**Wed 3/17/21**	**Mon 3/29/21**
180	Lobo Tower Site: Install and Test DC Power	3 d	Wed 3/17/21	Fri 3/19/21
181	**Lobo Tower Site: Install and Test Microwave Equipment**	**3 d**	**Mon 3/22/21**	**Wed 3/24/21**
182	Lobo Tower Site: Radio Rack Installation and Test	2 d	Mon 3/22/21	Tue 3/23/21
183	Lobo Tower Site: Install and Test MPLS System	1 d	Wed 3/24/21	Wed 3/24/21
184	**Lobo Tower Site: Install and Test LMR Equipment**	**3 d**	**Thu 3/25/21**	**Mon 3/29/21**



ID	Task Name	Duration	Start	Finish
185	Lobo Tower Site: Install and Test LMR Base Station Equipment	3 d	Thu 3/25/21	Mon 3/29/21
186	**Lobo Tower Site: Site Optimization**	**7 d**	**Tue 3/30/21**	**Wed 4/7/21**
187	Lobo Tower Site: FNE R-56 Inspection	1 d	Tue 3/30/21	Tue 3/30/21
188	Lobo Tower Site: Site Configuration	1 d	Wed 3/31/21	Wed 3/31/21
189	Lobo Tower Site: Program/Optimize Site	5 d	Thu 4/1/21	Wed 4/7/21
190	Lobo Tower Site: Site Optimization Complete	0 d	Wed 4/7/21	Wed 4/7/21
191	Lobo Tower Site: Site Installation Complete	0 d	Wed 4/7/21	Wed 4/7/21
192	**MirandoTower Site: Equipment Installation**	**16 d**	**Thu 4/8/21**	**Thu 4/29/21**
193	**MirandoTower Site: RF Site Installation**	**9 d**	**Thu 4/8/21**	**Tue 4/20/21**
194	MirandoTower Site: Install and Test DC Power	3 d	Thu 4/8/21	Mon 4/12/21
195	**MirandoTower Site: Install and Test Microwave Equipment**	**3 d**	**Tue 4/13/21**	**Thu 4/15/21**
196	MirandoTower Site: Radio Rack Installation and Test	2 d	Tue 4/13/21	Wed 4/14/21
197	MirandoTower Site: Install and Test MPLS System	1 d	Thu 4/15/21	Thu 4/15/21
198	**MirandoTower Site: Install and Test LMR Equipment**	**3 d**	**Fri 4/16/21**	**Tue 4/20/21**
199	MirandoTower Site: Install and Test LMR Base Station Equipment	3 d	Fri 4/16/21	Tue 4/20/21
200	**MirandoTower Site: Site Optimization**	**7 d**	**Wed 4/21/21**	**Thu 4/29/21**
201	MirandoTower Site: FNE R-56 Inspection	1 d	Wed 4/21/21	Wed 4/21/21
202	MirandoTower Site: Site Configuration	1 d	Thu 4/22/21	Thu 4/22/21
203	MirandoTower Site: Program/Optimize Site	5 d	Fri 4/23/21	Thu 4/29/21
204	MirandoTower Site: Site Optimization Complete	0 d	Thu 4/29/21	Thu 4/29/21
205	MirandoTower Site: Site Installation Complete	0 d	Thu 4/29/21	Thu 4/29/21
206	**Dispatch Installation**	**16 d**	**Fri 4/30/21**	**Fri 5/21/21**
207	Install MCC7500E consoles	6 d	Fri 4/30/21	Fri 5/7/21
208	Configure and program consoles	10 d	Mon 5/10/21	Fri 5/21/21
209	System Installation Complete	0 d	Fri 5/21/21	Fri 5/21/21
210	**Training**	**2 d**	**Mon 5/24/21**	**Tue 5/25/21**
211	MCC7500E Console Training	2 d	Mon 5/24/21	Tue 5/25/21
212	Training Complete	0 d	Tue 5/25/21	Tue 5/25/21
213	**Perform System Acceptance Testing**	**23 d**	**Mon 5/24/21**	**Thu 6/24/21**
214	**Microwave Hop Test - Customer Witnessed**	**3 d**	**Mon 5/24/21**	**Wed 5/26/21**
227	System Optimization	10 d	Thu 5/27/21	Thu 6/10/21
228	System Acceptance Testing Conducted	10 d	Fri 6/11/21	Thu 6/24/21
229	Document System Acceptance Test Results	10 d	Fri 6/11/21	Thu 6/24/21
230	System Testing Acceptance	0 d	Thu 6/24/21	Thu 6/24/21
231	**System Coverage Acceptance Test (CATP)**	**21 d**	**Fri 6/25/21**	**Fri 7/23/21**
232	Ready for CATP	1 d	Fri 6/25/21	Fri 6/25/21
233	Drive Test, VHF vs Low Band Paging Comparison Test	10 d	Mon 6/28/21	Fri 7/9/21
234	Document CATP Results for informational purposes only	10 d	Mon 7/12/21	Fri 7/23/21
235	**Cut-Over**	**8 d**	**Mon 7/26/21**	**Wed 8/4/21**
236	Verify System Readiness	3 d	Mon 7/26/21	Wed 7/28/21
237	Cutover	5 d	Thu 7/29/21	Wed 8/4/21
238	**Project Close**	**20 d**	**Thu 8/5/21**	**Wed 9/1/21**
239	Punch List Resolution	20 d	Thu 8/5/21	Wed 9/1/21
240	Finalize Documentation and Deliver As-Builts	20 d	Thu 8/5/21	Wed 9/1/21
241	Complete Service Transition Meeting	5 d	Thu 8/5/21	Wed 8/11/21
242	Final System Acceptance	0 d	Wed 9/1/21	Wed 9/1/21

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SECTION 7

FIELD ACCEPTANCE TEST PLAN

7.1 WIDE AREA TRUNKING - FDMA ONLY SITES

7.1.1 Talkgroup Call

1. DESCRIPTION

The Talkgroup is the primary level of organization for communications on a trunked radio system. Radios with Talkgroup call capability will be able to communicate with other members of the same Talkgroup. This provides the effect of a private channel down to the Talkgroup level.
This test will demonstrate that a Talkgroup transmission initiated by a radio user will only be heard by system users, which have, the same Talkgroup selected. As with other types of calls, Talkgroup calls can take place from anywhere in the system.

SETUP

RADIO-1 - SITE 1 - TALKGROUP 1
RADIO-2 - SITE 2 - TALKGROUP 1
RADIO-3 - SITE 1 - TALKGROUP 2
RADIO-4 - SITE 2 - TALKGROUP 2

VERSION #1.040

2. TEST

Step 1. Initiate a Wide Area Call with RADIO-1 in TALKGROUP 1.

Step 2. Observe that only RADIO-2 will be able to monitor and respond to the call.

Step 3. Initiate a Wide Area Call with RADIO-3 in TALKGROUP 2.

Step 4. Observe that only RADIO-4 will be able to monitor and respond the call.

Pass____ Fail____

7.1.2 Continuous Assignment Updating

1. DESCRIPTION

When a talkgroup is assigned a voice channel, the site controller continues to transmit the channel assignment on the control channel for the duration of the talkgroup call. Radios coming into use on the system are automatically sent to voice channels with conversations in progress involving their selected talkgroups.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
RADIO-3 - TALKGROUP 1

VERSION #1.010

2. TEST

Step 1. Turn OFF RADIO-1.

Step 2. Initiate a Talkgroup Call using RADIO-2 and verify RADIO-3 hears the audio.

Step 3. While the Talkgroup Call is in progress, turn ON RADIO-1.

Step 4. Observe RADIO-1, which was just brought back into service, joins the Talkgroup Call already in progress.

Step 5. End the talkgroup call.

Step 6. Switch RADIO-1 to another talkgroup.

Step 7. Initiate a Talkgroup Call from RADIO-2 to RADIO-3.

Step 8. While the Talkgroup Call is in progress, set RADIO-1 back to TALKGROUP 1.

Step 9. Observe that RADIO-1 joins the Talkgroup Call already in progress.

Pass____ Fail____

7.1.3 Multigroup Call in Wait Mode

1. DESCRIPTION

This trunking feature allows an equipped radio user to transmit an announcement to several different talkgroups simultaneously. The multigroup (ATG) call can be flagged for Wait Mode in the Provisioning Manager (PM) database forcing all attached talkgroups to finish calls in progress before the trunked system will process the multigroup call. The system does not permit inactive, attached talkgroups to initiate Talkgroup Calls during the "wait" timeframe. As with other types of calls, multigroup calls can take place from anywhere in the system.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 2
RADIO-3 - RANDOM (Not part of MG)
RADIO-4 - ATG 1

* TALKGROUP 1 and TALKGROUP 2 are members of ATG 1.

* RANDOM is any talkgroup not a member of ATG 1.

* Multigroups are set up through both the Provisioning Manager (PM) and the Subscriber Programming software.

VERSION #1.020

2. TEST

Step 1. Verify ATG 1 is set for the Wait mode.

Step 2. Using RADIO-1, initiate a call on TALKGROUP 1.

Step 3. While RADIO-1 is keyed, attempt to initiate a multigroup call using RADIO-4 on ATG 1. Verify RADIO-4 receives a busy tone because one of the talkgroups attached to ATG 1 is involved in a Talkgroup Call.

Step 4. Key RADIO-2 and verify that a busy tone is received because the ATG 1 call is in queue.

Step 5. Dekey RADIO-1 and verify RADIO-4 receives a callback.

Step 6. Key RADIO-4 and verify both RADIO-1 and RADIO-2 hear the multigroup call while RADIO-3 does not unmute.

Pass____ Fail____

7.1.4 Call Alert

1. DESCRIPTION

Call Alert is a tone page that allows a user to selectively alert another radio unit. The initiating radio will receive notification from the trunked system as to whether or not the page was received by the target radio. Units receiving a Call Alert will sound an alert tone. As with other types of calls, Call Alerts can take place from anywhere in the system.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 2
RADIO-3 - TALKGROUP 3

VERSION #1.010

2. TEST

Step 1. Using RADIO-1, press the page button.

Step 2. Enter the unit ID of RADIO-2 with the keypad, or scroll to the location where this ID is stored

Step 3. Press the PTT to initiate the call alert. Verify that the RADIO-1 user receives audible indication that the Call Alert was sent.

Step 4. Verify that RADIO-2 user receives an audible indication of an incoming Call Alert was sent but RADIO-3 does not.

Step 5. Verify RADIO-1 gets an audible indication that the Call Alert was successfully received at the target radio.

Step 6. Turn off RADIO-2. Send a Call Alert from RADIO-1 to RADIO-2.

Step 7. Verify that the RADIO-1 user receives audible indication that the Call Alert was sent.

Step 8. Verify RADIO-1 receives a "No Acknowledgement" indication that the Call Alert was not received at the target radio.

Pass____ Fail____

7.1.5 Private Call

1. DESCRIPTION

Private Call is a selective calling feature that allows a radio user to carry on one-to-one conversation that is only heard by the 2 parties involved. Subscriber units receiving a private call will sound an alert tone. As with other types of calls, Private Calls can take place from anywhere in the system.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
RADIO-3 - TALKGROUP 1

VERSION #1.020

2. TEST

Step 1. Using RADIO-1, press the Private Call (Call) button.

Step 2. Enter the unit ID of RADIO-2 with the keypad, or scroll to the location where this ID is stored.

Step 3. Press the PTT to initiate the Private Call.

Step 4. Verify that RADIO-2 hears tones and the display indicates that a Private Call has been received, but RADIO-3 receives no indications.

Step 5. Answer the call at RADIO-2 by pressing the Private Call (Call)/Respond button. If RADIO-2 has a display, verify it shows the ID number or Alias of the calling unit.

Step 6. Press the PTT switch on RADIO-2 and respond to the Private Call. Note that if you do not press the Private Call button before pressing PTT, your audio will be heard by all members of the talkgroup, and not just by the radio initiating the Private Call.

Step 7. Verify that RADIO-2 can communicate with RADIO-1.

Step 8. Verify that RADIO-3 does not monitor the Private Call.

Step 9. End the Private Call by pressing the "home" key and return to normal talkgroup operation.

Pass____ Fail____

7.1.6 Audio Interrupt / Interrupt Never Mode

1. DESCRIPTION

A radio PTT request may be received for a group already active and currently being sourced by another radio unit. The talkgroup can be flagged to either allow or disallow the new PTT. If allowed, the latest PTT request will be granted and become the source of the call.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
RADIO-3 - TALKGROUP 1

VERSION #1.020

2. TEST

Step 1. Verify TALKGROUP 1's template is set up as Audio Interrupt Never.

Step 2. Using RADIO-1, initiate a call on TALKGROUP 1.

Step 3. Verify both RADIO-2 and RADIO-3 monitor the audio.

Step 4. Using RADIO-3, initiate a call on TALKGROUP 1.

Step 5. Verify that RADIO-3 receives a reject and that RADIO-2 continues to listen to RADIO-1.

Step 6. Dekey both Radios.

Pass____ Fail____

7.1.7 Emergency Alarm and Call with Top of Queue

1. DESCRIPTION

Users in life threatening situations can use the Emergency button on the radio to immediately send a signal to the dispatcher and be assigned the next available voice channel. An Emergency Call can be set to either Top of Queue or Ruthless Preemption operation. During an emergency call the Emergency ID will appear on the display of the subscribers. To demonstrate this, an Emergency Alarm and Call will be initiated from a subscriber which will be received by a subscriber on the same talkgroup, affiliated at any site of any zone in the system.

NOTE: If the subscriber does not have the Display option, the Emergency ID will not be displayed.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - Any Site
RADIO-3 - TALKGROUP 2
RADIO-3 - SITE - SITE 1
RADIO-4 - TALKGROUP 3
RADIO-4 - SITE - SITE 1

All radios and talkgroups should start with default priorities. Default is 10.

VERSION #1.010

2. TEST

Step 1. Verify the emergency type for TALKGROUP 1's template is set up as Top of Queue.

Step 2. Simulate a busy system by disabling all channels at SITE 1 with the exception of the control channel and one voice channel.

Step 3. Press the PTT to initiate a call with RADIO-3 and hold the PTT switch until instructed to release.

Step 4. Key RADIO-4 and verify the radio receives a busy tone. Release the PTT switch on RADIO-4.

Step 5. Using RADIO-1 send an Emergency Call by depressing the emergency switch and then the PTT switch.

Step 6. Observe that RADIO-1 cannot transmit due to the voice channel being busy.

Step 7. Release the PTT switch on RADIO-3.

Step 8. Observe that RADIO-1 receives the call back before RADIO-4 and is able to proceed with the call. Also observe that the display on RADIO-2 denotes an emergency and the unit ID or alias of RADIO-1.

Step 9. Dekey RADIO-1 and end the Emergency Call by holding down the Emergency button on RADIO-1 until an alert tone sounds. Verify RADIO-1 returns to normal operation and that RADIO-4 receives a callback.

Step 10. Return the system to normal operation by enabling all the channels at SITE 1.

Pass____ Fail____

7.2 MCC 7100/7500 TRUNKED RESOURCES

7.2.1 Instant Transmit

1. DESCRIPTION

The instant transmit switch provides immediate operator access to a channel, independent of its select status (selected or unselected). It provides priority over other dispatcher transmit bars or optional footswitches.

SETUP

RADIO-1 - TALKGROUP 1
CONSOLE-1 – TALKGROUP 1 (Selected), TALKGROUP 2 (Unselect mode)

VERSION #1.010

2. TEST

Step 1. Using CONSOLE-1, press the Instant Transmit button on TALKGROUP 1.

Step 2. Verify that the Transmit indicator is lit.

Step 3. Verify RADIO-1 can monitor and respond to the call on TALKGROUP 1.

Step 4. On RADIO-1 change to TALKGROUP 2.

Step 5. Using CONSOLE-1, press the Instant Transmit button on the TALKGROUP 2 radio resource.

Step 6. Verify RADIO-1 can monitor and respond to the call on TALKGROUP 2.

Pass____ Fail____

7.2.2 Talkgroup Selection and Call

1. DESCRIPTION

The Talkgroup Call is the primary level of organization for communications on a trunked radio system. Dispatchers with Talkgroup Call capability will be able to communicate with other members of the same talkgroup. This provides the effect of an assigned channel down to the talkgroup level. When a Talkgroup Call is initiated from a subscriber unit, the call is indicated on each dispatch operator position that has a channel control resource associated with the unit's channel/talkgroup.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 2
RADIO-3 - TALKGROUP 1
RADIO-4 - TALKGROUP 2
CONSOLE-1 - TALKGROUP 1
CONSOLE-2 - TALKGROUP 2

VERSION #1.010

2. TEST

Step 1. Initiate a wide area call from CONSOLE-1 on TALKGROUP 1.

Step 2. Observe that RADIO-1 and RADIO-3 will be able to monitor the call. Dekey the console and have either radio respond to the call.

Step 3. Observe that all consoles with TALKGROUP 1 can monitor both sides of the conversation.

Step 4. Initiate a wide area call from CONSOLE-2 on TALKGROUP 2.

Step 5. Observe that RADIO-2 and RADIO-4 will be able to monitor the call. Dekey the console and have either radio respond to the call.

Step 6. Observe that all consoles with TALKGROUP 2 can monitor both sides of the conversation.

Pass____ Fail____

7.2.3 PTT Unit ID/Alias Display

1. DESCRIPTION

Console operator positions contain various resources such as talkgroup, multigroup, Private Call which enables the dispatcher to communicate with the subscriber units. If activity occurs on one of these operator position resources, the unit ID or associated alias of the initiating radio appears at the console resource.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
CONSOLE-1 - TALKGROUP 1
CONSOLE-2 - TALKGROUP 1

VERSION #1.010

2. TEST

Step 1. Select the resource for TALKGROUP 1 on CONSOLE-1.

Step 2. Initiate a call on TALKGROUP 1 from RADIO-2 and observe that the alias is seen at CONSOLE-1 in the resource window as well as in the Activity Log window.

Step 3. Initiate a call from RADIO-1 and observe that the alias of RADIO-1 is seen at CONSOLE-1 in the resource window as well as in the Activity Log window.

Step 4. Modify RADIO-2's alias. Make sure to give enough time for the alias change to propagate to the Zone Controller.

Step 5. Initiate a call from RADIO-2 and observe the new alias of RADIO-2 is seen at CONSOLE-1 in the list in the resource window as well as in the Activity Log window.

Step 6. Return RADIO-2's alias to its original state.

Pass____ Fail____

7.2.4 Emergency Alarm and Call Display Description

1. DESCRIPTION

Users in life threatening situations can use the emergency button on the radio to send an audible alarm and a visual alarm signal to a console operator in order to request immediate system access to a voice channel for an emergency call. An emergency alarm begins after the radio user presses the radio's emergency button. Pressing the emergency button places the radio in "emergency mode". To begin an emergency call, the radio user must press the radio's PTT button while in "emergency mode." The assigned voice channel will be dedicated to the emergency caller's talkgroup for an extended period of time, equal to the Message Hang Time plus the Emergency Hang Time. As with other call types, emergency calls can operate across sites as well as within the same site.

SETUP

RADIO-1 - TALKGROUP 1
CONSOLE-1 - TALKGROUP 1
CONSOLE-2 - TALKGROUP 1

VERSION #1.010

2. TEST

Step 1. Initiate an Emergency Alarm from RADIO-1.

Step 2. Observe the Emergency from RADIO-1 is received at CONSOLE-1 for TALKGROUP 1.

Step 3. Acknowledge the Emergency at the operator position. Verify CONSOLE-2 receives notification that the call has been acknowledged.

Step 4. Initiate a call with RADIO-1 to initiate an Emergency call.

Step 5. Observe CONSOLE-1 and CONSOLE-2 can monitor RADIO-1

Step 6. Clear the Emergency from CONSOLE-1 on TALKGROUP 1.

Step 7. End the Emergency Alarm from RADIO-1.

Pass____ Fail____

7.2.5 Multigroup Call

1. DESCRIPTION

This trunking feature allows an equipped console operator position to transmit an announcement to several different talkgroups simultaneously. As with Talkgroup Calls, multigroup calls operate across sites as well as within the same site.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 2
RADIO-3 - RANDOM
CONSOLE-1 - ATG 1

Note: TALKGROUP 1 and TALKGROUP 2 are members of ATG 1. RANDOM is any talkgroup not a member of ATG 1.

VERSION #1.010

2. TEST

Step 1. Using CONSOLE-1, select the ATG 1 resource.

Step 2. Initiate the Multigroup Call from CONSOLE-1.

Step 3. Observe that RADIO-1 and RADIO-2 receive the Multigroup Call.

Step 4. Verify that RADIO-3 does not receive the Multigroup Call because it is not a member of ATG 1.

Step 5. Answer the Multigroup Call using RADIO-1 and observe CONSOLE-1 receives the response.

Step 6. Verify that if the call is answered within the repeater hang time, the console will receive the call on the ATG 1 resource tile, otherwise the console will receive the call on the TALKGROUP 1 tile.

Step 7. Verify that if the call is answered within the repeater hang time, RADIO-2 will monitor the call.

Pass____ Fail____

7.2.6 Multi-Select Operation

1. DESCRIPTION

Multi-Select (Msel) allows the console operator to group a number of channels/talkgroups together such that when the general transmit bar is depressed, all of the multi-selected channels/talkgroups will transmit at the same time with the same information. Multi-Select is one way communication call. If a radio user responds to a Multi-Select call the talkgroup the user is affiliated to will be the only one to hear the call. There is no super-group formed, so radio communication is still at the single talkgroup level. Multi-Select is utilized to send an APB to several channels/talkgroups. A Multi-Select has a limit of twenty (20) trunking/conventional resources

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 2
CONSOLE-1 - TALKGROUP 1, TALKGROUP 2

VERSION #1.010

2. TEST

Step 1. From CONSOLE-1, create an Msel group with TALKGROUP 1 and TALKGROUP 2.

Step 2. Transmit on the Msel using the Msel instant transmit button.

Step 3. Verify that RADIO-1 and RADIO-2 hear the call.

Step 4. Initiate a call with RADIO-1.

Step 5. Verify the call is heard on CONSOLE-1 but not on RADIO-2.

Step 6. Initiate a call with RADIO-2.

Step 7. Verify the call is heard on CONSOLE-1 but not on RADIO-1.

Step 8. On CONSOLE-1 dissolve the Msel.

Pass____ Fail____

7.2.7 Talkgroup Patch

1. DESCRIPTION

Talkgroup Patch allows a dispatcher to merge several talkgroups together on one voice channel to participate in a single conversation. This can be used for situations involving two or more talkgroups that need to communicate with each other.
Using the Patch feature, the console operator can talk and listen to all of the selected talkgroups grouped; in addition, the members of the individual talkgroups can also talk or listen to members of other talkgroups. Patched talkgroups can communicate with the console dispatcher and other members of different talkgroups because of the "supergroup" nature of the Patch feature.

NOTE : If "secure" and "clear" resources are patched together, one repeater for each mode may be assigned per site.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 2
RADIO-3 - TALKGROUP 1
RADIO-4 - TALKGROUP 2
CONSOLE-1 - TALKGROUP 1 and TALKGROUP 2

Note: All 4 Radios must have the same home zone.

VERSION #1.010

2. TEST

Step 1. Using CONSOLE-1 create a patch between TALKGROUP 1 and TALKGROUP 2.

Step 2. Initiate a patch call from CONSOLE-1.

Step 3. Verify RADIO-1, RADIO-2, RADIO-3, and RADIO-4 can monitor the call.

Step 4. Initiate several calls between the radios and verify successful communication.

Step 5. Dissolve the patch created in step 1.

Pass____ Fail____

7.2.8 Alert Tones - Talkgroup

1. DESCRIPTION

Pre-defined alert tones can be transmitted on the selected Radio Resource to subscribers which can alert members of a channel / talkgroup to a particular event or signify to radio users special instructions are to follow. The Console has the ability to send an Alert-Tone signal on selected conventional or talkgroup resources.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
CONSOLE-1 - TALKGROUP 1

VERSION #1.040

2. TEST

Step 1. Select TALKGROUP 1 on CONSOLE-1.

Step 2. Select Alert Tone 1 and depress the Alert Tone button.

Step 3. Verify that RADIO-1 and RADIO-2 hear Alert Tone 1.

Step 4. Repeat Steps 2-3 for Alert Tone 2 and 3.

Pass____ Fail____

7.2.9 Call Alert

1. DESCRIPTION

Call Alert Page allows a subscriber/dispatcher to selectively alert another radio unit. The initiating subscriber/console will receive notification as to whether or not the call alert was received. Units receiving a Call Alert will sound an alert tone and show a visual alert indication. The display will also show the individual ID of the initiating subscriber/console unit.

SETUP

RADIO-1 - TALKGROUP 1
CONSOLE-1 - TALKGROUP 1

VERSION #1.030

2. TEST

Step 1. Using CONSOLE-1, select the call alert button in the "Private Call" resource window.

Step 2. Enter the ID of RADIO-1 and send the call alert to RADIO-1.

Step 3. Verify that RADIO-1 receives the alert and that the ID or alias of the console is shown.

Step 4. Turn off RADIO-1.

Step 5. Using CONSOLE-1, send the call alert to RADIO-1 again.

Step 6. Verify that after trying to page RADIO-1, the console displays "Can not send call alert - target not found" in the summary/status list.

Pass____ Fail____

7.2.10 Console Initiated Private Call to Subscriber

1. DESCRIPTION

Private Conversation is a selective calling feature which allows a dispatcher or radio user to carry on one-to-one conversation that is heard only by the two parties involved. Subscriber units receiving a private call will sound an alert tone. As with other call types, Private Calls operate across sites as well as within the same site.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
CONSOLE-1 - TALKGROUP 1

VERSION #1.020

2. TEST

Step 1. Using CONSOLE-1, select the "PRIVATE-CALL" tile and click the Private Call function.

Step 2. Select the unit to be Private Called, in this case RADIO-1. (or select the numeric keypad and enter the Unit ID to be Private Called.)

Step 3. Click the Send button.

Step 4. Answer the Private Call with RADIO-1 and respond to the console.

Step 5. Verify RADIO-2 does not hear the private conversation.

Step 6. After completing the Private Call, return to the normal talkgroup mode.

Pass____ Fail____

7.2.11 Console Priority

1. DESCRIPTION

Console Operator Positions have ultimate control of transmitted audio on an assigned voice channel resource. The Console Position has the capability to take control of an assigned voice channel for a talkgroup call so that the operator's audio overrides any subscriber audio. Console priority is a feature that enables dispatchers to gain immediate access to an assigned voice channel so that a central point of audio control exists.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
CONSOLE-1 - TALKGROUP 1

VERSION #1.020

2. TEST

Step 1. Initiate a Talkgroup call from RADIO-1 on TALKGROUP 1. Keep this call in progress until the test has completed.

Step 2. Observe that RADIO-2 receives the call.

Step 3. While the call is in progress, key up CONSOLE-1 on TALKGROUP 1.

Step 4. Observe that RADIO-2 is now receiving audio from CONSOLE-1 on TALKGROUP 1.

Step 5. De-key CONSOLE-1.

Step 6. Verify RADIO-2 now receives RADIO-1 audio.

Step 7. End the TALKGROUP 1 call from RADIO-1.

Pass____ Fail____

7.2.12 Instant Recall Recorder (IRR) Operation

1. DESCRIPTION

The Instant Recall Recorder (IRR) allows for audio from a phone call or a radio call to be played back at the MCC 7500 or MCC 7100 Console position. Thirty minutes of audio is saved for radio and an additional thirty minutes for telephone. The audio is saved on the positions hard disk in the form of a .wav file.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1

CONSOLE-1 - TALKGROUP 1 running IRR application.

VERSION #1.020

2. TEST

Step 1. Select a radio channel on the CONSOLE-1 application window.

Step 2. Select IRR from the CONSOLE-1 toolbar.

Step 3. Initiate radio communication between RADIO-1 and RADIO-2.

Step 4. Verify a new entry appears in the IRR log window.

Step 5. Select the new entry from the list.

Step 6. Press play and verify conversation replay.

Pass____ Fail____

7.2.13 Activity Log

1. DESCRIPTION

The Console activity log will show all traffic for the resource assigned to that console to include the time, radio alias, TG, PTT ID and Emergency Call.

The dispatcher has the capability of selecting a logged call within in the "Activity Log Window" for instant transmit on the corresponding logged resource.

This activity log can be logged to a text file for archival purposes.

Note: The log file in the ops will only be seen if you first check Log Activity in Elite Admin application then in folder options uncheck hide hidden system files. The location will be c:\Program Data\MCC7500\MessageMonitorLogs.

SETUP

RADIO-1 – TALKGROUP 1
RADIO-2 – TALKGROUP 2
RADIO-3 – TALKGROUP 3
RADIO-4 – TALKGROUP 4
CONSOLE-1 – TALKGROUP 1, TALKGROUP 2, TALKGROUP 3, TALKGROUP 4

VERSION #1.020

2. TEST

Step 1. On CONSOLE-1 select the "Show Activity Log" button on the tool bar to open the Activity Log Window.

Step 2. Initiate calls on RADIO-1, RADIO-2, RADIO-3 and RADIO-4 to log call information and verify calls are displayed in the activity log window.

Step 3. Select a logged call in the Activity Log Window and verify that the Channel Control Window (CCW) at the top of the Activity log window changes to the corresponding resource. Verify the dispatcher is capable of responding via the instant transmit button.

Step 4. Open the text file created by the Activity Log and verify call traffic has been archived to the document file.

Pass____ Fail____

7.3 SYSTEM RELIABILITY FEATURES

7.3.1 Transmitter Power Failure Shutdown

1. DESCRIPTION

The repeaters can detect a loss or decrease in transmitter output power of all trunked repeaters connected to it. Each trunked repeater contains an internal wattmeter element. Once the forward power has decreased past the threshold set, the repeater instructs the Zone Controller to take the channel out of service. If reflected power increases past the threshold set, the repeater will also instruct the Zone Controller to take the channel out of service.
Once the station threshold has been exceeded and the station taken out of service a 5 minute timer will start. At the timer expiration a transmitter test will start to perform a self check on the station. This self check lasts for 20 seconds. If the station passes the self check it will be placed back into service.

Note: This test should be done on a site with more than 2 channels. Failsoft will occur if the test is done on a 2 channel site.

SETUP

RADIO-1 - TALKGROUP 1

VERSION #1.010

2. TEST

Step 1. Select a channel to disconnect the transmit antenna connection to the trunked repeater. (This will cause a high VSWR condition)

Step 2. Key RADIO-1 so that the selected channel is assigned, and verify that the channel disables due to an alarm condition. Verify that this alarm is reported at the Unified Event Manager (UEM).

Step 3. Wait 30 seconds after the failure then restore the transmit antenna connection to the trunked repeater.

Step 4. Using the station LEDs, verify that the time it takes from the corrected connection to the station being placed back in service is within 5 minutes.

Step 5. Verify the Unified Event Manager (UEM) also reports the station being back in service.

Pass____ Fail____

7.3.2 Station Failure

1. DESCRIPTION

When a base station repeater at one site fails due to hardware problems, the pending call is lost and the trunking controller removes the channel from service system wide. This failure can be created by powering down one base station repeater.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - SITE 1

VERSION #1.010

2. TEST

Step 1. Power down a voice repeater for any voice channel at SITE 1.

Step 2. Initiate calls using RADIO-1 to step through all available voice channels.

Step 3. Verify that the disabled channel is not used at SITE 1.

Pass____ Fail____

7.3.3 Redundant Site Link Failure

1. DESCRIPTION

Communication between the Master Site and the Remote Site can take place over dedicated redundant links. The two links between the Master Site and the Remote Site operate in a hot/standby mode. The system will switch to the backup link if the main LAN or WAN link fails.

Note that the Primary Site Router, if functional, will always be the active router. The Secondary Site Router will only take over when the Primary Site Router is malfunctioning.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - (Site under test)
RADIO-2 - TALKGROUP 1

* The site being tested should have redundant links to the Master Site.

VERSION #1.010

2. TEST

Step 1. Initiate a Talkgroup Call with RADIO-1 on TALKGROUP 1.

Step 2. Observe that RADIO-2 is able to monitor and respond to the call.

Step 3. Remove the WAN link from the active router at the Site under test.

Step 4. Initiate a Talkgroup Call with RADIO-1 on TALKGROUP 1.

Step 5. Observe that RADIO-2 is able to monitor and respond to the call.

Step 6. Replace the WAN link connection that was removed in Step 3.

Pass____ Fail____

7.4 EDGE AVAILABILITY

7.4.1 Console Login During Tsub Local Area Operation

1. DESCRIPTION

This test shows that console users may login to a dispatch OP during Tsub local area operation and launch the console application.

This test assumes that the console user profile is cached due to a prior login.

SETUP

RADIO-1 – TALKGROUP 1 - TSUB 1 SITE 1
CONSOLE-1 – TALKGROUP 1 - TSUB 1 SITE 100

When initiating Tsub failover, disconnect the Ethernet cable from both Prime Site Routers (WAN side) on TSUB 1.

Applies to Geo Prime Site and non-Geo Prime Site configurations.

VERSION #1.030

2. TEST

Step 1. Login to the Windows PC used for CONSOLE-1.

Step 2. Enter the proper userid and password.

Step 3. Launch the CONSOLE-1 dispatch console application.

Step 4. Validate connection to the ASTRO network and that the dispatch console application successfully starts.

Step 5. Logout of the dispatch console application and Windows PC.

Step 6. Initiate Tsub failover by causing a complete site link failure (prime site to zone core).

Step 7. Login to the Windows PC used for CONSOLE-1.

Step 8. Enter the proper userid and password.

Step 9. Launch the CONSOLE-1 dispatch console application. Enter the userid and password again.

Step 10. Verify that a call can be made from CONSOLE-1 to RADIO-1.

Pass____ Fail____

7.4.2 Tsub Prime Site Link Failure/Recovery to Zone Core - Trunking

1. DESCRIPTION

This test shows that in the event of a failure of the links between the Tsub prime site and the zone core, Tsub local area operation is established after a brief site trunking period. System wide area is established once the links to the zone core are restored.

Notes:
- The radio will not indicate any change in system status during these tests (appears wide area throughout). This is normal operation.
- The “System Status” option on the console OP may be used to determine the state of the Tsub. During Tsub local area operation, a small “stethoscope” appears (lower right hand corner) to prompt the dispatcher to check the system status.

SETUP

RADIO-1 - TALKGROUP 1 – TSUB 1 SITE 1
RADIO-2 - TALKGROUP 1 – EXT SITE 2
CONSOLE-1 - TALKGROUP 1 – TSUB 1 SITE 100

SITE 2 is located outside of TSUB 1.

When initiating Tsub failover, disconnect the Ethernet cable from both Prime Site Routers (WAN side) on TSUB 1.

Applies to Geo Prime Site and non-Geo Prime Site configurations.

VERSION #1.050

2. TEST

Step 1. Initiate a talkgroup call from RADIO-1. Keep the radio keyed up until instructed to dekey. Observe that RADIO-2 and CONSOLE-1 receive the audio.

Step 2. Initiate Tsub failover by causing a complete site link failure (prime site to zone core). A short beep is heard at CONSOLE-1 when the links go down and a non-operational indication on each assigned resource is briefly displayed.

Step 3. Observe that CONSOLE-1 and RADIO-2 are no longer receiving audio from RADIO-1.

Dekey RADIO-1

Step 4. After approximately 60 seconds, select the "System Status" option on CONSOLE-1 and observe that "Console System Connection" status indicates "Backup Mode".

Step 5. Observe via the Unified Event Manager that the site links have failed.

Step 6. Initiate a talkgroup call from RADIO-1. Observe that CONSOLE-1 receives the audio and no audio is received at RADIO-2. Dekey RADIO-1. Repeat this step by initiating the call from CONSOLE-1.

Step 7. Reconnect the Ethernet cable to the Prime Site Routers.

Step 8. After approximately 60 seconds, select the "System Status" option on CONSOLE-1 and observe that "Console System Connection" status indicates "Primary Mode". Also observe at the Unified Event Manager that the site links have been restored.

Step 9. Initiate a talkgroup call from RADIO-1. Observe that CONSOLE-1 and RADIO-2 receive the audio. Repeat this step by initiating the call from CONSOLE-1.

Pass____ Fail____

7.5 SIGNOFF CERTIFICATE

By their signatures below, the following witnesses certify they have observed the system Acceptance Test Procedures.

Signatures

WITNESS: _____Date:

Please Print Name: _____ _____

Initials:

Please Print Title: _____

WITNESS: _____Date:

Please Print Name: _____ _____

Initials:

Please Print Title: _____

WITNESS: _____Date:

Please Print Name: _____ _____

Initials:

Please Print Title: _____

SECTION 8

TRAINING PLAN

In order to achieve the training goals as understood by Motorola for Webb County, we propose the following courses.

Materials will be delivered electronically via USB drives.

8.1 DISPATCH TRAINING

8.1.1 MCC7500 Console Supervisor

Course Synopsis and Objectives:	This course provides participants with the knowledge and skills to manage and utilize the MCC7500 console administrator functions. Through facilitation and hands-on activities, the participant learns how to customize the console screens. After completing this training course, you will be able to: ▪ Understand the menu items and tool bar icons. ▪ Edit folders, multi-select/patch groups, auxiliary input output groups, windows and toolbars. ▪ Add/delete folders.
Delivery Method:	ILT - Instructor-led training
Duration:	4 hours Operator, plus 4 hours Admin
Participants:	Dispatch Supervisors and System Administrators
Class Size:	Based on number of Training Consoles available (2 students per Console)
Prerequisite:	None
Curriculum:	▪ Introduction. ▪ Configurations. ▪ Folders and Resource Setup. ▪ Customizing Folders. ▪ Auto Starting the MCC 7500 Dispatch Console. ▪ Editing Preferences. ▪ Configuring the Toolbar. ▪ Setting Up Aux IOs. ▪ Resource Groups.

8.1.2 MCC7500 Console Operator

Course Synopsis and Objectives:	This course provides participants with an introduction to the dispatch console, its basic operation and tailored job aids which will be available for assistance in operation. Through facilitation and hands-on activities, the user learns how to perform common tasks associated with the console operation. After completing this training course, you will be able to: - Perform basic operational tasks of the dispatch console. - Utilize the provided job aids to perform specific tasks associated with the console. - Understand a high level view of the system configuration. - Understand a high-level overview of the customer system configuration. - Understand general console operation. - Understand proper operating procedures for specific customer features.
Delivery Method:	ILT - Instructor-led training
Duration:	4 hours
Participants:	Dispatch Console Operators, Supervisors, System Administrators, and Support Personnel
Class Size:	Based on number of Training Consoles available (2 students per Console)
Prerequisite:	None
Curriculum:	- Overview. - Communicating with Radios. - Advanced Signaling Features. - Resource Groups. - Working with Configurations. - Working with Aux IOs. - Troubleshooting.

8.2 APX CPS PROGRAMMING AND TEMPLATE BUILDING

Course Synopsis and Objectives:	The APX CPS Programming and Template Building course provides communications management personnel and technicians with the knowledge and training necessary to build templates and program APX portable/mobile subscriber radio's in the most efficient way possible. The content, parameters and exercises demonstrated in this class apply to the APX portable and APX mobile. After completing this course, the student will be able to: ▪ Build APX portable/mobile templates using the APX Customer Programming Software (CPS) Program the specific parameters related to various radio system configurations: Conventional, Single Site Trunking, Simulcast, SmartZone, ASTRO 25 and ASTRO 25 X2 ▪ Demonstrate detailed knowledge of APX CPS navigation, tools, options and features that make efficient programming of the radio possible ▪ Demonstrate a complete understanding of APX CPS efficiency tools, such as Cloning, Drag and Drop, Codeplug Comparison, Radio Flashing, Advance System Key Administration and others.
Delivery Method:	ILT – Instructor-led Training Can also be taught as VILT – Virtual Instructor-led Training
Duration:	2 days in the field 4 days total when combined with Radio Management (RDS2017) VILT – 2.5 hours per day for 5 days
Participants:	Radio Technicians, System Managers and anyone responsible for programming APX subscriber radios
Class Size:	Up to 12
Prerequisite:	Knowledge of the basic features and options of two-way radios, and the basic concepts of conventional and trunking systems
Curriculum:	▪ Introduction to APX portable Radio ▪ Introduction to APX CPS ▪ APX CPS Install, Setup and Configuration ▪ Navigating APX CPS ▪ APX CPS Data Transfer including POP25/OTAP ▪ Understanding and Interpreting Radio Information ▪ Detailed Review of Codeplug Contents ▪ APX Conventional Codeplug Build ▪ APX Type II Trunking Codeplug Build ▪ APX ASTRO 25 Trunking Codeplug Build ▪ Building Scan List ▪ Additional/Advanced CPS Functionality

SECTION 9

WARRANTY, MAINTENANCE AND LIFECYCLE SERVICES

9.1 ADVANCED PLUS SERVICES OVERVIEW

In order to ensure the continuity of Webb County's network and reduce system downtime Motorola proposes our Advanced Plus Services offering to Webb County for the first warranty year. Appropriate for customers who wish to leverage Motorola's experienced personnel to maintain mission-critical communications for their first responders, Advanced Plus Services focuses on monitoring the network on an ongoing basis, proactively mitigating potential functionality and security issues, and providing both remote and onsite support. The proposed offering consists of the following specific services:

- Service Desk.
- Technical Support.
- Network Event Monitoring.
- Onsite Support.
- Annual Preventative Maintenance.
- Network Hardware Repair.
- Security Monitoring.
- Network Updates.

These services will be delivered to Webb County through the combination of local service personnel either dedicated to the network or engaged as needed; a centralized team within Motorola's Solutions Support Center (SSC), which operates on a 24 x 7 x 365 basis; and our Repair Depot, which will ensure that equipment is repaired to the highest quality standards. The collaboration between these service resources, all of who are experienced in the maintenance of mission-critical networks, will enable a swift analysis of any network issues, an accurate diagnosis of root causes, and a timely resolution and return to normal network operation.

9.2 ADVANCED PLUS SERVICES DESCRIPTION

9.2.1 Centralized Service Delivery

Motorola's support staff, located at our Service Desk and Solutions Support Center (SSC), will provide centralized support. These experienced personnel will provide direct service and technical support through a combination of Service Desk telephone support, technical consultation and troubleshooting through the SSC, and ongoing network monitoring of Webb County's system.

Motorola will provide **Service Desk** response as a single point of contact for all support issues, including communications between Webb County, third-party subcontractors and manufacturers, and Motorola. When Webb County's personnel call for support, the Service

Desk will record, track, and update all Service Requests, Change Requests, Dispatch Requests, and Service Incidents using Motorola's Customer Relationship Management (CRM) system. The Service Desk is responsible for documenting County's inquiries, requests, concerns, and related tickets; tracking and resolving issues; and ensuring timely communications with all stakeholders based on the nature of the incident.

As the Service Desk opens tickets, issues that require specific technical expertise and support will be routed to our Solutions Support Center (SSC) system technologists for **Technical Support**, who will provide telephone consultation and troubleshooting capabilities to diagnose and resolve infrastructure performance and operational issues. Motorola's recording, escalating, and reporting process applies ISO 90001 and TL 9000-certified standards to the Technical Support calls from our contracted customers, reflecting our focus on maintaining mission-critical communications for the users of our systems.

The same SSC staff that provides direct telephone support to Webb County will also provide **Network Event Monitoring** to County's network in real-time, ensuring continuous management of the system's operational functionality. The SSC's technicians will utilize sophisticated tools to remotely monitor Webb County's system, often identifying and resolving anomalous events before they might affect user communications.

9.2.2 Field Service Delivery

Onsite repairs and network preventative maintenance will be provided by authorized local field services delivery personnel, who will be dispatched from and managed by the Solutions Support Center.

OnSite Support provides local, trained and qualified technicians who will arrive at Webb County's location upon a dispatch service call to diagnose and restore the communications network. This involves running diagnostics on the hardware or FRU (Field Replacement Unit) in order to identify defective elements, and replacing those elements with functioning ones. The system technician will respond to the County's location in order to remedy equipment issues based on the impact of the issue to overall system function.

Annual Preventive Maintenance Service provides proactive, regularly scheduled operational testing and alignment of infrastructure and network components to ensure that they continually meet original manufacturer specifications. Certified field technicians perform hands-on examination and diagnostics of network equipment on a routine and prescribed basis.

9.2.3 Network Hardware Repair

Network Hardware Repair – Motorola's authorized Repair Depot will repair the equipment provided by Motorola, as well as select third-party infrastructure equipment supplied as part of the proposed solution. The Repair Depot will manage the logistics of equipment repair (including shipment and return of repaired equipment), repair Motorola equipment, and coordinate the repair of third-party solution components.

9.2.4 Security Management Operations

Security Monitoring provides 24x7x365 monitoring of the radio network's security elements by specialized security technologists with years of experience working with ASTRO 25

mission-critical networks. For highly complex or unusual security events, our technologists have direct and immediate access to Motorola engineers for rapid resolution.

9.2.5 Network Updates

With our proposed **Network Updates Service**, Motorola commits to sustain Webb County's ASTRO 25 system through a program of software and hardware updates aligned with the ASTRO 25 platform lifecycle. This comprehensive approach to technology sustainment will ensure that Webb County has access to the latest available standard features, as well as the opportunity to incorporate optional features through the purchase of hardware and/or software licenses. Updates and expansion of system components will optimize the availability of repair services, and will enable Webb County to add dispatch positions, network management positions, and other elements to increase capacity and processing capability. Motorola will minimize any interruption to system operation during each network update, with minimal reliance on the County's personnel.

Warranty year 1 along with Years 2 to 7 (total 7 years) of warranty and maintenance services including the network updates are included in this proposal. This will ensure that the County's infrastructure is continuously supported and upgraded to the newest ASTRO release with respect to the GATRRS Regional System.

9.3 MOTOROLA'S SERVICE CAPABILITIES

Our focus on the needs of our public safety partners has led us to recognize that an integrated implementation and service delivery team that takes a new system from system installation, to acceptance, to warranty, and all the way through extended maintenance, is the best way to ensure that public safety communications systems meet the needs of first responders. Motorola's team of experts, have developed refined processes and sophisticated tools through our experience in delivering mission-critical communications.

9.3.1 On-Call Support through the Solutions Support Center (SSC)

The cornerstone of our customer care process, Motorola's Solution Support Center (SSC) is staffed 24x7x365 by experienced system technologists. This TL 9000/ISO 9001-certified center responds to over 5000 public safety, utility, and enterprise customers. With over 100,000 phone and email interactions with Motorola customers per month, the SSC provides our customers with a centralized contact point for service requests.

9.3.2 Onsite Service through a Field Service Team

Motorola's local team of service personnel will provide Onsite maintenance and repair of Webb County's system. Motorola will provide the County with a Customer Support Plan (CSP) that outlines the details of each service, provides escalation paths for special issues, and any other information specific to the County service agreement. Some of these details will include items such as access to sites, response time requirements, severity level definitions, and parts department access information.

Local technicians will be dispatched for onsite service by the SSC, who will inform the technician of the reason for dispatch. This will enable the technician to determine if a certain component or field replacement unit (FRU) will be needed from inventory to restore the

system. Once on site, the field technician will notify the SSC and begin to work on the issue. The technician will review the case notes to determine the status of the issue, and begin the troubleshooting and restoration process. Once the system is restored to normal operation, the field technician will notify the SSC that the system is restored. The SSC, in turn, will notify Webb County that the system is restored to normal operation and request approval to close the case.

9.3.3 Centralized Repair Management through Motorola's Repair Depot

Our repair management depot coordinates component repair through a central location, eliminating the need to send system equipment to multiple vendor locations for repair. Once equipment is at the depot, technicians will replicate Webb County's network configuration in our comprehensive test labs in order to reproduce and analyze the issue. Technicians will then restore the equipment to working order. After repairs are completed, equipment will be tested to its original performance specifications and, if appropriate, configured for return to use in Webb County's system. All components being repaired are tracked throughout the process, from shipment by Webb County to return through a case management system where users can view the repair status of the radio via a web portal.

9.4 LIFECYCLE PRODUCT PORTFOLIO FOR TECHNOLOGY REFRESH AND SECURITY SERVICES

To address technology refresh and security services, Motorola provides periodic software updates that are aligned with OEM update schedules and planned Motorola system enhancement timelines.

Additionally, Motorola integrates hardware updates that are aligned with OEM cancellations and technology advancements. All system updates are pre-tested and certified in a systems integration test lab to ensure the transition between releases can be executed with the least amount of interruption to the system operation.

The Motorola lifecycle management portfolio includes several levels of offering to address the technology refresh and security requirements of the ASTRO 25 platform.

The following products can be customized to leverage a solution of in sourcing and out-sourcing to create a "right-sourced" solution that is aligned the system owners' resources and capabilities.

Software Products

- **Anti-virus Definition Update** – Available on a weekly basis via extranet web site or optional automated push, includes commercial anti-virus definitions for third-party operating system software. High-priority update may be released for anti-virus definitions classified as Category 4 (Severe, difficult to contain) and Category 5 (Very Severe, very difficult to contain).
- **Minor Release (patch release)** – Available on a monthly/quarterly basis via extranet web site or optional automated push, includes security patch updates to third-party operating system (OS) and application software as well as host-based intrusion detection sensor (IDS) signature file updates for Motorola supplied equipment. Updates occur monthly for Microsoft Windows and quarterly for Oracle, Sun Microsystems and Red Hat Unix/Linux OS and IDS signature files.

- **Information Assurance Remediation** – Available on a quarterly basis includes remediation recommendation to address Information Assurance Vulnerability Management (IAVM) Alerts issued by the Department of Defense Computer Emergency Response Center (DoD- CERT), and OEM bulletins and technical tips (Microsoft, Oracle, Solaris, RedHat, Adobe, etc.). Recommendations for remediation may include, but is not limited to the following: provide security software updates; provide operating system security updates or patches; implement configuration changes; upgrade to a later ASTRO 25 System Release (upgrade expense not included), or recommending a compensating control.
- **Major Release (system release)** – Available up to 1 every 12 months, and may include third- party software and Motorola system software updates which provide enhancements to existing features and the addition of significant new features which are available for purchase. Additionally, included are updates to Motorola subscriber programming software.

Hardware and Implementation Products

- **Hardware Refresh –** Version updates and/or replacements for Motorola field replaceable unit (FRU) hardware and third-party networking and computing hardware. (Replacement of legacy product platforms such as Quantar base stations, Centracom dispatch consoles excluded).
- **Implementation Services –** Technical support and operational resources such as field engineering, system technologist, project management and local service shop resources to provide end-to-end design, on-site implementation and project management services.
- **Regional Partner Invoicing –** Separate billing structure to enable large system owners the ability to purchase maintenance agreements for their sites while separating out the maintenance agreement billing for the other agencies that operate on the system.

9.4.1 Software Maintenance Agreement (SMA)

Overview

Due to normal advancements in technology, individual components within the ASTRO 25 platform will require periodic update and replacement to mitigate network vulnerabilities and address technology obsolescence. The Motorola Software Maintenance Agreement complements the lifecycle of the ASTRO 25 system by providing periodic software updates, which safeguard and enhance the operation, and extend the lifespan of the ASTRO 25 system. SMA provides system release software for Motorola and third party infrastructure products, radio subscriber units; product programming software as well as commercial OS patch updates. Additionally, Motorola integrates all third party OEM updates, pre-tests, and certifies functionality and compatibility, mitigating risk of interference to the system operation.

Updated commercial and open source software incorporates the latest advancements in third-party technology and provides improvement in network security. Regular updates ensure commercial software remains within the OEM support coverage and may provide operational enhancements of previously purchased features. SMA not only provides a simple approach to updating the system, but owners can also realize up to 80% cost savings compared to individual procurement of software updates. The fixed price annual subscription also provides an approach for consistent budget planning and cost containment against unexpected changes. SMA is a flexible lifecycle management solution that allows

the system owner to implement updates on their own schedule and incur hardware and implementation services expense at the time of upgrade.

Included features

	SMA
Anti-virus Definition Update	✓
Minor Release (patch release)	✓
Information Assurance Remediation	
Major Release (system release)	✓
Hardware Refresh	
Implementation Services	
Regional Partner Invoicing	available

- Anti-virus definitions and intrusion detection sensor updates for Motorola supplied equipment from applicable original equipment manufacturer
- Minor releases may include commercial OS and application security updates, patches and service pack updates for Microsoft Windows and Server OS, Red Hat Linux, Sun Solaris and any Motorola software service packs that may be available
- Recommendations for IA remediation may include, but is not limited to the following: provide security software updates; provide operating system security updates or patches; implement configuration changes; upgrade to a later ASTRO 25 System Release (upgrade expense not included), or recommending a compensating control
- Major releases may include commercial OS and application software updates as well as Motorola system release software to improve the system functionality and operation from previous releases as well as significant new feature enhancements that are available for purchase.
- Regional partner invoicing provides ability to separate invoicing across multiple agencies

9.4.2 System Upgrade Agreement (SUA)

Overview

Modern LMR systems are specialized Information Technology (IT) networks that are a hybrid composition of commercial off-the-shelf IT components, specialized Radio Frequency (RF) components and software designed to comply with standards-based specifications. To ensure the highest level of operation, allow for system expansion, provide maximum lifespan and protect the initial investment, regular update and replacement of individual software and hardware components is required.

The Motorola System Upgrade Agreement is comprehensive approach to technology refreshment of the ASTRO 25 system aligned with the Motorola lifecycle roadmap. As major system releases become available, the SUA will provide up to one system upgrade per annual contract term. The SUA is a complete package of hardware, software and implementation services required to update the ASTRO 25 system to an eligible system release with an equivalent level of functionality.

Updates to OEM components ensure availability of repair services support and may provide increased capacity and processing speed. Regular updates enable system expansion (i.e.

expansion of RF sites, dispatch positions, data sub-systems, network management positions, etc.). Professional implementation services guarantee live system upgrades are performed with minimal interruption to system operation with minimal reliance on owner resources. SUA ensures the ASTRO 25 system functions at the highest level of operation, allows for expansion, feature enhancement, and maximizes the lifespan of the investment.

For owners that are committed to upgrading their system on a regular basis, SUA provides a consistent budgeting solution that provides complete coverage.

Included features

	SUA	SUA II
Anti-virus Definition Update		
Minor Release (patch release)	✓	✓
Information Assurance Remediation		
Major Release (system release)	✓	✓
Hardware Refresh	✓	✓
Implementation Services	✓	✓
Regional Partner Invoicing	available	available
Major upgrades in 2 yr period	Up to 2	Up to 1

- Anti-virus definitions and intrusion detection sensor updates for Motorola supplied equipment from applicable original equipment manufacturer
- Minor releases may include commercial OS and application security updates, patches and service pack updates for Microsoft Windows and Server OS, Red Hat Linux, Sun Solaris and any Motorola software service packs that may be available
- Recommendations for IA remediation may include, but is not limited to the following: provide security software updates; provide operating system security updates or patches; implement configuration changes; upgrade to a later ASTRO 25 System Release (upgrade expense not included), or recommending a compensating control.
- Major releases may include commercial OS and application software updates as well as Motorola system release software to improve the system functionality and operation from previous releases as well as significant new feature enhancements that are available for purchase.
- Hardware refresh may include version updates and/or replacements for Motorola FRU and third-party networking and computing hardware
- Implementation services includes all in-house and on-site resources to implement and test major release update
- Regional partner invoicing provides ability to separate invoicing across multiple agencies
- As major releases become available, the SUA II configuration covers up to one major release upgrade per every two-year contract term, while the SUA configuration covers up to one major release upgrade per annual contract term.

SECTION 10

PRICING SUMMARY

Infrastructure Equipment Description		List Price
P25 Simulcast System (5 sites with 6 channels at each site)		
Primary Equipment Components: - (26) GTR 8000 Expandable Site Subsystem (ESS) Stations - (14) GGM 8000 Gateways - (12) 930F 24- Port Switches - (6) GCM 8000 Comparators - (5) 9100 TRAK GPS for precision timing - (5) Receive Antenna System w\ Multi-coupler & filter - (5) Transmit Antenna System w\ RFDS - (5) UPS Systems **Dispatcher Consoles** - Six (6) MCC7500E Console positions with eight (8) consolettes - Software Licenses/Hardware and Ancillary Options (Headsets, Speakers, Footswitch,i.e.)		$ 2,578,133.00
Microwave System Backhaul with Warranty - Five (5) licensed microwave hops - All-indoor configuration with Spatial Diversity and 1+ 0 Configuration - Path studies, licensing, Installation, Optimization of all links		$ 792,089.00
Implementation Services - Project Management - System Engineering - Motorola Service Station Services - Spectrum Fingerprinting - Onsite Training for Console Administrators & Operators - Warranty Wrap - Network Engineering - System Technologist		$ 1,449,877.00
Maintenance (post warranty) & System Upgrade Agreement for Years 2 thru 7		$ 1,418,622.00
Technology Project Total (List Price):		**$ 6,238,721.00**
	Discounts and Incentives	
H-GAC Line Item Equipment Discounts:	$ 437,381.00	$ 5,801,340.00
H-GAC System Incentive Discount:	$ 374,160.00	$ 5,427,180.00
Performance Bond / Payment Bond (PassThrough)	$27,000.00	
Technology Project Total (after Discounts and Incentives):		**$ 5,454,180.00**

Exhibit D

Motorola/H-GAC Radio Communications Equipment & Systems Agreement

Exhibit E

Warranty, Post-Warranty and Service Terms and Conditions

Service Terms and Conditions

Motorola Solutions, Inc. ("Motorola") and the customer named in this Agreement ("Customer") hereby agree as follows:

Section 1 APPLICABILITY

These Service Terms and Conditions apply to service contracts whereby Motorola will provide to Customer either (1) maintenance, support and/or other services under a Motorola Service Agreement, or (2) installation services under a Motorola Installation Agreement.

Section 2 DEFINITIONS AND INTERPRETATION

2.1 "Agreement" means these Service Terms and Conditions; the cover page for the Service Agreement or the Installation Agreement, as applicable; and any other attachments, all of which are incorporated herein by this reference. In interpreting this Agreement and resolving any ambiguities, these Service Terms and Conditions take precedence over any cover page, and the cover page takes precedence over any attachments, unless the cover page or attachment states otherwise.

2.2 "Equipment" means the equipment that is specified in the attachments or is subsequently added to this Agreement.

2.3 "Services" means those installation, maintenance, support, training, and other services described in this Agreement.

Section 3 ACCEPTANCE

Customer accepts these Service Terms and Conditions and agrees to pay the prices set forth in the Agreement. This Agreement becomes binding only when accepted in writing by Motorola. The term of this Agreement begins on the "Start Date" indicated in this Agreement.

Section 4 SCOPE OF SERVICES

4.1. Motorola will provide the Services described in this Agreement or in a more detailed statement of work or other document attached to this Agreement. At Customer's request, Motorola may also provide additional services at Motorola's then-applicable rates for the services.

4.2. If Motorola is providing Services for Equipment, Motorola parts or parts of equal quality will be used; the Equipment will be serviced at levels set forth in the manufacturer's product manuals; and routine service procedures that are prescribed by Motorola will be followed.

4.3. If Customer purchases from Motorola additional equipment that becomes part of the same system as the initial Equipment, the additional equipment may be added to this Agreement and will be billed at the applicable rates after the warranty for the additional equipment expires.

4.4. All Equipment must be in good working order on the Start Date or when additional equipment is added to the Agreement. Upon reasonable request by Motorola, Customer will provide a complete serial and model number list of the Equipment. Customer must promptly notify Motorola in writing when any Equipment is lost, damaged, stolen or taken out of service. Customer's obligation to pay Service fees for such Equipment will terminate at the end of the month in which Motorola receives the written notice.

4.5. Customer must specifically identify any Equipment that is labeled intrinsically safe for use in hazardous environments.

4.6. If Equipment cannot, in Motorola's reasonable opinion, be properly or economically serviced for any reason, Motorola may modify the scope of Services related to such Equipment; remove that Equipment from the Agreement; or increase the price to Service such Equipment.

4.7. Customer must promptly notify Motorola of any Equipment failure. Motorola will respond to Customer's notification in a manner consistent with the level of Service purchased as indicated in this Agreement.

Section 5 EXCLUDED SERVICES

5.1. Service excludes the repair or replacement of Equipment that has become defective or damaged from use in other than the normal, customary, intended, and authorized manner; use by the Purchaser not in compliance with applicable industry standards; excessive wear and tear; or accident, liquids, power surges, Purchaser's neglect of maintaining the Equipment that is not contracted to be performed by Motorola, acts of God or other force majeure events.

5.2. Unless specifically included in this Agreement, Service excludes items that are consumed in the normal operation of the Equipment, such as batteries or magnetic tapes.; upgrading or reprogramming Equipment; accessories, belt clips, battery chargers, custom or special products, modified units, or software; and repair or maintenance of any transmission line, antenna, microwave equipment, tower or tower lighting, duplexer, combiner, or multicoupler. Motorola has no obligations for any transmission medium, such as telephone lines, computer networks, the internet or the worldwide web, or for Equipment malfunction caused by such transmission medium.

Section 6 TIME AND PLACE OF SERVICE

Service will be provided at the location specified in this Agreement. When Motorola performs service at Customer's location, Customer will provide Motorola, at no charge, a non-hazardous work environment with adequate shelter, heat, light, and power and with full and free access to the Equipment. Waivers of liability from Motorola or its subcontractors will not be imposed as a site access requirement. Customer will provide all information pertaining to the hardware and software elements of any system with which the Equipment is interfacing so that Motorola may perform its Services. Unless otherwise stated in this Agreement, the hours of Service will be 8:30 a.m. to 4:30 p.m., local time, excluding weekends and holidays. Unless otherwise stated in this Agreement, the price for the Services exclude any charges or expenses associated with helicopter or other unusual access requirements; if these charges or expenses are reasonably incurred by Motorola in rendering the Services, Customer agrees to reimburse Motorola for those charges and expenses.

Section 7 CUSTOMER Contact

Customer will provide Motorola with designated points of contact (list of names and phone numbers) that will be available twenty-four (24) hours per day, seven (7) days per week, and an escalation procedure to enable Customer's personnel to maintain contact, as needed, with Motorola.

Section 8 PAYMENT

Unless alternative payment terms are stated in this Agreement, Motorola will invoice Customer in advance for each payment period. All other charges will be billed monthly, and Customer must pay each invoice in U.S. dollars within thirty (30) days of the invoice date. Customer will reimburse Motorola for all property taxes, sales and use taxes, excise taxes, and other taxes or assessments that are levied as a result of Services rendered under this Agreement (except income, profit, and franchise taxes of Motorola) by any governmental entity.

Section 9 WARRANTY

Motorola warrants that its Services under this Agreement will be free of defects in materials and workmanship for a period of ninety (90) days from the date the performance of the Services are completed. In the event of a breach of this warranty, Customer's sole remedy is to require Motorola to re-perform the non-conforming Service or to refund the fees paid for the non-conforming Service.

Section 10 DEFAULT/TERMINATION

10.1. If either party defaults in the performance of this Agreement, the other party will give to the non-performing party a written and detailed notice of the default. The non-performing party will have thirty (30) days thereafter to provide a written plan to cure the default that is acceptable to the other party and begin implementing the cure plan immediately after plan approval. If the non-performing party fails to provide or implement the cure plan, then the injured party, in addition to any other rights available to it under law, may immediately terminate this Agreement effective upon giving a written notice of termination to the defaulting party.

10.2. Any termination of this Agreement will not relieve either party of obligations previously incurred pursuant to this Agreement, including payments which may be due and owing at the time of termination. All sums owed by Customer to Motorola will become due and payable immediately upon termination of this Agreement. Upon the effective date of termination, Motorola will have no further obligation to provide Services.

Section 11 LIMITATION OF LIABILITY

The Limitation of Liability shall be as stated in Section 5 of Exhibit A.

Section 12 EXCLUSIVE TERMS AND CONDITIONS

12.1. This Agreement supersedes all prior and concurrent agreements and understandings between the parties, whether written or oral, related to the Services, and there are no agreements or representations concerning the subject matter of this Agreement except for those expressed herein. The Agreement may not be amended or modified except by a written agreement signed by authorized representatives of both parties.

12.2. Customer agrees to reference this Agreement on any purchase order issued in furtherance of this Agreement, however, an omission of the reference to this Agreement will not affect its applicability. In no event will either party be bound by any terms contained in a Customer purchase order, acknowledgement, or other writing unless: the purchase order, acknowledgement, or other writing specifically refers to this Agreement; clearly indicate the intention of both parties to override and modify this Agreement; and the purchase order, acknowledgement, or other writing is signed by authorized representatives of both parties**.**

Section 13 PROPRIETARY INFORMATION; CONFIDENTIALITY; INTELLECTUAL PROPERTY RIGHTS

13.1. Any information or data in the form of specifications, drawings, reprints, technical information or otherwise furnished to Customer under this Agreement will remain Motorola's property, will be deemed proprietary, will be kept confidential, and will be promptly returned at Motorola's request. Customer may not disclose, without Motorola's written permission or as required by law, any confidential information or data to any person, or use confidential information or data for any purpose other than performing its obligations under this Agreement. The obligations set forth in this Section survive the expiration or termination of this Agreement.

13.2. Unless otherwise agreed in writing, no commercial, financial or technical information disclosed in any manner or at any time by Customer to Motorola will be deemed secret or confidential. Motorola will have no obligation to provide Customer with access to its confidential and proprietary information, including cost and pricing data.

13.3. This Agreement does not grant directly or by implication, estoppel, or otherwise, any ownership right or license under any Motorola patent, copyright, trade secret, or other intellectual property including any intellectual property created as a result of or related to the Equipment sold or Services performed under this Agreement.

Section 14 FCC LICENSES AND OTHER AUTHORIZATIONS

Customer is solely responsible for obtaining licenses or other authorizations required by the Federal Communications Commission or any other federal, state, or local government agency and for complying with all rules and regulations required by such agencies. Neither Motorola nor any of its employees is an agent or representative of Customer in any governmental matters.

Section 15 COVENANT NOT TO EMPLOY

During the term of this Agreement and continuing for a period of two (2) years thereafter, Customer will not hire, engage on contract, solicit the employment of, or recommend employment to any third party of any employee of Motorola or its subcontractors without the prior written authorization of Motorola. This provision applies only to those employees of Motorola or its subcontractors who are responsible for rendering services under this Agreement. If this provision is found to be overly broad under applicable law, it shall be modified as necessary to conform to such law.

Section 16 MATERIALS, TOOLS AND EQUIPMENT

All tools, equipment, dies, gauges, models, drawings or other materials paid for or furnished by Motorola for the purpose of providing Services under this Agreement will be and remain the sole property of Motorola. Customer will safeguard all such property while it is in Customer's custody or control, be liable for any loss or damage to this property and return it to Motorola upon request. This property will be held by Customer for Motorola's use without charge and may be removed from Customer's premises by Motorola at any time without restriction.

Section 17 GENERAL TERMS

17.1. If any court renders any portion of this Agreement unenforceable, the remaining terms will continue in full force and effect.

17.2. This Agreement and the rights and duties of the parties will be governed and interpreted in accordance with the laws of the State of Texas.

17.3. Failure to exercise any right will not operate as a waiver of that right, power, or privilege.

17.4. Neither party is liable for delays or lack of performance resulting from any causes that are beyond that party's reasonable control, such as strikes, material shortages, or acts of God.

17.5. Motorola may assign its rights and obligations, and may subcontract any portion of its performance, under this Agreement, unless assignment is in violation of the Texas Purchasing Act.

17.6. If Motorola provides Services after the expiration of this Agreement, the terms and conditions in effect at the time of the expiration will apply to those Services and Customer agrees to pay for those services on a time and materials basis at Motorola's then effective hourly rates.