

## Communications System Agreement

Motorola Solutions, Inc., a Delaware corporation ("Motorola") and Baldwin County, Alabama, by and through the Baldwin County Commission, a political subdivision of the State of Alabama ("Customer"), enter into this "Agreement," pursuant to which Customer will purchase, and Motorola will sell, the System, as described below. Motorola and Customer may be referred to individually as a "Party" and collectively as the "Parties." For good and valuable consideration, the Parties agree as follows:

### Section 1 EXHIBITS

The exhibits listed below are incorporated into and made a part of this Agreement. In interpreting this Agreement and resolving any ambiguities, the main body of this Agreement takes precedence over the exhibits, and any inconsistency between Exhibits A through E will be resolved in their listed order.

Exhibit A	Motorola "Software License Agreement"
Exhibit B	"Payment Schedule"
Exhibit C	Motorola Proposal Dated August 22, 2011, as amended
Exhibit D	"System Acceptance Certificate"
Exhibit E	Performance and Payment Bonds

### Section 2 DEFINITIONS

Capitalized terms used in this Agreement have the following meanings:

- 2.1. "Acceptance Tests" means those tests described in the Acceptance Test Plan.
- 2.2. "Administrative User Credentials" means an account that has total access over the operating system, files, end user accounts and passwords at either the System level or box level. Customer's personnel with access to the Administrative User Credentials may be referred to as the Administrative User.
- 2.3. "Beneficial Use" means when Customer first uses the System or a Subsystem for operational purposes (excluding training or testing). "Beneficial Use" shall not include the use of the existing Motorola system which is being upgraded pursuant to this Agreement by the City of Orange Beach and other entities.
- 2.4. "Confidential Information" means any information that is disclosed in written, graphic, verbal, or machine-recognizable form, and is marked, designated, or identified at the time of disclosure as being confidential or its equivalent; or if the information is in verbal form, it is identified as confidential at the time of disclosure and is confirmed in writing within thirty (30) days of the disclosure. Confidential Information does not include any information that: is or becomes publicly known through no wrongful act of the receiving Party; is already known to the receiving Party without restriction when it is disclosed; is or becomes, rightfully and without breach of this Agreement, in the receiving Party's possession without any obligation restricting disclosure; is independently developed by the receiving Party without breach of this Agreement; or is explicitly approved for release by written authorization of the disclosing Party.
- 2.5. "Contract Price" means the price for the System.
- 2.6. "Effective Date" means that date upon which the last Party executes this Agreement.
- 2.7. "Equipment" means the equipment that Customer purchases from Motorola under this Agreement. Equipment that is part of the System is described in the Equipment List.
- 2.8. "Force Majeure" means an event, circumstance, or act of a third party that is beyond a Party's reasonable control (e.g., an act of God, an act of the public enemy, an act of a government entity, strikes or other labor disturbances, hurricanes, earthquakes, fires, floods, epidemics, embargoes, war, and riots).

- 2.9. "Infringement Claim" means a third party claim alleging that the Equipment manufactured by Motorola or the Motorola Software directly infringes a United States patent or copyright.
- 2.10. "Motorola Software" means Software that Motorola or its affiliated company owns.
- 2.11. "Non-Motorola Software" means Software that another party owns.
- 2.12. "Open Source Software" (also called "freeware" or "shareware") means software with either freely obtainable source code, license for modification, or permission for free distribution.
- 2.13. "Proprietary Rights" means the patents, patent applications, inventions, copyrights, trade secrets, trademarks, trade names, mask works, know-how, and other intellectual property rights in and to the Equipment and Software, including those created or produced by Motorola under this Agreement and any corrections, bug fixes, enhancements, updates or modifications to or derivative works from the Software whether made by Motorola or another party.
- 2.14. "Software" means the Motorola Software and Non-Motorola Software, in object code format that is furnished with the System or Equipment.
- 2.15. "Specifications" means the functionality and performance requirements that are described in Exhibit C.
- 2.16. "Subsystem" means a major part of the System that performs specific functions or operations. Subsystems are described in Exhibit C.
- 2.17. "System" means the Equipment, Software, and incidental hardware and materials that are combined together into an integrated system; the System is described in Exhibit C.
- 2.18. "System Acceptance" means the Acceptance Tests have been successfully completed.
- 2.19. "Warranty Period" means one (1) year from the date of System Acceptance or Beneficial Use, whichever occurs first, and the warranty includes labor and services.

### **Section 3 SCOPE OF AGREEMENT AND TERM**

- 3.1. **SCOPE OF WORK.** Motorola will provide, install and test the System, and perform its other contractual responsibilities, all in accordance with this Agreement. Customer will perform its contractual responsibilities in accordance with this Agreement.
- 3.2. **CHANGE ORDERS.** Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.
- 3.3. **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 Effective Date and continues until the date of Final Project Acceptance or expiration of the Warranty Period, whichever occurs last.
- 3.4. **ADDITIONAL EQUIPMENT OR SOFTWARE.** For three (3) years after the Effective Date, Customer 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 to additional Equipment will pass at shipment, and risk of loss will pass upon delivery to Customer. Warranty will commence upon delivery, and payment is due within thirty (30) days after the invoice date. Motorola will send Customer an invoice

as the additional Equipment is shipped or Software is licensed. Alternatively, Customer 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.

3.5. 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 the Statement of Work and Motorola's Proposal set forth in Exhibit C. Those services and support are included in the Contract Price. If Customer wishes to purchase additional maintenance and support services for the Equipment during the Warranty Period, or any additional maintenance and support services for the Equipment after the Warranty Period, the description of and pricing for the services will be set forth in a separate document. If Customer wishes to purchase extended support for the Motorola Software after the Warranty Period, it may do so by ordering software subscription services. Unless otherwise agreed by the parties in writing, the terms and conditions applicable to those maintenance, support or software subscription services will be Motorola's standard Service Terms and Conditions, together with the appropriate statements of work.

3.6. MOTOROLA SOFTWARE. Any Motorola Software, including subsequent releases, is licensed to Customer solely in accordance with the Software License Agreement. Customer hereby accepts and agrees to abide by all of the terms and restrictions of the Software License Agreement.

3.7. NON-MOTOROLA SOFTWARE. Any Non-Motorola Software is licensed to Customer in accordance with the standard license, terms, and restrictions of the copyright owner on the Effective Date, unless the copyright owner has granted to Motorola the right to sublicense the Non-Motorola Software pursuant to the Software License Agreement, in which case it applies and the copyright owner will have all of Licensor's rights and protections under the Software License Agreement. Motorola makes no representations or warranties of any kind regarding Non-Motorola Software. Non-Motorola Software may include Open Source Software. All Open Source Software is licensed to Customer in accordance with, and Customer agrees to abide by, the provisions of the standard license of the copyright owner and not the Software License Agreement. Upon request by Customer, Motorola will use commercially reasonable efforts to determine whether any Open Source Software will be provided under this Agreement; and if so, identify the Open Source Software and provide to Customer a copy of the applicable standard license (or specify where that license may be found); and provide to Customer a copy of the Open Source Software source code if it is publicly available without charge (although a distribution fee or a charge for related services may be applicable).

3.8. SUBSTITUTIONS. At no additional cost to Customer, Motorola may substitute any Equipment, Software, or services to be provided by Motorola, if the substitute meets or exceeds the Specifications and is of equivalent or better quality to the Customer. Any substitution will be reflected in a change order.

3.9. OPTIONAL EQUIPMENT OR SOFTWARE. This paragraph applies only if a "Priced Options" exhibit is shown in Section 1, or if the parties amend this Agreement to add a Priced Options exhibit. During the term of the option as stated in the Priced Options exhibit (or if no term is stated, then for three (3) years after the Effective Date), Customer has the right and option to purchase the equipment, software, and related services that are described in the Priced Options exhibit. Customer may exercise this option by giving written notice to Seller which must designate what equipment, software, and related services Customer is selecting (including quantities, if applicable). To the extent they apply, the terms and conditions of this Agreement will govern the transaction; however, the parties acknowledge that certain provisions must be agreed upon, and they agree to negotiate those in good faith promptly after Customer delivers the option exercise notice. Examples of provisions that may need to be negotiated are: specific lists of deliverables, statements of work, acceptance test plans, delivery and implementation schedules, payment terms, maintenance and support provisions, additions to or modifications of the Software License Agreement, hosting terms, and modifications to the acceptance and warranty provisions.

#### **Section 4 PERFORMANCE SCHEDULE**

The Parties will perform their respective responsibilities in accordance with the Performance Schedule. By executing this Agreement, Customer authorizes Motorola to proceed with contract performance.

#### **Section 5 CONTRACT PRICE, PAYMENT AND INVOICING**

5.1. **CONTRACT PRICE.** The Contract Price in U.S. dollars is \$4,335,962.00. If applicable, a pricing summary is included with the Payment Schedule. Motorola has priced the services, Software, and Equipment as an integrated system. A reduction in Software or Equipment quantities, or services, may affect the overall Contract Price, including discounts if applicable.

5.2. **INVOICING AND PAYMENT.** Motorola will submit invoices to Customer according to the Payment Schedule. Customer will make payments to Motorola in accordance with Exhibit B below. Customer will make payments when due in the form of a wire transfer, check, or cashier's check from a U.S. financial institution. Overdue invoices will bear simple interest at the rate of 6% per annum. For reference, the Federal Tax Identification Number for Motorola Solutions, Inc. is 36-1115800.

5.3. **FREIGHT, TITLE, AND RISK OF LOSS.** Motorola will pay all freight charges. Title to the Equipment will pass to Customer upon shipment. Title to Software will not pass to Customer at any time. Risk of loss will pass to Customer upon delivery of the Equipment to the Customer. Motorola will pack and ship all Equipment in accordance with good commercial practices.

5.4. **INVOICING AND SHIPPING ADDRESSES.** Invoices will be sent to the Customer at the following address:

Baldwin County  
Attn: David Pimperl  
312 Courthouse Square, Suite 13  
Bay Minette, AL 36507

The address which is the ultimate destination where the Equipment will be delivered to Customer is:

Baldwin County Commission  
Emergency Operations Center  
23100 McAuliffe Drive  
Robertsdale, AL 36567

The Equipment will be shipped to the Customer at the following address:

Team One Communications, Inc.  
Attn: Baldwin County Project  
3360 Key Street  
Mobile, AL 36609

Customer may change this information by giving written notice to Motorola.

#### **Section 6 SITES AND SITE CONDITIONS**

6.1. **ACCESS TO SITES.** In addition to its responsibilities described elsewhere in this Agreement, Customer will provide a designated project manager; all necessary construction and building permits, zoning variances, and any other approvals that are necessary to develop or use the sites and mounting locations; and access to the work sites or vehicles identified in Exhibit C as reasonably requested by Motorola so that it may perform its duties in accordance with the Performance Schedule and Statement of Work. If the Statement of Work so indicates, Motorola may assist Customer in the local building permit process.

6.2. **SITE CONDITIONS.** Customer will ensure that all work sites it provides will be safe, secure, and in compliance with all applicable industry and OSHA standards. To the extent applicable and unless the Statement of Work states to the contrary, Customer will ensure that these work sites have adequate:

physical space; air conditioning and other environmental conditions; adequate and appropriate electrical power outlets, distribution, equipment and connections; and adequate telephone or other communication lines (including modem access and adequate interfacing networking capabilities), all for the installation, use and maintenance of the System. Before installing the Equipment or Software at a work site, Motorola may inspect the work site and advise Customer of any apparent deficiencies or non-conformities with the requirements of this Section. This Agreement is predicated upon normal soil conditions as defined by the version of E.I.A. standard RS-222 in effect on the Effective Date.

6.3. **SITE ISSUES.** If a Party determines that the sites identified in Exhibit C are no longer available or desired, or if subsurface, structural, adverse environmental or latent conditions at any site differ from those indicated in Exhibit C, the Parties will promptly investigate the conditions and will select replacement sites or adjust the installation plans and specifications as necessary. If change in sites or adjustment to the installation plans and specifications causes a change in the cost or time to perform, the Parties will equitably amend the Contract Price, Performance Schedule, or both, by a change order.

## **Section 7 TRAINING**

Any training to be provided by Motorola to Customer will be described in the Statement of Work. Customer will notify Motorola immediately if a date change for a scheduled training program is required. If Motorola incurs additional costs because Customer reschedules a training program less than thirty (30) days before its scheduled start date, Motorola may recover these additional costs.

## **Section 8 SYSTEM ACCEPTANCE**

8.1. **COMMENCEMENT OF ACCEPTANCE TESTING.** Motorola will provide to Customer at least ten (10) days notice before the Acceptance Tests commence. System testing will occur only in accordance with the Acceptance Test Plan.

8.2. **SYSTEM ACCEPTANCE.** System Acceptance will occur upon successful completion of the Acceptance Tests. Upon System Acceptance, the Parties will memorialize this event by promptly executing a System Acceptance Certificate. If the Acceptance Test Plan includes separate tests for individual Subsystems or phases of the System, acceptance of the individual Subsystem or phase will occur upon the successful completion of the Acceptance Tests for the Subsystem or phase, and the Parties will promptly execute an acceptance certificate for the Subsystem or phase. If Customer believes the System has failed the completed Acceptance Tests, Customer will provide to Motorola a written notice that includes the specific details of the failure. If Customer does not provide to Motorola a failure notice within thirty (30) days after completion of the Acceptance Tests, System Acceptance will be deemed to have occurred as of the completion of the Acceptance Tests. Minor omissions or variances in the System that do not materially impair the operation of the System as a whole will be corrected according to a mutually agreed schedule. Upon such correction, System Acceptance or Subsystem acceptance will be deemed to have occurred.

8.3. **BENEFICIAL USE.** Customer acknowledges that Motorola's ability to perform its implementation and testing responsibilities may be impeded if Customer begins using the System before System Acceptance. Therefore, Customer will not commence Beneficial Use before System Acceptance without Motorola's prior written authorization, which will not be unreasonably withheld. Motorola is not responsible for System performance deficiencies that occur during unauthorized Beneficial Use. Upon commencement of Beneficial Use, Customer assumes responsibility for the use and operation of the System. Notwithstanding any provision contained herein to the contrary, the entities currently using the existing Motorola system which is being upgraded pursuant to this Agreement shall be allowed to continue their use of the existing Motorola system and shall not be deemed a Beneficial Use.

8.4 **FINAL PROJECT ACCEPTANCE.** Final Project Acceptance will occur after System Acceptance when all deliverables and other work have been completed. When Final Project Acceptance occurs, the parties will promptly memorialize this final event by so indicating on the System Acceptance Certificate.

## **Section 9 REPRESENTATIONS AND WARRANTIES**

9.1. **SYSTEM FUNCTIONALITY.** Motorola represents that the System will perform in accordance with the Specifications in all material respects. Motorola is not responsible for System performance deficiencies that are caused by ancillary equipment not furnished by Motorola which is attached to or used in connection with the System or for reasons or parties beyond Motorola's control, such as natural causes; the construction of a building that adversely affects the microwave path reliability or radio frequency (RF) coverage; the addition of frequencies at System sites that cause RF interference or intermodulation; or Customer changes to load usage or configuration outside the Specifications.

9.2. **EQUIPMENT WARRANTY.** During the Warranty Period, Motorola warrants that the Equipment under normal use and service will be free from material defects in materials and workmanship. In a radio system, a material defect is a defect which impairs the primary functionality of audio communication between subscribers, subscriber and dispatcher, or dispatcher and subscriber. If System Acceptance is delayed beyond six (6) months after shipment of the Equipment by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Equipment.

9.3. **MOTOROLA SOFTWARE WARRANTY.** Unless otherwise stated in the Software License Agreement, during the Warranty Period, Motorola warrants the Motorola Software in accordance with the terms of the Software License Agreement and the provisions of this Section 9 that are applicable to the Motorola Software. If System Acceptance is delayed beyond six (6) months after shipment of the Motorola Software by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Motorola Software. TO THE EXTENT, IF ANY, THAT THERE IS A SEPARATE LICENSE AGREEMENT PACKAGED WITH, OR PROVIDED ELECTRONICALLY WITH, A PARTICULAR PRODUCT THAT BECOMES EFFECTIVE ON AN ACT OF ACCEPTANCE BY THE END USER, THEN THAT AGREEMENT SUPERCEDES THIS SOFTWARE LICENSE AGREEMENT AS TO THE END USER OF EACH SUCH PRODUCT.

9.4. **EXCLUSIONS TO EQUIPMENT AND MOTOROLA SOFTWARE WARRANTIES.** These warranties do not apply to: (i) defects or damage resulting from: use of the Equipment or Motorola Software in other than its normal, customary, and authorized manner; accident, liquids, neglect, or acts of God; testing, maintenance, disassembly, repair, installation, alteration, modification, or adjustment not provided or authorized in writing by Motorola; Customer's failure to comply with all applicable industry and OSHA standards; (ii) breakage of or damage to antennas unless caused directly by defects in material or workmanship; (iii) Equipment that has had the serial number removed or made illegible; (iv) batteries (because they carry their own separate limited warranty) or consumables; (v) freight costs to ship Equipment to the repair depot; (vi) scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment; and (vii) normal or customary wear and tear.

9.5. **WARRANTY CLAIMS.** To assert a warranty claim, Customer must notify Motorola in writing of the claim before the expiration of the Warranty Period. Upon receipt of this notice, Motorola will investigate the warranty claim. If this investigation confirms a valid warranty claim, Motorola will (at its option and at no additional charge to Customer) repair the defective Equipment or Motorola Software, replace it with the same or equivalent product, or with the agreement of the Customer and as long as the functionality of the System is maintained, refund the price of the defective Equipment or Motorola Software. That action will be the full extent of Motorola's liability for the warranty claim. If this investigation indicates the warranty claim is not valid, then Motorola may invoice Customer for responding to the claim on a time and materials basis using Motorola's then current labor rates. Repaired or replaced product is warranted for the balance of the original applicable warranty period. All replaced products or parts will become the property of Motorola.

9.6. **ORIGINAL END USER IS COVERED.** These express limited warranties are extended by Motorola to the original user purchasing the System for commercial, industrial, or governmental use only, and are not assignable or transferable.

9.7. **DISCLAIMER OF OTHER WARRANTIES.** THESE WARRANTIES ARE THE COMPLETE WARRANTIES FOR THE EQUIPMENT AND MOTOROLA SOFTWARE PROVIDED UNDER THIS

AGREEMENT AND ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## **Section 10 DELAYS**

10.1. **FORCE MAJEURE.** Neither Party will be liable for its non-performance or delayed performance if caused by a Force Majeure. A Party that becomes aware of a Force Majeure that will significantly delay performance will notify the other Party promptly (but in no event later than fifteen days) after it discovers the Force Majeure. If a Force Majeure occurs, the Parties will execute a change order to extend the Performance Schedule for a time period that is reasonable under the circumstances.

10.2. **PERFORMANCE SCHEDULE DELAYS CAUSED BY CUSTOMER.** If Customer (including its other contractors) delays the Performance Schedule, it will make the promised payments according to the Payment Schedule as if no delay occurred; and the Parties will execute a change order to extend the Performance Schedule and, if requested, compensate Motorola for all reasonable charges incurred because of the delay. Delay charges may include reasonable charges incurred by Motorola or its subcontractors for additional freight, warehousing and handling of Equipment; travel; suspending and re-mobilizing the work; additional engineering, project management, and standby time calculated at then current rates; and preparing and implementing an alternative implementation plan.

10.3. **DELAYS CAUSED BY MOTOROLA.** If Motorola is the sole cause for a delay to the date scheduled for System Acceptance beyond June 22, 2012 (the deadline for System Acceptance required for federal funds to Customer), Motorola will credit Customer for its loss of funds up to 5% of the Contract Price.

## **Section 11 DISPUTES**

The Parties will use the following procedure to address any dispute arising under this Agreement (a "Dispute").

11.1. **GOVERNING LAW.** This Agreement will be governed by and construed in accordance with the laws of the State of Alabama.

11.2. **NEGOTIATION.** Either Party may initiate the Dispute resolution procedures by sending a notice of Dispute ("Notice of Dispute"). The Parties will attempt to resolve the Dispute promptly through good faith negotiations including 1) timely escalation of the Dispute to executives who have authority to settle the Dispute and who are at a higher level of management than the persons with direct responsibility for the matter and 2) direct communication between the executives. If the Dispute has not been resolved within ten (10) days from the Notice of Dispute, the Parties will proceed to mediation.

11.3. **MEDIATION.** The Parties will choose an independent mediator within thirty (30) days of a notice to mediate from either Party ("Notice of Mediation"). Neither Party may unreasonably withhold consent to the selection of a mediator. If the Parties are unable to agree upon a mediator, either Party may request that the American Arbitration Association nominate a mediator. Each Party will bear its own costs of mediation, but the Parties will share the cost of the mediator equally. Each Party will participate in the mediation in good faith and will be represented at the mediation by a business executive with authority to settle the Dispute.

11.4. **LITIGATION, VENUE and JURISDICTION.** If a Dispute remains unresolved for sixty (60) days after receipt of the Notice of Mediation, either Party may then submit the Dispute to a court of competent jurisdiction in the state of Alabama. Each Party irrevocably agrees to submit to the exclusive jurisdiction of the courts in such state over any claim or matter arising under or in connection with this Agreement.

11.5. **CONFIDENTIALITY.** All communications pursuant to subsections 11.2 and 11.3 will be treated as compromise and settlement negotiations for purposes of applicable rules of evidence and any additional confidentiality protections provided by applicable law. The use of these Dispute resolution

procedures will not be construed under the doctrines of laches, waiver or estoppel to affect adversely the rights of either Party.

## **Section 12     DEFAULT AND TERMINATION**

12.1    **DEFAULT BY A PARTY.** 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 a Force Majeure causes the failure) and may assert a default claim by giving the non-performing Party a written and detailed notice of default. Except for a default by Customer 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 Customer is the defaulting Party, Motorola may stop work on the project until it approves the Customer's cure plan. If Motorola is the defaulting party, Customer may stop payments for the project until it approves Motorola's cure plan.

12.2.   **FAILURE TO CURE.** If a defaulting Party fails to cure the default as provided above in Section 12.1, unless otherwise agreed in writing, the non-defaulting Party may terminate any unfulfilled portion of this Agreement and pursue any available remedies at law or in equity. In the event of termination for default, the defaulting Party will promptly return to the non-defaulting Party any of its Confidential Information. If Customer is the non-defaulting Party, terminates this Agreement as permitted by this Section, and completes the System through a third Party, Customer may as its exclusive remedy 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, costs of cover, plus any additional charges incurred to obtain a warranty from such third-party or Motorola on the same or similar terms. Customer will mitigate damages and provide Motorola with detailed invoices substantiating the charges. Motorola will provide a 100% Performance and Payment Bond to the Customer within ten (10) days of the Effective Date.

## **Section 13     INDEMNIFICATION**

13.1.   **GENERAL INDEMNITY BY MOTOROLA.** Motorola will indemnify and hold Customer harmless from any and all liability, damage, loss, expense, judgment, suit, cause of action, or demand for personal injury, death, or direct damage to tangible property which may accrue against Customer to the extent it is caused by the act or omission of Motorola, its subcontractors, or their employees or agents, while performing their duties under this Agreement, if Customer gives Motorola reasonable, written notice of any claim or suit. Customer will cooperate with Motorola in its defense or settlement of the claim or suit. This section sets forth the full extent of Motorola's general indemnification of Customer from liabilities that are in any way related to Motorola's performance under this Agreement.

13.2.   **GENERAL INDEMNITY BY CUSTOMER.** Customer will indemnify and hold Motorola harmless from any and all liability, damage, loss, expense, judgment, suit, cause of action, or demand for personal injury, death, or direct damage to tangible property which may accrue against Motorola to the extent it is caused by the act or omission of Customer, its other contractors, or their employees or agents, while performing their duties under this Agreement, if Motorola gives Customer reasonable, written notice of any the claim or suit. Motorola will cooperate with Customer in its defense or settlement of the claim or suit. This section sets forth the full extent of Customer's general indemnification of Motorola from liabilities that are in any way related to Customer's performance under this Agreement.

### **13.3.    PATENT AND COPYRIGHT INFRINGEMENT.**

13.3.1. Motorola will defend at its expense any suit brought against Customer 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: Customer 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 Customer 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 Customer by a court of competent jurisdiction for an Infringement Claim or agreed to, in writing, by Motorola in settlement of an Infringement Claim.

13.3.2. If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense: (a) procure for Customer the right to continue using the Motorola Product; or (b) replace or modify the Motorola Product so that it becomes non-infringing while providing functionally equivalent performance; or if (a) and (b) is not a viable remedy, the Customer may (c) accept the return of the Motorola Product and grant Customer a credit for the Motorola Product, less a reasonable charge for depreciation, or pursue any available remedies at law or in equity.

13.3.3. 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 Customer's designs, specifications, guidelines or instructions, if the alleged infringement would not have occurred without such designs, specifications, guidelines or instructions, if applicable; (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 Customer to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. Motorola's liability resulting from its indemnity obligation to Customer will only extend to royalties that are based upon Motorola's revenue.

13.3.4. This Section 13 provides Customer's sole and exclusive remedies and Motorola's entire liability in the event of an Infringement Claim. Customer 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 13 are subject to and limited by the restrictions set forth in Section 14.

## **Section 14      LIMITATION OF LIABILITY**

Except for personal injury, tangible property damage or death, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, indemnification, or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of the Equipment, Software, or services provided under this Agreement. **ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS; INCONVENIENCE; LOSS OF USE, TIME, DATA, GOOD WILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS AGREEMENT, THE SALE OR USE OF THE EQUIPMENT OR SOFTWARE, OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THIS AGREEMENT.** This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision. No action for contract breach or otherwise relating to the transactions contemplated by this Agreement may be brought more than six (6) years after the accrual of the cause of action per Alabama law.

## **Section 15      CONFIDENTIALITY AND PROPRIETARY RIGHTS**

15.1. **CONFIDENTIAL INFORMATION.** During the term of this Agreement, the parties may provide each other with Confidential Information. Subject to Alabama law, each Party will: maintain the confidentiality of the other Party's Confidential Information and not disclose it to any third party, except as authorized by the disclosing Party in writing or as required by a court of competent jurisdiction; restrict disclosure of the Confidential Information to its employees who have a "need to know" and not copy or reproduce the Confidential Information; take necessary and appropriate precautions to guard the confidentiality of the Confidential Information, including informing its employees who handle the Confidential Information that it is confidential and is not to be disclosed to others, but these precautions

will be at least the same degree of care that the receiving Party applies to its own confidential information and will not be less than reasonable care; and use the Confidential Information only in furtherance of the performance of this Agreement. Confidential Information is and will at all times remain the property of the disclosing Party, and no grant of any proprietary rights in the Confidential Information is given or intended, including any express or implied license, other than the limited right of the recipient to use the Confidential Information in the manner and to the extent permitted by this Agreement. It shall not be a breach of this Agreement to disclose Confidential Information, including, but not limited to, the terms and conditions of this Agreement and the pricing of a licensed product, pursuant to (i) judicial order, (ii) requirement of a governmental agency, pursuant to (iii), (iii) in accordance with any applicable laws, rules or regulations, or (iv) the prior written approval of the party providing such Confidential Information. It is expressly understood by all parties that this Agreement and the supporting documents will become public information and must be approved by the Baldwin County Commission in an open meeting.

15.2. **PRESERVATION OF MOTOROLA'S PROPRIETARY RIGHTS.** Motorola, the third party manufacturer of any Equipment, and the copyright owner of any Non-Motorola Software own and retain all of their respective Proprietary Rights in the Equipment and Software, and nothing in this Agreement is intended to restrict their Proprietary Rights. All intellectual property developed, originated, or prepared by Motorola in connection with providing to Customer the Equipment, Software, or related services remain vested exclusively in Motorola, and this Agreement does not grant to Customer any shared development rights of intellectual property. Except as explicitly provided in the Software License Agreement, Motorola does not grant to Customer, either directly or by implication, estoppel, or otherwise, any right, title or interest in Motorola's Proprietary Rights. Customer will not modify, disassemble, peel components, decompile, otherwise reverse engineer or attempt to reverse engineer, derive source code or create derivative works from, adapt, translate, merge with other software, reproduce, distribute, sublicense, sell or export the Software, or permit or encourage any third party to do so. The preceding sentence does not apply to Open Source Software which is governed by the standard license of the copyright owner.

## **Section 16 GENERAL**

16.1. **TAXES.** The Contract Price does not include any excise, sales, lease, use, or property taxes, all of which will be paid by Customer except as exempt by law. If Motorola is required to pay any of these taxes, Motorola will send an invoice to Customer and Customer will pay to Motorola the amount of the taxes (including any interest) within twenty (20) days after the date of the invoice. Customer will be solely responsible for reporting the Equipment for personal property tax purposes, and Motorola will be solely responsible for reporting and paying taxes on its income or net worth.

16.2. **ASSIGNABILITY AND SUBCONTRACTING.** 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. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement.

16.3 **WAIVER.** Failure or delay by either Party to exercise a right or power under this Agreement will not be 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.

16.4. **SEVERABILITY.** If a court of competent jurisdiction renders any part of this Agreement invalid or unenforceable, that part will be severed, and the remainder of this Agreement will continue in full force and effect.

16.5. **INDEPENDENT CONTRACTORS.** Each Party will perform its duties under this Agreement as an independent contractor. The Parties and their personnel will not be considered to be employees or agents of the other Party. Nothing in this Agreement will be interpreted as granting either Party the right or authority to make commitments of any kind for the other. This Agreement will not constitute, create, or be interpreted as a joint venture, partnership or formal business organization of any kind.

16.6. HEADINGS AND SECTION REFERENCES. The section headings in this Agreement are inserted only for convenience and are not to be construed as part of this Agreement or as a limitation of the scope of the particular section to which the heading refers. This Agreement will be fairly interpreted in accordance with its terms and conditions and not for or against either Party.

16.7. ENTIRE AGREEMENT. This Agreement, including all Exhibits, constitutes the entire agreement of the Parties regarding the subject matter of the Agreement and supersedes all previous agreements, proposals, and understandings, whether written or oral, relating to this subject matter. 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 be amended or modified only by a written instrument signed by authorized representatives of both Parties. The preprinted terms and conditions found on any Customer purchase order or Motorola's preprinted invoices, 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.

16.8. NOTICES. Notices required under this Agreement to be given by one Party to the other must be in writing and either personally delivered or sent to the address shown below by certified mail, return receipt requested and postage prepaid (or by a recognized courier service, such as Federal Express, UPS, or DHL), or by facsimile with correct answerback received, and will be effective upon receipt:

Motorola Solutions, Inc.  
Attn: Judy Jean-Pierre  
1301 E. Algonquin Road, IL02-SH5  
Schaumburg, IL 60196  
email: [Judy.Jean-pierre@motorolasolutions.com](mailto:Judy.Jean-pierre@motorolasolutions.com)

Customer  
Attn: Mr. David Pimperl  
312 Courthouse Sq., Suite 13  
Bay Minette, AL 36507  
email: [dpimperl@co.baldwin.al.us](mailto:dpimperl@co.baldwin.al.us)

16.9. COMPLIANCE WITH APPLICABLE LAWS. Each Party will comply with all applicable federal, state, and local laws, regulations and rules concerning the performance of this Agreement or use of the System. Customer will obtain and comply with all Federal Communications Commission ("FCC") licenses and authorizations required for the installation, operation and use of the System before the scheduled installation of the Equipment. Although Motorola might assist Customer in the preparation of its FCC license applications, neither Motorola nor any of its employees is an agent or representative of Customer in FCC or other matters.

16.10. AUTHORITY TO EXECUTE AGREEMENT. Each Party represents that it has obtained all necessary approvals, consents and authorizations to enter into this Agreement and to perform its duties under this Agreement; the person executing this Agreement on its behalf has the authority to do so; upon execution and delivery of this Agreement by the Parties, it is a valid and binding contract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Agreement does not violate any bylaw, charter, regulation, law or any other governing authority of the Party.

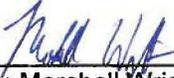
16.11. ADMINISTRATOR LEVEL ACCOUNT ACCESS. Motorola will provide Customer with Administrative User Credentials. Customer agrees to only grant Administrative User Credentials to those personnel with the training or experience to correctly use the access. Customer is responsible for protecting Administrative User Credentials from disclosure and maintaining Credential validity by, among other things, updating passwords when required. Customer may be asked to provide valid Administrative User Credentials when in contact with Motorola System support. Customer understands that changes made as the Administrative User can significantly impact the performance of the System. Customer 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 Customer and Customer will pay Motorola on a time and materials basis for resolving the issue.

16.12. SURVIVAL OF TERMS. The following provisions will survive the expiration or termination of this Agreement for any reason: Section 3.6 (Motorola Software); Section 3.7 (Non-Motorola Software); if any payment obligations exist, Sections 5.1 and 5.2 (Contract Price and Invoicing and Payment); Subsection 9 (Representations and Warranties, except that the survival of representation and warranty claims will not extend the Warranty Period); Section 11 (Disputes); Section 14 (Limitation of Liability); and Section 15 (Confidentiality and Proprietary Rights); and all of the General provisions in Section 16.

The Parties hereby enter into this Agreement as of the Effective Date.

**Motorola Solutions, Inc.**

By:   
Name: Marshall Wright  
Title: MSSSI Vice President and Director, Sales  
Date: September 6, 2011

**Customer**

By:   
Name: Frank Burt, Jr.  
Title: Chairman  
Date: 9/6/2011



## Exhibit A

### SOFTWARE LICENSE AGREEMENT

This Exhibit A Software License Agreement ("Agreement") is between Motorola Solutions, Inc., ("Motorola"), and Baldwin County, Alabama ("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.

1.8 "Transferee" or "licensee" includes, for purposes of this Agreement, any user of the system authorized by the County, including, but not limited to, County-authorized E911 users and emergency volunteers.

#### 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 License includes the County's

use of any software provided by Motorola to the City of Orange Beach, Alabama. 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. When using Motorola's Radio Service Software ("RSS"), Licensee's use of RSS at a licensed location does not entitle Licensee to use or access RSS remotely. Licensee may make one copy of RSS for each licensed location. Licensee shall provide Motorola with a list of all locations at which Licensee uses or intends to use RSS upon Motorola's request.

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 premises, books and records, 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 a period of one year from System Acceptance (the "Warranty Period"). If System Acceptance is delayed beyond six (6) months after shipment of the Motorola Software by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Motorola Software. 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. If the parties agree that the first and second remedies are not viable, then Motorola will terminate the license and refund the Licensee's paid license fee, and licensee shall have the right to pursue all available remedies at law or in equity.

6.3. Warranty claims are described in the Primary 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, including, without limitation, any and all implied warranties of condition, title, non-infringement, merchantability, or fitness for a particular purpose (not described or represented by Motorola in the Primary Agreement or Exhibits) or use by Licensee (whether or not Motorola knows, has reason to know, has been advised, or is otherwise aware of any such purpose or use), whether arising by law, by reason of custom or usage of trade, or by course of dealing. 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 Licensee acknowledges that Motorola made a considerable investment of resources in the development, marketing, and distribution of the Software and Documentation and that Licensee's breach of this Agreement will result in irreparable harm to Motorola for which monetary damages would be inadequate. If Licensee breaches this Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity (including immediate injunctive relief and repossession of all non-embedded Software and associated Documentation unless Licensee is a Federal agency of the United States Government).

## **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, and that the provisions in the Primary Agreement concerning Confidential Information apply.

## **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 to which the Software is shipped if Licensee is a sovereign government entity, or the internal substantive laws of the State of Illinois if Licensee is not a sovereign government entity. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a party's performance under this Agreement, UCITA does not govern any aspect of this Agreement or any license granted under this Agreement, or any of the parties' rights or obligations under this Agreement. The governing law will be that in effect prior to the applicability of UCITA.

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 (except that the survival of representation and warranty claims will not extend the Warranty Period), 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 B**

### **Payment Schedule**

The Contract Price in U.S. dollars is \$4,335,962.00. Customer will make payments to Motorola within thirty (30) days after the date of each invoice. Customer will make payments when due in the form of a check, cashier's check, or wire transfer drawn on a U.S. financial institution and in accordance with the following milestones.

- 1) 15% of Contract Value due within 45 days of Contract Execution;
- 2) 55% of Contract Value upon Shipment of Equipment;
- 3) 25% of Contract Value upon Installation of Equipment; and
- 4) 5% of Contract Value upon System Acceptance.

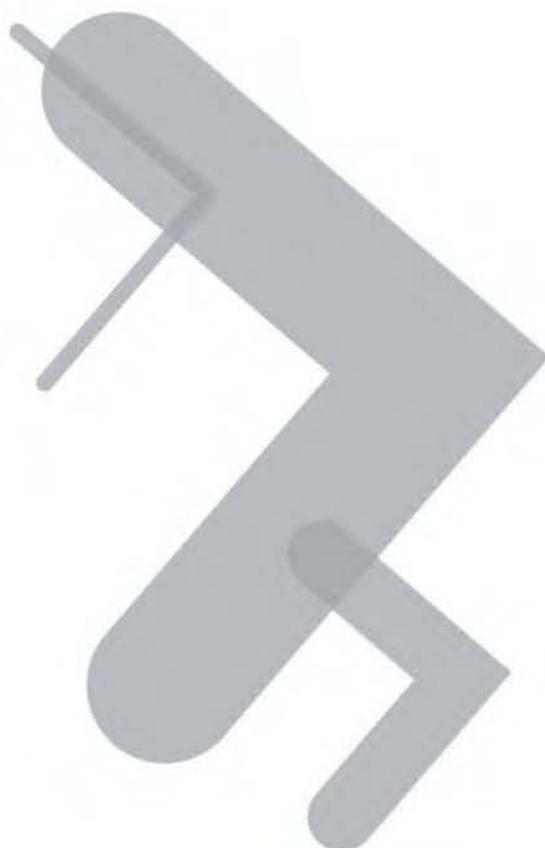
Motorola reserves the right to make partial shipments of equipment and to request partial payment upon shipment of such equipment.



Proposal for  
Baldwin County, Alabama

# 700 MHz Regional Radio System

August 22, 2011





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August 15, 2011

Mr. David Pimperl  
Baldwin County  
175 Courthouse Square  
Bay Minette, AL 36507

Re: **Baldwin County 700 MHz P25 Regional Radio System**

Dear Mr. Pimperl,

Motorola Solutions, Inc. is pleased to provide the enclosed proposal to Baldwin County for an ASTRO 25 Radio System Upgrade. This solution will interface and upgrade your existing Motorola ASTRO 25 Core, add MCC7500 Dispatch Consoles and provide additional P25 radio sites for increased coverage in the Baldwin County area. The Motorola project team has taken great care to propose a solution that will meet your radio communications needs and provide unsurpassed value.

To best meet the functional and operational specifications of Baldwin County, Motorola's proposal includes a combination of hardware, software, and services. Specifically, this proposal provides:

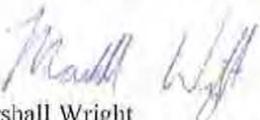
- Seven Motorola Four Channel RF Sites
- Motorola PTP Site Connectivity
- Motorola Astro 25 Core Upgrades
- Ten Motorola MCC7500 Dispatch Consoles
- Local and Regional Interoperability Solutions
- Professional Services

Motorola's proposal and pricing, which is valid until September 30, 2011, is predicated upon Baldwin County's acceptance of the terms and conditions contained in the enclosed Communications System Agreement and Exhibits thereto, or a negotiated version thereof. Motorola agrees to negotiate with Baldwin County, in good faith, to arrive at a contract that serves the interests of and is acceptable to both parties. If desired, Motorola can also tailor a leasing arrangement that could provide a payment timeline to fit your budget requirements.

As a global leader in providing integrated communications solutions and embedded electronic solutions, Motorola appreciates your interest in our company, products, and services. We look forward to successfully implementing this project and maintaining a long-term business relationship with Baldwin County. If you have any questions regarding this proposal, please contact you local Account Manager, Richard Shelby at (251) 538-1071 or Senior Account Manager, Scott Montana at (205) 529-0737.

Sincerely,

MOTOROLA SOLUTIONS, INC.



Marshall Wright  
MSSSI Vice President and Director, Sales  
Government and Public Safety  
State and Local Government Division



## Section 2. System Overview

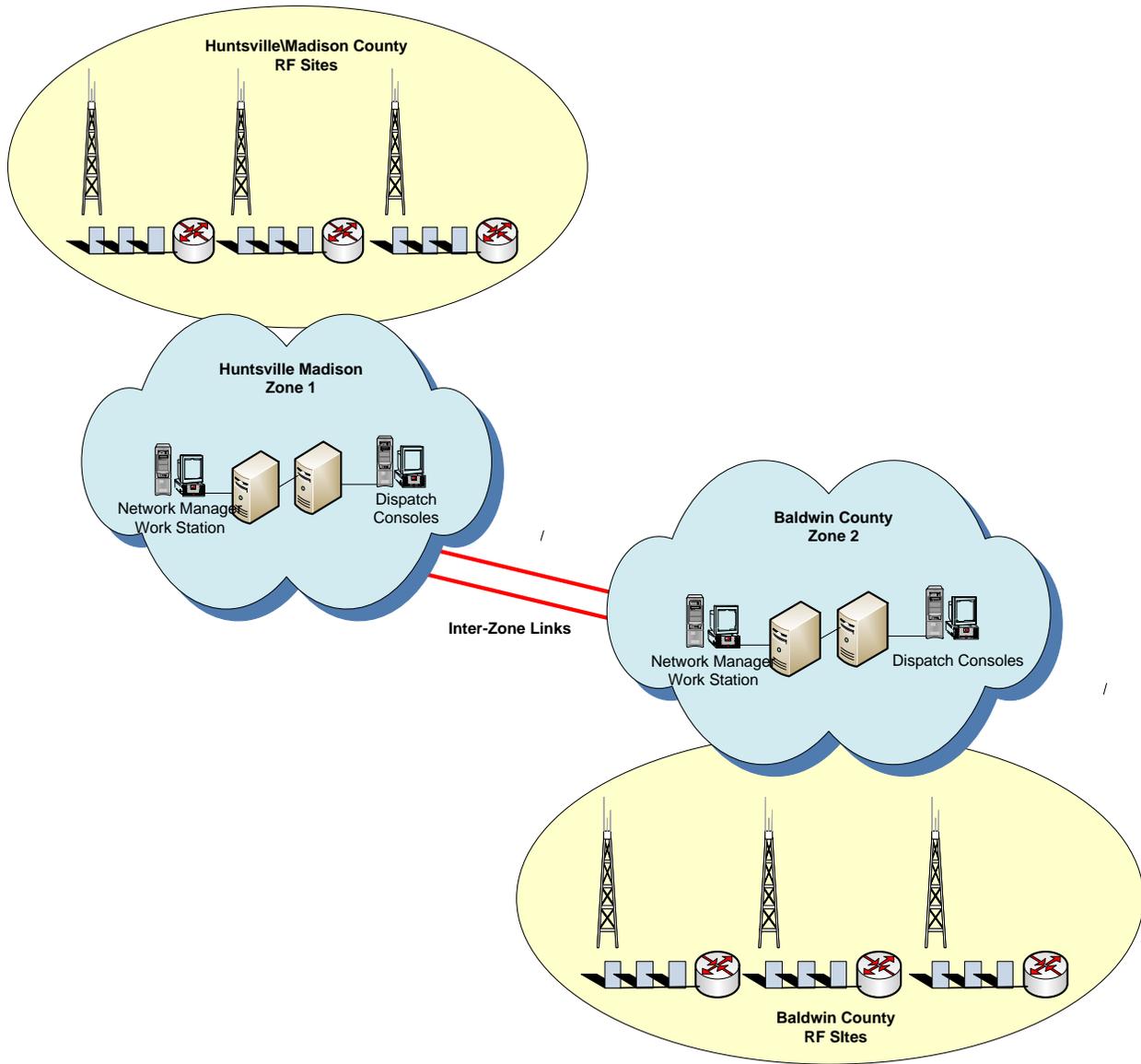
### 2.1 Introduction

Motorola is pleased to provide the following proposal for the Baldwin County 700 MHz P25 Regional Radio System. Motorola is proposing a robust, standards-based (Project 25 compliant) 700 MHz trunked radio system featuring capacity and scalability for multiple agencies.

The design concept for the Baldwin County system is to build out a system that will serve the communication needs of Baldwin County, and will also interface into multi-zone system which will allow subscriber units to roam across zones and still communicate to their assigned talk group members.

The system design leverages the existing City of Orange Beach Motorola Master Site and RF Site and the Master Site location will be moved from Phoenix West to the Baldwin County EOC. During this transition Motorola's project team will outline a cutover plan that will maintain existing services to the agencies currently on the Orange Beach P25 system. This solution will upgrade the existing P25 investment in Orange Beach and the main system components will consist of a Master Site Upgrade, Two Dispatch Locations and Seven additional RF Sites to suit the needs of first responders in Baldwin County. The Master Site contains the required components to manage and control the system, and to distribute the signals out to each of the seven new RF sites. New dispatch Consoles will be added to the Baldwin County 911 and Baldwin County Sheriff's Office dispatch centers. The seven new sites and one existing site will be connected back to the Master Site through a network of new and existing microwave links as well as the county owned fiber optic network. This solution will also form a second zone and connection to the Huntsville\Madison County ASTRO P25 system to form the multi-zone system.

The Master Site will consist of a M3 ASTRO P25 Core which will support a combined total of 96 RF and dispatch sites. The M3 Master Site will consist of redundant Zone Controllers and data base servers to ensure the operational integrity of the system reliability during disasters or unexpected failures of site equipment. The Baldwin County Master Site will have a direct connection to the Huntsville\Madison County (ZONE 1) Master Site where the system databases are synched together to form a common system with two zones of operation.



**Figure 2-1: System Conceptual Drawing**

The Master Site – see Figure 2-1 will be located at the Baldwin County EOC facility in Robertsdales, Alabama and will have a direct connection to the Huntsville\Madison County Master Site by utilizing network connectivity that will be the responsibility of the customer and/or the State of Alabama.

The ASR sites will be connected to the Baldwin County Master Site by the use of new licensed Point-to-Point microwave links along with specific connections using the county’s Fiber Optic network and some existing microwave links. The specific



details of each RF site connection and backhaul configuration will be listed for each RF site.

## 2.2 General Design Coverage Considerations

The primary design of the system will be a multicast design where each site will have Repeater stations with individual and discrete frequencies for each base radio in the system. For the proposed system Motorola is recommending to add seven (7) RF sites in the system combining these with the Orange Beach Site for a total of eight (8) RF sites.

**The Seven RF sites to be added are:**

**Blackshear APT**

**Rabun**

**Bay Minette / County Site**

**Spanish Fort APT**

**Seminole**

**Robertsdale**

**Magnolia Springs**

The specific details of each site is shown later in this document. Please refer to Figure 2-2 System Overview Diagram below for specific RF site and connectivity information.

Motorola has also included the required equipment to build one additional 6 GHz microwave path. This equipment could be utilized for either the relocation of the Bay Minette RF site, or it could be used to provide redundancy to the RF sites in North Baldwin County. This design will be determined by the customer during the implementation stage of the project.



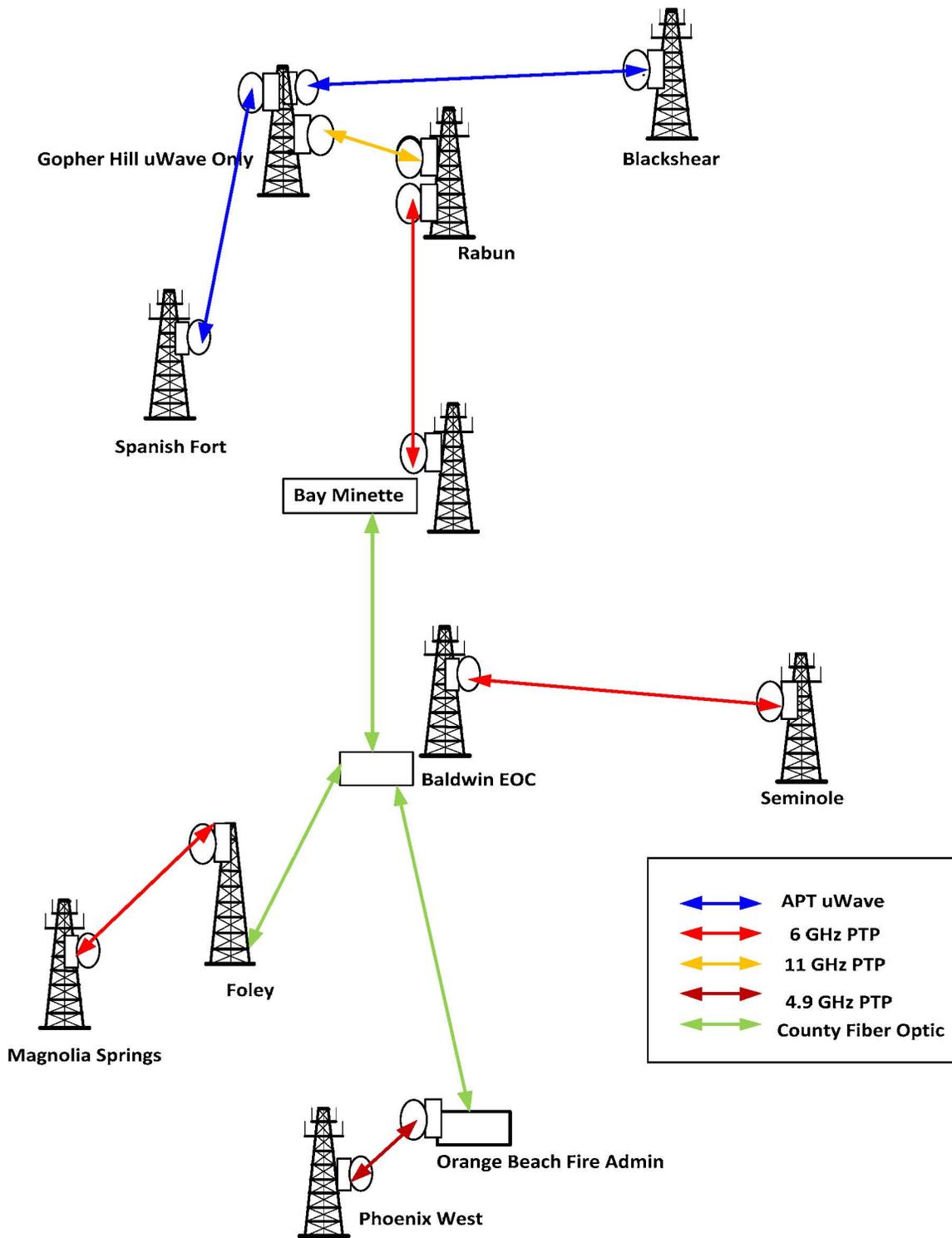


Figure 2-2: System Overview Diagram



## 2.3 Master Site Upgrade

Motorola systems are designed with expandability and future migration in mind. ASTRO 25 is an IP Standards Based scalable platform. This fact, in conjunction with our experience in designing and implementing to specifically address public safety communications needs, makes Motorola uniquely suited to solve your current communications needs as well as providing a foundation for your future growth. To best meet the needs of Baldwin County, Motorola Solutions is proposing an upgrade to the existing ASTRO 25 “M1” Master Site to a “M3” Master Site Configuration. This M3 configuration is the highest platform Master site for key functionality and expansion capabilities.

The ASTRO 25 system architecture is designed with inherent fault distribution. This ensures, as far as possible, that a single point of failure will not cause the complete loss of the Master Site. In a similar manner, all possible measures are taken to prevent a single point of failure that would cause the complete loss of communications in the system. The ASTRO 25 system architecture ensures that voice operation is afforded the same approach to fault distribution on the network, from the base stations all the way through to the Master Site equipment. This fault distribution includes the ability to reroute the IP voice and data packets among the various redundant/spare router configurations. Faults within the network will provide notification on the Unified Event Manager (UEM).

The proposed solution is built upon the proven APCO Project 25 compliant Motorola ASTRO 25 platform. With the addition of APCO Phase 2 TDMA operation, the proposed ASTRO 25 system leverages 2:1 TDMA channel efficiency to double voice path capacity as well as Phase 1 FDMA operation. Phase 2 TDMA also provides 6.25e (6.25 “equivalent”) operation for satisfying certain future FCC spectral efficiency requirements.

Phase 2 TDMA operation provides the further advantage of increasing the potential voice-path capacity of your system. With Phase 2 TDMA, and Phase 1 FDMA the proposed ASTRO 25 M3 Master Site meets your needs for today and into the future.

### **FDMA and TDMA Capability**

It is important to note that Motorola’s TDMA operation compliments Phase 1 FDMA operation on the ASTRO 25 platform; it does not replace it. While the proposed system includes TDMA operation the channels can be selectively configured to operate as either TDMA-only or FDMA-only. Talkgroups configured in TDMA mode will operate on the TDMA-configured channels; likewise, talkgroups configured in FDMA mode will operate on the FDMA-configured channels. With TDMA operation enabled, voice calling capacity is increased over Phase 1 FDMA alone without having to abandon Phase 1 FDMA operational stations and subscribers.



### **Dynamic Dual Mode Operation**

Dynamic Dual Mode Channel operation will be provided on 16 channels on select sites within the system to ease the migration to Phase 2 TDMA for Baldwin County. Dynamic Dual mode provides greatly improved grade of service and efficient Phase 1 FDMA and Phase 2 TDMA interoperability. The channels with Dynamic Dual Mode (DDM) functionality will allow phase 1 and phase 2 calls to be processed on the same channel.

Dynamic Dual Mode allows users to achieve seamless mobility – the ability to interoperate between Phase 1 and Phase 2 TDMA services. Dynamic Dual Mode has the added advantage of preserving end-to-end encryption when secure communications are a critical part of your communications network. No additional hardware is required for Dynamic Dual Mode, and as a result can be implemented with no need for additional rack and shelter space or additional power required. The implementation in software also avoids potentially lower system availability, slower audio throughput, or artificial system busies that a hardware solution might otherwise introduce.

## **2.3.1 Hardware Components**

The Master Site is the central point for all system traffic in each ASTRO 25 zone. Call processing and system management occur at the Master Site. The Master Site consists of the following hardware components:

- ◆ Redundant Zone Controllers
- ◆ LAN Switches
- ◆ Transport Gateway
- ◆ Ethernet Backhaul Switches
- ◆ Network Management Servers
- ◆ Virtual Servers / Domain Controllers
- ◆ Network Management Client
- ◆ Terminal Server

**Redundant Zone Controllers:** The MZC 5000 Zone Controller provides System call processing and mobility management, and is the heart of the ASTRO 25 communications system. The MZC 5000 is arranged in a redundant configuration providing the reliability required for mission critical communications. The MZC5000 interfaces via multiple Ethernet LAN switches, and is provided access to the packet switched network via the redundantly configured Core Routers. The Motorola MZC 5000 Zone Controller is built upon a server platform, which provides adaptability to technology enhancements, and better planning of future communication needs and migration.



**LAN Switches:** The Master site equipment includes a set of LAN switches. Two switches are connected via Gigabit Ethernet trunks. The LAN switches aggregate all the Ethernet interfaces for all servers, clients, and routers at the Master site.

**GGM Gateway Routers:** The Gateway Routers are used for devices that forward packets beyond their local LAN. The Routers perform the routing control of audio, data, and network management traffic in and out of the zone, replicating packets while achieving the fast access levels required by real-time voice systems. The Master site audio, data, control, and network management equipment interfaces to the dispatch sites, via the LAN switch through the GGM Gateway Router.

**Ethernet Backhaul Switches:** The Ethernet Backhaul Switches provide customers an Ethernet backhaul solution for connectivity to the site.

**Network Management Servers:** The Sun Netra T5220 server hardware platform runs a Solaris operating system with Generic Application Server software to provide the ability to support the following applications without requiring separate hardware servers for each application:

- ◆ Zone Database Server
- ◆ Unified Event Manager
- ◆ Zone Statistics Server
- ◆ Air Traffic Router Server

The following Zone-level Servers will be located at the Master site:

- ◆ **User Configuration Server (UCS):** The UCS provides database storage and back-end processes required for most system-wide functions. The UCS makes it possible for management personnel to configure home zone maps, users, radios, talkgroups, critical sites, Adjacent Control Channels (ACC), security information at a system-level, and other system-level parameters. Group and Unit ID home zone assignments are also made at the UCS level. It provides a single point of entry for system-wide configuration parameters. Changes to the information contained in the server automatically propagate throughout the system. The server is accessible by any properly authorized user with a valid log-on password from any Network Management (NM) Client in the system. The user-configurable parameters are automatically downloaded to the appropriate devices after each new entry or update. This information is configured using the User Configuration Manager (UCM) application and is saved in the UCS database.

The User Configuration Server is a system wide server which is located on the Huntsville Madison County Zone within the system. Baldwin County will have access to the UCS database server through the Inter-Zone links.

If the Inter-Zone link connections between Baldwin and Huntsville\Madison County were to be severed; there would be no connection path for any Subscriber unit changes (Add Delete Modify) made to the User Configuration Server or the ability for changes to be populated from the UCS to the Baldwin County Zone



Controller. However all call processing will still take place for Baldwin County because all current subscriber units parameters would be actively loaded into the Zone Database Server locate in Baldwin County.

- ◆ **Zone Database Server (ZDS):** User configuration information entered into the user configuration server is replicated to the zone database server. This server is responsible for transferring the necessary configuration information to the zone controller within the zone. This transfer is called a database export. This export occurs at regular intervals, as a response to database changes, or can be manually exported. The zone controller uses the exported database to fulfill its mobility management and call processing duties. Communication between the configuration database server and the user configuration server is not strictly one-way.
- ◆ **Unified Event Manager (UEM):** The UEM provides a central location for fault managing all radio, transport, and environmental devices on the system. The application automatically discovers devices on the network to determine their real-time status. Color-coded symbols displayed on a topography map provide a geographical and hierarchical representation of the entire network. The UEM allows each user to filter out and customize the pertinent information important to their roles and responsibilities.
- ◆ **Zone Statistics Server (ZSS):** This server provides data storage for statistics data. Each zone contains one for statistics that are stored locally. Statistics applicable to the system type being used such as the number of Calls, PTT count, and Busies are accumulated over preset time intervals. Data can be accumulated over a one-hour interval and retained up to ten days, or can be accumulated monthly and retained for one year. This data can also be backed up to an external media for longer term storage.
- ◆ **Air Traffic Router (ATR):** The ATR hosts a variety of real-time, data processing applications to support user and system applications. The ATR server receives air traffic information from the zone controller, creates air traffic information access (ATIA) packets, and sends them to the customer server that is located on the customer network. This includes processing real-time call transactions, sourcing ATIA data stream to third-party applications, logging all ATIA data to disk, routing Radio Control Manager command and status packets to/from the zone controller, and routing call logging packets from the zone controller to the statistics servers.
- ◆ **. Virtual Servers / Domain Controllers (DC):** The virtualization software provides the means to create Virtual Machines (VM) that allows the installation and operation of software in an environment where each VM operates as an independent server. Virtualization makes it possible to install and run multiple Domain Controllers (DC) on the same physical server. The Domain Controller (DC) is needed to support Domain Name Server (DNS) and Active Directory (AD) services.



**Network Management Clients:** The Network Management Client Workstation PCs run under the Windows operating system and interfaces to the Master Site core network located at the Baldwin County EOC facility.

The following applications run on or may be accessed from the Network Management terminal:

- ◆ System Profile
- ◆ User Configuration Manager
- ◆ Software Download
- ◆ Historical Reports (System-level)
- ◆ Zone Profile
- ◆ Zone Configuration Manager
- ◆ ZoneWatch
- ◆ Dynamic Reports
- ◆ Historical Reports (Zone-level)
- ◆ Radio Control Manager (RCM)
- ◆ Radio Control Manager Reports

**Terminal Server:** A terminal server allows dial-in configuration and diagnostic access to the Master site equipment independent of the network. The terminal server is interfaced to the console port of the equipment located at the Master site. Dial-in access is password protected allowing access only to authorized users.

### 2.3.2 Interfaces

The Master site equipment interfaces to the RF, Console and Intercom sites through the Ethernet backhaul switches. To ensure system availability, Ethernet backhaul switches are provided in the ASTRO 25 system.

### 2.3.3 Firewall

The firewall controls the traffic allowed to pass between networks to mitigate any risk to the operational integrity of the ASTRO 25 Radio Network Infrastructure System, and is recommended when the system will be connected to external networks.

## 2.4 Site Specific Information

**The following is detailed information of the equipment to be provided at the following locations.**



## Baldwin County EOC

- ◆ Master Site Equipment
  - M3 Master Site with Inter-Zone Connection to Huntsville
  - Redundant Zone Controllers
  - Zone Database Server
  - 96 port capacity Switching and Routing Center
  - Gateway Router connections to RF Sites
  - RAD Multiplex Units to RF site locations
  - POP-25 Over the Air Programming Server and Client
  - Presence Notifier Server
  - Motorola Universal Processor (MUPS) server
  - Existing Network Management Terminal
  - Additional Software licenses:
    - Zone Watch
    - Dynamic User Reports
    - Historical Reports
    - 1500 Additional User licenses

The following is detail on the additional software licenses above.

### Historical Reports

ASTRO 25 allows users to manually or automatically generate historical performance reports using standard templates contained.

The Historical Reports application generates reports of statistical data that is gathered at specific, predefined time intervals. Users can then create reports from this data to monitor and analyze information about zones, sites, channels, talkgroups, and users. This data is displayed using predefined report templates and parameters.

### Dynamic User Reports

ASTRO 25 allows users to generate near real-time graphical reports showing system utilization for talk group, private, and interconnect calls.

Dynamic Reports provides several predefined report templates that can be used to display statistics for a zone, site, or a console site (but not for a system) in near real time. Some of these include:

- ◆ Templates for Zone-Level Reports – Dynamic Reports allows you to create and run reports to capture statistics across a zone. For example, the Zone Call Activity report provides statistics for determining the levels of different call activities within the zone, such as call rejects or call terminations.
- ◆ Templates for Site-Level Reports – Dynamic Reports allows you to create and run reports to capture statistics across a site. For example, the Site Busy Count report provides statistics for determining the number of busies caused by lack of resources at this site or the number of busy calls originating at this site.



## ZoneWatch

Our customers say ZoneWatch is the single most important application for real-time monitoring of their network.

ZoneWatch provides customizable displays and graphs to monitor real-time communications activity and network health. It is a set of diagnostic tools allowing individuals to make more efficient system management decisions. An administrator-defined display of information can be created down to individual unit or talkgroup activity:

- ◆ At a glance, provides a real-time snapshot of the system.
- ◆ Color coded display allows for quick network status indications.
- ◆ Enables faster identification and resolution of potential issues.

## User Licenses

The Orange Beach system is currently equipped with 500 User licenses for the subscriber units activated onto the system. The user licenses are sold in blocked of 500 and three (3) 500 User Licenses upgrade keys are included with the system upgrade. This will provide a total of 2000 user licenses keys for the initial system installation.

## 2.5 RF Sites

The proposed RF sites include our latest native IP G-series equipment. Each RF site includes:

- ◆ Software defined 700 MHz GTR 8000 Expandable Site Subsystem capable of supporting up to six (6) base stations per chassis.
- ◆ GGM 8000 Site Gateway routers are used to provide connectivity to each site.
- ◆ Conventional Channel Gateways (CCGW) are included in the GGM 8000 Gateway routers only on the sites which require interfacing to conventional channels. The four port CCGW module is installed into the GGM 8000 routers at these sites and the connection to the Master Site is made through the site link.

LAN switches are not required at the RF sites because the Expandable Site Subsystem rack distributes the LAN connection to all repeaters within the ESS chassis.

- ◆ G-series site equipment products are very flexible and designed to support today's robust site designs. G-series site equipment products provide the flexibility to upgrade to future functionality through software downloads.



The GTR 8000 Base Radio includes features such as:

- ◆ Compact and integrated hardware provides an efficient use of site space.
- ◆ Software Defined Radio allows for upgrades to future functionality through software update.
- ◆ Modular software design coupled with the Software Download Manager simplifies future upgrades and routine servicing.
- ◆ Functionally separate modules - Field Replacement Units (FRU) - are hot-swappable allowing servicing and replacement without system down-time while minimizing channel down-time.
- ◆ Designed for ease of service including significantly reduced alignment servicing.
- ◆ No initial field alignment or servicing required for Multisite (simulcast) or HPD systems.

## 2.6 Design Details

### 2.6.1 Major Equipment at each RF Site

Motorola will install and optimize the following equipment at each of the proposed RF sites. The equipment listed will be required for each RF site and the exact count of GTR 8000 stations and specific configuration of the Point-to-Point links will vary per site. A detailed listing for each site configuration is listed below.

- ◆ GTR 8000 100 Watt ASTRO Digital (ASR) Repeater stations  
(Number of stations varies per site)
- ◆ Two (2) GCP8000 ISR Site controllers
- ◆ One (1) GGM8000 Site Router
- ◆ One (1) 10 dB Gain Transmit Antenna and transmission line
- ◆ One (1) 6 Channel Transmit Combiner
- ◆ One (1) 10 dB Gain Receive antenna and transmission line
- ◆ One (1) Tower Top Amplifier System
- ◆ One (1) PTP800 Microwave link to Master Site if site connectivity is required
- ◆ One (1) 5 KVA Rack Mount UPS power system

### 2.6.2 Power Requirements

Motorola has assumed that Baldwin County will provide the necessary electrical required for the system at the Master Site and at Each RF Site to be added.



## 2.6.3 Site Specific Details

- **Blackshear Site**
  - ◆ Site owned by Alabama Public Television
  - ◆ Three (3) GTR 8000 RF Channels
  - ◆ Utilizes APT Microwave (to Gopher Hill)
  - ◆ Antenna Configuration
    - TX antenna 280' Directional (Azimuth = 220°)
    - RX Antenna 260' Directional with TTA (Azimuth = 220°)
  
- **Rabun Site**
  - ◆ Site owned by Baldwin County 911
  - ◆ Three (3) GTR 8000 RF Channels
  - ◆ PTP800 11 GHz Redundant Microwave to Gopher Hill
  - ◆ PTP800 6 GHz Redundant Microwave to Bay Minette
  - ◆ Antenna Configuration
    - TX antenna 400' OMNI
    - RX Antenna 380' OMNI with TTA
  
- **Bay Minette (County) Site**
  - ◆ Site owned by Baldwin County
  - ◆ Four (4) GTR 8000 RF Channels
  - ◆ PTP800 6 GHz Redundant Microwave to Rabun
  - ◆ Fiber-Optic Connection point to Baldwin CO EOC
  - ◆ Antenna Configuration
    - TX antenna 180' Directional (Azimuth = 110°)
    - RX Antenna 160' OMNI with TTA (Azimuth = 110°)
  
- **Spanish Fort Site**
  - ◆ Site owned by Alabama Public Television
  - ◆ Five (5) Channel ASR Site
  - ◆ Utilizes APT Microwave (to Gopher Hill)
  - ◆ Four (4) Port CCGW – access to:
    - Mississippi Wireless Information Network (MSWIN)



- LWIN - Louisiana Wireless Information Network (LWIN)
- Mobile County P25 System
- ◆ Four (4) 700/800 MHZ XTL2500 Control Stations
- ◆ Antenna Configuration
  - TX antenna 500' OMNI
  - RX Antenna 480' OMNI with TTA
- **Seminole Site**
- ◆ Site owned by Baldwin County 911
- ◆ Four (4) Channel ASR Site
- ◆ PTP 800 6 GHz Redundant Microwave to Baldwin EOC
- ◆ Four (4) Port CCGW – access to Escambia Co. and Pensacola FL
- ◆ Two (2) UHF Console Radio
- ◆ One (1) 700/800 MHZ Console Radio
- ◆ Antenna Configuration
  - TX antenna 420' OMNI
  - RX Antenna 400' OMNI with TTA
- **Baldwin County EOC**
- ◆ Site owned by Baldwin County
- ◆ Five (5) Channel ASR Site
- ◆ PTP 800 6 GHz Redundant Microwave to Seminole
- ◆ Fiber-Optic Connection point
- ◆ Antenna Configuration
  - TX antenna 350' OMNI
  - RX Antenna 320' OMNI with TTA
- **Magnolia Springs**
- ◆ Site owned by Baldwin County 911
- ◆ Four (4) Channel ASR Site
- ◆ Four (4) Port CCGW – access to:
  - Mississippi Wireless Information Network (MSWIN)
  - Louisiana Wireless Information Network (LWIN)
  - Mobile County P25 System



- ◆ Four (4) 700/800 MHZ XTL2500 Control Stations
- ◆ PTP 800 6 GHz Redundant Microwave to Foley Tower
- ◆ Antenna Configuration
  - TX antenna 420' OMNI
  - RX Antenna 400' OMNI with TTA

## 2.7 MCC 7500 Dispatch Console

The Motorola MCC 7500 Dispatch Console is Motorola's mission critical IP high-tier radio dispatch console system. The MCC 7500 Dispatch Console features an intuitive, easy-to-use Graphical User Interface (GUI) that runs under a Microsoft Windows® operating system, utilizing the industry standard PC platform. MCC 7500's highly recognizable icons are designed to reduce user training time, and allow dispatchers to manage information more productively.

### 2.7.1 Features and Benefits

Designed for effective, flexible dispatch communications, the MCC 7500 Dispatch Console provides a range of valuable features:

- ◆ Seamless integration with ASTRO® 25 Trunking systems.
- ◆ **IP Network** – The MCC 7500 supports the IP protocols of the ASTRO 25 system's transport network.
- ◆ **End-to-End Encryption** – Encryption and decryption occurs in the dispatch consoles, allowing true end-to-end encryption in the radio system.
- ◆ **Centralized System Management** – The MCC 7500 console system is configured and managed by the ASTRO 25 system's configuration manager, fault manager, and performance reporting applications. This provides Baldwin County with a single point for configuring and managing the entire radio system, including the console portion and will have the ability to see Fault information if required.
- ◆ **User Friendly** – MCC 7500's environment features the familiar standards used by other Windows programs worldwide.
- ◆ Screen layout, menus, and icons are easy to understand and quickly recognizable by users.
- ◆ Each dispatcher's configuration can be customized via the Elite Admin application.
- ◆ Elite Dispatch GUI uses a simple point-and-click response. The dispatcher has the choice of using a mouse, trackball, or optional touchscreen, and the keyboard is not required for day-to-day operations.



- ◆ Agency Partitioning – Allows multiple agencies to use a common system while maintaining control over their console resources.

## 2.8 System Design

The MCC 7500 console site consists of a collection of MCC 7500 dispatch consoles and related equipment networked together from a common location.

There are two software programs that comprise the MCC 7500 - the Elite Dispatch graphical user interface (the dispatching software used to operate the dispatch position) and the Elite Admin application (the administrative software used to define the layout of the Elite dispatch screens).

### 2.8.1 Architecture

There are three main components of a Motorola MCC 7500 system:

- ◆ Dispatch Console
- ◆ Archiving Interface Server
- ◆ Conventional Channel Gateway

Various combinations of these components are connected together and to the rest of the ASTRO 25 system via console site routers and switches on an IP network.

The dispatch console software consists of the Elite Dispatch graphical user interface (GUI), described in this system description. The dispatch console hardware is based on a commercially available personal computer with Motorola provided hardware and software.

The Motorola provided hardware includes:

- ◆ A Motorola-certified personal computer
- ◆ Voice Processing Module (VPM)
- ◆ Desktop speakers (2)
- ◆ Headset jacks (2)
- ◆ Desktop microphone (1)
- ◆ Footswitch (1)

The VPM performs the digital-to-analog and analog-to-digital conversions for all analog audio flowing into or out of the dispatch console. It also provides the connections for items such as the speakers, headset jacks, microphone, footswitch, local logging recorder, 911 telephone headset, and instant recall recorder for radio.

The voice card within the VPM provides the vocoding and audio processing services for the dispatch console. It is capable of supporting IMBE vocoder algorithms for



ASTRO 25 operation, as well as supporting audio level adjustments, summing, and filtering, and can support multiple simultaneous streams of audio.

The Conventional Channel Gateway (CCGW) is used in the MCC 7500 Dispatch Console to connect the dispatchers to analog conventional channels in their system. The CCGW allows an analog conventional channel to connect to the transport network in the ASTRO 25 trunking system. Once these channels are connected to the network, dispatchers are able to monitor and transmit on the channel Elite Dispatch Graphical User Interface.

The Motorola MCC 7500 dispatch console uses the Elite Dispatch graphical user interface (GUI) for displaying information to and accepting commands from the dispatcher. The Elite Dispatch GUI is efficient, easy to use, and intuitive, having been refined and proven through years of use in public safety dispatch centers around the world.

The Elite Dispatch GUI is based on Microsoft Windows GUI programming standards and contains many controls, displays, and features which are familiar to anyone who has used Windows-based applications. These features are described in greater detail in the following sections.

## 2.8.2 Pull Down Menus

The dispatcher is able to access features and functions through the pull down menus. The Elite Dispatch GUI provides the following pull down menus on a menu bar across the top of the dispatch window:

- ◆ **Configuration** - Provides access to the configuration files used by the Elite Dispatch GUI. Also allows the dispatch application to be exited.
- ◆ **Edit** - Allows various aspects of how audio, resources, and features are presented to the user on the Elite Dispatch GUI to be edited. Changes made using this menu are not permanent and are lost when the dispatch application is exited.
- ◆ **View** - Allows the dispatcher to control whether or not the Activity Log and Auxiliary I/O Windows are shown.
- ◆ **Folders** - Allows the dispatcher to switch between folders, add folders, and change the folder tab width. Changes made using this menu are not permanent and are lost when the dispatch application is exited.
- ◆ **Help** - Provides access to detailed online help for using the Elite Dispatch GUI.

The user may customize which menus are displayed and what they contain via the Elite Admin application.

## 2.8.3 Tool Bars

The toolbar is a row of icon buttons located at the top of the dispatch window. Up to two tool bars may be present, and may be used to provide quick access to frequently



used features. The following are examples of the items which may be placed in the tool bars:

- ◆ Clock
- ◆ General Transmit Button
- ◆ Monitor Button
- ◆ All Mute Button

There are many other items which may be placed in the tool bars. The Elite Admin application is used to define how many tool bars are displayed and what they contain.

## 2.8.4 Resource Folders

The Elite Dispatch GUI provides up to six resource folders for organizing the various resources (radio resources, auxiliary input/output resources, etc.) that are assigned to the dispatch console. These folders may be given descriptive names to simplify the organization of the resources.

The resources on a folder are displayed when the dispatcher clicks on the folder tab. Resources on folders which are hidden behind the one being displayed continue to operate in a normal manner. Radio resource audio on a hidden folder appears in the appropriate speakers/headsets along with a visual call indication on the folder tab. If an emergency alarm or call is received on a radio resource which is located on a hidden folder, a visual emergency indication is displayed on the folder tab.

A resource may be placed on more than one folder at the same time. This allows Baldwin County to create folders for special situations without having to move resources back and forth between folders.

The Elite Admin application is used to configure how many folders appear on the Elite Dispatch GUI and which resources appear on each folder. It is also used to put descriptive names on the folder tabs.

During dispatch operations the dispatcher may, if so configured by the Elite Admin application, be able to add, remove, or move resources on the folders. If this is done, these changes are not saved if the user logs out of or changes configuration files for the dispatch application.

### Radio Resources

Voice communication paths in the radio system are represented as radio resources – also referred to as tiles – on the Elite Dispatch GUI. These radio resources are used by the dispatcher to communicate on and control the radio system.

The following radio resources are supported:

- ◆ Trunked Talkgroups
- ◆ Trunked Announcement Groups



- ◆ Trunked Private Calls
- ◆ Analog Conventional Channels

### Indicators and Controls

A radio resource contains indicators and controls that allow the dispatcher to monitor and control various aspects of the radio channel. Examples of the indicators and controls which may appear on a radio resource include:

- ◆ Instant Transmit Button
- ◆ Transmit Active/Transmit Busy Indications
- ◆ Patch Active/Patch Busy Indications
- ◆ Received Call Indication
- ◆ Received Call Stack
- ◆ Individual Volume Control

The types of indicators and controls which appear on the radio resource depend on the type of radio channel it represents, and how it has been configured in the Elite Admin application. The radio resource may be configured as a compressed resource, a larger compressed resource, or an expanded resource.

- ◆ Compressed Resource – Allows the dispatcher to hide the indicators and controls of the radio resource (Figure 2-3). The small arrow button opens and closes the resource to show the controls and indicators. This saves a tremendous amount of space on the screen by allowing the dispatcher to view only the most critical information for any given channel. This type of display is ideal for dispatchers monitoring several different channels where space in the resource folder is at a premium.

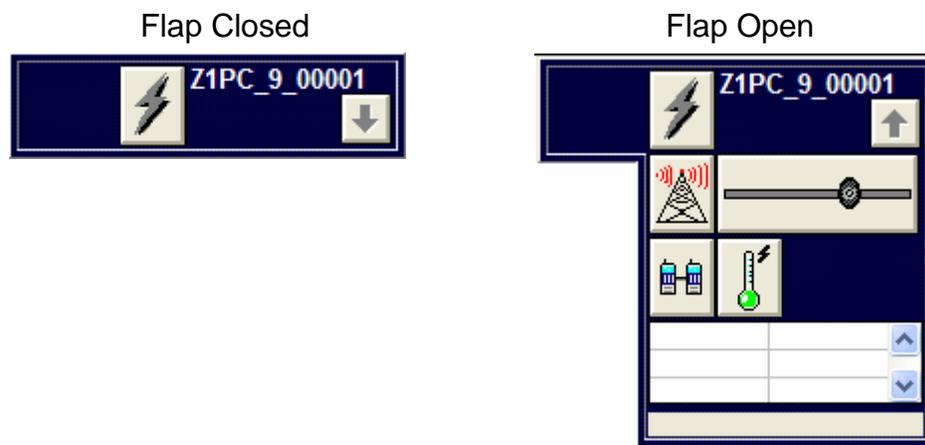


Figure 2-3: Compressed Radio Resource



- ◆ **Larger Compressed Resource** –A radio resource that always shows some of the indicators and controls, but allows the dispatch console to hide some of the others. See Figure 2-4.

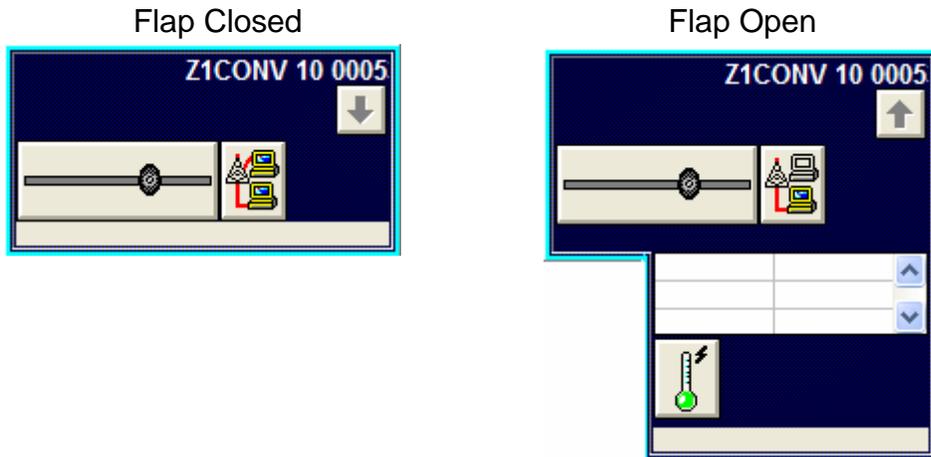


Figure 2-4: Larger Compressed Radio Resource

- ◆ **Expanded Resource** –This radio resource always shows the indicators and controls, and cannot be compressed. The expanded version provides the advantage of a single-button press for any function. It is ideal for dispatchers who are only monitoring a few channels/talk groups and where space in the resource folder is not at a premium. See Figure 2-5.



Figure 2-5: Expanded Radio Resource

Any activity or change on a radio resource appears on all dispatch consoles that have that resource assigned on them.

### Received Call Stack

The received call stack provides the dispatcher with a visual record of the most recent inbound calls on radio resources. This allows the dispatcher to keep track of calls during busy traffic periods.



The calls are displayed in list format on a radio resource, with the most recent calls at the top of the list. The number of calls displayed in the list is configurable, as is the type of information displayed. The types of information that can be displayed include unit ID, unit ID alias, site ID, zone ID, type of call, and time. If an alias is available for a piece of information, it is displayed; otherwise the raw information is displayed. Figure 2-6 shows a radio resource containing a received call stack.

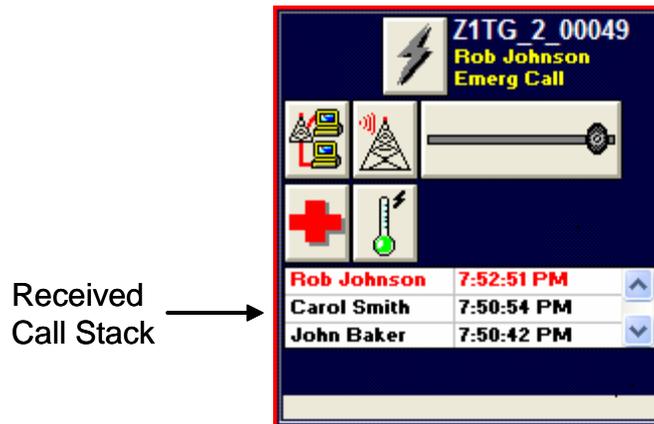


Figure 2-6: Received Call Stack on a Radio Resource

The received call stack has a fixed memory of 25 calls, but the number of calls which are displayed is configurable via the Elite Admin application. Regardless of how many calls are actually displayed, the dispatcher can always scroll through all 25 calls in the stack's memory.

The dispatcher can delete individual calls from the received call stack. All of the calls listed in a received call stack can also be deleted with a single action.

## 2.8.5 Patch and Multi-Select Folders

The patch and multi-select features are accessed via a set of dedicated folders on the Elite Dispatch GUI. These folders are smaller than the resource folders, and may be placed on the screen to suit the dispatcher's preferences. The placement is done in the Elite Admin application. There can be up to sixteen patch folders and three multi-select folders.

### Patch Folders

Clicking on one of the patch folder tabs brings it into view. The patch group is then opened by clicking on the left-most button on the folder. Once the patch group is open, the patch group is editable and members may be added or removed from the patch group by clicking on the desired radio resources. Note that patch groups are active whenever there are members assigned to them. This is true even if the patch group isn't open.



The members of the patch group are shown on the patch folder along with the status of each member (patched or pending). The resources in the patch also show an indication that they are in a patch group.

Some patch groups contain members which were pre-assigned by the Elite Admin application. These patch groups become active as soon as possible after the dispatch console begins using the configuration file which contains the pre-assigned patch groups. The dispatcher can add/remove members from the pre-assigned patch group, but these additions/removals are lost when the dispatch console either re-loads the configuration file, or changes to a different configuration file.

A patch transmit button is provided on the patch folder to allow the dispatcher to easily transmit on all members of the patch group with a single button press. See Figure 2-7.

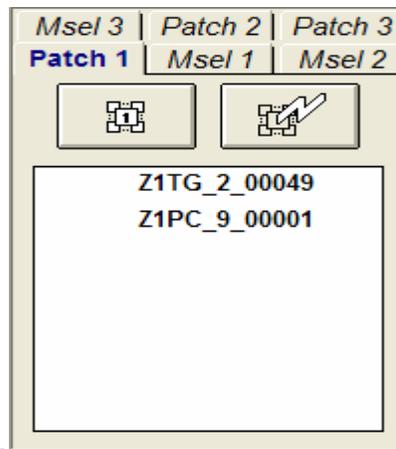


Figure 2-7: Patch Folder

### Multi-Select Folder

Clicking on one of the multi-select folder tabs brings it into view. The multi-select group is then opened by clicking on the left-most button on the folder. Once the multi-select group is open, the multi-select becomes active, and members can be added or removed from the group by clicking on the desired radio resources. Closing the multi-select folder (by clicking on the left-most button a second time) deactivates the multi-select group.

Note: This operation is different than that of the patch folders. A dispatch console can only have one multi-select group active at a time, but it can have multiple patch groups simultaneously active.

The members of the multi-select group are shown on the multi-select folder.



Some multi-select groups contain members which were pre-assigned by the Elite Admin application. The dispatcher can add/remove members from the pre-assigned multi-select group, but these additions/removals are lost when the dispatch console either re-loads the configuration file or changes to a different configuration file.

## 2.8.6 Dispatch Console Design Details

**Two Separate dispatch locations are being proposed for Baldwin County.**

*One is located at the Baldwin Central Dispatch Location and the other being located at the Sheriff's Department dispatch center.* Both locations will have five (5) MCC 7500 Console Operator Positions each. The operation of the consoles will be identical, except that each console can have different talk-group windows pulled up on the GUI at any time.

The Conventional Channel Gateway (CCGW) units are required to provide connectivity of existing conventional resources into the ASTRO P25 system so the dispatch consoles can have access to these channels. These CCGWs will provide the ability for Baldwin County to interface their existing VHF, UHF, or any other wireline controlled base radio, voting comparator or control station into the dispatch consoles positions.

- **Baldwin County Sheriff's Office Dispatch Center**

- ◆ Five (5) MCC 7500 Console Positions
- ◆ Equipped for eight (8) CCGW connections
  - Configured for TX Combiner connections
  - Configured for RX Multi-Coupler connections

- **Baldwin County 911 Dispatch Center**

- ◆ Five (5) MCC 7500 Console Positions
- ◆ Equipped for 28 CCGW connections
- ◆ VHF Consolette Radio
- ◆ 700/800 MHz Consolette Radio
- ◆ Conventional 700 MHz Digital NPSPAC Repeater

## 2.9 MCC 7500 Dispatch Console Components

The system designed for Baldwin Central Dispatch and Baldwin County Sheriff's Office consists of the following major components:

- ◆ Ten (10) Dispatch Console Hardware
- ◆ Ten (10) Personal Computer (PC)



- ◆ Ten (10) Voice Processing Module (VPM)

## 2.9.1 Dispatch Console Hardware

The various hardware elements which comprise the dispatch console are the personal computer, general purpose input/output module, desktop microphone, headset jack, desktop speaker, and footswitch. See Figure 2-8.

### 2.9.1.1 Personal Computer (PC)

The dispatch console uses an off-the-shelf personal computer containing a Motorola-designed voice card and, optionally, a Motorola-designed Secure Card. The PC operating system is Microsoft Windows.

The PCs are processed through the Motorola factory in Schaumburg where the application software, voice cards, and Secure Cards are installed and tested to ensure they are operating properly. A variety of monitors are supported, including both touch and non-touch operation.

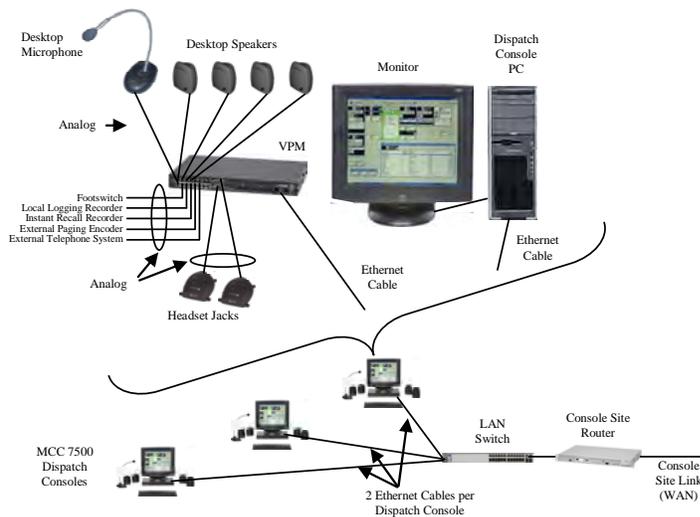
### 2.9.1.2 Voice Processing Module (VPM)

The VPM is designed so it can be mounted in furniture, placed on top of a writing surface, or mounted in an EIA 19 inch rack. It is also capable of supporting monitors weighing up to 80 pounds (36 kg) standing on top of it.

The VPM has connectors for the following devices:

- ◆ One desktop microphone
- ◆ Two headset jacks
- ◆ Four desktop speakers
- ◆ One logging recorder
- ◆ One external telephone set
- ◆ One footswitch
- ◆ Voice Card





**Figure 2-8: Motorola MCC 7500 Dispatch Console Hardware Architecture**

### 2.9.1.3 MCC Series Desktop Microphone

The MCC 7500 Dispatch Console is capable of supporting a single MCC Series Desktop Gooseneck Microphone. The MCC Series Desktop Gooseneck Microphone contains a microphone cartridge on a flexible shaft and two buttons in its base. One button controls the General Transmit feature and the other controls the Monitor feature.

### 2.9.1.4 MCC Series Headset Jack

A dispatch console is capable of supporting up to two MCC Series headset jacks. A headset jack allows a dispatcher to use a headset while operating the dispatch console. The headset jack contains two volume controls; one for adjusting the level of received radio audio, and one for adjusting the level of received telephone audio.

The headset jack allows customers to use headsets which both decreases the ambient noise in a control room and reduces the effect of any ambient noise on console transmissions. This improves the quality of the audio being transmitted from the control room and allows the dispatchers to hear received audio more clearly.

The Telephone/Headset Port located on the VPM module allows an external telephone set to be connected to the MCC 7500 Dispatch Console. This port permits a dispatcher to use a single headset to communicate on both the radio system and a telephone system (e.g., a 911 system).



### 2.9.1.5 MCC Series Desktop Speaker

A dispatch console is capable of supporting up to four MCC Series Desktop Speakers through which audio is presented to a dispatcher. Each speaker on a dispatch console contains unique audio; that is, an audio source cannot appear in multiple speakers at a single dispatch console.

The speaker is a self-contained unit which may be placed on a desktop, mounted in a rack/furniture, mounted on a wall or mounted on a computer monitor. The speaker provides the user with a continuous volume control knob. This serves as a master volume control for all the audio which appears in the speaker. When the user adjusts this volume control, all the audio in the speaker is increased or decreased by the same amount.

### 2.9.1.6 Footswitch

The dispatch console is capable of supporting a single footswitch. The footswitch can contain either one or two pedals. If a footswitch with one pedal is used, the pedal controls the General Transmit feature. If a footswitch with two pedals is used, one pedal controls the General Transmit feature and the other controls the Monitor feature.

## 2.9.2 Conventional Channel Gateway

Conventional channels are much more integrated into ASTRO 25 trunking systems than in previous radio systems. The zone controller manages conventional channels in a manner similar to how it manages trunked talkgroups.

The physical interface to the analog conventional stations also changes from previous radio systems. RF site routers or console site routers are fitted with four (4) wire interface cards, which are connected to the analog conventional stations. This connection allows the conventional audio to use the same transport network as the trunked audio. The portion of the router hardware and software that support the conventional stations is called the Conventional Channel Gateway (CCGW).

Up to four analog conventional stations may be connected to a router. If the number of stations at a site exceeds the capacity of the router, additional routers can be added to support those stations. A maximum of ten (10) CCGW routers can be deployed per site.

## 2.9.3 Instant Recall Recording:

Instant Recall Recording is used for last-missed call and quick rewind or repeat of needed information. This capability stores several minutes to several hours of time-stamped audio clips for "instant" playback. Typical configuration allows for a minimum of twenty minutes of Call Check audio per position shall be recordable for dispatcher playback.



Motorola has supplied Instant Recall Recorder for the MCC 7500 Dispatch Consoles. The dual IRR is capable of recording and playing back the audio from two different sources (e.g., radio and telephone), but may be used to record a single source if desired. The recording is stored on the console PC for “instant” playback. The amount of time recordable is based on hard drive space, and will exceed 20 minutes as requested.

## 2.9.4 Programming over P25 (POP 25)

POP25 allows reprogramming of subscriber radios, over-the-air, avoiding the headache of calling them all in. The voice system has been integrated with 9.6 kbps data capability in order to facilitate “Programming over P25”. POP25 is a feature of the ASTRO 25 system and is available to properly equipped radios anywhere within the system coverage area. This system allows a radio manager to use a traditional Customer Programming Software (CPS) solution attached to the radio infrastructure to read and write a codeplug from an ASTRO 25 trunked data capable field. This application requires IV&D mentioned above. The proposed system is equipped for POP25.

Integrated voice and data (IV&D) will allow over the air data transmission to and from the radios. Integrated voice and data will provide several enhancements to the existing voice only system. Programming over Project 25 (POP25) will allow the radios to be reprogrammed over the air. POP25 functionality provides a cable-less solution for managing subscribers and allows changes to be made without having to take the radio out of the user’s hands.

POP25 is “programming over the air” that allows the network administrator to change the radio code plug parameters remotely. POP25 uses the IV&D network to remotely access properly equipped subscriber radios. POP25 allows traditional CPS parameters to be centrally managed / reprogrammed. Some of the parameters and features that can be changed include:

- ◆ Radio ID
- ◆ Talk groups
- ◆ Mode Names
- ◆ Scanning Features
- ◆ Call Lists

## Packet Data Gateway

The Motorola Packet Data Gateway (PDG) for IV&D is a modular hardware and software platform designed to link wireline IP (IPv4) data networks to Baldwin County’s ASTRO 25 IV&D network.



## GPRS Gateway Support Node

A GPRS Gateway Service Node (GGSN) must be installed at the master site within the radio system to provide the inbound/outbound routing of data traffic to the customer enterprise networks. The GGSN works in conjunction with the Packet Data Gateway for IP traffic interactivity between the radio network and Baldwin County's IP network.

## Customer Network Interface

The Customer Network Interface (CNI) consists of the required routers and switches for interfacing the physical radio IP network to the physical Baldwin County IP network. Motorola will provide the necessary routers and switches as well as the firewall and programming of all included devices for IP connectivity while keeping permissions and interactions between the two networks as secure as possible.

## Presence Notifier Server and Application Suite

The ASTRO Presence Notifier Server and Application Suite provides the presence, absence and routing information of the properly equipped two-way portable and mobile subscriber radios to any compatible data applications (POP25) located in the Customer Enterprise Network (CEN).

### 2.9.5 Outdoor Location Solution

Dispatchers need to be able to quickly identify the location of outdoor personnel whether they are in a life threatening situations or exercising their daily schedules. The ASTRO 25 Outdoor Location Solution is a resource tracking solution that uses Global Positioning System (GPS) satellites to provide operators with the ability to accurately locate and track outdoor personnel and assets, on demand, and in real-time. It can save time, money and lives.

- ◆ Emergency situations – A simple press of the emergency button sends location information back to the dispatch operator, which enables operators to readily locate the user and provide the appropriate back-up. The ASTRO 25 Outdoor Location Solution enhances outdoor personnel safety and improves the allocation of resources by enabling rapid response times to emergency situations.



- ◆ Day-to-day operations – The location can be sent based on periodic intervals or distance-based intervals which enable operators to track a user’s position. The operator can change or stop the polling rate from the application without ever needing to touch the actual GPS unit, thus reducing maintenance costs. Both of these automatic reporting methods are more convenient than manually polling a user’s location and help to save bandwidth over the network. When needed, the operator can request an instantaneous update of a radio user’s location. Motorola’s ASTRO 25 Outdoor Location Solution enhances personnel safety, improves response time to emergency situations, and improves the efficiency of resource allocation resulting in time and money savings.

The ASTRO 25 Outdoor Location Solution is a suite of products that allows a customer to track the location of people and assets via the Motorola-provided GPS devices connected to ASTRO 25 radios. The location information can be transmitted to those locations over an ASTRO 25 Integrated Voice and Data (IV&D) or HPD network. This solution provides the utmost in flexibility for vehicular and portable based solutions.

- ◆ Dispatch Mapping – The GPS coordinates can be sent over the air to the Motorola Universal Processing Server (MUPS). This location information can then be loaded into a mapping application via the Application Programming Interface (API).
- ◆ Location monitoring over a wide area – The location of the asset being tracked is determined by the GPS enabled ASTRO 25 radios using GPS satellite constellation. The data is sent over the ASTRO 25 networks to the dispatch center. The radios work together with the ASTRO 25 Presence Notifier solution to determine presence and position of resources, thus reducing voice communications and increasing the operational efficiency of the network. Location reporting is configurable according to user-defined parameters such as distance-based reporting, periodic reporting, and emergency reporting.

**Voice communication priority** – To maintain the mission criticality of the ASTRO 25 Integrated Voice & Data network the voice transmissions remain priority – GPS data transmissions will not interfere with voice transmissions.

The core component of the Outdoor Location Solution is the Motorola Universal Processing Server (MUPS) The MUPS server works in conjunction with the Presence Notifier Server to pass the telemetry data containing the location of the GPS equipped subscriber units and to keep track of active subscriber units. If a GPS capable subscriber unit is not powered on and within range of the system, the polling data will not be sent to the subscriber, thereby reducing the overhead traffic on the system.

The MUPS server also controls the polling times of the subscriber units. The MUPS server is set up to have default times and intervals when the units report their location. The polling times can be overridden by the third party software application to increase the reporting time during critical situations such as a high speed pursuit.



Also included in this proposal is the Application Programming Interface (API) software, which allows interfacing the MUPS server to the third party software application. The API provides the required license and information for a third party software vendor to write the code necessary to capture, control, and send request to the MUPS server. The demarcation point for the Outdoor Location Solution is at the MUPS server, which is where the third part application will interface.

*Portable subscriber unit polling cycles more frequent than 4 minutes will result in a reduction of battery capacity. There may be instances where more frequent location updates are required. In such a case the polling time can be changed through the third party location software for the duration of the event and then reset back to the original default value of a max polling time of four (4) minutes. An alternate arrangement can be programmed into the subscriber units whereas the location data is transmitted at the time of each PTT function.*

*Note that the Outdoor Location solution being proposed will require a third party software and or hardware (server\client) application to be purchased by Baldwin County. The Outdoor Location Solution being proposed here will provide the data connection from the GPS equipped subscriber units through the ASTRO P25 system where it will be picked up by a third party CAD application. See Figure 2-9.*



# Outdoor Location Solution System Diagram

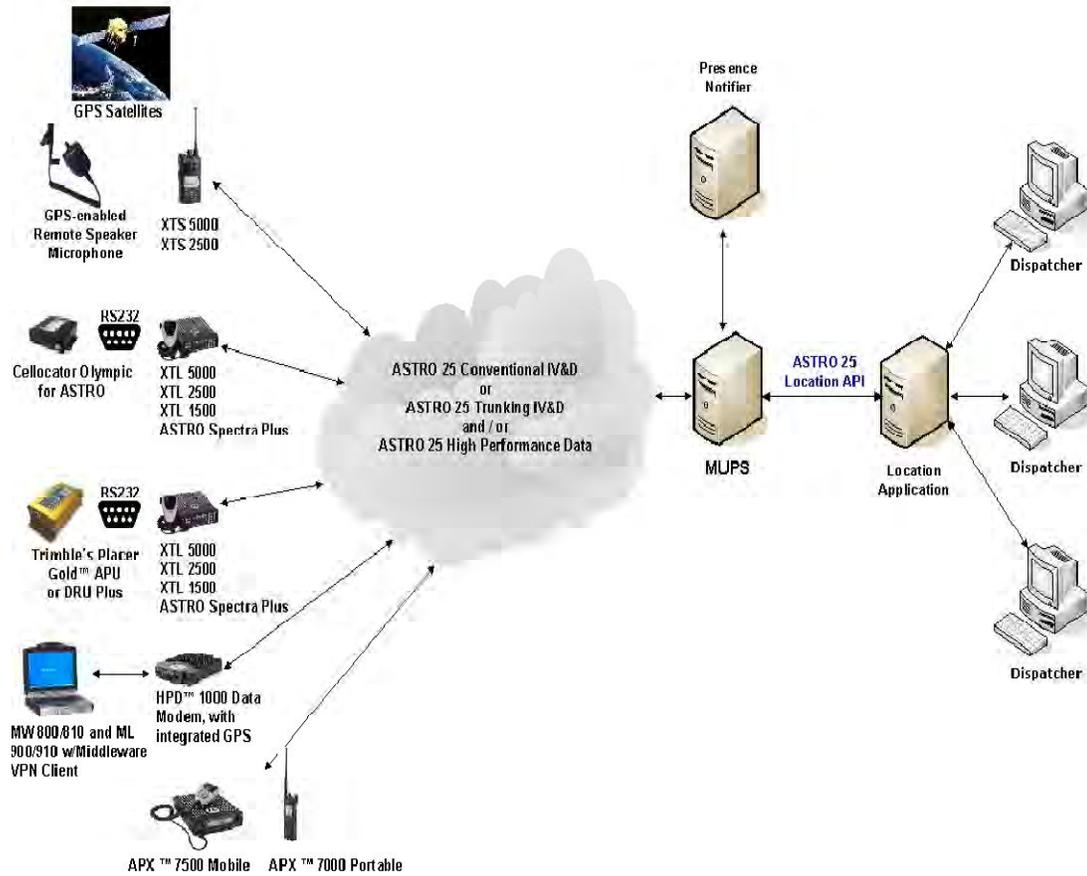


Figure 2-9: Outdoor Location Solution System Diagram



## 2.9.6 RF Site Connectivity

Motorola is proposing PTP 800 Series Licensed Microwave for the site connectivity. The configuration is four (4) paths which are configured with hot standby indoor mounted radios. The paths are built using a combination of six (6) and 11 GHz radios depending upon path lengths.

Because of FCC regulation for the PTP 800 microwave links that are operating within in a 30 MHz channel, the maximum bandwidth is limited to 135Mbps. The PTP 800 radios will be equipped to handle up to a maximum of 150 Mbps which will meet the requirement required by Baldwin County.

**For each microwave path the following equipment will be installed:**

- ◆ Two (2) PTP 800 – Full capacity Compact Modem Unit (CMU) with mounting bracket, power supply and lightening protection.
- ◆ Two (2) PTP 800 Outdoor Units (ODU) coupled together rack mounted inside the building.
- ◆ The antenna system will consist of two (2) six foot Single Polarity Parabolic antenna, elliptical waveguide and all required cable assembly equipment.
- ◆ Multiplexing and switching equipment.
- ◆ Dehydrator system for wave guide.

Table 2-1 below outlines the site information used for the proposed microwave

**Table 2-1: Site Information – Proposed Microwave**

Site	Microwave Antenna	Preliminary Centerline	Frequency Band
<b>Gopher Hill</b>	One - 6 Foot	100'	11 GHZ
<b>Rabun</b>	Two - 6 Foot	150' and 100'	6 and 11 GHZ
<b>Bay Minette</b>	One - 6 Foot	100'	6 GHZ
<b>Robertsdale EOC</b>	One - 6 Foot	100'	6 GHZ
<b>Magnolia Springs</b>	One - 6 Foot	120'	11 GHZ
<b>Foley</b>	One - 6 Foot	140'	11 GHZ
<b>Seminole</b>	One - 6 Foot	175'	6 GHZ

The theoretical microwave path calculations performed for this microwave path are considered to be preliminary until verified by the field path survey included in this proposal. After the field path survey is performed, it may be necessary to change the proposed microwave antenna heights and/or increase microwave radio power. These



remedies will be considered a change order and may be at an additional cost to Baldwin County, Alabama. See Figure 2-10: Motorola PTP 8000 Compact Modem Unit, and see Figure 2-11: Motorola PTP 800 Outdoor RF Unit.



Figure 2-10: Motorola PTP 8000 Compact Modem Unit



Figure 2-11: Motorola PTP 800 Outdoor RF Unit  
Indoor Mounted configuration will be used



## 2.10 Connectivity Requirements

Motorola has proposed utilizing customer and or state provided system connectivity to connect the Baldwin County Master Site to the Huntsville\Madison County Master Site. This will require coordination of the bandwidth necessary to connect the two zones together. Motorola has assumed that the customer and or state can meet the required network specifications. The minimum requirement will be four (4) T-1 connections on the network, or six (6) Mbps of assignable dedicated bandwidth. The network must be able to support either Layer 3 (ToS or DSCP) or Layer 2 (802.1p Priority) QoS mechanisms.

Motorola will work during the DDR process to define the exact parameters for the system in coordination with Baldwin County. From a high level there are four primary parameters that are used to describe the performance of a backhaul network and each will have a specific value that is considered acceptable.

- ◆ Latency
- ◆ Jitter
- ◆ Packet Loss
- ◆ Packet Reordering

There is considerable planning required to make sure these impairments are well understood and quantified so that voice performance can be managed. In most cases actual data is needed to calculate jitter and latency statistics and make sure they do not exceed the recommended values.

## 2.11 Our Commitment

Your communities are depending on your ability to get the right information to the right people, in the right place, at the right time. Motorola is committed to working with Baldwin County to make that happen. We are very proud of our leadership in providing proven, successful deployments of Public Safety Communications Systems. Your local Motorola Team looks forward to another successfully implemented Mission Critical Standards Based (P25) Trunked Communications System and continuing our long-term business relationship with Baldwin County.





## Section 3. Systems Integration Statement of Work (SOW)

Systems Integration continues to be a key process in Motorola, Inc.'s ("Motorola") system implementations and in the manner in which we conduct business. Motorola's Systems Integration process effectively addresses the requirements of Baldwin County, AL ("Customer") and focuses on multi-agency/multi-jurisdictional interoperability in multiple technology environments. This complex system solution requires a high degree of technical coordination and attention to the smallest details.

This Systems Integration Statement of Work (SOW) describes the deliverables to the Customer and the tasks to be performed by Motorola, its subcontractors, and by the Customer in order to implement the proposed solution. It contains information that describes the most current understanding of the work required by both parties to provide a successful implementation.

It is understood that this SOW may be revised during contract negotiations or during the Contract Design Review (CDR) and through any other change orders that may occur during the execution of the project. If there are changes to its scope, these changes must be reflected in the SOW before becoming binding on either party. This SOW will be an Exhibit to the Contract negotiated between Motorola and the Customer. After contract execution, changes to the SOW will be made through the formal contract Change Order process as set forth in the Contract.

### 3.1 Project Management

Project management is the application of knowledge, skills, tools, and techniques to address our customer's contractual requirements. To this end there are nine practices that are key to project management, highly interrelated, with each as important as the others. These nine key practices are identified and further described as:

- ◆ Scope management
- ◆ Schedule and time management
- ◆ Cost management
- ◆ Quality management
- ◆ Risk management

- ◆ Subcontracts and procurement management
- ◆ Resources management
- ◆ Communications management
- ◆ Integration management (System Implementation Work Plan)

## 3.2 Scope Management

Scope management is the process of maintaining control of the project in terms of the aims, goals, and objectives of the Customer. During the planning process, Motorola strives to ensure that the project scope includes all the work required and only that work required to satisfy the contractual requirements of the project. Motorola's understanding of the scope of work is defined in this SOW and the System Description.

## 3.3 Schedule and Time Management

The project schedule identifies the Motorola and Customer projected timeline for completing the required tasks to implement the Customer's communication system successfully. A preliminary schedule will be mutually developed by Motorola and Baldwin County prior to contract signing.

Upon contract award, Motorola's Project Manager (PM) will provide an updated project schedule with specific sub-activities to display updated start and completion dates of the project. This schedule will be updated regularly during the implementation of the project and updates will be provided to the Customer's PM.

Motorola will closely coordinate the schedule with the Customer to adjust, compensate for, and take corrective actions as required by any schedule changes. Schedule delays that occur through no fault of Motorola shall result in a modification of the schedule, and/or cost of the project, and will be amended to the Contract as required.

Motorola will work with the Customer to identify all project responsibilities for the successful completion of the project. Upon completion of the agreed final schedule, it will be incorporated as part of the final contract.

## 3.4 Cost Management

During the execution of a project of this scope, contract modifications may arise to accommodate changes in scope. Either party may request changes within the general scope of the contract. If a requested change causes an increase or decrease in the cost or time required to perform the contract, Motorola and the Customer will agree upon an equitable adjustment of the Contract Price, Performance Schedule, or both, and document it as a part of the Change Control Plan included in this document.



## 3.5 Quality Management

It is Motorola's policy to produce and provide products and services of the highest quality, which are responsive to the needs of our customers. Motorola has a well-established reputation for designing and developing high quality products and systems, on schedule, and within budget. Motorola adheres to the International Standards Organizations (ISO) quality standards.

All work will be performed consistent with high quality commercial practice and in accordance with Motorola's Quality Standards for Fixed Equipment Installations and all applicable manufacturer installation and maintenance manuals.

## 3.6 Risk Management

One of the major tasks of project management is to mitigate risk to our customers, to Motorola, our subcontractors, the environment, and the public. No project is entirely without risk, but purchasing from Motorola reduces the risk by bringing the benefit of our experience in implementing radio systems. Potential problems, which have been resolved in the past, can be planned for and avoided. Motorola's thorough review of customer requirements and cost analysis allows us to address these issues and develop a system implementation plan that is workable both from a time and cost standpoint while minimizing the risk to all parties.

## 3.7 Subcontracts and Procurement Management

Motorola has extensive experience in managing programs with many large subcontracted efforts. Motorola routinely employs teams of subcontractors as integral members of our system integration teams and we have established policies and procedures to manage these efforts. Early in the proposal phase, Motorola establishes the groundwork that enables a rapid execution of subcontracts with each of our team members. Motorola's subcontracts define the tasks to be performed and the Project Schedule, which are required from our subcontractors in accordance with our prime contract.

## 3.8 Resource Management

Motorola believes that the success of any project depends upon obtaining and applying the best resources to every aspect of the project through organizational planning, staff acquisition, and team development. Our staffing approach brings together a team of specialists, subcontractors, engineers, and systems integration personnel under the direction of a PM. This philosophy also pervades our selection of suppliers, facilities, tools, and staff. By integrating our subcontractor's management and staff with the Motorola team, we are able to utilize the best-qualified personnel for every task, regardless of company affiliation. The team selections are based upon individual skill, prior experience, and qualifications.



## Project Manager

Motorola's PM primary responsibility is the successful implementation and optimization of the system. The PM will serve as the primary liaison to the Customer for the project. The PM will track the progress of the project and take proactive measures to insure that the project proceeds as planned.

## Lead Engineer

Motorola's lead engineer will lead the engineering and design personnel assigned to the project. The engineering team is responsible for the technical integration of all the subsystems into the defined system.

Motorola's project engineer has the responsibility for system design and performance. The project engineer will be responsible for coverage analysis and intermodulation studies, Acceptance Test Plan (ATP) development, developing site design parameters, and system programming parameters. Additionally, the project engineer will be available to assist the Customer in fleetmapping and determining the subscriber unit configurations.

## System Technologist

Motorola's system technologist is highly experienced and trained specializing in the optimization and troubleshooting of large two-way RF communications systems. The system technologist will perform the optimization process working with the local Motorola service technicians. Additionally, this individual will work with the Motorola PM and Customer representative to decide upon the best configuration for, and then programming of, the system parameters. The system technologist will perform the following activities:

- ◆ Participate in the staging and testing of the system.
- ◆ Perform the optimization of all fixed network equipment.
- ◆ Work with engineering to perform acceptance testing.
- ◆ Assist in the development of the system cutover plan.

## Subcontractors

Motorola's PM will coordinate the activities of the subcontractors to assure cost-effective performance and resolution of technical interface issues during design as opposed to during integration activities.

The PM will be the single authority for subcontract actions and reporting and will have the full responsibility for quality performance, schedules, and cost control. We will use a straightforward procedure for managing and controlling work assignments to subcontractors.



Subcontractors will be selected for this project based on their experience. Each subcontractor will assign a lead manager who will be responsible for its company's performance. These managers will report directly to Motorola's PM on contractual issues and to the System Engineer on specific technical assignments. All subcontractors will submit as-needed progress reports to Motorola describing progress, level of effort, and anticipated problems that will be integrated into the project's tracking system. These subcontractor progress reports will serve as Motorola's primary mechanism for ensuring that they remain on track to deliver their promised results.

## Local Motorola Service Shop (MSS) – Team One

Motorola will use our local TEAM ONE service facility partners to provide field installation, optimization, subscriber unit programming, and warranty support. Our MSS personnel will also be fully involved in the system implementation, integration, and cutover. This assures that the service personnel are fully trained on and understand the system in order to provide effective system maintenance after acceptance of the system.

## 3.9 Communications Management

### 3.9.1 Correspondence and Approvals

The Customer will respond to all Motorola submittals, correspondence, and written requests within seven (7) calendar days of receipt. Any responses rejecting submittals, requests or correspondence will contain a detailed explanation in support of such rejection referencing the contract section or item number affected.

### 3.9.2 Status Meeting and Reports

Motorola's PM, or designee, will attend all project status meetings with the Customer as determined during the Contract Design Review meeting. Motorola will record the meeting minutes relating to the proposed system and supply this information to the Customer's PM within five (5) working days. The general agenda will include the following:

- ◆ Overall project status compared to the Project Schedule.
- ◆ Product or service-related issues that may impact the Project Schedule.
- ◆ Current status of action items and responsibilities in accordance to the Project Schedule.
- ◆ Tasks completed over the last 30 days.
- ◆ Tasks to be completed over the next 30 days.
- ◆ Customer satisfaction issues.



Any additional concerns of either the Customer or Motorola will be added to the general agenda.

### 3.9.3 Progress Milestone Submittal

During the course of the project, Motorola will submit milestone completion documentation to the Customer. This documentation will be submitted in accordance with the milestone schedule as agreed upon during the Contract Design Review. The Customer's approval of each milestone will signify confirmation that the work associated with the scheduled task has been completed.

### 3.9.4 System Implementation Work Plan

An effective work plan ensures not only a timely and orderly implementation, but also the optimization of system effectiveness. This section outlines the Systems Integration processes that Motorola will incorporate throughout system implementation to ensure the users a smooth and efficient transition to their new communications system.

Motorola has developed the implementation plan for most efficient utilization of resources and earliest possible completion of the project.

Motorola's process for the integration of the proposed communications system will ensure that the implementation adheres to the highest quality and process standards. Several of the steps of this Systems Integration process parallel and complement Motorola's project management team activities previously discussed.

The steps in Figure 3-1 are described in detail in the following subsections. By following these steps and applying the previously described project management team arrangement, Motorola can monitor and control all aspects of the implementation to ensure a successful completion.



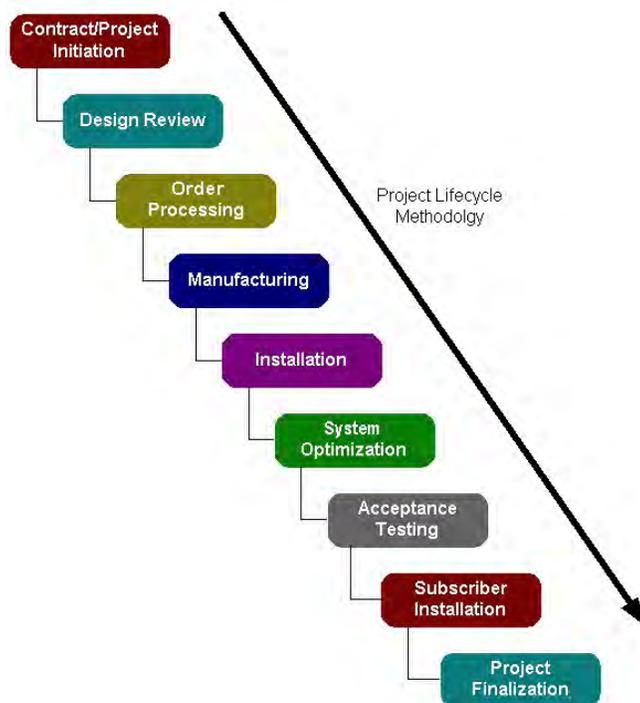


Figure 3-1: Project Lifecycle Methodology

### 3.10 Contract Initiation and Design Review

After the contract is signed, Motorola will hold a Contract Design Review of the proposed system design with the Customer. The goal of the Contract Design Review process is to verify and finalize agreement on the overall design and deliverables. Motorola will provide the following documents to the County for its review and approval:

- ◆ Preliminary Project Schedule.
- ◆ Preliminary Site Layout Drawings (new construction only).
- ◆ Rack Elevation Drawings.
- ◆ System Block Diagrams.
- ◆ Antenna Network Diagrams.
- ◆ Network Transport Plan.
- ◆ Preliminary Acceptance Test Procedures.



### 3.10.1 Kickoff Meeting

After approval of the submitted system design during the Contract Design Review, the implementation process will begin with the project kickoff meeting. This meeting will clarify the system design, identify any special product requirements and their impact on system implementation, and refine the system implementation plan. A discussion of the cutover plan and methods to document a detailed procedure for cutover will begin at this meeting. This meeting will also introduce all members of Motorola's implementation team and establish the point of contact with the Customer's project team. Finally, this meeting will allow the project team leaders to assign an initial list of tasks to appropriate team members.

### 3.10.2 System Fleetmapping and Template Definition

The infrastructure equipment, mobiles, portables, terminals and any other radio fixed network equipment in the system will be programmed based on the existing fleetmap.

Motorola has included 231 FLASH programming kits for the subscriber equipment. Any changes or additional template requests will need to be submitted to Motorola's PM per the Change Order process.

### 3.10.3 Frequency Licensing

Motorola will assist Baldwin County with the frequency licensing process. In addition, the System Engineer will provide up to 5 interference studies and/or FCC contour maps per site. However, as mandated by the FCC, the Customer, as the licensee, has the ultimate responsibility for providing all required radio licensing or licensing modifications for the Radio System. It is the Customer's responsibility to pay for and secure FCC licenses prior to the staging and installation of the equipment in the field. This responsibility includes coordination of the frequency application forms and submittals, the Federal Communications Commission license applications, and any associated fees.

## Interference

Motorola will work with the Customer to identify any mutual radio interference between the new communication system and any other existing radio systems. Motorola is not responsible for issues outside of its immediate control. Such issues include, but are not restricted to, improper frequency coordination by others and non-compliant operation of other radios.

Motorola is not responsible for co-channel interference due to errors in frequency coordination by APCO or any other unlisted frequencies or the improper design, installation, or operation of systems installed or operated by others. Any costs associated with site changes and/or delays; including, but not limited to, re-engineering, frequency re-licensing, site zoning, site permitting, schedule delays, site



abnormalities, re-mobilization, etc., due to a site being unusable for any frequency issues outside of Motorola's control will be adjusted through the Change Order process.

## 3.11 Civil Work Phase

### 3.11.1 Site Access

The Customer will provide free and open access to all Customer owned or leased sites as necessary for the implementation of the proposed system. Access must be available 24 hours a day during the course of this project. This includes, but is not limited to, the following:

- ◆ Arrange site permission and provide escort, at no charge, if escorts are required at any particular site to gain access.
- ◆ Issue temporary identification cards to Motorola personnel if required for access to facilities.

### 3.11.2 Site Construction and Site Development

Prior to the manufacturing and staging process, the field site preparation will be underway so that the sites will be ready for installation when the equipment is shipped from Motorola's staging facility. Motorola's project installation supervisor will review each site, make assessments for the scheduling of required work, and ensure that the sites are ready for installation according to the project schedule.

The Customer will be responsible for all zoning issues, including but not limited to, permits, waivers, easements, right of way clearances, FAA clearances, EPA/DEP requirements, or any other requirements of Local, State, or Federal regulations with regard to the permission to develop these sites.

For all proposed site locations, the Customer will be responsible for paying all usage costs of power, and generator fueling both during the construction/installation effort and on an ongoing basis.

Motorola will install and test all radio and antenna system equipment at each site and has included the cost to perform one structural analysis for each tower. If the analysis concludes that the tower is insufficient to support the proposed equipment, Customer will be responsible for remediation.

### 3.11.3 Site Development at Blackshear Site

This is an Alabama Public TV site. It has a 10 X 10 Rohn shelter next to a 315' Guyed Tower. The rack placement will need changing inside in order to accommodate the new equipment in an orderly fashion. A second bulkhead will need



to be installed for the additional lines as well as an ice bridge for transport from building to tower. Grounding upgrades and buss bars are part of the installation.

### Site Scope Summary

Engineering services for site drawings and regulatory approvals – Not included.

Site acquisition services – Not included.

Zoning Services – Not included.

Existing tower to be used for antennas – 315 ' Guyed Tower.

### Motorola Will:

#### Site Engineering

- ◆ Perform National Environmental Policy Act (NEPA) Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- ◆ Perform four point soil resistivity testing at the time of site visit.
- ◆ Provide a structural engineering analysis for antenna support structure, if necessary, to support the proposed antenna system. The structural analysis does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Baldwin County.
- ◆ Provide tower climbing and tower mapping services to collect information about structural members and existing equipment.
- ◆ Research permit requirements (building, utility, and construction) for the construction of the proposed site, and determine if the permits are required. If a permit is required, Motorola shall obtain the necessary permit forms and complete the necessary information on behalf of the Customer.

#### Site Preparation

- ◆ Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.



### Site Components Installation

- ◆ Supply and install a perimeter grounding system around the compound and shelter. The ground system is to tie to the fence and all new metal structures within the compound to meet current Motorola's R56 standards.
- ◆ Supply and install one (1) freestanding 24-inch-wide cable/ice bridge from the tower to the shelter (up to 10 linear feet).

### Antenna and Transmission Line Installation

- ◆ Install two (2) antenna(s) for the RF system.
- ◆ Install one (1) tower top amplifier(s).
- ◆ Install up to 315 linear feet of 1/2-inch transmission line.
- ◆ Install up to 610 linear feet of 1-1/4-inch transmission line.
- ◆ Perform sweep tests on transmission lines.
- ◆ Supply and install one (1) ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.

### Existing Facility Improvement Work

- ◆ Supply and install one (1) 100-amp breaker panel with capacity for 20 circuits.
- ◆ Supply and install two (2) 20-amp breakers in the distribution panel and wire to outlets located on an average within 35 cable feet.
- ◆ Install two (2) 8-outlet distribution-bar(s) and wire each outlet to individual breaker.
- ◆ Install one (1) new single-phase UPS equipment and wire output to UPS distribution panel.
- ◆ Supply and install 18-inch-wide cable runway (up to 5 linear feet) inside the existing room.
- ◆ Supply and install one (1) cable entry panel with six (6) ports.
- ◆ Ground all metallic objects in the interior of the existing room, to meet current Motorola's Standards and Guidelines for Communications Sites (R56) requirements and terminate near equipment locations.
- ◆ Supply and install on (1) copper ground buss bar(s).

### Customer Will:

- ◆ If required, prepare and submit EME plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines. [Note: Should the customer desire guidance with this task, Motorola is able to recommend resources. Additionally, Appendix A of Motorola's Standards and Guidelines for Communication Sites (R56) discusses Electromagnetic Energy and provides a basic methodology for structuring an FCC compliant program. If the customer



does not have a copy of Motorola's Standards and Guidelines for Communication Sites (R56) v 2005, one will be provided.]

- ◆ Assist Motorola with permitting for sites as owner/lessee.
- ◆ As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that are the Customer's responsibility.
- ◆ Pay for all utility connection, pole or line extensions, and any easement or usage fees.
- ◆ Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an ongoing basis.
- ◆ Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- ◆ Provide personnel to observe construction progress and testing of site equipment according to the schedule provided by Motorola.
- ◆ Secure clear and unencumbered title, MOU, or Lease Agreement with the property owner.
- ◆ Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- ◆ Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- ◆ Provide clear and stable access road to the site for heavy-duty construction vehicles. Sufficient space must be available at the site for these vehicles to maneuver under their own power, without assistance from other equipment.
- ◆ Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- ◆ Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- ◆ Provide support facilities for the antenna cables (cable ladder, entry ports) from the antenna to the equipment room.
- ◆ Pay for any upgrade of the antenna support structure necessary to accommodate the new antennas.
- ◆ Provide space, HVAC, backup power (generator), outlets, grounding, surge suppression, lighting, fire suppression and cabling facilities for the equipment room per Motorola's R56 specifications. Ceiling and cable tray heights in the equipment rooms should be such as to accommodate 7-1/2-foot equipment racks, and the ceiling should be nine (9) feet or greater.



- ◆ Confirm that there is adequate utility service to support the new equipment and ancillary equipment.
- ◆ Confirm that the existing generator is sufficient to support the new equipment and ancillary equipment loads.
- ◆ If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- ◆ If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.

### Assumptions:

- ◆ No prevailing wage, certified payroll, mandatory union workers or mandatory minority workers are required for this work.
- ◆ All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- ◆ Temporary site trailers (tower, housing, COWS, and generator) have not been included for cutovers. Cutover logistics will be determined on a case-by-case basis; any additional costs will be negotiated prior to the execution of cutover tasks.
- ◆ All recurring and non-recurring utility costs [including, but not limited to, generator fuel, electrical, Telco] will be borne by the Customer or site owner.
- ◆ Pricing has been based on National codes such as IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- ◆ A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- ◆ If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- ◆ The existing ground system and soil resistivity at the site is sufficient to achieve resistance of 10 ohms or less. Communication site grounding will be designed and installed per Motorola's R56 standards.
- ◆ AM detuning or electromagnetic emission studies will not be required.
- ◆ Structural and foundation drawings of the antenna support structure will be made available to preclude the need for ultrasonic testing or mapping of existing tower structural members.
- ◆ Lead paint testing of existing painted towers has not been included.
- ◆ On the existing tower, the antenna locations for the proposed antenna system design will be available at the time of installation.
- ◆ Underground utilities are not present in the construction area and as such no relocation will be required.



- ◆ The existing antenna support structure is structurally capable of supporting the new antenna, cables, and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind, and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- ◆ The existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.
- ◆ Structural analyses for towers or other structures that have not been performed by Motorola will relinquish Motorola from any responsibility for the analysis report contents and/or recommendation therein.
- ◆ Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.
- ◆ The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola's R56 standards.
- ◆ The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- ◆ A clear obstruction-free access exists from the antenna location to the equipment room.
- ◆ The Customer does not desire upgrade of the existing site to meet Motorola's R56 standards.
- ◆ The floor can support the proposed new loading. Physical or structural improvements to the existing room will not be required.

#### **Completion Criteria**

- ◆ Site development completed and approved by Baldwin County.

### **3.11.4 Site Development at Gopher Hill Site**

This is an Alabama Public TV site. It has a 10 X 10 Rohn shelter next to a 265' Guyed Tower. It is assumed to be laid out identical to the Blackshear site. Access was not possible at the time of the site walks. A second bulkhead will need to be installed for the additional lines as well as an ice bridge for transport from building to tower. Grounding upgrades and buss bars are part of the installation.

#### **Site Scope Summary**

- ◆ Engineering services for site drawings and regulatory approvals – Not included.
- ◆ Site acquisition services – Not included.
- ◆ Zoning Services – Not included.
- ◆ Existing tower to be used for antennas – 265 ' Guyed Tower.



## Motorola Will:

### Site Engineering

- ◆ Perform National Environmental Policy Act (NEPA) Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- ◆ Perform four point soil resistivity testing at the time of site visit.
- ◆ Provide a structural engineering analysis for antenna support structure, if necessary, to support the proposed antenna system. The structural analysis does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Baldwin County.
- ◆ Provide tower climbing and tower mapping services to collect information about structural members and existing equipment.
- ◆ Research permit requirements (building, utility, and construction) for the construction of the proposed site, and determine if the permits are required. If a permit is required, Motorola shall obtain the necessary permit forms and complete the necessary information on behalf of the Customer.

### Site Preparation

- ◆ Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Site Components Installation

- ◆ Supply and install a perimeter grounding system around the compound and shelter. The ground system is to tie to the fence and all new metal structures within the compound to meet current Motorola's R56 standards.
- ◆ Supply and install one (1) freestanding 24-inch-wide cable/ice bridge from the tower to the shelter (up to 10 linear feet).

### Antenna and Transmission Line Installation

- ◆ Install one 6-foot microwave dish.
- ◆ Install up to 330 linear feet of EW63 waveguide for microwave dishes.
- ◆ Perform sweep tests on transmission lines.



- ◆ Perform alignment of each of two (2) microwave paths to ensure that the microwave dishes are optimally positioned.

### Existing Facility Improvement Work

- ◆ Supply and install one (1) 100-amp breaker panel with capacity for 20 circuits.
- ◆ Supply and install 20-amp breakers in the distribution panel and wire to outlets located on an average within 35 cable feet.
- ◆ Install two (2) 8-outlet distribution-bar(s) and wire each outlet to individual breaker.
- ◆ Install one (1) new single-phase UPS equipment and wire output to UPS distribution panel.
- ◆ Supply and install 18-inch-wide cable runway (up to 5 linear feet) inside the existing room.
- ◆ Supply and install one (1) cable entry panel with six (6) ports.
- ◆ Ground all metallic objects in the interior of the existing room, to meet current Motorola's Standards and Guidelines for Communications Sites (R56) requirements and terminate near equipment locations.
- ◆ Supply and install one (1) copper ground buss bar(s).

### Customer Will:

- ◆ If required, prepare and submit EME plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines. [Note: Should the customer desire guidance with this task, Motorola is able to recommend resources. Additionally, Appendix A of Motorola's Standards and Guidelines for Communication Sites (R56) discusses Electromagnetic Energy and provides a basic methodology for structuring an FCC compliant program. If the customer does not have a copy of Motorola's Standards and Guidelines for Communication Sites (R56) v 2005, one will be provided.]
- ◆ Assist Motorola with permitting for sites as owner/lessee.
- ◆ As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that are the Customer's responsibility.
- ◆ Pay for all utility connection, pole or line extensions, and any easement or usage fees.
- ◆ Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an ongoing basis.
- ◆ Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- ◆ Provide personnel to observe construction progress and testing of site equipment according to the schedule provided by Motorola.



- ◆ Secure clear and unencumbered title, MOU, or Lease Agreement with the property owner.
- ◆ Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- ◆ Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- ◆ Provide clear and stable access road to the site for heavy-duty construction vehicles. Sufficient space must be available at the site for these vehicles to maneuver under their own power, without assistance from other equipment.
- ◆ Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- ◆ Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- ◆ Provide support facilities for the antenna cables (cable ladder, entry ports) from the antenna to the equipment room.
- ◆ Pay for any upgrade of the antenna support structure necessary to accommodate the new antennas.
- ◆ Provide space, HVAC, backup power (generator), outlets, grounding, surge suppression, lighting, fire suppression and cabling facilities for the equipment room per Motorola's R56 specifications. Ceiling and cable tray heights in the equipment rooms should be such as to accommodate 7-1/2-foot equipment racks, and the ceiling should be nine (9) feet or greater.
- ◆ Confirm that there is adequate utility service to support the new equipment and ancillary equipment.
- ◆ Confirm that the existing generator is sufficient to support the new equipment and ancillary equipment loads.
- ◆ If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- ◆ If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.

**Assumptions:**

- ◆ No prevailing wage, certified payroll, mandatory union workers or mandatory minority workers are required for this work.
- ◆ All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).



- ◆ Temporary site trailers (tower, housing, COWS, and generator) have not been included for cutovers. Cutover logistics will be determined on a case-by-case basis; any additional costs will be negotiated prior to the execution of cutover tasks.
- ◆ All recurring and non-recurring utility costs [including, but not limited to, generator fuel, electrical, Telco] will be borne by the Customer or site owner.
- ◆ Pricing has been based on National codes such as IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- ◆ A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- ◆ If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- ◆ The existing ground system and soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communication site grounding will be designed and installed per Motorola's R56 standards.
- ◆ AM detuning or electromagnetic emission studies will not be required.
- ◆ Structural and foundation drawings of the antenna support structure will be made available to preclude the need for ultrasonic testing or mapping of existing tower structural members.
- ◆ Lead paint testing of existing painted towers has not been included.
- ◆ On the existing tower, the antenna locations for the proposed antenna system design will be available at the time of installation.
- ◆ Underground utilities are not present in the construction area and as such no relocation will be required.
- ◆ The existing antenna support structure is structurally capable of supporting the new antenna, cables, and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind, and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- ◆ The existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.
- ◆ Structural analyses for towers or other structures that have not been performed by Motorola will relinquish Motorola from any responsibility for the analysis report contents and/or recommendation therein.
- ◆ Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.



- ◆ The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola's R56 standards.
- ◆ The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- ◆ A clear obstruction-free access exists from the antenna location to the equipment room.
- ◆ The Customer does not desire upgrade of the existing site to meet Motorola's R56 standards.
- ◆ The floor can support the proposed new loading. Physical or structural improvements to the existing room will not be required.

### **Completion Criteria**

- ◆ Site development completed and approved by Baldwin County

## **3.11.5 Site Development at Spanish Fort Site**

### **Site Scope Summary**

- ◆ Engineering services for site drawings and regulatory approvals – Not included.
- ◆ Site acquisition services – Not included.
- ◆ Zoning Services – Not included.
- ◆ Existing tower to be used for antennas – 500 ' Guyed Tower.

### **Motorola Will:**

#### **Site Engineering**

- ◆ Perform National Environmental Policy Act (NEPA) Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- ◆ Perform four point soil resistivity testing at the time of site visit.
- ◆ Provide a structural engineering analysis for antenna support structure, if necessary, to support the proposed antenna system. The structural analysis does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Baldwin County.



- ◆ Provide tower climbing and tower mapping services to collect information about structural members and existing equipment.
- ◆ Research permit requirements (building, utility, and construction) for the construction of the proposed site, and determine if the permits are required. If a permit is required, Motorola shall obtain the necessary permit forms and complete the necessary information on behalf of the Customer.

### Site Preparation

- ◆ Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Site Components Installation

- ◆ Supply and install one (1) freestanding 24-inch-wide cable/ice bridge from the tower to the shelter (up to 25 linear feet).

### Antenna and Transmission Line Installation

- ◆ Install two (2) antenna(s) for the RF system.
- ◆ Install one (1) tower top amplifier(s).
- ◆ Install four (4) Yagi antenna(s).
- ◆ Install up to 900 linear feet of 1/2-inch transmission line.
- ◆ Install up to 980 linear feet of 1-5/8-inch transmission line.
- ◆ Perform sweep tests on transmission lines.
- ◆ Supply and install one (1) ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.

### Existing Facility Improvement Work

- ◆ Supply and install one (1) 100-amp breaker panel with capacity for 20 circuits.
- ◆ Supply and install one (1) 20-amp breakers in the distribution panel and wire to outlets located on an average within 35 cable feet.
- ◆ Install two (2) 8-outlet distribution-bar(s) and wire each outlet to individual breaker.
- ◆ Install one (1) new single-phase UPS equipment and wire output to UPS distribution panel.
- ◆ Supply and install 18-inch-wide cable runway (up to 15 linear feet) inside the existing room.
- ◆ Supply and install one (1) cable entry panel with six (6) ports.
- ◆ Supply and install one (1) copper ground buss bar(s).



### Customer Will:

- ◆ If required, prepare and submit EME plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines. [Note: Should the customer desire guidance with this task, Motorola is able to recommend resources. Additionally, Appendix A of Motorola's Standards and Guidelines for Communication Sites (R56) discusses Electromagnetic Energy and provides a basic methodology for structuring an FCC compliant program. If the customer does not have a copy of Motorola's Standards and Guidelines for Communication Sites (R56) v 2005, one will be provided.]
- ◆ Assist Motorola with permitting for sites as owner/lessee.
- ◆ As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that are the Customer's responsibility.
- ◆ Pay for all utility connection, pole or line extensions, and any easement or usage fees.
- ◆ Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an ongoing basis.
- ◆ Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- ◆ Provide personnel to observe construction progress and testing of site equipment according to the schedule provided by Motorola.
- ◆ Secure clear and unencumbered title, MOU, or Lease Agreement with the property owner.
- ◆ Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- ◆ Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- ◆ Provide clear and stable access road to the site for heavy-duty construction vehicles. Sufficient space must be available at the site for these vehicles to maneuver under their own power, without assistance from other equipment.
- ◆ Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- ◆ Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- ◆ Provide support facilities for the antenna cables (cable ladder, entry ports) from the antenna to the equipment room.



- ◆ Pay for any upgrade of the antenna support structure necessary to accommodate the new antennas.
- ◆ Provide space, HVAC, backup power (generator), outlets, grounding, surge suppression, lighting, fire suppression and cabling facilities for the equipment room per Motorola's R56 specifications. Ceiling and cable tray heights in the equipment rooms should be such as to accommodate 7-1/2-foot equipment racks, and the ceiling should be nine (9) feet or greater.
- ◆ Confirm that there is adequate utility service to support the new equipment and ancillary equipment.
- ◆ Confirm that the existing generator is sufficient to support the new equipment and ancillary equipment loads.
- ◆ If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- ◆ If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.

#### **Assumptions:**

- ◆ No prevailing wage, certified payroll, mandatory union workers or mandatory minority workers are required for this work.
- ◆ All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- ◆ Temporary site trailers (tower, housing, COWS, and generator) have not been included for cutovers. Cutover logistics will be determined on a case-by-case basis; any additional costs will be negotiated prior to the execution of cutover tasks.
- ◆ All recurring and non-recurring utility costs [including, but not limited to, generator fuel, electrical, Telco] will be borne by the Customer or site owner.
- ◆ Pricing has been based on National codes such as IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- ◆ A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- ◆ If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- ◆ The existing ground system and soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communication site grounding will be designed and installed per Motorola's R56 standards.
- ◆ AM detuning or electromagnetic emission studies will not be required.



- ◆ Structural and foundation drawings of the antenna support structure will be made available to preclude the need for ultrasonic testing or mapping of existing tower structural members.
- ◆ Lead paint testing of existing painted towers has not been included.
- ◆ On the existing tower, the antenna locations for the proposed antenna system design will be available at the time of installation.
- ◆ Underground utilities are not present in the construction area and as such no relocation will be required.
- ◆ The existing antenna support structure is structurally capable of supporting the new antenna, cables, and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind, and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- ◆ The existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.
- ◆ Structural analyses for towers or other structures that have not been performed by Motorola will relinquish Motorola from any responsibility for the analysis report contents and/or recommendation therein.
- ◆ Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.
- ◆ The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola's R56 standards.
- ◆ The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- ◆ A clear obstruction-free access exists from the antenna location to the equipment room.
- ◆ The Customer does not desire upgrade of the existing site to meet Motorola's R56 standards.
- ◆ The floor can support the proposed new loading. Physical or structural improvements to the existing room will not be required.

### Completion Criteria

- ◆ Site development completed and approved by Baldwin County.

### 3.11.6 Site Development at Rabun Site

This is a Baldwin County radio site. Aside from some minor grounding upgrades and cable ice bridge, little modification is necessary at this site.



## Site Scope Summary

- ◆ Engineering services for site drawings and regulatory approvals – Not included.
- ◆ Site acquisition services – Not included.
- ◆ Zoning Services – Not included.
- ◆ Existing tower to be used for antennas – 400 ' Guyed Tower.

## Motorola Will:

### Site Engineering

- ◆ Perform National Environmental Policy Act (NEPA) Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- ◆ Perform four point soil resistivity testing at the time of site visit.
- ◆ Provide a structural engineering analysis for antenna support structure, if necessary, to support the proposed antenna system. The structural analysis does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Baldwin County.
- ◆ Provide tower climbing and tower mapping services to collect information about structural members and existing equipment.
- ◆ Research permit requirements (building, utility, and construction) for the construction of the proposed site, and determine if the permits are required. If a permit is required, Motorola shall obtain the necessary permit forms and complete the necessary information on behalf of the Customer.

### Site Preparation

- ◆ Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Site Components Installation

- ◆ Supply and install one (1) freestanding 24-inch-wide cable/ice bridge from the tower to the shelter (up to 5 linear feet).



### Antenna and Transmission Line Installation

- ◆ Install two (2) antenna(s) for the RF system.
- ◆ Install one (1) tower top amplifier(s).
- ◆ Install two (2) 6-foot microwave dishes.
- ◆ Install up to 400 linear feet of 1/2-inch transmission line.
- ◆ Install up to 780 linear feet of 1-1/4-inch transmission line.
- ◆ Install up to 180 linear feet of EW63 waveguide for microwave dishes.
- ◆ Perform sweep tests on transmission lines.
- ◆ Perform alignment of each of 1 microwave paths to ensure that the microwave dishes are optimally positioned.
- ◆ Supply and install one (1) ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.

### Existing Facility Improvement Work

- ◆ Supply and install one 100-amp breaker panel with capacity for 20 circuits.
- ◆ Install 1 new single-phase UPS equipment and wire output to UPS distribution panel.
- ◆ Supply and install one (1) cable entry panel with six (6) ports.

### Customer Will:

- ◆ If required, prepare and submit EME plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines. [Note: Should the customer desire guidance with this task, Motorola is able to recommend resources. Additionally, Appendix A of Motorola's Standards and Guidelines for Communication Sites (R56) discusses Electromagnetic Energy and provides a basic methodology for structuring an FCC compliant program. If the customer does not have a copy of Motorola's Standards and Guidelines for Communication Sites (R56) v 2005, one will be provided.]
- ◆ Assist Motorola with permitting for sites as owner.
- ◆ As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that are the Customer's responsibility.
- ◆ Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an ongoing basis.
- ◆ Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- ◆ Provide personnel to observe progress and testing of site equipment according to the schedule provided by Motorola.



- ◆ Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- ◆ Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- ◆ Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- ◆ Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- ◆ Provide support facilities for the antenna cables (cable ladder, entry ports, Waveguide Bridge) from the antenna to the equipment room.
- ◆ Pay for any upgrade of the antenna support structure necessary to accommodate the new antennas.
- ◆ Provide space, HVAC, backup power (generator), outlets, grounding, surge suppression, lighting, fire suppression and cabling facilities for the equipment room per Motorola's R56 specifications. Ceiling and cable tray heights in the equipment rooms should be such as to accommodate 7-1/2-foot equipment racks, and the ceiling should be nine (9) feet or greater.
- ◆ If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- ◆ If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.
- ◆ Supply required standby generator power to support the additional proposed equipment. This power source shall be adequate to back up all radio equipment, future equipment growth, and ancillary equipment such as, but not limited to, interior lighting, tower lighting and HVAC.

### Assumptions:

- ◆ No prevailing wage, certified payroll, mandatory union workers or mandatory minority workers are required for this work.
- ◆ All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- ◆ Temporary site trailers (tower, housing, COWS, and generator) have not been included for cutovers. Cutover logistics will be determined on a case-by-case basis; any additional costs will be negotiated prior to the execution of cutover tasks.
- ◆ Pricing has been based on National codes such as IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.



- ◆ A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- ◆ If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- ◆ The existing ground system and soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communication site grounding will be designed and installed per Motorola's R56 standards.
- ◆ AM detuning or electromagnetic emission studies will not be required.
- ◆ Protective grating over microwave dishes or the communications shelter has not been included in this proposal.
- ◆ Structural and foundation drawings of the antenna support structure will be made available to preclude the need for ultrasonic testing or mapping of existing tower structural members.
- ◆ Lead paint testing of existing painted towers has not been included.
- ◆ On the existing tower, the antenna locations for the proposed antenna system design will be available at the time of installation.
- ◆ The existing antenna support structure is structurally capable of supporting the new antenna, cables, and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind, and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- ◆ The existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.
- ◆ Structural analyses for towers or other structures that have not been performed by Motorola will relinquish Motorola from any responsibility for the analysis report contents and/or recommendation therein.
- ◆ Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.
- ◆ The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola's R56 standards.
- ◆ The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- ◆ A clear obstruction-free access exists from the antenna location to the equipment room.
- ◆ The Customer does not desire upgrade of the existing site to meet Motorola's R56 standards.



- ◆ The floor can support the proposed new loading. Physical or structural improvements to the existing room will not be required.

#### Completion Criteria

- ◆ Site development completed and approved by Baldwin County.

### 3.11.7 Site Development at Magnolia Springs Site

This is a Baldwin County radio site. Aside from some minor grounding upgrades and cable ice bridge, little modification is necessary at this site.

#### Site Scope Summary

- ◆ Engineering services for site drawings and regulatory approvals – Not included.
- ◆ Site acquisition services – Not included.
- ◆ Zoning Services – Not included.
- ◆ Existing tower to be used for antennas – 400 ' Guyed Tower.

#### Motorola Will:

#### Site Engineering

- ◆ Perform National Environmental Policy Act (NEPA) Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- ◆ Perform four point soil resistivity testing at the time of site visit.
- ◆ Provide a structural engineering analysis for antenna support structure, if necessary, to support the proposed antenna system. The structural analysis does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Baldwin County.
- ◆ Provide tower climbing and tower mapping services to collect information about structural members and existing equipment.
- ◆ Research permit requirements (building, utility, and construction) for the construction of the proposed site, and determine if the permits are required. If a permit is required, Motorola shall obtain the necessary permit forms and complete the necessary information on behalf of the Customer.



### Site Preparation

- ◆ Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Site Components Installation

- ◆ Supply and install one (1) freestanding 24-inch-wide cable/ice bridge from the tower to the shelter (up to 5 linear feet).

### Antenna and Transmission Line Installation

- ◆ Install two (2) antenna(s) for the RF system.
- ◆ Install one (1) tower top amplifier(s).
- ◆ Install one (1) 6-foot microwave dishes.
- ◆ Install four (4) Yagi antenna(s).
- ◆ Install up to 600 linear feet of 1/2-inch transmission line.
- ◆ Install up to 780 linear feet of 1-1/4-inch transmission line.
- ◆ Install up to 204 linear feet of EW63 waveguide for microwave dishes.
- ◆ Perform sweep tests on transmission lines.
- ◆ Perform alignment of each of one (1) microwave paths to ensure that the microwave dishes are optimally positioned.
- ◆ Supply and install one (1) ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.

### Existing Facility Improvement Work

- ◆ Supply and install one (1) 100-amp breaker panel with capacity for 20 circuits.
- ◆ Install one (1) new single-phase UPS equipment and wire output to UPS distribution panel.
- ◆ Supply and install one (1) cable entry panel with six (6) ports.

### Customer Will:

- ◆ If required, prepare and submit EME plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines. [Note: Should the customer desire guidance with this task, Motorola is able to recommend resources. Additionally, Appendix A of Motorola's Standards and Guidelines for Communication Sites (R56) discusses Electromagnetic Energy and provides a basic methodology for structuring an FCC compliant program. If the customer does not have a copy of Motorola's Standards and Guidelines for Communication Sites (R56) v 2005, one will be provided.]
- ◆ Assist Motorola with permitting for sites as owner.



- ◆ As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that are the Customer's responsibility.
- ◆ Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an ongoing basis.
- ◆ Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- ◆ Provide personnel to observe progress and testing of site equipment according to the schedule provided by Motorola.
- ◆ Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- ◆ Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- ◆ Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- ◆ Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- ◆ Provide support facilities for the antenna cables (cable ladder, entry ports, Waveguide Bridge) from the antenna to the equipment room.
- ◆ Pay for any upgrade of the antenna support structure necessary to accommodate the new antennas.
- ◆ Provide space, HVAC, backup power (generator), outlets, grounding, surge suppression, lighting, fire suppression and cabling facilities for the equipment room per Motorola's R56 specifications. Ceiling and cable tray heights in the equipment rooms should be such as to accommodate 7-1/2-foot equipment racks, and the ceiling should be nine (9) feet or greater.
- ◆ If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- ◆ If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.
- ◆ Supply required standby generator power to support the additional proposed equipment. This power source shall be adequate to back up all radio equipment, future equipment growth, and ancillary equipment such as, but not limited to, interior lighting, tower lighting and HVAC.

### Assumptions:

- ◆ No prevailing wage, certified payroll, mandatory union workers or mandatory minority workers are required for this work.



- ◆ All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- ◆ Temporary site trailers (tower, housing, COWS, and generator) have not been included for cutovers. Cutover logistics will be determined on a case-by-case basis; any additional costs will be negotiated prior to the execution of cutover tasks.
- ◆ Pricing has been based on National codes such as IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- ◆ A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- ◆ If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- ◆ The existing ground system and soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communication site grounding will be designed and installed per Motorola's R56 standards.
- ◆ AM detuning or electromagnetic emission studies will not be required.
- ◆ Protective grating over microwave dishes or the communications shelter has not been included in this proposal.
- ◆ Structural and foundation drawings of the antenna support structure will be made available to preclude the need for ultrasonic testing or mapping of existing tower structural members.
- ◆ Lead paint testing of existing painted towers has not been included.
- ◆ On the existing tower, the antenna locations for the proposed antenna system design will be available at the time of installation.
- ◆ The existing antenna support structure is structurally capable of supporting the new antenna, cables, and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind, and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- ◆ The existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.
- ◆ Structural analyses for towers or other structures that have not been performed by Motorola will relinquish Motorola from any responsibility for the analysis report contents and/or recommendation therein.
- ◆ Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.



- ◆ The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola’s R56 standards.
- ◆ The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- ◆ A clear obstruction-free access exists from the antenna location to the equipment room.
- ◆ The Customer does not desire upgrade of the existing site to meet Motorola’s R56 standards.
- ◆ The floor can support the proposed new loading. Physical or structural improvements to the existing room will not be required.

### Completion Criteria

- ◆ Site development completed and approved by Baldwin County.

## 3.11.8 Site Development at Robertsdale Site

### Site Scope Summary

- ◆ Engineering services for site drawings and regulatory approvals – Not included.
- ◆ Site acquisition services – Not included.
- ◆ Zoning Services – Not included.
- ◆ Existing tower to be used for antennas – 350 ' Guyed Tower.

### Motorola Will:

#### Site Engineering

- ◆ Perform National Environmental Policy Act (NEPA) Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- ◆ Perform four point soil resistivity testing at the time of site visit.
- ◆ Provide a structural engineering analysis for antenna support structure, if necessary, to support the proposed antenna system. The structural analysis does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Baldwin County.



- ◆ Provide tower climbing and tower mapping services to collect information about structural members and existing equipment.
- ◆ Research permit requirements (building, utility, and construction) for the construction of the proposed site, and determine if the permits are required. If a permit is required, Motorola shall obtain the necessary permit forms and complete the necessary information on behalf of the Customer.

### Site Preparation

- ◆ Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Antenna and Transmission Line Installation

- ◆ Install two (2) antenna(s) for the RF system.
- ◆ Install one (1) tower top amplifier(s).
- ◆ Install one (1) 6-foot microwave dishes.
- ◆ Install two (2) Yagi antenna(s).
- ◆ Install up to 450 linear feet of 1/2-inch transmission line.
- ◆ Install up to 680 linear feet of 1-1/4-inch transmission line.
- ◆ Install up to 200 linear feet of EW63 waveguide for microwave dishes.
- ◆ Perform sweep tests on transmission lines.
- ◆ Perform alignment of each of one (1) microwave paths to ensure that the microwave dishes are optimally positioned.
- ◆ Supply and install one (1) ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.

### Existing Facility Improvement Work

- ◆ Supply and install 1 100-amp breaker panel with capacity for 20 circuits.
- ◆ Install two (2) 8-outlet distribution-bar(s) and wire each outlet to individual breaker.
- ◆ Install one (1) new single-phase UPS equipment and wire output to UPS distribution panel.

### Customer Will:

- ◆ If required, prepare and submit EME plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines. [Note: Should the customer desire guidance with this task, Motorola is able to recommend resources. Additionally, Appendix A of Motorola's Standards and Guidelines for Communication Sites (R56) discusses Electromagnetic Energy and provides a



basic methodology for structuring an FCC compliant program. If the customer does not have a copy of Motorola's Standards and Guidelines for Communication Sites (R56) v 2005, one will be provided.]

- ◆ Assist Motorola with permitting for sites as owner.
- ◆ As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that are the Customer's responsibility.
- ◆ Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an ongoing basis.
- ◆ Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- ◆ Provide personnel to observe progress and testing of site equipment according to the schedule provided by Motorola.
- ◆ Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- ◆ Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- ◆ Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- ◆ Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- ◆ Provide support facilities for the antenna cables (cable ladder, entry ports, Waveguide Bridge) from the antenna to the equipment room.
- ◆ Pay for any upgrade of the antenna support structure necessary to accommodate the new antennas.
- ◆ Provide space, HVAC, backup power (generator), outlets, grounding, surge suppression, lighting, fire suppression and cabling facilities for the equipment room per Motorola's R56 specifications. Ceiling and cable tray heights in the equipment rooms should be such as to accommodate 7-1/2-foot equipment racks, and the ceiling should be nine (9) feet or greater.
- ◆ If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- ◆ If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.
- ◆ Supply required standby generator power to support the additional proposed equipment. This power source shall be adequate to back up all radio equipment,



future equipment growth, and ancillary equipment such as, but not limited to, interior lighting, tower lighting and HVAC.

### Assumptions:

- ◆ No prevailing wage, certified payroll, mandatory union workers or mandatory minority workers are required for this work.
- ◆ All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- ◆ Temporary site trailers (tower, housing, COWS, and generator) have not been included for cutovers. Cutover logistics will be determined on a case-by-case basis; any additional costs will be negotiated prior to the execution of cutover tasks.
- ◆ Pricing has been based on National codes such as IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- ◆ A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- ◆ If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- ◆ The existing ground system and soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communication site grounding will be designed and installed per Motorola's R56 standards.
- ◆ AM detuning or electromagnetic emission studies will not be required.
- ◆ Protective grating over microwave dishes or the communications shelter has not been included in this proposal.
- ◆ Structural and foundation drawings of the antenna support structure will be made available to preclude the need for ultrasonic testing or mapping of existing tower structural members.
- ◆ Lead paint testing of existing painted towers has not been included.
- ◆ On the existing tower, the antenna locations for the proposed antenna system design will be available at the time of installation.
- ◆ The existing antenna support structure is structurally capable of supporting the new antenna, cables, and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind, and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- ◆ The existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.



- ◆ Structural analyses for towers or other structures that have not been performed by Motorola will relinquish Motorola from any responsibility for the analysis report contents and/or recommendation therein.
- ◆ Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.
- ◆ The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola's R56 standards.
- ◆ The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- ◆ A clear obstruction-free access exists from the antenna location to the equipment room.
- ◆ The Customer does not desire upgrade of the existing site to meet Motorola's R56 standards.
- ◆ The floor can support the proposed new loading. Physical or structural improvements to the existing room will not be required.

#### **Completion Criteria**

- ◆ Site development completed and approved by Baldwin County.

### **3.11.9 Site Development at Seminole Site**

This is a Baldwin County radio site. Aside from some minor grounding upgrades and cable ice bridge, little modification is necessary at this site.

#### **Site Scope Summary**

- ◆ Engineering services for site drawings and regulatory approvals – Not included.
- ◆ Site acquisition services – Not included.
- ◆ Zoning Services – Not included.
- ◆ Existing tower to be used for antennas – 400 ' Guyed Tower.

#### **Motorola Will:**

#### **Site Engineering**

- ◆ Perform National Environmental Policy Act (NEPA) Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.



- ◆ Perform four point soil resistivity testing at the time of site visit.
- ◆ Provide a structural engineering analysis for antenna support structure, if necessary, to support the proposed antenna system. The structural analysis does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Baldwin County.
- ◆ Provide tower climbing and tower mapping services to collect information about structural members and existing equipment.
- ◆ Research permit requirements (building, utility, and construction) for the construction of the proposed site, and determine if the permits are required. If a permit is required, Motorola shall obtain the necessary permit forms and complete the necessary information on behalf of the Customer.

### Site Preparation

- ◆ Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Site Components Installation

- ◆ Supply and install one (1) freestanding 24-inch-wide cable/ice bridge from the tower to the shelter (up to 10 linear feet).

### Antenna and Transmission Line Installation

- ◆ Install two (2) antenna(s) for the RF system.
- ◆ Install one (1) tower top amplifier(s).
- ◆ Install one (1) 6-foot microwave dishes.
- ◆ Install three (3) Yagi antenna(s).
- ◆ Install up to 550 linear feet of 1/2-inch transmission line.
- ◆ Install up to 780 linear feet of 1-1/4-inch transmission line.
- ◆ Install up to 274 linear feet of EW63 waveguide for microwave dishes.
- ◆ Perform sweep tests on transmission lines.
- ◆ Perform alignment of each of one (1) microwave paths to ensure that the microwave dishes are optimally positioned.
- ◆ Supply and install one (1) ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.



### Existing Facility Improvement Work

- ◆ Supply and install one (1) 100-amp breaker panel with capacity for 20 circuits.
- ◆ Install one (1) new single-phase UPS equipment and wire output to UPS distribution panel.
- ◆ Supply and install one (1) cable entry panel with six (6) ports.

### Customer Will:

- ◆ If required, prepare and submit EME plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines. [Note: Should the customer desire guidance with this task, Motorola is able to recommend resources. Additionally, Appendix A of Motorola's Standards and Guidelines for Communication Sites (R56) discusses Electromagnetic Energy and provides a basic methodology for structuring an FCC compliant program. If the customer does not have a copy of Motorola's Standards and Guidelines for Communication Sites (R56) v 2005, one will be provided.]
- ◆ Assist Motorola with permitting for sites as owner.
- ◆ As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that are the Customer's responsibility.
- ◆ Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an ongoing basis.
- ◆ Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- ◆ Provide personnel to observe progress and testing of site equipment according to the schedule provided by Motorola.
- ◆ Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- ◆ Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- ◆ Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- ◆ Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- ◆ Provide support facilities for the antenna cables (cable ladder, entry ports, Waveguide Bridge) from the antenna to the equipment room.
- ◆ Pay for any upgrade of the antenna support structure necessary to accommodate the new antennas.



- ◆ Provide space, HVAC, backup power (generator), outlets, grounding, surge suppression, lighting, fire suppression and cabling facilities for the equipment room per Motorola's R56 specifications. Ceiling and cable tray heights in the equipment rooms should be such as to accommodate 7-1/2-foot equipment racks, and the ceiling should be nine (9) feet or greater.
- ◆ If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- ◆ If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.
- ◆ Supply required standby generator power to support the additional proposed equipment. This power source shall be adequate to back up all radio equipment, future equipment growth, and ancillary equipment such as, but not limited to, interior lighting, tower lighting and HVAC.

**Assumptions:**

- ◆ No prevailing wage, certified payroll, mandatory union workers or mandatory minority workers are required for this work.
- ◆ All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- ◆ Temporary site trailers (tower, housing, COWS, and generator) have not been included for cutovers. Cutover logistics will be determined on a case-by-case basis; any additional costs will be negotiated prior to the execution of cutover tasks.
- ◆ Pricing has been based on National codes such as IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- ◆ A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- ◆ If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- ◆ The existing ground system and soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communication site grounding will be designed and installed per Motorola's R56 standards.
- ◆ AM detuning or electromagnetic emission studies will not be required.
- ◆ Protective grating over microwave dishes or the communications shelter has not been included in this proposal.
- ◆ Structural and foundation drawings of the antenna support structure will be made available to preclude the need for ultrasonic testing or mapping of existing tower structural members.
- ◆ Lead paint testing of existing painted towers has not been included.



- ◆ On the existing tower, the antenna locations for the proposed antenna system design will be available at the time of installation.
- ◆ The existing antenna support structure is structurally capable of supporting the new antenna, cables, and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind, and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- ◆ The existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.
- ◆ Structural analyses for towers or other structures that have not been performed by Motorola will relinquish Motorola from any responsibility for the analysis report contents and/or recommendation therein.
- ◆ Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.
- ◆ The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola's R56 standards.
- ◆ The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- ◆ A clear obstruction-free access exists from the antenna location to the equipment room.
- ◆ The Customer does not desire upgrade of the existing site to meet Motorola's R56 standards.
- ◆ The floor can support the proposed new loading. Physical or structural improvements to the existing room will not be required.

#### **Completion Criteria**

- ◆ Site development completed and approved by Baldwin County.

### **3.11.10 Site Development at Bay Minette PD Site**

#### **Site Scope Summary**

- ◆ Engineering services for site drawings and regulatory approvals – Not included.
- ◆ Site acquisition services – Not included.
- ◆ Zoning Services – Not included.
- ◆ Existing tower to be used for antennas – 180' Self supported Tower.



## Motorola Will:

### Site Engineering

- ◆ Perform National Environmental Policy Act (NEPA) Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- ◆ Perform four point soil resistivity testing at the time of site visit.
- ◆ Provide a structural engineering analysis for antenna support structure, if necessary, to support the proposed antenna system. The structural analysis does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Baldwin County.
- ◆ Provide tower climbing and tower mapping services to collect information about structural members and existing equipment.
- ◆ Research permit requirements (building, utility, and construction) for the construction of the proposed site, and determine if the permits are required. If a permit is required, Motorola shall obtain the necessary permit forms and complete the necessary information on behalf of the Customer.

### Site Preparation

- ◆ Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Antenna and Transmission Line Installation

- ◆ Install two (2) 4-foot microwave dishes.
- ◆ Install up to 200 linear feet of EW63 waveguide for microwave dishes.
- ◆ Perform alignment of each of two (2) microwave paths to ensure that the microwave dishes are optimally positioned.
- ◆ Install two (2) antenna(s) for the RF system.
- ◆ Install one (1) tower top amplifier(s), if required by final design.
- ◆ Install up to 225 linear feet of 1/2-inch transmission line.
- ◆ Install up to 450 linear feet of 1-1/4-inch transmission line.



- ◆ Perform sweep tests on transmission lines.
- ◆ Supply and install one (1) ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.

### Existing Facility Improvement Work

- ◆ Supply and install one (1) 100-amp breaker panel with capacity for 20 circuits.
- ◆ Install one (1) new single-phase UPS equipment and wire output to UPS distribution panel.

### Customer Will:

- ◆ If required, prepare and submit EME plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines. [Note: Should the customer desire guidance with this task, Motorola is able to recommend resources. Additionally, Appendix A of Motorola's Standards and Guidelines for Communication Sites (R56) discusses Electromagnetic Energy and provides a basic methodology for structuring an FCC compliant program. If the customer does not have a copy of Motorola's Standards and Guidelines for Communication Sites (R56) v 2005, one will be provided.]
- ◆ Assist Motorola with permitting for sites as owner.
- ◆ As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that are the Customer's responsibility.
- ◆ Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an ongoing basis.
- ◆ Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- ◆ Provide personnel to observe progress and testing of site equipment according to the schedule provided by Motorola.
- ◆ Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- ◆ Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- ◆ Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- ◆ Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- ◆ Provide support facilities for the antenna cables (cable ladder, entry ports, Waveguide Bridge) from the antenna to the equipment room.



- ◆ Pay for any upgrade of the antenna support structure necessary to accommodate the new antennas.
- ◆ Provide space, HVAC, backup power (generator), outlets, grounding, surge suppression, lighting, fire suppression and cabling facilities for the equipment room per Motorola's R56 specifications. Ceiling and cable tray heights in the equipment rooms should be such as to accommodate 7-1/2-foot equipment racks, and the ceiling should be nine (9) feet or greater.
- ◆ If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- ◆ If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.
- ◆ Supply required standby generator power to support the additional proposed equipment. This power source shall be adequate to back up all radio equipment, future equipment growth, and ancillary equipment such as, but not limited to, interior lighting, tower lighting and HVAC.

#### Assumptions:

- ◆ No prevailing wage, certified payroll, mandatory union workers or mandatory minority workers are required for this work.
- ◆ All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- ◆ Temporary site trailers (tower, housing, COWS, and generator) have not been included for cutovers. Cutover logistics will be determined on a case-by-case basis; any additional costs will be negotiated prior to the execution of cutover tasks.
- ◆ Pricing has been based on National codes such as IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- ◆ A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- ◆ If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- ◆ The existing ground system and soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communication site grounding will be designed and installed per Motorola's R56 standards.
- ◆ AM detuning or electromagnetic emission studies will not be required.
- ◆ Protective grating over microwave dishes or the communications shelter has not been included in this proposal.



- ◆ Structural and foundation drawings of the antenna support structure will be made available to preclude the need for ultrasonic testing or mapping of existing tower structural members.
- ◆ Lead paint testing of existing painted towers has not been included.
- ◆ On the existing tower, the antenna locations for the proposed antenna system design will be available at the time of installation.
- ◆ The existing antenna support structure is structurally capable of supporting the new antenna, cables, and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind, and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- ◆ The existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.
- ◆ Structural analyses for towers or other structures that have not been performed by Motorola will relinquish Motorola from any responsibility for the analysis report contents and/or recommendation therein.
- ◆ Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.
- ◆ The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola's R56 standards.
- ◆ The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- ◆ A clear obstruction-free access exists from the antenna location to the equipment room.
- ◆ The Customer does not desire upgrade of the existing site to meet Motorola's R56 standards.
- ◆ The floor can support the proposed new loading. Physical or structural improvements to the existing room will not be required.

### Completion Criteria

- ◆ Site development completed and approved by Baldwin County.

## 3.12 Deployment Phase

### 3.12.1 Ordering and Manufacturing

After the kickoff meeting and Contract Design Review, Motorola will process the orders for equipment and begin equipment manufacturing. The manufacturing



facilities will test each subsystem from its base kit or module level up to the complete subsystem. In addition to the individual tests applied to all units shipped, Motorola's product quality engineering department will perform additional tests on periodic samples.

### 3.12.2 Staging

Motorola is a world leader in developing and implementing large-scale communications systems. As part of our commitment to quality, we propose the staging of equipment before shipment. Motorola achieves its high levels of customer satisfaction by assembling and testing every communications system sold to stringent quality and functional performance tests prior to the system shipping.

Motorola will provide factory staging for all major fixed-end equipment and a representative sampling of subscriber units included in this proposal.

Motorola will assemble the system hardware at our factory staging facilities in Schaumburg, Illinois. Physical set up and location of hardware will comply with the Customer's approved equipment layout plans. All cables will be cut and labeled with to/from information to clarify interconnection for field installation. Cables will be cut to fit the room layout plan specifications. All provided equipment cables will be connectorized and tested.

After assembling the equipment, Motorola's staging technicians' will power up the equipment, load software, set levels, and optimize the equipment. System parameters will be set according to inputs from the field team. System software and system features will be tested and validated. All system levels will be set according to specifications to verify proper end-to-end connectivity. These settings will be documented to provide baseline information to the field integration team. Once the system or subsystem has been assembled, optimized, and integrated as a complete working unit, the system will be tested according to the staging acceptance test procedures.

Upon satisfactory completion of tests, Motorola will coordinate with the Customer for a factory visit to witness the system testing. This visit will provide the Customer with the opportunity to see the equipment assembled and working as an integrated system. Most functionality and features of the communication system that are capable of operation in a factory environment will be tested and verified for the Customer. The passing of acceptance testing will be the determination that the equipment is ready to be shipped to the field.

The Customer Center for Solutions integration (CCSi) allows systems to go through an exercising period before leaving the staging area. This allows testing of components or boards for proper operation as a complete system before shipping to their final destination. At completion of system staging Factory Acceptance Test Procedures (FATP), Motorola will inventory the equipment. Motorola will update the inventory database with this information to assist in tracking upon delivery to the field.



**Note:** The Customer is responsible to pay for all travel, lodging, meals, and incidental costs for Customer personnel and representatives to witness the Factory Acceptance Testing during the staging.

### 3.12.3 Equipment Delivery to the Field and Inventory

All equipment will be shipped to the local TEAM ONE MSS location for inventory and storage. TEAM ONE will inventory equipment as it arrives, and store until sites are ready for installation. Once a site is ready, TEAM ONE will deliver and install the equipment.

### 3.12.4 Orange Beach Master Site Upgrade

Motorola will upgrade the existing M1 P25 Master Site to an M3 model and relocate it to the Robertsdale EOC. The existing Orange Beach RF site will also be upgraded to the current release and integrated in with the new proposed RF sites.

### 3.12.5 Fixed Equipment Installation

Motorola will be responsible for the installation of all fixed equipment contained in the equipment list and as outlined in the System Description based upon the agreed-to floor plans at the sites where the physical facility improvement is complete and the site is ready for installation. Customer is responsible for all site improvements required to house and power the proposed equipment. All equipment will be installed in a neat and professional manner, employing a standard of workmanship consistent with Motorola's own R56 installation standards and in compliance with applicable National Electrical Code (NEC), EIA, Federal Aviation Administration (FAA), and FCC standards and regulations. Motorola's scope of work at each Customer provided location is limited to minor electrical improvements. Any requirements for new shelters, generators, and main electrical utility services will be the Customer's responsibility.

For installation of the fixed equipment at the various sites, Motorola will furnish all cables for power, audio, control, and radio transmission to connect the Motorola-supplied equipment to the power panels or receptacles and the audio/control line connection point. All cabling will be properly connected and terminated based upon Motorola's installation quality standards and clearly labeled at both ends. All associated punch block connections will also be properly labeled. All cabling and punch block connections will be recorded into the final system as-built documentation. All cabling associated with computer equipment will be shielded and grounded based upon the manufacturer's specifications. Cables for computer terminals will provide a minimum of five (5) feet of slack to allow for slight adjustments in positioning of the equipment (if requested). All additional cabling will be neatly coiled and secured with cable ties.



All Motorola-provided equipment will be properly grounded to the site's grounding system. All cabinets, racks, enclosures, telephone circuit surge protectors, and transmission line surge protectors provided by Motorola will be connected to the single point ground plate. Ground connections will be made using appropriate methods as defined by industry guidelines for communications site installation. All painted surfaces where ground connections will be made will be scraped and dissimilar metal connections treated with an antioxidant compound.

To minimize interference, all cabling will be grouped by category and run separately. All cables will be run and secured neatly in cable tray, under elevated flooring, conduit, or by other appropriate means. Any cuts in computer flooring will be dressed with a protective grommet to avoid sharp edges. All sawdust and metal shavings will be vacuumed from beneath the computer flooring. Entry holes placed in cabinets will have grommets installed to protect the cables from damage. Any wiring connections terminating at punch blocks will utilize appropriate bridging clips for cross connections.

Motorola will follow R56 installation practices in the assembly and installation of all antenna systems. Motorola will utilize appropriate connectors, and assemble the cables according to the manufacturer's specifications. All transmission lines will be run and installed without exceeding the manufacturer's specified bending radius. Transmission lines will be properly secured and/or fastened to the cable tray or ladder attached to the tower using the manufacturer's recommended devices.

During field installation of the equipment, any required changes to the installation will be noted and assembled with the final as-built documentation of the system. The as-built documents will be provided at the end of the project along with the maintenance and operator manuals. Upon completion of installation, Motorola will perform final site quality audits to verify proper physical installation and operational configurations of each individual site.

### 3.12.6 Subscriber Programming

Motorola will supply and program the quantities of subscriber units as included in the proposal equipment list. Subscribers will be programmed one (1) time only, based upon Customer approved programming templates. Additional reprogramming of the subscribers is available through the Change Order process; this is due to the significant amount of labor required to re-program the units.

To identify errors in the templates, Motorola's system engineer will program test radios and activate them on the system. The Customer's PM will be responsible for testing and verifying each feature selected. The Customer's PM will provide acceptance sign-off of the final templates for all subscriber units.

After the subscribers are programmed, they will be delivered to the Customer for distribution to its users. Upon arrival at the installation facility, Motorola will install the subscribers in the vehicles as defined in the installation schedule.



### 3.12.7 Mobile Radio Installation

Motorola will coordinate the installation of mobiles into the identified vehicles with the Customer's PM. It is Motorola's intention to minimize the impact upon and the involvement of the individual vehicle operators in the selection and approval of each installation. The mounting locations of like-type vehicles will be prototyped and approved by the Customer's PM before performing mass installation. Motorola will work with the Customer to develop and approve prototypes of each type of mobile installation.

These prototype installations will be designed to avoid interference with any functional devices, or adversely affect the safe operation of the vehicles. Motorola will develop an installation diagram depicting the equipment placement and cable routing and for each approved vehicle prototype. This diagram will be provided to each of the authorized installation subcontractors to be used as the basis of all installations. Dependent upon vehicle configurations, certain installations will require variations from the approved plan. For those vehicle types, Motorola will obtain approval by the Customer's PM before proceeding with the installation. This will limit confusion and control the requests of unauthorized individuals.

No additional trips for equipment removal or the relocation of removed equipment into an alternate vehicle have been included in this proposal.

All installations will take place during normal workings hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding holidays. Scheduling and management of this operation will be performed under the guidance of Motorola's PM. Our proposal pricing does not include the following:

- ◆ Customized installation(s).
- ◆ Separate visit for the removal or relocation of existing equipment in the vehicles after the installation of new mobile unit.
- ◆ Any installation of vehicular accessories (light bars, shotgun release, PA speakers, disguise consoles, etc.).
- ◆ Relocation of existing equipment (mobiles, sirens, flashlights, scanners, etc.).
- ◆ Any mounting hardware other than the hardware provided as a part of the standard Motorola mounting kit.

Upon delivery of the mobile subscriber equipment, Motorola will obtain authorized signature acknowledging receipt of all mobiles and accessories.

Specialized use vehicles such as command vehicles, fire/rescue trucks, SWAT vans and the like may require design and fabrication of special mounting brackets and/or cables to insure an ergonomically correct installation. The design, fabrication and installation costs for the specialized brackets, power, antenna, or control cables not identified at time of proposal submittal will be Customer's responsibility. The installation supervisor will inspect each specialized vehicle to determine if any customized hardware will be necessary to complete the installation. A list of custom



hardware with estimated pricing will be submitted to the Customer for approval before installation commences. Installation will commence only when the Customer has approved any additional costs and all custom hardware becomes available to the installation supervisor.

Power converters and/or battery splitters are assumed not to be in use. Motorola's installation quotation assumes constant power will be supplied at all times to the radio to maintain user programming. Mobile equipment is quoted with a standard 12-volt negative-ground vehicle battery system.

The Customer will perform the following tasks for subscriber equipment installations:

- ◆ Provide the required amount of vehicles at the start of each business day.
- ◆ If a vehicle cannot be released to Motorola's installation facility, the Customer will provide a mutually agreeable location suitable for mobile installations that has adequate working space with HVAC, lights, electric, and shelter from the outside elements.
- ◆ Designate a single point of contact within the Customer project organization that will be responsible for scheduling vehicles as required for installation.
- ◆ Have a representative on site during the installations to approve and accept the installations daily.
- ◆ Inspect each vehicle prior to delivery to the installation facility to ensure that the vehicle is free from trash, weapons, and contraband.
- ◆ Arrange for all equipment removed from the vehicles to be picked up from the installation facility on a weekly basis.
- ◆ Inventory all equipment prior to removal from the installation facility; any discrepancies shall be resolved at that time.

The Customer PM will need to arrange a continuous flow of vehicles to support the installation schedule in order to avoid any scheduling delays. It will be the responsibility of the Customer to assign a staff member to act as the distribution coordinator of user staff and radios. As users arrive at the facility to pickup a new mobile subscriber, the Customer's staff member will review the subscriber database and issue the correct mobile to that individual. Distribution of mobiles not assigned at the time the programming center closes at a given location becomes the responsibility of the Customer. If the Customer is unable to provide the vehicles according to the agreed upon schedule, the Motorola and Customer PMs will identify any additional cost or impact to the project schedule.

### 3.12.8 Portable Subscriber Distribution

Motorola will coordinate the distribution of portable subscribers with the Customer PM. Upon delivery, Motorola will obtain an authorized signature acknowledging receipt of all subscribers and accessories and proper operation of a sampling of



subscribers. Motorola will document all inventory adjustments as these units are distributed and verify the information with the Customer's PM.

### 3.12.9 System Programming and Optimization

Upon completion of the installation process, the RF equipment will be powered up and then optimized by the Motorola system technologist under the direction of the PM. Motorola and its subcontractors will optimize each subsystem individually. Audio and data levels will be checked to verify factory settings. Radio equipment will have forward and reflected power checked after connection to the antenna systems to verify that they meet the FCC requirements and are within tolerances. Communication interfaces between devices will be verified for proper operation. Features and functionality will be tested to ensure that they are functioning according to the manufacturer's specifications and based upon the final configuration established during system staging.

### 3.12.10 Console Equipment Optimization

Motorola, based on the console templates designed during the fleetmapping process, will program the consoles. The Customer will need to provide required radio ID and alias information so that the Alias database can be setup for interfacing to the console. The Customer will define all logging recorder information including which talk-groups will be logged. This information will be provided prior to the console installations.

### 3.12.11 Functional and Site Acceptance Test Plan

Upon completion of the fixed-end equipment optimization, Functional Acceptance Testing of the fixed equipment at the sites will begin based upon the ATP agreed upon in the Contract Design Review. The ATP specifies the standards and tests to which Motorola and its authorized subcontractors will adhere. Motorola will conduct a Functional Acceptance Test to verify the operational functionality and features of both the individual subsystems and of the system as a whole. In the event that any task fails in the initial test, that particular task will be retested when Motorola determines that corrective action has been taken. All issues that arise during the acceptance test are to be fully documented and resolved before the subsystem is considered ready for integration into the system. Motorola will document the results of this acceptance test and provide that documentation to the County.

Site acceptance tests of the individual components will be conducted as part of the system installation and optimization, and as such, have not been scheduled separately. County representatives are welcome to be present during the testing period to witness each of the tests. These tests include individual equipment specifications such as receiver sensitivity and RF transmitter power. Documentation of component tests will be made available for the County as part of the final documentation package.



## 3.13 Coverage Acceptance Test Plan

The Coverage Acceptance Test Plan (CATP) will determine acceptance of system coverage. The Coverage Acceptance Test will require the participation of Customer personnel in the testing process. A final CATP will be approved by the Customer during the Contract Design Review.

Customer will provided test vehicle will be responsible for providing one (1) representative for each test team to witness the procedure and assist with navigation and documentation.

### 3.13.1 Cutover

A detailed cutover plan will be developed with the assistance of the Customer's PM and designated agency representatives to ensure that an effective and efficient transition occurs from the existing radio system to the new system. The cutover plan will detail which departments move to the new system and in which order they migrate.

### 3.13.2 System Acceptance

System Acceptance will occur upon the installation, optimization, and successful completion of the Functional Acceptance Tests, which apply to the specific system, or upon "Beneficial Use", whichever occurs first. "Beneficial Use" means use of the system or subsystem for operational purposes, other than for training or testing. If the Customer commences Beneficial Use of the system prior to system acceptance, final acceptance for the system or subsystem will have occurred. The warranty period shall commence upon the earlier of the date of System Acceptance or Beneficial Use.

After the successful completion of the cutover, the Customer will begin to use the system for its day-to-day operation. At that point, Motorola will transition the operations of the new system to our service organization for providing ongoing system management, maintenance, and support.

### 3.13.3 As-Built Documentation

Motorola will provide as-built site manuals: one for each of the remote sites for the Customer. The documentation provided will be appropriate to the scope and complexity of the particular system installation or upgrade performed, as determined by Motorola engineering.

### 3.13.4 Punch Lists

During acceptance testing, a punch list will be generated noting any corrections that may be required to be made prior to Final Project Acceptance. A resolution to each



punch list item will be mutually agreed to and a timeframe for satisfactory completion will be listed. When punch list items have been resolved and the final documentation delivered, the Customer and Motorola will execute Final Project Acceptance.

### 3.13.5 Final Project Acceptance

After successful completion of system testing and acceptance of the system, Motorola will conduct meetings to verify with Customer that all contract deliverables have been satisfied and review the Managed Services Support Plan. These meetings will allow the Customer an opportunity to discuss any final issues or address any questions associated with the closeout of the System Implementation phase. Reviewing the Managed Services Plan will provide the opportunity for the Customer to review the level of support supplied, the procedures that need to be followed, and who to call when questions or concerns arise.

The Customer will grant Final Project Acceptance to Motorola when all contractual commitments of Motorola have been completed.

## 3.14 Change Control Plan

A Change Control Plan is a simple yet effective method of managing project changes, which include identifying changes, investigating the probable impact of changes, evaluating the benefits and costs of the proposed changes, making a decision to implement, defer, or deny the change request, and reporting the impact of approved changes on the cost, schedule, and scope of the project.

Change Orders are used to ensure that all changes to the Agreement (Contract) are properly documented, reviewed, and approved prior to inclusion into the document. Changes to an agreement include, but are not limited to, such items as changes to the equipment ordered, changes in service options, etc. A Change Order is an amendment to the contract if it requires authorization by either the Customer or Motorola. Any change to be completed during the initial development, before delivery of production system (final user acceptance), may result in a change in the scope, schedule, or costs (or all three) of the project. With this in mind, a fundamental set of rules are followed when a Change Order is initiated from any source.

All Change Orders shall:

- ◆ Be documented, clearly stating the scope of work, responsible parties doing the work, a dollar amount, a schedule impact, and signatures.
- ◆ Require appropriate authorization before work can commence.
- ◆ Be communicated to the people or organizations impacted by the pending change.
- ◆ Conform to the Scope of Work authorized by the Customer.



Once the SOW is approved and signed by authorized representatives of both parties, Customer and Motorola, a formal Change Control Plan will become effective. A Change Order Request Form will be completed, mutually agreed to, and executed by both the Customer's authorized PM and Motorola's PM prior to the initiation of work outlined in any proposed change.

Changes made after acceptance of the Contract Design Review will be billed to the Customer based upon the payment terms and milestone payment schedule (or as modified by the Change Order).

### 3.15 Preliminary Project Schedule

A preliminary project schedule is included on the following pages. The final schedule will be mutually developed between Motorola and Baldwin County.

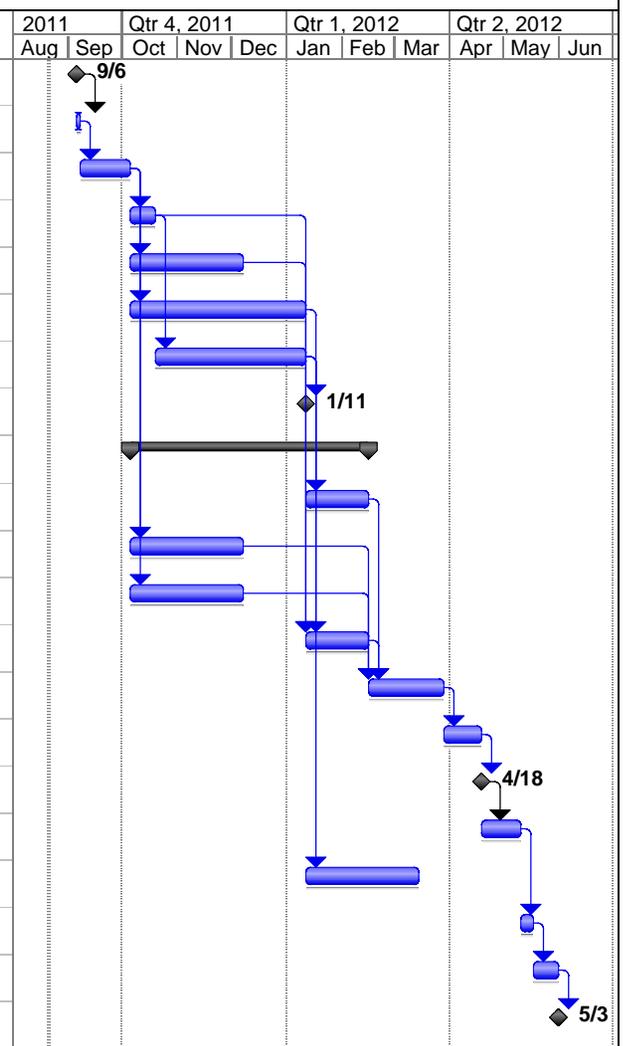


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Baldwin County, AL

ID	Task Name	Duration	Start	Finish	Responsibility	2011		Qtr 4, 2011			Qtr 1, 2012			Qtr 2, 2012		
						Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	Contract Award (Milestone)	0 days	Tue 9/6/11	Tue 9/6/11	Baldwin											
2	Kickoff	2 days	Tue 9/6/11	Wed 9/7/11	1 Motorola											
3	Design Review	20 days	Thu 9/8/11	Wed 10/5/11	2 Motorola & Baldwin											
4	Order Processing	10 days	Thu 10/6/11	Wed 10/19/11	3 Motorola											
5	Site Electrical	45 days	Thu 10/6/11	Wed 12/7/11	3 Motorola & Baldwin											
6	Tower Structural Analysis	70 days	Thu 10/6/11	Wed 1/11/12	3 Motorola & Baldwin											
7	Manufacture and Stage (Milestone)	60 days	Thu 10/20/11	Wed 1/11/12	4 Motorola											
8	Staging Effort Accepted	0 days	Wed 1/11/12	Wed 1/11/12	7 Baldwin											
9	<b>Backhaul</b>	<b>95 days</b>	<b>Thu 10/6/11</b>	<b>Wed 2/15/12</b>	<b>Motorola &amp; Baldwin</b>											
10	PTP Microwave	25 days	Thu 1/12/12	Wed 2/15/12	6 Motorola											
11	County Fiber	45 days	Thu 10/6/11	Wed 12/7/11	3 Baldwin											
12	State APT Microwave	45 days	Thu 10/6/11	Wed 12/7/11	3 Baldwin & State											
13	Installation	25 days	Thu 1/12/12	Wed 2/15/12	4,7,5 Motorola											
14	Optimization	30 days	Thu 2/16/12	Wed 3/28/12	11,12 Motorola											
15	Training (Milestone)	15 days	Thu 3/29/12	Wed 4/18/12	14 Motorola & Baldwin											
16	Training Complete	0 days	Wed 4/18/12	Wed 4/18/12	15 Baldwin											
17	Acceptance Testing (Milestone)	16 days	Thu 4/19/12	Thu 5/10/12	16 Motorola & Baldwin											
18	Subscriber Programming (Milestone)	45 days	Thu 1/12/12	Wed 3/14/12	7 Motorola											
19	Cutover	5 days	Fri 5/11/12	Thu 5/17/12	17 Motorola & Baldwin											
20	Finalize	10 days	Fri 5/18/12	Thu 5/31/12	19 Motorola & Baldwin											
21	System Acceptance	0 days	Thu 5/31/12	Thu 5/31/12	20											



Project: Project Schedule\_21AUG2011  
Date: Sun 8/21/11

Task		Milestone		External Tasks	
Split		Summary		External Milestone	
Progress		Project Summary		Deadline	



## Section 3.1 Training Plan

### 3.1.1 Overview

Motorola Solutions' Learning organization dedicates itself exclusively to offering the most comprehensive training available for Motorola Solutions' advanced equipment to fully realize the equipment's potential. From sophisticated training needs analysis to ongoing training throughout the life cycle of your product or system, we can help ensure that your investment in training today is an investment for your future.

Motorola Solutions' training methodology includes knowledgeable instructors, well-designed courseware, lab activities, and system hardware and software that closely parallels your operating environment and that is integrated with proper system documentation. This methodology is based upon several key criteria:

- ◆ Course design is driven by an analysis of learner needs and focuses on how-to rather than theory.
- ◆ Learning objectives are based upon what learners need to accomplish on the job and focus on specific applications.
- ◆ Hands-on lab opportunities using customer-specific job aids are incorporated into training to maximize the transfer of skills to the job and the retention/reuse of information.

Motorola Solutions offers both train-the-trainer and end-user training. Students can attend training at one of their training centers or instructors can come to your site. In conjunction with or in addition to instructor-led training, we can provide self-study/e-learning programs in which students follow a computer-based training module on CD-ROM or other media.

### 3.1.2 Courses Proposed

In the process of assessing your training needs, Motorola Solutions has identified the following course(s) that are necessary to achieve your training goals. Inserted within the matrix are course description files for your review or printing.

While the standard courses are encouraged, the class outline may be tailored for your quotation. Thus, the outline(s) below may not exactly match your quoted class length and content.

Technical Training						
Course	Target Audience	No. of Sessions	Duration (days)	Location	Date	No. of Attendees
<b>Networking Essentials in Motorola Solutions Communications Equipment</b> (Instructor-led)	Technicians	One (1)	4.5	Resident Robertsdale, AL	Prior to Admin Course	Five (5)
Course Synopsis: This course provides the technician with the essential elements of networking required for the installation and maintenance of most Motorola Solutions communications systems. The course includes ample hands on and basic troubleshooting on network elements. This course provides the technician with the necessary networking information required for understanding the network components installed in modern Motorola Solutions communications systems.						
<b>Advanced Networking in Motorola Solutions Communications Equipment</b> (Instructor Led)	Technicians	One (1)	4.5	Resident Robertsdale, AL	Prior to Admin Course	Five (5)
Course Synopsis: This course provides the technician with the necessary networking information required for understanding the network components installed in modern Motorola Solutions communications systems. The course includes familiarization with basic networking concepts and the networking components deployed in the SmartZone™ Release 3.0, SmartZone OmniLink System 3.5, ASTRO® SmartZone System 4.1, and ASTRO 25 Systems.						
<b>ASTRO 25 IV&amp;D Trunking with M Core System Overview</b> Part 1 of 3 (Self-Paced Online)	System Managers and Technicians	NA	6-12 Hours	Online Robertsdale, AL	Prior to Part 2	Five (5)
Course Synopsis: The ASTRO 25 Integrated Voice and Data System Overview course is intended to provide an overview of the ASTRO 25 System in order to familiarize the various audiences with the overall system capabilities, components, features, and benefits.						



Technical Training						
Course	Target Audience	No. of Sessions	Duration (days)	Location	Date	No. of Attendees
<b>ASTRO 25 IV&amp;D Introduction to Radio System Management Applications</b> Part 2 of 3 (Self-Paced Online)	System Managers and Technicians	NA	6-12 Hours	Online Robertsdale, AL	Prior to Part 3	Five (5)
<p>Course Synopsis:</p> <p>This course provides an introduction to the Motorola Solutions Radio System Management Applications. This course is a Prerequisite to Radio System Administrator.</p>						
<b>ASTRO 25 IV&amp;D Radio System Administrator Workshop</b> Part 3 of 3 (Instructor Led)	System Managers	One (1)	4.5	Resident Robertsdale, AL	Prior to Managing	Five (5)
<p>Course Synopsis:</p> <p>This workshop covers management functions for an ASTRO 25 Integrated Voice and Data (IV&amp;D) System. Learning activities in this document-based training course focus on how to use the different ASTRO 25 IV&amp;D System Management applications. Participants will be provided with an opportunity to discuss how to structure their organization and personnel for optimal ASTRO 25 IV&amp;D system use.</p>						
<b>ASTRO 25 IV&amp;D M Core Workshop</b> (Instructor-led)	Master Site Technicians	One (1)	4.5	Resident Robertsdale, AL	Prior to Maintaining	Five (5)
<p>Course Synopsis:</p> <p>This workshop teaches advanced troubleshooting skills and best practices for the ASTRO 25 Integrated Voice and Data System Release 7.x. The workshop focuses on gathering and analyzing system information to implement the appropriate actions that return a system to full operational status.</p>						
<b>ASTRO 25 IV&amp;D IP Based Digital Simulcast Workshop</b> (Instructor-led)	Simulcast Technicians	One (1)	Three (3)	Resident Robertsdale, AL	Prior to Maintaining	Five (5)
<p>Course Synopsis:</p> <p>This workshop describes the components in the ASTRO 25 Integrated Voice and Data System Digital Simulcast subsystem. This course presents how the Simulcast subsystem operates and explains the tools and methods available for troubleshooting components within the Simulcast subsystem.</p>						
<b>ASTRO 25 IV&amp;D GTR 8000 Repeater Site Workshop</b> (Instructor-led)	Remote Site Technicians	One (1)	Three (3)	Resident Robertsdale, AL	Prior to Maintaining	Five (5)
<p>Course Synopsis:</p> <p>This workshop describes the components in the ASTRO 25 Integrated Voice and Data System GTR 8000 site subsystem. This course presents how the GTR 8000 site subsystem operates and explains the tools and methods available for troubleshooting components within the repeater site subsystem.</p>						



Technical Training						
Course	Target Audience	No. of Sessions	Duration (days)	Location	Date	No. of Attendees
<b>MCC 7500 Dispatch Console</b> (Instructor-led)	Console Technicians	One (1)	Four (4)	Resident Robertsdale, AL	Prior to Maintaining	Five (5)
Course Synopsis: This course familiarizes technicians in troubleshooting/repair functions, operating procedures, and hardware/software applications for the MCC 7500 console. The focus is on a detailed discussion of console hardware and hands-on activities with the installation and configuration of the MCC 7500 console.						

It is recommended that the students bring their lap top computers for all System Manager and Technician classes. Students will receive their manuals in CD-ROM format and hard copy participant guides.

Dispatch Supervisor End User Training						
Course	Target Audience	No. of Sessions	Duration (days)	Location	Date	No. of Attendees
<b>MCC 7500 Dispatch Console</b> (Instructor-led)	Console Supervisor	Two (2)	Half Day	Resident Robertsdale, AL	Prior to Maintaining	Nine (9)
Course Synopsis: This course familiarizes supervisors in operating procedures, and hardware/software applications for the MCC 7500 console. The focus is hands-on activities with the configuration and operation of the MCC 7500 console.						

Dispatcher End User Training						
Course	Target Audience	No. of Sessions	Duration (days)	Location	Date	No. of Attendees
<b>MCC 7500 Dispatch Console</b> (Instructor-led)	Console Supervisor	Three (3)	Half Day	Resident Robertsdale, AL	Prior to Maintaining	33
Course Synopsis: This course familiarizes dispatchers in operating procedures, and hardware/software applications for the MCC 7500 console. The focus is hands-on activities with the operation of the MCC 7500 console.						





## Section 4. Coverage Acceptance Test Plan

### 4.1 Overview

This Coverage Acceptance Test Plan (CATP) is designed to verify that the voice radio system implemented by Motorola meets or exceeds the required coverage reliability within Baldwin County's service area as indicated on Motorola's coverage maps. The CATP defines the coverage testing method and procedure, the coverage acceptance criterion, the test documentation, and the responsibilities of both Motorola and Baldwin County.

Coverage Acceptance Testing is based upon a coverage prediction that accurately represents the implemented infrastructure and parameters that are consistent with the contract agreements. If the implemented system varies from the design parameters, then a revised coverage map will be prepared. New test maps will reflect the measured losses and gains associated with the implemented infrastructure and subscribers. These will be used to define the test configuration and potential areas from which test locations may be included in the evaluation process.

To verify that the radio coverage reliability is met, the indicated coverage area within Baldwin County's operating area will be divided into approximately 2000 equally sized test tiles.

The following text provides a detailed description of the CATP:

### 4.2 CATP Definitions

Several definitions are needed to accurately describe the coverage test method. Where cited, these terms or methods are defined in TIA TSB-88.1-C<sup>1</sup> or TSB-88.3-C<sup>2</sup>.

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<sup>1</sup>*Wireless Communications Systems --- Performance in Noise- and Interference-Limited Situations --- Part 1: Recommended Methods for Technology-Independent Modeling*, Technical Service Bulletin TSB-88.1-C, Telecommunications Industry Association (TIA), Arlington VA, 2008.

<sup>2</sup>*Wireless Communications Systems --- Performance in Noise- and Interference-Limited Situations --- Part 3: Performance Verification*, Technical Service Bulletin TSB-88.3-C, Telecommunications Industry Association (TIA), Arlington VA, 2008.

### 4.2.1 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, §5.1} The predicted coverage area for each equipment configuration for this system is indicated on Motorola’s coverage map(s) supplied with this proposal.

### 4.2.2 Channel Performance Criterion (CPC):

The CPC is the specified minimum design performance level in a faded channel. {TSB-88.1-C, §5.2} For this system, the CPC is a Delivered Audio Quality of DAQ-3. The DAQ definitions are provided in Table 4-1: – Delivered Audio Quality Definitions. {TSB-88.1-C, §5.4.2, Table 4-2: – Building Type Definitions}. Given the static reference sensitivity of a receiver, the faded performance threshold for the specified CPC is determined by using the projected CPC requirements for different DAQs listed in TSB-88.1-C, Annex A, Table A-1] For digital voice systems, the faded performance threshold is for a Bit Error Rate (BER) that provides the specified CPC. The CATP pass / fail criterion for each test location is the Delivered Audio Quality of DAQ-3.

**Table 4-1: – Delivered Audio Quality Definitions**

DAQ Delivered Audio Quality	Subjective Performance Description
1	Unusable, speech present but unreadable.
2	Understandable with considerable effort. Frequent repetition due to noise / distortion.
3	Speech understandable with slight effort. Occasional repetition required due to noise / distortion.
3.4	Speech understandable with repetition only rarely required. Some noise / distortion.
4	Speech easily understood. Occasional noise / distortion.
4.5	Speech easily understood. Infrequent noise / distortion.
5	Speech easily understood.



### 4.2.3 Reliability:

The reliability is the percentage of locations within the coverage area that meet or exceed the specified CPC. Motorola's coverage map(s) indicate the area within which this system is predicted to provide at least 95% reliability of meeting or exceeding the CPC of DAQ-3. {TSB-88.1-C, §5.3.2; **not** regulatory contour reliability}.

### 4.2.4 Equipment Configurations:

These are the types and configurations of radio network and field unit equipment upon which coverage acceptance is based. Motorola's coverage map(s) for this system indicate(s) the coverage area for the following equipment configurations:

- ◆ Multi-site coverage to ASTRO 25 portables. The portable with its half-wave flexible whip antenna will be located at the user's head level for transmit and in a swivel belt case for receive.

### 4.2.5 In-Building Coverage:

**Motorola's coverage maps for portable in-building equipment configurations are predictions of coverage inside Light (6 dB) loss buildings.** The in-building coverage predictions are based on the average loss for the type of buildings which Motorola has determined is located within the service area for Baldwin County. The definitions of these building types are provided in Table 4-2: – Building Type Definitions.

Table 4-2: – Building Type Definitions

Building Type	Definition
Large	Large downtown building, large commercial building, or large enclosed shopping mall.
Medium	Small to medium size stores, small apartment buildings, or a small to medium size factory or office buildings.
Light	Residential buildings (1 and 2 story houses) and other small commercial buildings.

Since building loss varies significantly depending on the construction of buildings, Motorola's coverage maps do not predict coverage within any specific building. Rather, the in-building coverage maps indicate the area within which this system is predicted to provide 95% reliability of meeting or exceeding the CPC of DAQ-3 within buildings that have up to the specified Building Loss.

The in-building coverage maps apply only to the aboveground portions of buildings. The coverage maps do not apply to in-building locations that are shielded from radio penetration, such as elevators, basements below ground level, tunnels, bank vaults, jails, x-ray rooms, nuclear facilities, and other locations shielded by metal walls or with heavy construction and with no external windows or doors.



If coverage is required in specific buildings, then before the coverage design is finalized, Motorola must be notified and field surveys may be required to measure the penetration loss of those specific buildings. The results of these surveys must be used to generate the in-building coverage maps. Providing coverage in specific buildings may require added equipment in the proposal, such as additional radio sites, radiating cable, or bi-directional amplifiers in specific buildings.

## 4.3 CATP Method

The method used to test coverage is statistical sampling of the predicted coverage area to verify that the CPC is met or exceeded at the required reliability for each of the defined equipment configurations. It is impossible to verify every point within a coverage area, because there are infinite points; therefore, coverage reliability will be verified by sampling a statistically significant number of randomly selected locations, quasi-uniformly distributed throughout the predicted coverage area.

This CATP provides a method of tracking test tile location using Motorola's Voyager<sup>SM</sup> hardware and software. A GPS receiver will provide location information indicating when a valid test tile is available for testing. The method follows TIA TSB-88.3-C §5.0, "Performance Confirmation" for statistical sampling.

### 4.3.1 Determine the required number of test tiles in the coverage area:

The predicted coverage area shown on Motorola's coverage map(s) will be divided into a grid pattern to produce at least the number of uniformly sized test locations (or tiles) required by the Estimate of Proportions formula. {TSB-88.3-C, §8.2.1, equation 2} The minimum number of test tiles required varies for different systems, from a hundred to many thousands, depending on the size of the coverage area, desired confidence in results, type of coverage test, and the predicted versus required reliability.

### 4.3.2 Constraints on test tile sizes

The minimum tile size is 100 by 100 wavelengths; however, the minimum practical tile size is typically about 400 by 400 meters (about 0.25 by 0.25 miles). The minimum practical tile size for any system is determined by the distance traveled at the speed of the test vehicle while sampling, GPS error margin, and availability of road access within very small tiles. A related consideration is the time, resources, and cost involved in testing very large numbers of very small tiles. The maximum test tile size is 2 by 2 km (1.25 by 1.25 miles). {TSB-88.3-C, §5.5.1}. In some wide-area systems, this constraint on maximum tile size may dictate a greater number of test tiles than the minimum number required by the Estimate of Proportions formula.



### 4.3.3 Accessibility to test tiles

Prior to testing (if possible) or during the test, Motorola and Baldwin County will determine whether any test tiles are inaccessible for the coverage test (due to lack of roads, restricted land, etc.) Inaccessible tiles will be eliminated from the acceptance test calculation.

If groups of inaccessible test tiles are encountered during the coverage test:

1. Coverage must be re-modeled with these inaccessible locations removed from the prediction.
2. If removal of these groups of inaccessible test tiles causes the predicted reliability to decrease below the original design goal, the coverage commitment must be re-negotiated.

### 4.3.4 Randomly Select A Test Location Within Each Tile:

Using Voyager<sup>SM</sup>, the actual test location within each tile will be randomly selected by the test vehicle crossing into the tile at an arbitrary point, with an arbitrary speed and direction. If the selected test location is in an underground parking garage, the test location must be marked as invalid and a replacement test location must be selected.

### 4.3.5 Perform Measurements In Each Tile:

In each test tile, a voice test exchange will be initiated using predetermined text typical of a common voice exchange between the fixed location and the portable location. The person conducting the test at the portable will be moving at a typical speed for the surrounding conditions.

### 4.3.6 Determine If Each Tile Passes Or Fails The CPC Requirement [For Each Equipment Configuration]:

For each test tile, the pass / fail criterion is the Delivered Audio Quality (DAQ). The DAQ value will be recorded for each test tile at the fixed location and the portable using the DAQ definitions from Table 1 in section 4.2.2.

Coverage acceptance testing will be performed in the talk-out direction.

### 4.3.7 Determine The Coverage Area Reliability For Acceptance:

After all accessible tiles in the coverage area have been tested; the coverage area reliability (%) will be determined by dividing the number of tiles that pass by the total number of tiles tested. {TSB-88.3-C, §5.1, equation 1} The coverage test acceptance criterion is that the tested coverage area reliability must be equal to or greater than the required reliability.

## 4.4 Responsibilities and Preparation

This information will help set the expectations of Baldwin County and Motorola regarding requirements for equipment, personnel, and time during the coverage test.



Baldwin County will provide the following for the duration of the coverage test:

- ◆ At least two test vehicles that are representative of the vehicles to be installed with mobile radios, including antenna location.
- ◆ At least one Baldwin County representative, to drive each test vehicle and/or to be the customer representative(s) for the test team(s).
- ◆ One or more Baldwin County representatives to evaluate and record the DAQ value of the test transmissions at the fixed location.

Motorola will provide the following for the duration of the coverage test:

- ◆ One or more Motorola representatives, to navigate, operate the portable radio, evaluate and record the DAQ value of the test transmissions, and operate [Voyager<sup>SM</sup>].
- ◆ One or more Motorola representatives to operate the fixed equipment, and to evaluate and record the DAQ value of the test transmissions at the fixed location.
- ◆ At least one laptop computer equipped with [Voyager<sup>SM</sup>] software.

Coverage acceptance testing will be performed in Baldwin County's operating area, as indicated on the coverage map(s). Motorola will determine the minimum number of test tiles required, as described in the Method section of this CATP. Motorola and Baldwin County will plan the route for the test vehicle(s) through the coverage test area, to ensure that at least the minimum required number of tiles is tested. If possible, any tiles not accessible to the test vehicle(s) will be identified while planning the route.

No acceptance testing will be performed in locations on Motorola's coverage map(s) predicted to be below the required reliability. Motorola and Baldwin County may agree to perform "information only" tests in such locations; however, these "information only" test results will not be used for coverage acceptance. Any "information only" test locations must be defined before starting the test. If the added locations require significant additional time and resources to test, a change order will be required and Motorola may charge Baldwin County on a time-and-materials basis.

Motorola will conduct this test only once. If any portion of the test is determined to be unreliable because of proven equipment malfunctions or failures, Motorola will repeat the portion of the test affected by the equipment malfunction or failure. Baldwin County will have the option to accept the coverage at any time prior to completion of the coverage test.

Before starting the test, Baldwin County and Motorola will agree upon the time frame for Motorola's submission of a report containing the coverage test results.

## 4.5 CATP Procedures

A subjective listening test will be performed for coverage acceptance testing to verify talk-out Delivered Audio Quality (DAQ) performance of the system.



The procedure for the subjective DAQ coverage test will be as follows:

- ◆ To perform a statistically valid subjective DAQ test, a large group of people is required to ensure high confidence in the results. However, obtaining a large group of people for a subjective listening test is usually impractical; therefore, several (three to seven) people in a car or van must be used for the test. Since a group this small cannot provide statistically significant results, it is very important that the personnel participating in the subjective test be familiar with the sound of radio conversations. Before subjectively testing, all personnel who will evaluate audio quality must be “calibrated” by listening to examples of static and faded audio of various CPC levels from the type of system being tested.
- ◆ A fixed control point location will be established. Prior to testing, Baldwin County and Motorola will agree upon a procedure to allow each audio transmission to be evaluated for approximately five seconds. *For example, the audio source might be live or recorded dispatch traffic, books on CD, phonetically balanced sentences, etc.*
- ◆ The test participants will be divided into teams, each consisting of personnel from both Baldwin County and Motorola. Each team will have members that operate a [portable] unit in the field, and members that are stationed at the fixed control point location. As the field test team(s) drive through the coverage area, test locations within each tile will be selected randomly [by test team personnel] [by Voyager<sup>SM</sup>'s GPS location indication. Voyager's DAQ recording feature will be used to record the talk-in and talk-out DAQ value as well as any pertinent notes for the location.
- ◆ At each tile location, each field test team member will listen to a talk-out audio transmission, and will record his or her subjective evaluation of the DAQ for the tile. Team members stationed at the control point will evaluate talk-in audio quality of transmissions from the test field unit(s) in that tile. Each team member will maintain a test log to record date, time, and subjective evaluation for each test tile location. Subjective evaluation will be based on the Delivered Audio Quality descriptions in Table 1. The DAQ score for each test tile will be the pass /fail consensus] of all team members' subjective evaluations for that tile. [An odd number of team members are required to avoid ties for the pass / fail consensus.]
- ◆ Attenuation of the test receiver for signal strength/BER will be used to evaluate DAQ for each equipment configuration.
- ◆ Attenuation of the test receiver for DAQ will be used to evaluate the DAQ for each equipment test configuration. For example – if the test configuration is for portable coverage in Light 6 dB Buildings the test portable radio will be attenuated by 6 dB for both talk in and Talk out testing.

*The use of a test receiver typically connected to Voyager<sup>SM</sup> to record RSSI signal strength from the control channel or BER from a V.52 channel can be useful to provide secondary information on the channel conditions during a DAQ test. While*



*the DAQ score is typically used for the pass/fail, having SSI/BER information can be useful to determine why a test might have failed due to low RF signal or interference.*

- ◆ The DAQ score for each test tile will be used to evaluate whether each tile passes or fails for each equipment configuration. The tile pass / fail evaluations will be used to determine the coverage area reliability.
- ◆ Talk-out and Talk-in will be [evaluated independently] [both required to pass for a test tile to pass.
- ◆ Coverage acceptance will be based on demonstrating that at least [95%] of the tile locations in the coverage test area [for each equipment configuration] will provide an audio quality of DAQ-3 or better. The system coverage acceptance criterion will be the successful passing of each of the equipment configurations.
- ◆ If any test locations within a building fail the subjective DAQ coverage test, the loss of the failed building location may be measured at Motorola's discretion to ensure that it is not greater than the loss specified in Motorola's proposal. If the measurements determine that the building loss is greater than was specified in the proposal, then the failed building will be disregarded for the coverage acceptance test.
- ◆ Motorola reserves the right to review any test tiles that fail the subjective DAQ tests to verify the signal strength and or BER value of the same test tiles.
- ◆ If a coverage test, or a portion thereof, is suspected by Motorola to have failed due to external interference, those tiles suspected of being affected by an interferer may be re-tested. If the tiles (or test points) re-tested are confirmed to have failed due to interference, those tiles (or test points) will be excluded from all acceptance calculations and Motorola will work with Baldwin County to identify potential solutions to the interference issues.

## 4.6 CATP Documentation and Coverage Acceptance

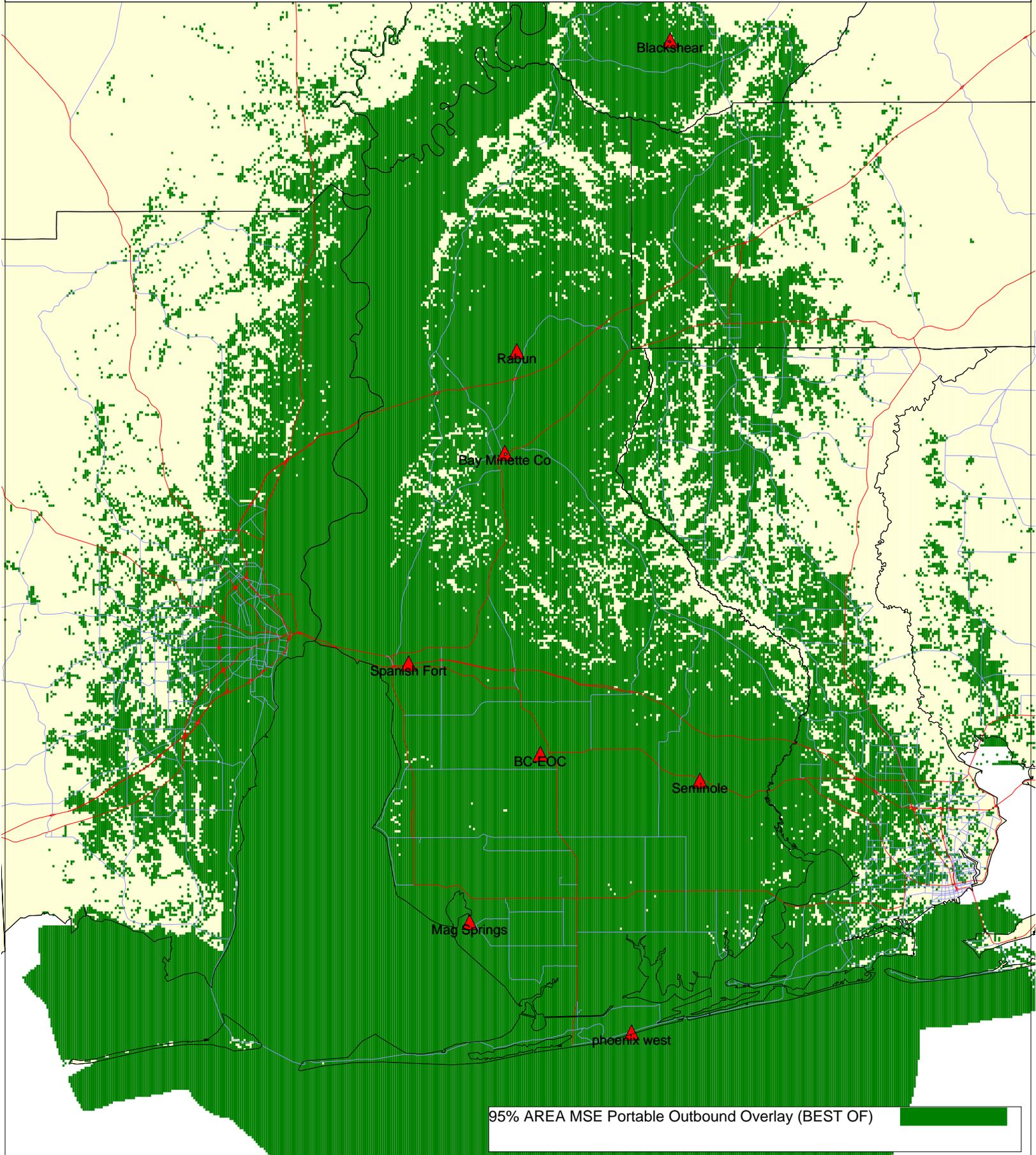
During subjective Delivered Audio Quality testing, a test log will be kept by each test team member, in the vehicle(s) and at the control point. The DAQ evaluations for each test tile will be recorded on the test logs. A copy of the test logs will be provided to Baldwin County at the conclusion of the coverage test. Motorola will evaluate the subjective test logs to determine whether the coverage test was passed for each equipment configuration.

Motorola will submit to Baldwin County a report detailing the coverage test results. This report will include a document, which is to be signed by both Baldwin County and Motorola, indicating the test was performed in accordance with this CATP and the results of the test indicate the acceptance or non-acceptance of the coverage portion of the system. Baldwin County will have the option to accept the coverage at any time prior to completion of the coverage test or documentation process.

Motorola has included its Coverage Maps on the following pages.



Baldwin County 700 MHz Coverage  
Talkout to XTS5000 Portable on Street

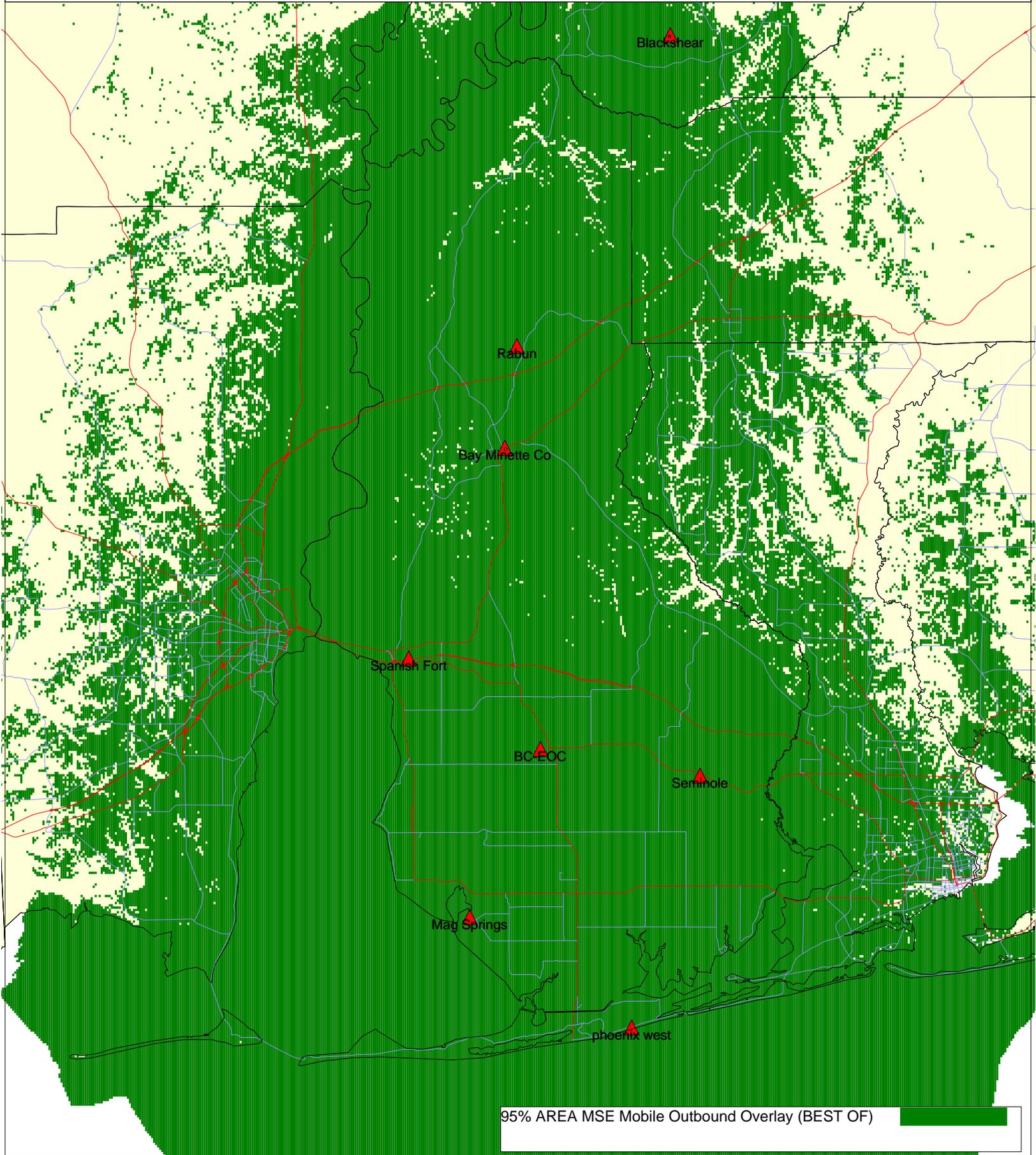


95% AREA MSE Portable Outbound Overlay (BEST OF)

0 9.01 18.02 mi  
1 inch = 9.01 miles @ 1/570832

Projection World\_Mercator  
Center Point 30:43:46.15 N 87:45:21.73 W

Baldwin County 700 MHz Coverage  
Talkout to XTL5000 Mobile Unit



95% AREA MSE Mobile Outbound Overlay (BEST OF)

0 9.01 18.02 mi  
1 inch = 9.01 miles @ 1/570832

Projection World\_Mercator  
Center Point 30:43:26.87 N 87:45:22.04 W



## Section 5. Warranty and Maintenance

### 5.1 Warranty and Maintenance Overview

Motorola's warranty and maintenance support plan provides for three (3) year of comprehensive warranty and maintenance support coverage starting at system acceptance or beneficial use.



Motorola's service delivery process combines state-of-the-art diagnostic tools, with an industry best field support and management process that provides our customers with a level of service support that is second to none in the mission critical communications industry. Our support systems are designed to detect potential system issues, before they occur, and proactively take the steps necessary to restore the system to normal operations quickly and efficiently. Our case escalation and management process is designed to ensure that all cases are successfully managed to completion and resources are assigned when necessary.

We are pleased to offer Baldwin County, Alabama a warranty and maintenance support program that combines best-in-class tools with a field support team that is dedicated to oversee the day-to-day activities of the County's communications system. Our field support team, led by our Customer Support Manager, will be responsible for planning and coordination of service activities.

Motorola will continue to push the envelope and bring new and innovative products to our mission critical customer base. Our Systems Support Center (SSC) is an ISO-9001 certified Network Operations Center (NOC); our premier service partners now comply with ISO-9001 service delivery procedures; and our technicians undergo a strict testing, certification, and training regiment that far exceeds any other service provider in the industry.

Baldwin County can be confident that Motorola will continue to be a trusted and loyal partner every step of the way. From the initial system purchase, through migratory future upgrades, Motorola will continue to deliver a service support product that is distinguished and unique, and one that only Motorola with its tools and processes can provide.

## 5.2 Warranty and Maintenance Support

The warranty support program is customized to provide a comprehensive set of services designed to keep the P25 system operating at peak performance. The plan combines internal services, delivered through Motorola's Systems Support Center (SSC), with field services and procedures that are specifically designed for the Baldwin County, Alabama System. Our warranty support program combines traditional break/fix services; such as infrastructure board repair and 7x24 on-site technician support, with preemptive and corrective support services; such as network monitoring, technical support and security update service.

Motorola will provide the following services during the first year of warranty and maintenance support coverage:

- ◆ Dispatch and Case Management Service
- ◆ P25 Infrastructure Network Monitoring Service
- ◆ Security Update Service
- ◆ Technical Support Service
- ◆ Infrastructure Repair Service
- ◆ 7 x 24 Onsite Support with 4 hour Response Service



## 5.2.1 Dispatch and Case Management

The front-end call process begins with a customer-sourced notification; it could be a customer notification or a scheduled system preventive maintenance. Once the notification is received, the call center operations personnel assign a case number to the incident. The case manager responsible for tracking the case activity will use customer-specific information to determine the escalation and notification procedures. This person will oversee all aspects of the event and case management process, which includes; coordination of case activity between internal SSC support teams and field technical team, dispatch of field technical personnel, notification and escalation of customer personnel and resolution, and case closure.



Our SSC dispatch operations team is available 24 hours per day, seven (7) days per week, and 365 days per year. The SSC dispatch center operations team is the point of contact for all customer related issues. Case notes, posted by the technical support teams are available to the field technician for reference during the troubleshooting and repair process. Case notes are updated continuously throughout the repair process to ensure that all parties understand the steps taken by field and SSC personnel involved restoration process. All cases are managed to completion, and case notes are available to Motorola customers via Motorola On-Line (MOL) web access.



## 5.2.2 Network Monitoring

Motorola's Network Operations and Monitoring Center (NOC) is the heart of the Systems Support Center. The Baldwin County communications system will be monitored 24 hours per day, seven (7) days per week and 365 days per year. The system is proactively and continuously monitored for activities and events. An event, once detected, is forwarded to the System Support Center (SSC) where highly trained system technologists acknowledge the event, run available diagnostic routines, and initiate the appropriate response. Motorola's enterprise-oriented system and supervisory tools provide a complete view of the status of the system, and are configured to monitor all Motorola-supplied network equipment. Once an event or activity is received, at the NOC, the system technologist will forward the incident to Dispatch Center Operations, and place the incident in 'high priority' status. The system is continuously monitored in 'high priority' status throughout the troubleshooting and repair process. Event records are cleared and returned to 'normal' status when the field technician notifies the NOC that a resolution is in place.

## 5.2.3 Security Update Service

Commercial security software updates are often designed without RF systems in mind and could cause inadvertent harm to your radio network, disrupting mission-critical communications and putting your first responders and citizens at risk. Motorola's Security Update Service (SUS) assures that commercial anti-virus definitions, operating system software patches, and Intrusion Detection Sensor signature files are compatible with your ASTRO 25 network and do not interfere with network functionality. Our expert network security technologists analyze, perform testing, and validate the latest security software updates in a dedicated test lab. We also provide continuous monitoring of updates to provide you regular electronic updates upon completion of successful testing.



## 5.2.4 Technical Support Operations

Once a trouble call is received, the SSC team immediately begins diagnosis of the event by interrogating the system, running appropriate diagnostics and characterizing the problem. The SSC will dispatch a system technician to the site in question. The field technician contacts the SSC diagnostic team to obtain the current status, available diagnostic results, and the current assessment of the failure.

Technical Support service provides centralized remote telephone support for technical issues that require a high level of expertise or troubleshooting. The SSC technical support operation is staffed with experienced and degreed technologists who have attained industry-standard networking certifications and technology specialization. With an average of 10 to 15 years of experience working with complex communications systems, the technologists work closely with the field service support team to ensure rapid resolution and closure of all network issues. Technical Support is available 24 hours per day, seven (7) days per week, and 365 days per year.

The SSC is operational 24 hours per day, seven (7) days per week and 365 days per year. A call to the SSC toll-free number triggers a case management and escalation process that is ISO-9001 certified, for call and support center operations, and engages a team of support professionals dedicated to one objective—to restore the issue quickly and keep the communications network operating at peak performance. Motorola continuously evaluates its internal process and performance metrics to ensure that the absolute best service is provided at all times.

## 5.3 Field Response Services

### 5.3.1 7 x 24 Onsite Infrastructure Response

Motorola will partner with our local service providers to deliver OnSite Infrastructure Response for all issues related to the P25 network. Motorola's local service providers are staffed with highly trained personnel that have experience maintaining a variety of technology platforms. Following proven response and restoration processes, Motorola's Systems Support Center (SSC) contacts the local service provider and dispatch a qualified technician to your site. When a service call is dispatched by the SSC, the on-call technician is provided the case notes and results obtained from the issue characterization process. Upon site arrival, the technician notifies the SSC for tracking and notification purposes, and begins to work on the issue. If the problem is deemed a failed or malfunctioning board, a spare unit from the County's inventory is used to replace the failed unit. The failed board, or unit, is shipped to Motorola's infrastructure repair depot where the unit is repaired down to the component level and returned to the County's spares inventory. Onsite infrastructure response provides 24 x 7 x 365 coverage with four (4) hour response from notification for all severity level 1 (critical) system issues.





**Baldwin County, Alabama**  
700 MHz P25 Regional Radio System  
August 22, 2011



### 5.3.2 Infrastructure Unit Repair

Infrastructure unit repair service provides for repair of all infrastructure equipment provided by Motorola in this proposal. Repair management is handled through a central location eliminating the need to send equipment to multiple locations. Comprehensive test labs can replicate the network in order to reproduce and analyze the issue. State-of-the-art repair tools enable Motorola's technicians to troubleshoot, analyze, test, and restore the equipment to the original performance specifications.



### 5.3.3 Post Warranty Maintenance Support

Motorola will provide Baldwin County, Alabama with an additional two (2) years of infrastructure maintenance support beyond the first year, of coverage, outlined above.

During the two (2) year maintenance period Motorola will provide the following services:

- ◆ Security Update Service.
- ◆ Technical Support Service.
- ◆ 7 x 24 Onsite Support with 4 hour Response Service for all critical (severity level 1) issues.



- ◆ Infrastructure Unit Repair Service - Includes coverage for P25 Infrastructure Equipment, Point to Point radio equipment and multiplex equipment provided by Motorola. Infrastructure repair service does not include coverage for the 800/700 MHz antenna systems, PTP 800 backhaul antenna systems, tower top amplifiers, transmitter combiners, UPS equipment, generator equipment or shelter/HVAC maintenance.
- ◆ Preventative Maintenance Service – Includes one (1) infrastructure preventative maintenance check in the two (2) year period.

Prior to the Start of the warranty and maintenance support periods, Motorola will work with Baldwin County to develop a customized customer support plan (CSP). The CSP will outline the response times, service repair process, service procedures and key contacts involved in the warranty and maintenance delivery process.





## Section 6. System Pricing

Please find the following promotional subscriber discounts and system solution pricing for Baldwin County.

The following Motorola subscriber quantity discounts will be offered with this system sale to the users of this system if the customer purchases the subscribers and takes delivery before December 31, 2011:

### *XTL & XTS Subscriber*

50 Units Plus:	5% Quantity Discount
100 Units Plus:	7% Quantity Discount
500 Units Plus:	9% Quantity Discount
1000 Units Plus:	11% Quantity Discount

### *APX Subscribers*

50 Units Plus:	5% Quantity Discount
1000 Units Plus:	7% Quantity Discount
5000 Units Plus:	11% Quantity Discount

These discounts are based off list price and are in addition to the existing State of Alabama Contract pricing and are only available for the users of the Baldwin County P25 Two-Way Radio System

# System Pricing for Baldwin County, AL

8/15/2011

<b>System Equipment</b>	<b>\$</b>	<b>3,963,629.00</b>
Seven Motorola ASTRO 25 4 Ch 700 MHz RF Sites		
Motorola PTP Site Connectivity Solution		
Motorola ASTRO 25 Master Site Upgrades with Phase 2 TDMA		
InterZone	(Promotional-No Charge)	
10 Motorola MCC 7500 Console Positions		
Control Stations, Consolettes and CCGW System for County		
Wide		
and Regional Interoperability		
APX Radios for System Testing & Existing Subscriber Upgrades		
700 MHz Conventional Repeater	(Promotional-No Charge)	
System Spares		
<b>Professional Implementation Services</b>	<b>\$</b>	<b>1,675,204.00</b>
System Design, Integration and Installation		
Three (3) Year Warranty & Support Plan		
On-Site System Training		
<b>Performance Bond</b>	<b>\$</b>	<b>33,750.00</b>
<b>Total Before Special Discount</b>	<b>\$</b>	<b>5,672,583.00</b>
<b>State of Alabama Contract Discount (T300)</b>	<b>\$</b>	<b>(616,242.00)</b>
<b>Additional Promotional System Discounts</b>	<b>\$</b>	<b>(720,379.00)</b>
<b>Total Equipment and Services*</b>	<b>\$</b>	<b>4,335,962.00</b>

\*All items as proposed and pricing valid through 9-30-11

\*Items are priced in accordance with the State of AL (T300) Contract

Note: Connectivity between Madison County and Baldwin County to be provided Customer for Interzone and/or DSR.





## Section 7. Communications System Agreement

Motorola has provided the Communications System Agreement on the following pages.

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## Communications System Agreement

Motorola Solutions, Inc., a Delaware corporation ("Motorola") and Baldwin County, Alabama, by and through the Baldwin County Commission, a political subdivision of the State of Alabama ("Customer"), enter into this "Agreement," pursuant to which Customer will purchase, and Motorola will sell, the System, as described below. Motorola and Customer may be referred to individually as a "Party" and collectively as the "Parties." For good and valuable consideration, the Parties agree as follows:

### Section 1 EXHIBITS

The exhibits listed below are incorporated into and made a part of this Agreement. In interpreting this Agreement and resolving any ambiguities, the main body of this Agreement takes precedence over the exhibits, and any inconsistency between Exhibits A through E will be resolved in their listed order.

Exhibit A	Motorola "Software License Agreement"
Exhibit B	"Payment Schedule"
Exhibit C	Motorola Proposal Dated August 22, 2011, as amended
Exhibit D	"System Acceptance Certificate"
Exhibit E	Performance and Payment Bonds

### Section 2 DEFINITIONS

Capitalized terms used in this Agreement have the following meanings:

- 2.1. "Acceptance Tests" means those tests described in the Acceptance Test Plan.
- 2.2. "Administrative User Credentials" means an account that has total access over the operating system, files, end user accounts and passwords at either the System level or box level. Customer's personnel with access to the Administrative User Credentials may be referred to as the Administrative User.
- 2.3. "Beneficial Use" means when Customer first uses the System or a Subsystem for operational purposes (excluding training or testing). "Beneficial Use" shall not include the use of the existing Motorola system which is being upgraded pursuant to this Agreement by the City of Orange Beach and other entities.
- 2.4. "Confidential Information" means any information that is disclosed in written, graphic, verbal, or machine-recognizable form, and is marked, designated, or identified at the time of disclosure as being confidential or its equivalent; or if the information is in verbal form, it is identified as confidential at the time of disclosure and is confirmed in writing within thirty (30) days of the disclosure. Confidential Information does not include any information that: is or becomes publicly known through no wrongful act of the receiving Party; is already known to the receiving Party without restriction when it is disclosed; is or becomes, rightfully and without breach of this Agreement, in the receiving Party's possession without any obligation restricting disclosure; is independently developed by the receiving Party without breach of this Agreement; or is explicitly approved for release by written authorization of the disclosing Party.
- 2.5. "Contract Price" means the price for the System.
- 2.6. "Effective Date" means that date upon which the last Party executes this Agreement.
- 2.7. "Equipment" means the equipment that Customer purchases from Motorola under this Agreement. Equipment that is part of the System is described in the Equipment List.
- 2.8. "Force Majeure" means an event, circumstance, or act of a third party that is beyond a Party's reasonable control (e.g., an act of God, an act of the public enemy, an act of a government entity, strikes or other labor disturbances, hurricanes, earthquakes, fires, floods, epidemics, embargoes, war, and riots).

- 2.9. "Infringement Claim" means a third party claim alleging that the Equipment manufactured by Motorola or the Motorola Software directly infringes a United States patent or copyright.
- 2.10. "Motorola Software" means Software that Motorola or its affiliated company owns.
- 2.11. "Non-Motorola Software" means Software that another party owns.
- 2.12. "Open Source Software" (also called "freeware" or "shareware") means software with either freely obtainable source code, license for modification, or permission for free distribution.
- 2.13. "Proprietary Rights" means the patents, patent applications, inventions, copyrights, trade secrets, trademarks, trade names, mask works, know-how, and other intellectual property rights in and to the Equipment and Software, including those created or produced by Motorola under this Agreement and any corrections, bug fixes, enhancements, updates or modifications to or derivative works from the Software whether made by Motorola or another party.
- 2.14. "Software" means the Motorola Software and Non-Motorola Software, in object code format that is furnished with the System or Equipment.
- 2.15. "Specifications" means the functionality and performance requirements that are described in Exhibit C.
- 2.16. "Subsystem" means a major part of the System that performs specific functions or operations. Subsystems are described in Exhibit C.
- 2.17. "System" means the Equipment, Software, and incidental hardware and materials that are combined together into an integrated system; the System is described in Exhibit C.
- 2.18. "System Acceptance" means the Acceptance Tests have been successfully completed.
- 2.19. "Warranty Period" means one (1) year from the date of System Acceptance or Beneficial Use, whichever occurs first, and the warranty includes labor and services.

### **Section 3 SCOPE OF AGREEMENT AND TERM**

- 3.1. **SCOPE OF WORK.** Motorola will provide, install and test the System, and perform its other contractual responsibilities, all in accordance with this Agreement. Customer will perform its contractual responsibilities in accordance with this Agreement.
- 3.2. **CHANGE ORDERS.** Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.
- 3.3. **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 Effective Date and continues until the date of Final Project Acceptance or expiration of the Warranty Period, whichever occurs last.
- 3.4. **ADDITIONAL EQUIPMENT OR SOFTWARE.** For three (3) years after the Effective Date, Customer 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 to additional Equipment will pass at shipment, and risk of loss will pass upon delivery to Customer. Warranty will commence upon delivery, and payment is due within thirty (30) days after the invoice date. Motorola will send Customer an invoice

as the additional Equipment is shipped or Software is licensed. Alternatively, Customer 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.

3.5. 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 the Statement of Work and Motorola's Proposal set forth in Exhibit C. Those services and support are included in the Contract Price. If Customer wishes to purchase additional maintenance and support services for the Equipment during the Warranty Period, or any additional maintenance and support services for the Equipment after the Warranty Period, the description of and pricing for the services will be set forth in a separate document. If Customer wishes to purchase extended support for the Motorola Software after the Warranty Period, it may do so by ordering software subscription services. Unless otherwise agreed by the parties in writing, the terms and conditions applicable to those maintenance, support or software subscription services will be Motorola's standard Service Terms and Conditions, together with the appropriate statements of work.

3.6. MOTOROLA SOFTWARE. Any Motorola Software, including subsequent releases, is licensed to Customer solely in accordance with the Software License Agreement. Customer hereby accepts and agrees to abide by all of the terms and restrictions of the Software License Agreement.

3.7. NON-MOTOROLA SOFTWARE. Any Non-Motorola Software is licensed to Customer in accordance with the standard license, terms, and restrictions of the copyright owner on the Effective Date, unless the copyright owner has granted to Motorola the right to sublicense the Non-Motorola Software pursuant to the Software License Agreement, in which case it applies and the copyright owner will have all of Licensor's rights and protections under the Software License Agreement. Motorola makes no representations or warranties of any kind regarding Non-Motorola Software. Non-Motorola Software may include Open Source Software. All Open Source Software is licensed to Customer in accordance with, and Customer agrees to abide by, the provisions of the standard license of the copyright owner and not the Software License Agreement. Upon request by Customer, Motorola will use commercially reasonable efforts to determine whether any Open Source Software will be provided under this Agreement; and if so, identify the Open Source Software and provide to Customer a copy of the applicable standard license (or specify where that license may be found); and provide to Customer a copy of the Open Source Software source code if it is publicly available without charge (although a distribution fee or a charge for related services may be applicable).

3.8. SUBSTITUTIONS. At no additional cost to Customer, Motorola may substitute any Equipment, Software, or services to be provided by Motorola, if the substitute meets or exceeds the Specifications and is of equivalent or better quality to the Customer. Any substitution will be reflected in a change order.

3.9. OPTIONAL EQUIPMENT OR SOFTWARE. This paragraph applies only if a "Priced Options" exhibit is shown in Section 1, or if the parties amend this Agreement to add a Priced Options exhibit. During the term of the option as stated in the Priced Options exhibit (or if no term is stated, then for three (3) years after the Effective Date), Customer has the right and option to purchase the equipment, software, and related services that are described in the Priced Options exhibit. Customer may exercise this option by giving written notice to Seller which must designate what equipment, software, and related services Customer is selecting (including quantities, if applicable). To the extent they apply, the terms and conditions of this Agreement will govern the transaction; however, the parties acknowledge that certain provisions must be agreed upon, and they agree to negotiate those in good faith promptly after Customer delivers the option exercise notice. Examples of provisions that may need to be negotiated are: specific lists of deliverables, statements of work, acceptance test plans, delivery and implementation schedules, payment terms, maintenance and support provisions, additions to or modifications of the Software License Agreement, hosting terms, and modifications to the acceptance and warranty provisions.

#### **Section 4 PERFORMANCE SCHEDULE**

The Parties will perform their respective responsibilities in accordance with the Performance Schedule. By executing this Agreement, Customer authorizes Motorola to proceed with contract performance.

#### **Section 5 CONTRACT PRICE, PAYMENT AND INVOICING**

5.1. **CONTRACT PRICE.** The Contract Price in U.S. dollars is \$4,335,962.00. If applicable, a pricing summary is included with the Payment Schedule. Motorola has priced the services, Software, and Equipment as an integrated system. A reduction in Software or Equipment quantities, or services, may affect the overall Contract Price, including discounts if applicable.

5.2. **INVOICING AND PAYMENT.** Motorola will submit invoices to Customer according to the Payment Schedule. Customer will make payments to Motorola in accordance with Exhibit B below. Customer will make payments when due in the form of a wire transfer, check, or cashier's check from a U.S. financial institution. Overdue invoices will bear simple interest at the rate of 6% per annum. For reference, the Federal Tax Identification Number for Motorola Solutions, Inc. is 36-1115800.

5.3. **FREIGHT, TITLE, AND RISK OF LOSS.** Motorola will pay all freight charges. Title to the Equipment will pass to Customer upon shipment. Title to Software will not pass to Customer at any time. Risk of loss will pass to Customer upon delivery of the Equipment to the Customer. Motorola will pack and ship all Equipment in accordance with good commercial practices.

5.4. **INVOICING AND SHIPPING ADDRESSES.** Invoices will be sent to the Customer at the following address:

Baldwin County  
Attn: David Pimperl  
312 Courthouse Square, Suite 13  
Bay Minette, AL 36507

The address which is the ultimate destination where the Equipment will be delivered to Customer is:

Baldwin County Commission  
Emergency Operations Center  
23100 McAuliffe Drive  
Robertsdale, AL 36567

The Equipment will be shipped to the Customer at the following address:

Team One Communications, Inc.  
Attn: Baldwin County Project  
3360 Key Street  
Mobile, AL 36609

Customer may change this information by giving written notice to Motorola.

#### **Section 6 SITES AND SITE CONDITIONS**

6.1. **ACCESS TO SITES.** In addition to its responsibilities described elsewhere in this Agreement, Customer will provide a designated project manager; all necessary construction and building permits, zoning variances, and any other approvals that are necessary to develop or use the sites and mounting locations; and access to the work sites or vehicles identified in Exhibit C as reasonably requested by Motorola so that it may perform its duties in accordance with the Performance Schedule and Statement of Work. If the Statement of Work so indicates, Motorola may assist Customer in the local building permit process.

6.2. **SITE CONDITIONS.** Customer will ensure that all work sites it provides will be safe, secure, and in compliance with all applicable industry and OSHA standards. To the extent applicable and unless the Statement of Work states to the contrary, Customer will ensure that these work sites have adequate:

physical space; air conditioning and other environmental conditions; adequate and appropriate electrical power outlets, distribution, equipment and connections; and adequate telephone or other communication lines (including modem access and adequate interfacing networking capabilities), all for the installation, use and maintenance of the System. Before installing the Equipment or Software at a work site, Motorola may inspect the work site and advise Customer of any apparent deficiencies or non-conformities with the requirements of this Section. This Agreement is predicated upon normal soil conditions as defined by the version of E.I.A. standard RS-222 in effect on the Effective Date.

6.3. **SITE ISSUES.** If a Party determines that the sites identified in Exhibit C are no longer available or desired, or if subsurface, structural, adverse environmental or latent conditions at any site differ from those indicated in Exhibit C, the Parties will promptly investigate the conditions and will select replacement sites or adjust the installation plans and specifications as necessary. If change in sites or adjustment to the installation plans and specifications causes a change in the cost or time to perform, the Parties will equitably amend the Contract Price, Performance Schedule, or both, by a change order.

## **Section 7 TRAINING**

Any training to be provided by Motorola to Customer will be described in the Statement of Work. Customer will notify Motorola immediately if a date change for a scheduled training program is required. If Motorola incurs additional costs because Customer reschedules a training program less than thirty (30) days before its scheduled start date, Motorola may recover these additional costs.

## **Section 8 SYSTEM ACCEPTANCE**

8.1. **COMMENCEMENT OF ACCEPTANCE TESTING.** Motorola will provide to Customer at least ten (10) days notice before the Acceptance Tests commence. System testing will occur only in accordance with the Acceptance Test Plan.

8.2. **SYSTEM ACCEPTANCE.** System Acceptance will occur upon successful completion of the Acceptance Tests. Upon System Acceptance, the Parties will memorialize this event by promptly executing a System Acceptance Certificate. If the Acceptance Test Plan includes separate tests for individual Subsystems or phases of the System, acceptance of the individual Subsystem or phase will occur upon the successful completion of the Acceptance Tests for the Subsystem or phase, and the Parties will promptly execute an acceptance certificate for the Subsystem or phase. If Customer believes the System has failed the completed Acceptance Tests, Customer will provide to Motorola a written notice that includes the specific details of the failure. If Customer does not provide to Motorola a failure notice within thirty (30) days after completion of the Acceptance Tests, System Acceptance will be deemed to have occurred as of the completion of the Acceptance Tests. Minor omissions or variances in the System that do not materially impair the operation of the System as a whole will be corrected according to a mutually agreed schedule. Upon such correction, System Acceptance or Subsystem acceptance will be deemed to have occurred.

8.3. **BENEFICIAL USE.** Customer acknowledges that Motorola's ability to perform its implementation and testing responsibilities may be impeded if Customer begins using the System before System Acceptance. Therefore, Customer will not commence Beneficial Use before System Acceptance without Motorola's prior written authorization, which will not be unreasonably withheld. Motorola is not responsible for System performance deficiencies that occur during unauthorized Beneficial Use. Upon commencement of Beneficial Use, Customer assumes responsibility for the use and operation of the System. Notwithstanding any provision contained herein to the contrary, the entities currently using the existing Motorola system which is being upgraded pursuant to this Agreement shall be allowed to continue their use of the existing Motorola system and shall not be deemed a Beneficial Use.

8.4 **FINAL PROJECT ACCEPTANCE.** Final Project Acceptance will occur after System Acceptance when all deliverables and other work have been completed. When Final Project Acceptance occurs, the parties will promptly memorialize this final event by so indicating on the System Acceptance Certificate.

## **Section 9 REPRESENTATIONS AND WARRANTIES**

9.1. **SYSTEM FUNCTIONALITY.** Motorola represents that the System will perform in accordance with the Specifications in all material respects. Motorola is not responsible for System performance deficiencies that are caused by ancillary equipment not furnished by Motorola which is attached to or used in connection with the System or for reasons or parties beyond Motorola's control, such as natural causes; the construction of a building that adversely affects the microwave path reliability or radio frequency (RF) coverage; the addition of frequencies at System sites that cause RF interference or intermodulation; or Customer changes to load usage or configuration outside the Specifications.

9.2. **EQUIPMENT WARRANTY.** During the Warranty Period, Motorola warrants that the Equipment under normal use and service will be free from material defects in materials and workmanship. In a radio system, a material defect is a defect which impairs the primary functionality of audio communication between subscribers, subscriber and dispatcher, or dispatcher and subscriber. If System Acceptance is delayed beyond six (6) months after shipment of the Equipment by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Equipment.

9.3. **MOTOROLA SOFTWARE WARRANTY.** Unless otherwise stated in the Software License Agreement, during the Warranty Period, Motorola warrants the Motorola Software in accordance with the terms of the Software License Agreement and the provisions of this Section 9 that are applicable to the Motorola Software. If System Acceptance is delayed beyond six (6) months after shipment of the Motorola Software by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Motorola Software. TO THE EXTENT, IF ANY, THAT THERE IS A SEPARATE LICENSE AGREEMENT PACKAGED WITH, OR PROVIDED ELECTRONICALLY WITH, A PARTICULAR PRODUCT THAT BECOMES EFFECTIVE ON AN ACT OF ACCEPTANCE BY THE END USER, THEN THAT AGREEMENT SUPERCEDES THIS SOFTWARE LICENSE AGREEMENT AS TO THE END USER OF EACH SUCH PRODUCT.

9.4. **EXCLUSIONS TO EQUIPMENT AND MOTOROLA SOFTWARE WARRANTIES.** These warranties do not apply to: (i) defects or damage resulting from: use of the Equipment or Motorola Software in other than its normal, customary, and authorized manner; accident, liquids, neglect, or acts of God; testing, maintenance, disassembly, repair, installation, alteration, modification, or adjustment not provided or authorized in writing by Motorola; Customer's failure to comply with all applicable industry and OSHA standards; (ii) breakage of or damage to antennas unless caused directly by defects in material or workmanship; (iii) Equipment that has had the serial number removed or made illegible; (iv) batteries (because they carry their own separate limited warranty) or consumables; (v) freight costs to ship Equipment to the repair depot; (vi) scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment; and (vii) normal or customary wear and tear.

9.5. **WARRANTY CLAIMS.** To assert a warranty claim, Customer must notify Motorola in writing of the claim before the expiration of the Warranty Period. Upon receipt of this notice, Motorola will investigate the warranty claim. If this investigation confirms a valid warranty claim, Motorola will (at its option and at no additional charge to Customer) repair the defective Equipment or Motorola Software, replace it with the same or equivalent product, or with the agreement of the Customer and as long as the functionality of the System is maintained, refund the price of the defective Equipment or Motorola Software. That action will be the full extent of Motorola's liability for the warranty claim. If this investigation indicates the warranty claim is not valid, then Motorola may invoice Customer for responding to the claim on a time and materials basis using Motorola's then current labor rates. Repaired or replaced product is warranted for the balance of the original applicable warranty period. All replaced products or parts will become the property of Motorola.

9.6. **ORIGINAL END USER IS COVERED.** These express limited warranties are extended by Motorola to the original user purchasing the System for commercial, industrial, or governmental use only, and are not assignable or transferable.

9.7. **DISCLAIMER OF OTHER WARRANTIES.** THESE WARRANTIES ARE THE COMPLETE WARRANTIES FOR THE EQUIPMENT AND MOTOROLA SOFTWARE PROVIDED UNDER THIS

AGREEMENT AND ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## **Section 10 DELAYS**

10.1. **FORCE MAJEURE.** Neither Party will be liable for its non-performance or delayed performance if caused by a Force Majeure. A Party that becomes aware of a Force Majeure that will significantly delay performance will notify the other Party promptly (but in no event later than fifteen days) after it discovers the Force Majeure. If a Force Majeure occurs, the Parties will execute a change order to extend the Performance Schedule for a time period that is reasonable under the circumstances.

10.2. **PERFORMANCE SCHEDULE DELAYS CAUSED BY CUSTOMER.** If Customer (including its other contractors) delays the Performance Schedule, it will make the promised payments according to the Payment Schedule as if no delay occurred; and the Parties will execute a change order to extend the Performance Schedule and, if requested, compensate Motorola for all reasonable charges incurred because of the delay. Delay charges may include reasonable charges incurred by Motorola or its subcontractors for additional freight, warehousing and handling of Equipment; travel; suspending and re-mobilizing the work; additional engineering, project management, and standby time calculated at then current rates; and preparing and implementing an alternative implementation plan.

10.3. **DELAYS CAUSED BY MOTOROLA.** If Motorola is the sole cause for a delay to the date scheduled for System Acceptance beyond June 22, 2012 (the deadline for System Acceptance required for federal funds to Customer), Motorola will credit Customer for its loss of funds up to 5% of the Contract Price.

## **Section 11 DISPUTES**

The Parties will use the following procedure to address any dispute arising under this Agreement (a "Dispute").

11.1. **GOVERNING LAW.** This Agreement will be governed by and construed in accordance with the laws of the State of Alabama.

11.2. **NEGOTIATION.** Either Party may initiate the Dispute resolution procedures by sending a notice of Dispute ("Notice of Dispute"). The Parties will attempt to resolve the Dispute promptly through good faith negotiations including 1) timely escalation of the Dispute to executives who have authority to settle the Dispute and who are at a higher level of management than the persons with direct responsibility for the matter and 2) direct communication between the executives. If the Dispute has not been resolved within ten (10) days from the Notice of Dispute, the Parties will proceed to mediation.

11.3. **MEDIATION.** The Parties will choose an independent mediator within thirty (30) days of a notice to mediate from either Party ("Notice of Mediation"). Neither Party may unreasonably withhold consent to the selection of a mediator. If the Parties are unable to agree upon a mediator, either Party may request that the American Arbitration Association nominate a mediator. Each Party will bear its own costs of mediation, but the Parties will share the cost of the mediator equally. Each Party will participate in the mediation in good faith and will be represented at the mediation by a business executive with authority to settle the Dispute.

11.4. **LITIGATION, VENUE and JURISDICTION.** If a Dispute remains unresolved for sixty (60) days after receipt of the Notice of Mediation, either Party may then submit the Dispute to a court of competent jurisdiction in the state of Alabama. Each Party irrevocably agrees to submit to the exclusive jurisdiction of the courts in such state over any claim or matter arising under or in connection with this Agreement.

11.5. **CONFIDENTIALITY.** All communications pursuant to subsections 11.2 and 11.3 will be treated as compromise and settlement negotiations for purposes of applicable rules of evidence and any additional confidentiality protections provided by applicable law. The use of these Dispute resolution

procedures will not be construed under the doctrines of laches, waiver or estoppel to affect adversely the rights of either Party.

## **Section 12     DEFAULT AND TERMINATION**

12.1    **DEFAULT BY A PARTY.** 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 a Force Majeure causes the failure) and may assert a default claim by giving the non-performing Party a written and detailed notice of default. Except for a default by Customer 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 Customer is the defaulting Party, Motorola may stop work on the project until it approves the Customer's cure plan. If Motorola is the defaulting party, Customer may stop payments for the project until it approves Motorola's cure plan.

12.2.   **FAILURE TO CURE.** If a defaulting Party fails to cure the default as provided above in Section 12.1, unless otherwise agreed in writing, the non-defaulting Party may terminate any unfulfilled portion of this Agreement and pursue any available remedies at law or in equity. In the event of termination for default, the defaulting Party will promptly return to the non-defaulting Party any of its Confidential Information. If Customer is the non-defaulting Party, terminates this Agreement as permitted by this Section, and completes the System through a third Party, Customer may as its exclusive remedy 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, costs of cover, plus any additional charges incurred to obtain a warranty from such third-party or Motorola on the same or similar terms. Customer will mitigate damages and provide Motorola with detailed invoices substantiating the charges. Motorola will provide a 100% Performance and Payment Bond to the Customer within ten (10) days of the Effective Date.

## **Section 13     INDEMNIFICATION**

13.1.   **GENERAL INDEMNITY BY MOTOROLA.** Motorola will indemnify and hold Customer harmless from any and all liability, damage, loss, expense, judgment, suit, cause of action, or demand for personal injury, death, or direct damage to tangible property which may accrue against Customer to the extent it is caused by the act or omission of Motorola, its subcontractors, or their employees or agents, while performing their duties under this Agreement, if Customer gives Motorola reasonable, written notice of any claim or suit. Customer will cooperate with Motorola in its defense or settlement of the claim or suit. This section sets forth the full extent of Motorola's general indemnification of Customer from liabilities that are in any way related to Motorola's performance under this Agreement.

13.2.   **GENERAL INDEMNITY BY CUSTOMER.** Customer will indemnify and hold Motorola harmless from any and all liability, damage, loss, expense, judgment, suit, cause of action, or demand for personal injury, death, or direct damage to tangible property which may accrue against Motorola to the extent it is caused by the act or omission of Customer, its other contractors, or their employees or agents, while performing their duties under this Agreement, if Motorola gives Customer reasonable, written notice of any the claim or suit. Motorola will cooperate with Customer in its defense or settlement of the claim or suit. This section sets forth the full extent of Customer's general indemnification of Motorola from liabilities that are in any way related to Customer's performance under this Agreement.

### **13.3.    PATENT AND COPYRIGHT INFRINGEMENT.**

13.3.1. Motorola will defend at its expense any suit brought against Customer 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: Customer 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 Customer 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 Customer by a court of competent jurisdiction for an Infringement Claim or agreed to, in writing, by Motorola in settlement of an Infringement Claim.

13.3.2. If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense: (a) procure for Customer the right to continue using the Motorola Product; or (b) replace or modify the Motorola Product so that it becomes non-infringing while providing functionally equivalent performance; or if (a) and (b) is not a viable remedy, the Customer may (c) accept the return of the Motorola Product and grant Customer a credit for the Motorola Product, less a reasonable charge for depreciation, or pursue any available remedies at law or in equity.

13.3.3. 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 Customer's designs, specifications, guidelines or instructions, if the alleged infringement would not have occurred without such designs, specifications, guidelines or instructions, if applicable; (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 Customer to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. Motorola's liability resulting from its indemnity obligation to Customer will only extend to royalties that are based upon Motorola's revenue.

13.3.4. This Section 13 provides Customer's sole and exclusive remedies and Motorola's entire liability in the event of an Infringement Claim. Customer 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 13 are subject to and limited by the restrictions set forth in Section 14.

## **Section 14      LIMITATION OF LIABILITY**

Except for personal injury, tangible property damage or death, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, indemnification, or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of the Equipment, Software, or services provided under this Agreement. **ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS; INCONVENIENCE; LOSS OF USE, TIME, DATA, GOOD WILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS AGREEMENT, THE SALE OR USE OF THE EQUIPMENT OR SOFTWARE, OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THIS AGREEMENT.** This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision. No action for contract breach or otherwise relating to the transactions contemplated by this Agreement may be brought more than six (6) years after the accrual of the cause of action per Alabama law.

## **Section 15      CONFIDENTIALITY AND PROPRIETARY RIGHTS**

15.1. **CONFIDENTIAL INFORMATION.** During the term of this Agreement, the parties may provide each other with Confidential Information. Subject to Alabama law, each Party will: maintain the confidentiality of the other Party's Confidential Information and not disclose it to any third party, except as authorized by the disclosing Party in writing or as required by a court of competent jurisdiction; restrict disclosure of the Confidential Information to its employees who have a "need to know" and not copy or reproduce the Confidential Information; take necessary and appropriate precautions to guard the confidentiality of the Confidential Information, including informing its employees who handle the Confidential Information that it is confidential and is not to be disclosed to others, but these precautions

will be at least the same degree of care that the receiving Party applies to its own confidential information and will not be less than reasonable care; and use the Confidential Information only in furtherance of the performance of this Agreement. Confidential Information is and will at all times remain the property of the disclosing Party, and no grant of any proprietary rights in the Confidential Information is given or intended, including any express or implied license, other than the limited right of the recipient to use the Confidential Information in the manner and to the extent permitted by this Agreement. It shall not be a breach of this Agreement to disclose Confidential Information, including, but not limited to, the terms and conditions of this Agreement and the pricing of a licensed product, pursuant to (i) judicial order, (ii) requirement of a governmental agency, pursuant to (iii), (iii) in accordance with any applicable laws, rules or regulations, or (iv) the prior written approval of the party providing such Confidential Information. It is expressly understood by all parties that this Agreement and the supporting documents will become public information and must be approved by the Baldwin County Commission in an open meeting.

15.2. **PRESERVATION OF MOTOROLA'S PROPRIETARY RIGHTS.** Motorola, the third party manufacturer of any Equipment, and the copyright owner of any Non-Motorola Software own and retain all of their respective Proprietary Rights in the Equipment and Software, and nothing in this Agreement is intended to restrict their Proprietary Rights. All intellectual property developed, originated, or prepared by Motorola in connection with providing to Customer the Equipment, Software, or related services remain vested exclusively in Motorola, and this Agreement does not grant to Customer any shared development rights of intellectual property. Except as explicitly provided in the Software License Agreement, Motorola does not grant to Customer, either directly or by implication, estoppel, or otherwise, any right, title or interest in Motorola's Proprietary Rights. Customer will not modify, disassemble, peel components, decompile, otherwise reverse engineer or attempt to reverse engineer, derive source code or create derivative works from, adapt, translate, merge with other software, reproduce, distribute, sublicense, sell or export the Software, or permit or encourage any third party to do so. The preceding sentence does not apply to Open Source Software which is governed by the standard license of the copyright owner.

## **Section 16 GENERAL**

16.1. **TAXES.** The Contract Price does not include any excise, sales, lease, use, or property taxes, all of which will be paid by Customer except as exempt by law. If Motorola is required to pay any of these taxes, Motorola will send an invoice to Customer and Customer will pay to Motorola the amount of the taxes (including any interest) within twenty (20) days after the date of the invoice. Customer will be solely responsible for reporting the Equipment for personal property tax purposes, and Motorola will be solely responsible for reporting and paying taxes on its income or net worth.

16.2. **ASSIGNABILITY AND SUBCONTRACTING.** 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. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement.

16.3 **WAIVER.** Failure or delay by either Party to exercise a right or power under this Agreement will not be 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.

16.4. **SEVERABILITY.** If a court of competent jurisdiction renders any part of this Agreement invalid or unenforceable, that part will be severed, and the remainder of this Agreement will continue in full force and effect.

16.5. **INDEPENDENT CONTRACTORS.** Each Party will perform its duties under this Agreement as an independent contractor. The Parties and their personnel will not be considered to be employees or agents of the other Party. Nothing in this Agreement will be interpreted as granting either Party the right or authority to make commitments of any kind for the other. This Agreement will not constitute, create, or be interpreted as a joint venture, partnership or formal business organization of any kind.

16.6. HEADINGS AND SECTION REFERENCES. The section headings in this Agreement are inserted only for convenience and are not to be construed as part of this Agreement or as a limitation of the scope of the particular section to which the heading refers. This Agreement will be fairly interpreted in accordance with its terms and conditions and not for or against either Party.

16.7. ENTIRE AGREEMENT. This Agreement, including all Exhibits, constitutes the entire agreement of the Parties regarding the subject matter of the Agreement and supersedes all previous agreements, proposals, and understandings, whether written or oral, relating to this subject matter. 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 be amended or modified only by a written instrument signed by authorized representatives of both Parties. The preprinted terms and conditions found on any Customer purchase order or Motorola's preprinted invoices, 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.

16.8. NOTICES. Notices required under this Agreement to be given by one Party to the other must be in writing and either personally delivered or sent to the address shown below by certified mail, return receipt requested and postage prepaid (or by a recognized courier service, such as Federal Express, UPS, or DHL), or by facsimile with correct answerback received, and will be effective upon receipt:

Motorola Solutions, Inc.  
Attn: Judy Jean-Pierre  
1301 E. Algonquin Road, IL02-SH5  
Schaumburg, IL 60196  
email: [Judy.Jean-pierre@motorolasolutions.com](mailto:Judy.Jean-pierre@motorolasolutions.com)

Customer  
Attn: Mr. David Pimperl  
312 Courthouse Sq., Suite 13  
Bay Minette, AL 36507  
email: [dpimperl@co.baldwin.al.us](mailto:dpimperl@co.baldwin.al.us)

16.9. COMPLIANCE WITH APPLICABLE LAWS. Each Party will comply with all applicable federal, state, and local laws, regulations and rules concerning the performance of this Agreement or use of the System. Customer will obtain and comply with all Federal Communications Commission ("FCC") licenses and authorizations required for the installation, operation and use of the System before the scheduled installation of the Equipment. Although Motorola might assist Customer in the preparation of its FCC license applications, neither Motorola nor any of its employees is an agent or representative of Customer in FCC or other matters.

16.10. AUTHORITY TO EXECUTE AGREEMENT. Each Party represents that it has obtained all necessary approvals, consents and authorizations to enter into this Agreement and to perform its duties under this Agreement; the person executing this Agreement on its behalf has the authority to do so; upon execution and delivery of this Agreement by the Parties, it is a valid and binding contract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Agreement does not violate any bylaw, charter, regulation, law or any other governing authority of the Party.

16.11. ADMINISTRATOR LEVEL ACCOUNT ACCESS. Motorola will provide Customer with Administrative User Credentials. Customer agrees to only grant Administrative User Credentials to those personnel with the training or experience to correctly use the access. Customer is responsible for protecting Administrative User Credentials from disclosure and maintaining Credential validity by, among other things, updating passwords when required. Customer may be asked to provide valid Administrative User Credentials when in contact with Motorola System support. Customer understands that changes made as the Administrative User can significantly impact the performance of the System. Customer 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 Customer and Customer will pay Motorola on a time and materials basis for resolving the issue.

16.12. SURVIVAL OF TERMS. The following provisions will survive the expiration or termination of this Agreement for any reason: Section 3.6 (Motorola Software); Section 3.7 (Non-Motorola Software); if any payment obligations exist, Sections 5.1 and 5.2 (Contract Price and Invoicing and Payment); Subsection 9 (Representations and Warranties, except that the survival of representation and warranty claims will not extend the Warranty Period); Section 11 (Disputes); Section 14 (Limitation of Liability); and Section 15 (Confidentiality and Proprietary Rights); and all of the General provisions in Section 16.

The Parties hereby enter into this Agreement as of the Effective Date.

**Motorola Solutions, Inc.**

**Customer**

By: \_\_\_\_\_  
Name: Marshall Wright  
Title: MSSSI Vice President and Director, Sales  
Date: September 6, 2011

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

## Exhibit A

### SOFTWARE LICENSE AGREEMENT

This Exhibit A Software License Agreement ("Agreement") is between Motorola Solutions, Inc., ("Motorola"), and Baldwin County, Alabama ("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.

1.8 "Transferee" or "licensee" includes, for purposes of this Agreement, any user of the system authorized by the County, including, but not limited to, County-authorized E911 users and emergency volunteers.

#### 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 License includes the County's

use of any software provided by Motorola to the City of Orange Beach, Alabama. 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. When using Motorola's Radio Service Software ("RSS"), Licensee's use of RSS at a licensed location does not entitle Licensee to use or access RSS remotely. Licensee may make one copy of RSS for each licensed location. Licensee shall provide Motorola with a list of all locations at which Licensee uses or intends to use RSS upon Motorola's request.

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 premises, books and records, 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 a period of one year from System Acceptance (the "Warranty Period"). If System Acceptance is delayed beyond six (6) months after shipment of the Motorola Software by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Motorola Software. 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. If the parties agree that the first and second remedies are not viable, then Motorola will terminate the license and refund the Licensee's paid license fee, and licensee shall have the right to pursue all available remedies at law or in equity.

6.3. Warranty claims are described in the Primary 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, including, without limitation, any and all implied warranties of condition, title, non-infringement, merchantability, or fitness for a particular purpose (not described or represented by Motorola in the Primary Agreement or Exhibits) or use by Licensee (whether or not Motorola knows, has reason to know, has been advised, or is otherwise aware of any such purpose or use), whether arising by law, by reason of custom or usage of trade, or by course of dealing. 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 Licensee acknowledges that Motorola made a considerable investment of resources in the development, marketing, and distribution of the Software and Documentation and that Licensee's breach of this Agreement will result in irreparable harm to Motorola for which monetary damages would be inadequate. If Licensee breaches this Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity (including immediate injunctive relief and repossession of all non-embedded Software and associated Documentation unless Licensee is a Federal agency of the United States Government).

## **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, and that the provisions in the Primary Agreement concerning Confidential Information apply.

## **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 to which the Software is shipped if Licensee is a sovereign government entity, or the internal substantive laws of the State of Illinois if Licensee is not a sovereign government entity. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a party's performance under this Agreement, UCITA does not govern any aspect of this Agreement or any license granted under this Agreement, or any of the parties' rights or obligations under this Agreement. The governing law will be that in effect prior to the applicability of UCITA.

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 (except that the survival of representation and warranty claims will not extend the Warranty Period), 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 B**

### **Payment Schedule**

The Contract Price in U.S. dollars is \$4,335,962.00. Customer will make payments to Motorola within thirty (30) days after the date of each invoice. Customer will make payments when due in the form of a check, cashier's check, or wire transfer drawn on a U.S. financial institution and in accordance with the following milestones.

- 1) 15% of Contract Value due within 45 days of Contract Execution;
- 2) 55% of Contract Value upon Shipment of Equipment;
- 3) 25% of Contract Value upon Installation of Equipment; and
- 4) 5% of Contract Value upon System Acceptance.

Motorola reserves the right to make partial shipments of equipment and to request partial payment upon shipment of such equipment.

**Exhibit D**  
**System Acceptance Certificate**

**Customer Name:** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

This System Acceptance Certificate memorializes the occurrence of System Acceptance. Motorola and Customer acknowledge that:

1. The Acceptance Tests set forth in the Acceptance Test Plan have been successfully completed.
2. The System is accepted.

Customer Representative:

Motorola Representative:

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**FINAL PROJECT ACCEPTANCE:**

Motorola has provided and Customer has received all deliverables, and Motorola has performed all other work required for Final Project Acceptance.

Customer Representative:

Motorola Representative:

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



## Section 8. Product Literature

Motorola has attached its Product Literature on the following pages.

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# PTP 800



# OWN YOUR SLICE OF RADIO SPECTRUM

6 TO 38 GHZ POINT-TO-POINT (PTP) LICENSED ETHERNET MICROWAVE



## STRIKE THE RIGHT BALANCE

More bandwidth, more bandwidth, more bandwidth! Today's converged multi-service networks need extreme capacity, availability and reliability with low latency and true affordability. Fulfilling these demands takes a real balancing act. Our Point-to-Point (PTP) 800 Series Licensed Ethernet Microwave solutions strike just the right balance of performance and cost.

### FIND THE PERFECT FIT

PTP 800 solutions are designed to satisfy the demand for reliable, high-throughput Internet Protocol (IP-based) licensed-microwave solutions at an affordable price. The systems deliver up to 368 Mbps (full duplex) throughput with user-configurable channel bandwidths from 7 to 56 MHz. Operating in the 6 to 38 GHz<sup>1</sup> radio frequency (RF) bands, PTP 800 solutions are available in several models to address your local regulatory guidelines<sup>2</sup> and specific application requirements.

PTP 800 systems integrate seamlessly with our PTP license-exempt and defined-use licensed wireless Ethernet bridges, providing an array of line-of-sight (LOS), non-line-of-sight (NLOS) and ultra long-distance solutions. As a result, you can configure the solution or combination of solutions that best meets your path conditions, application requirements and budgetary guidelines.

### CAPACITY AS YOU GROW

Typically, demand for communication bandwidth grows during the life of a network. To accommodate that growth, you can purchase the PTP 800 throughput you need today and increase throughput capacity as your needs grow. This capacity-as-you-grow scalability can reduce your initial capital expenditure by not having to pay for tomorrow's needs with today's budget. Instead, you can match throughput capacity to your application requirements or, for carriers and service providers, to your developing demand and revenue stream. In addition, you can assign different throughput capacities to the up and down links.

PTP 800 Compact Modem Units are shipped with a factory-set 10 Mbps capacity cap, meaning that throughput is set to a maximum of 10 Mbps at the user Ethernet port. When you require more than 10 Mbps, you can upgrade the throughput capacity without any change to the hardware. Single-step or step-by-step capacity upgrades can be implemented at the time of system purchase and/or anytime after deployment.

### ZERO-DOWNTIME ADAPTIVE MODULATION

Certain organizations such as carriers may choose to operate PTP 800 systems in a Fixed Modulation mode. However, the system's dynamic Adaptive Coding and Modulation (ACM) feature can provide performance benefits for many IP-based applications. When ACM is selected, the system automatically "up-shifts" and "down-shifts" the modulation and/or coding rate as path conditions change. This enables radio transmitters and receivers to negotiate the highest mutually sustainable data rate.

During good weather, the radio will "up-shift" to a higher modulation level and/or higher coding rate to improve spectral efficiency and increase throughput and availability. If the link's Signal-to-Noise Ratio (SNR) falls

### CUSTOMER PROFILES

- Banks and Financial Institutions
- Educational Agencies
- Healthcare Organizations
- Oil and Gas Companies
- State, County and Local Governments
- Transportation Agencies
- Utility Companies
- Wireless Internet Service Providers (WISPs)
- Wireless Carriers



PTP 800 Outdoor Unit (ODU)

PTP 800 Compact Modem Unit (CMU)

<sup>1</sup> PTP 800 models operating in the 6 to 38 GHz frequencies are available in a series of product releases.

<sup>2</sup> Local regulatory requirements should be confirmed prior to system purchase.

below the threshold that your link can sustain, as can occur during heavy rain, the radio will “down shift” to a lower modulation level and/or lower coding rate. The resulting improvement in receive sensitivity enables your link to continue operating.

With exceptionally smooth change steps, errorless coding and modulation technology, and a hitless algorithm, you will experience no service interruption as the modulation steps from one level to another. Many comparable systems need several seconds to adjust the modulation mode which causes outages as the radios switch modes.

## **FAILSAFE COMMUNICATIONS**

There are many applications such as 9-1-1 dispatch, video surveillance and online stock trades for which a communication outage is just not acceptable. In such crucial situations, you will want hardware redundancy to support your vital functions with uninterrupted, real-time communications. While hardware redundancy is not required to deploy PTP 800 links, it is recommended for each link which supports a critical application or process.

PTP 800 links can be deployed as 1+1 hot standby (HSB) links, 2+0 redundant links in a ring or mesh configuration, and non-redundant links. HSB links are designed to provide full redundancy in the event of a single CMU (Compact Modem Unit) or ODU (Outdoor Unit) failure at one or both ends of a link. If a failure occurs, the secondary unit will automatically take over communications. You can also achieve redundancy by deploying PTP 800 systems in a ring or mesh configuration with two independent links and an external switch. Non-redundant links are good choices to support applications for which you would not incur significant consequences in the event of a failure. If you deploy a non-redundant link, you can later upgrade to a 1+1 or 2+0 configuration without changing your hardware

## **REDUCED INSTALLATION COSTS**

Optimized hardware design and easy-to-follow deployment-assistance information significantly reduce deployment man-hours and costs. Designed with a split-mount architecture that includes an ODU and a CMU, the ODU and CMU are connected by a single intermediate frequency (IF) cable. The CMU’s extremely small, physical footprint greatly reduces rack-space requirements. You can even mount the CMU on a wall or place it on a table if rack space is scarce or non-existent.

## **EASY, ACCURATE LINK PLANNING**

Our easy-to-use PTP LINKPlanner tool allows you to accurately project performance characteristics prior to purchase based on your specific radio path conditions. You can plan and optimize a single link or multiple links simultaneously, obtain configuration details to speed deployment, display a comprehensive overview of your entire wireless network via Google™ Earth and receive a complete licensed-microwave Bill-of-Materials to simplify the ordering process. LINKPlanner is available as a stand-alone tool or included in our One Point Wireless portfolio.

## **END-TO-END WIRELESS MANAGEMENT**

Our Wireless Manager is an optional feature-rich tool that simplifies management functions and reduces the time required to manage your wireless network. From one live Google™ map view, you can monitor and manage PTP, mesh, point-to-multipoint and other SNMP-enabled devices. This holistic, map-based approach is designed to speed up problem resolution in order to boost your network uptime and availability.

PTP 800 systems also contain embedded web servers to manage a link either locally or remotely and are designed to easily integrate with Web-based or SNMP-based network management systems. In addition, PTP 800 systems support both in-band and out-of-band management.

## **PERFORMANCE BOOSTING TOOLS**

PTP 800 systems include industry-leading metrics to help you attain the best possible performance from your wireless system. Those metrics include antenna alignment information, throughput measurements, measurements of signal level and quality and troubleshooting diagnostics.

## **CERTIFIED INTEROPERABILITY**

Today’s IT networks are typically multi-vendor environments. As a result, our PTP 800 equipment is tested and MEF9 (Metro Ethernet Forum) certified as compliant with the MEF’s essential specifications. So, you can be confident that your PTP 800 solution will interoperate with your existing network equipment.

## **PTP 800 AT WORK**

PTP 800 solutions are designed to efficiently and affordably transport the data, voice and video that your high-throughput applications require while supporting a smooth migration to an IP-based network. Typical uses include:

### **TYPICAL USES**

- Ethernet data, voice and video backhaul
- Building-to-building connectivity
- Leased-line replacement
- Network redundancy
- WiMAX/LTE backhaul
- Data overlay networks



#### INTERNET PROVIDER

# ADD CAPACITY FOR ON-DEMAND MULTIMEDIA

Your conference center client has updated their interactive sales presentation with audio and video content. Virtual tours of new meeting and conference rooms, added business services, redecorated guest rooms and upscale restaurant and bar facilities are very elegant. However, they needed greater throughput capacity to transmit all this beautiful content on demand. You chose our PTP 800 licensed microwave solution to provide the capacity they need. Now they can promote their facilities and services in real time, and you made a profitable customer very happy.

- Replacing leased-lines to eliminate or reduce monthly leased-line charges
- Extending video surveillance beyond the constraints of a wired infrastructure
- Backhauling video from surveillance cameras to a dispatch or command center
- Establishing network redundancy for a wired or fiber network
- Improving productivity by connecting a headquarters location to a branch office, warehouse, customer service center or other facility
- Supplying added capacity for sophisticated Voice-over-IP, streaming video and multimedia applications
- Delivering high-capacity wireless backhaul for WiMAX and LTE networks
- Growing subscriber networks by establishing service in distant locations
- Providing a data overlay for an existing legacy network
- Optimized system design and installation that cuts deployment man-hours and costs
- Errorless and hitless ACM that maximizes spectral efficiency, increases throughput and improves availability without service interruption
- Easy, flexible management options that integrate with your existing network management activities
- One Point Wireless that gives you a common set of tools to make wireless network design, deployment and management faster and easier (optional)
- Licensing service packages<sup>3</sup> that save you time and simplify RF licensing procedures
- Complete PTP portfolio that gives you tremendous flexibility to configure the solution that is ideal for your business needs, path conditions and budget

## **CAPACITY, RELIABILITY, VALUE**

Everyone wants the most value for their investment.

When it comes to value, the PTP 800 shines with impressive features that can significantly reduce capital and operating expenditures, including:

- “Capacity as you grow” scalability that lets you budget to meet throughput needs
- Configurations for affordable 1+1 hot standby and 2+0 network redundancy

## **WIRELESS NETWORK SOLUTIONS**

PTP 800 solutions are included in our Wireless Network Solutions portfolio. This portfolio delivers seamless connectivity that puts real-time information in the hands of users, giving you the agility you need to grow your business or better protect and serve the public. Our unrivalled wireless network solutions include indoor WLAN, outdoor wireless mesh, point-to-multipoint and point-to-point networks as well as voice over WLAN solutions. Combined with powerful software for wireless network design, security, management and troubleshooting, our solutions deliver trusted networking and anywhere access to organizations across the globe.

<sup>3</sup> Packages may not be available in certain geographic regions.

For more information on our PTP 800 Series solutions, refer to the PTP 800 Specifications Sheet at: [motorola.com/ptp](http://motorola.com/ptp)

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GC-23-107 WNS PTP 800 03-00 BR 122110



# POP 25: PROGRAMMING OVER PROJECT 25



## STREAMLINE THEIR UPDATES. AND STRENGTHEN YOUR SAVINGS.

Your first responders are in the field—battling fires, responding to emergencies, and protecting lives. Updating their radios with a new code plug configuration or making a modification to an existing one can be time-consuming and labor-intensive. In fact, locating and reprogramming radios takes them away from their mission and can cost your agency thousands of unproductive man-hours.

We listened to these concerns and developed the first Programming Over Project 25 (POP25). POP25 streamlines the process so Motorola ASTRO®25 two-way radios can be accessed and updated over-the-air using digital ASTRO 25 Integrated Voice and Data (IV&D) conventional and trunked systems. Now your responders can enjoy all the advantages of ASTRO 25 without lost time or logistical challenges.

### KEY FEATURES

#### Update easily, wirelessly

Update anytime, anywhere within the radio coverage area via the ASTRO 25 IV&D network. Once a configuration update is downloaded to the radio, your users can install new changes immediately or delay changes to be installed on the radios as they are being powered up. Radios can also be configured to let users accept or reject an update.

#### Gain total configuration control

Get access to all configuration parameters programmable through the Customer Programming Software (CPS) to perform updates over-the-air.

#### Specify the exact changes

Update only the new changes needed and save time by not requiring a full code plug re-write, just a partial one.\*

#### Download without losing communication

Retain full use of the radio during the configuration data transfer without interrupting communication.

- Voice always takes priority over POP25 data transfers
- When a voice call ends, POP25 starts where it paused programming; there's no need to restart
- Users do not have to switch to a non-busy or conventional channel
- User do not have to stay in an area with high signal strength during the download
- All radio functions and capabilities are accessible and enabled during download

#### Schedule in advance automatically

Use the POP25 Scheduler to queue up to 16 radios for updates over-the-air using templates. The system will automatically generate a report showing which radios were successfully programmed.

#### Update simultaneously

Update a number of radio users at the same time through multiple programming stations.

#### Fix programming mistakes without added costs

Programming errors can cost agencies hundreds of lost man-hours. By using POP25, mistakes can be rectified over the air quickly, without any impact to users.

#### Be confident radios are secure

POP25 requires an Advanced System Key (ASK) to prevent unauthorized programming of radios over the ASTRO 25 trunking systems. POP25 can also work with the Encrypted Integrated Data (EID) feature for ASTRO 25 trunking systems that require data confidentiality. POP25 requires AES encryption when used with ASTRO 25 conventional systems for secure over-the-air programming.

#### Save time and training

POP25 uses the familiar CPS interface, and is engineered to be very easy to use for technicians and users alike; minimal training is required.

#### Be assured of system support

POP25 is currently supported on the XTS/XTL and APX platforms for both ASTRO 25 conventional and trunked systems. POP25 is supported on XTS/XTL 1500 for trunked operation only.

\* Available on XTS and XTL radios only.

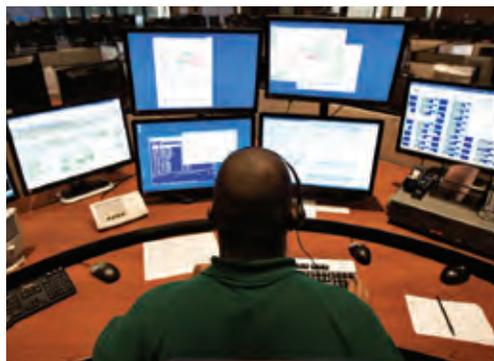
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R3-26-2005B



# MCC 7500 IP DISPATCH CONSOLE FOR ASTRO<sup>®</sup> 25 RADIO SYSTEMS



STAY IN CONSTANT CONTACT WHEN IT MATTERS MOST



## THE MOTOROLA MCC 7500 IP DISPATCH CONSOLE

Whether a large-scale event or a simple traffic light outage at a school crossing threatens the safety of citizens, you need to effectively communicate and coordinate a rapid response.

You need to have confidence in a dependable, always-available, complete communications system that keeps responders safe and constantly connected. You need the Motorola MCC 7500 IP Dispatch Console.

Seamlessly integrated into ASTRO® 25 radio systems, the MCC 7500 console provides interoperability, cost savings, and security advantages for today's critical communication needs. MCC 7500 consoles connect directly to the IP network without interface boxes, digital voice gateways or backroom electronics for an integrated mission critical system. Conventional channels link to the IP network and use the same audio transport as trunked audio.

### ASTRO 25 SYSTEM INTEGRATION

Motorola IP systems are optimized to perform to robust customer specifications for mission critical voice and data communications. ASTRO 25 complies with Project 25 interoperability specifications while system interfaces based on standard IP bring additional value to the system.



The MCC 7500 IP Dispatch Console features:

- Prioritized emergency calls get through no matter how busy the system.
- Voice quality and intelligibility optimized to eliminate clipped or degraded audio.
- High-quality audio maintained despite increasing traffic loads.
- Call setup in a fraction of a second.
- Voice messages consistently delivered in the shortest possible time.
- Quick re-routing of call traffic in the event of an IP network path failure, minimizing lost audio and any impact on the end user.
- Enhanced dispatch performance and improved bandwidth efficiency using IP multicast technology.
- Conventional channels linked to the IP network using the same audio transport as trunked audio.
- Simplified dispatch operations and optimized operational efficiencies when integrated with PremierOne™ CAD.

## **MEETS YOUR DEMAND TO PROTECT, PREVENT AND RESPOND TO MISSION CRITICAL OPERATIONS.**

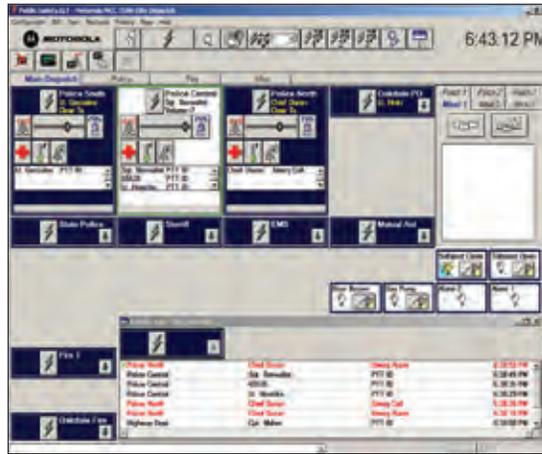
**True End-to-End Encryption** from the radio all the way through the console position. The MCC 7500 IP Dispatch Console goes beyond vocoded audio and uses true encryption technology, the only reliable means to keep your critical communication secure. Each MCC 7500 console supports up to six encryption algorithms simultaneously.

**With Agency Partitioning**, departments or agencies can share a system for cost savings and interoperability, yet manage and maintain control over their own resources, such as talkgroups, encryption keys, and configuration data.

**Centralized System Configuration and Fault Management** of dispatch positions allow changes to be automatically distributed throughout the system, providing vital efficiency. Access to the system manager from multiple remote locations via standard IP methods means users can still have convenient access while enjoying the benefits of centralized management.

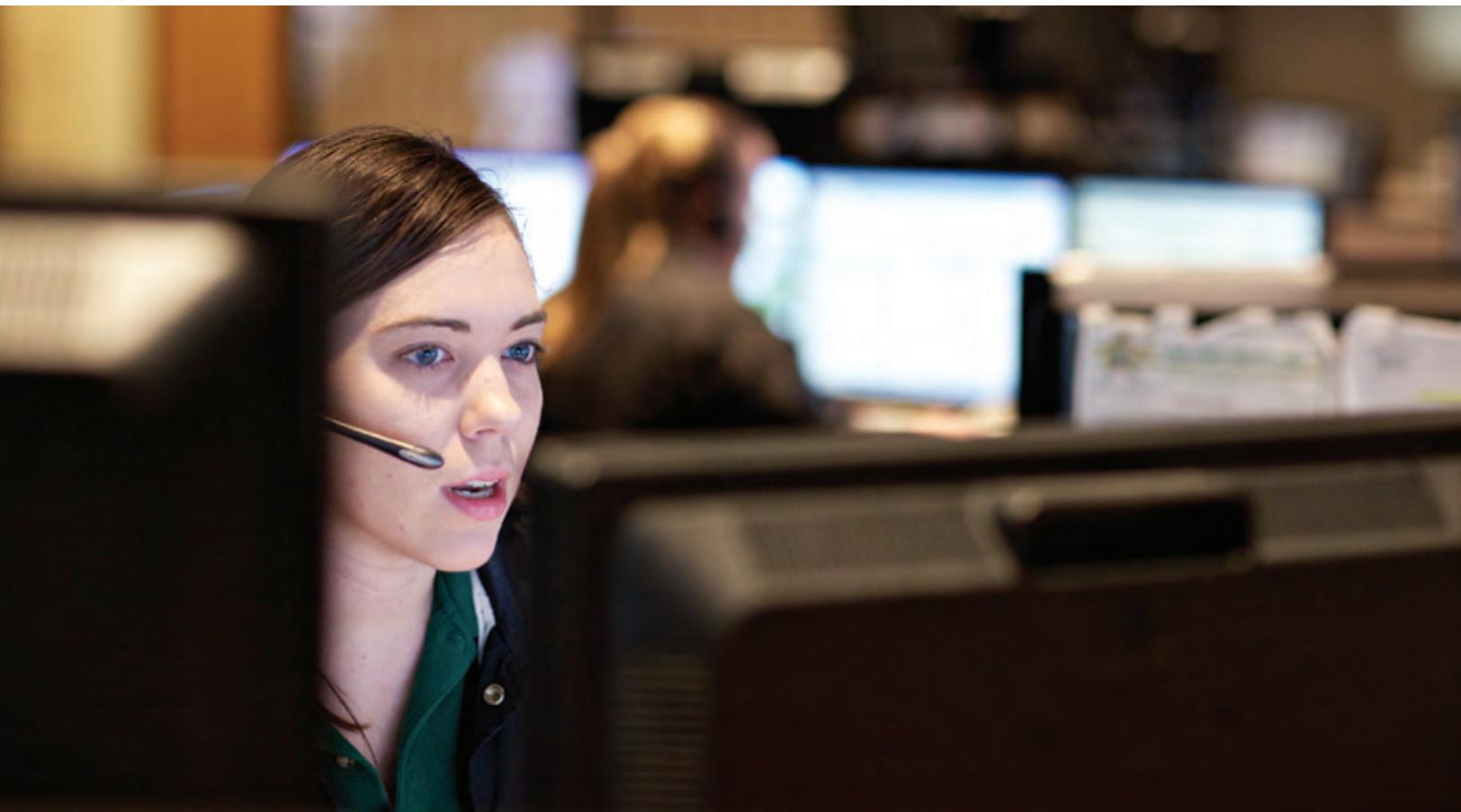
**Enhanced, Integrated Logging Recorder** is available for the MCC 7500 Console providing digital recorded audio at the same high-quality level as heard through the dispatch positions. Digital recorders integrated into the radio system reap the benefits of agency partitioning, centralized management and system security, meeting a wide range of ASTRO® 25 customer requirements.

**PremierOne™ CAD Integration** further simplifies dispatch operations, improves data accuracy and enhances operational efficiencies by combining the common, intuitive user interface of PremierOne CAD with the reliable field personnel communications capabilities of the MCC 7500. Agencies that choose to integrate the MCC 7500 Console features with the PremierOne CAD common platform will gain the ability to automate common operations and get a real-time, comprehensive view of the personnel and equipment being supported in the field.



### **Customer Accepted Interface**

Efficient, easy to use and intuitive, having been refined and proven through years of use in public safety dispatch centers around the world.



## COMMAND AND CONTROL SOLUTIONS DESIGNED AROUND YOU

The MCC 7500 IP Dispatch Console is part of Motorola's extensive portfolio of communications and information solutions designed to address mission-critical public safety and security requirements worldwide. The MCC 7500 dispatch solution meets Motorola's rigorous quality standards to bring you peace of mind.

- Compatible with existing ASTRO® 25 radio systems with forward migration to protect and leverage your investment.
- Converges with PremierOne™ CAD to further simplify dispatch operations, improve data accuracy and enhance operational efficiencies.
- Software-based upgrades ease system and feature expansion. Re-use of the Elite Graphical User Interface (GUI) helps minimize dispatcher training.
- Works together with CENTRACOM™ Elite Console for robust feature interaction.
- Installation is simplified and site costs are reduced since the console operator position functions without backroom electronics.
- Console configuration is performed at a centralized network manager client, with changes distributed automatically, saving valuable technician and administrator time.

- More robust service logs, containing real-time information, facilitate maintenance activities.
- Integration into the system's central fault standard event monitoring protocols means fewer site visits.
- Flexible bandwidth requirements minimize operating costs for all remote console locations.
- Conventional audio is transported by the same IP network, eliminating the need for channel banks or a separate circuit switch system.



For more information about how the MCC 7500 IP Dispatch Console can meet your critical communication needs, contact your Motorola representative or visit [motorola.com/ASTRO25](http://motorola.com/ASTRO25).

Motorola, Inc. 1301 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A. [motorola.com/ASTRO25](http://motorola.com/ASTRO25)

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RC-13-2020C (1010)

# THE RIGHT CHOICE FOR TODAY IS THE SMART CHOICE FOR TOMORROW ASTRO® 25 SYSTEMS





**WHEN LIVES ARE  
AT STAKE.**

**RELY ON THE  
SYSTEM TRUSTED  
BY OVER A  
MILLION FIRST  
RESPONDERS  
EVERYDAY.**

Around the world men and women, who protect our communities, put their lives at risk to make our lives safe. Whether running into a burning building, pursuing a speeding car or knocking on the door of a domestic disturbance, they need the confidence that there is a system behind them that will provide the help needed.

With over 300 ASTRO® 25 trunked systems and thousands of conventional sites, two million users rely on a Motorola radio for daily communications as well as emergency response in the most demanding situations.

With uncompromising real-world performance and legendary Motorola reliability, the ASTRO 25 solution continues to evolve, adding practical innovations and performance-driven capabilities that enable public safety agencies to protect the communities they work in and support neighboring communities through interoperability.

## IMMEDIATE AND ASSURED VOICE IN AN EMERGENCY

Because critical incidents often require a large number of first responders, the radio system must have the capacity to handle heavy call volumes. Public safety agencies need to know their voice communications will not have to compete with consumers or other non-mission critical data traffic. The ASTRO 25 system is a dedicated communication system that can help ensure voice and data services will be available in times of emergency and peak demand. With the ability to allocate channels between voice and data as needed, ASTRO 25 supports more users, more calls and more information on the same spectrum.

## ACCESSIBILITY IN CHALLENGING ENVIRONMENTS

When an officer is dispatched, he needs to be prepared and that includes his communications. Environments such as tunnels, high rise buildings and sub-basements can create unique challenges for wireless communications. An ASTRO 25 system has been optimized for the most challenging urban environments. Our field engineering team can design a system to meet your coverage requirements with solutions such as simulcast sites to minimize interference in specific environments, helping to ensure that calls get through.

## RELIABLE VOICE AND DATA INTEGRATED AS ONE

Optimized for the rigorous demands of public safety agencies, ASTRO 25 provides reliable, always available communications. For example, in an emergency involving multiple agencies, first responders can share voice and data communication among their teams. Plus, centralized command and control can deploy resources efficiently, maintain communication security and track personnel.

## STANDARDS-BASED PROJECT 25 INTEROPERABILITY

ASTRO 25 is a Project 25 (P25) standards-based system giving state, local and federal agencies the confidence that interoperability between multiple agencies and jurisdictions is achievable. Linking multiple Project 25 systems together with the P25 ISSI standard allows agencies to establish interoperability across multiple networks. A vibrant standard, P25 is endorsed by organizations around the world, and continues to evolve with the improved spectrum efficiency of P25 Phase 2 TDMA.



# GETTING A PRACTICAL AND RELIABLE SOLUTION, **NOW AND IN THE FUTURE**

As your agency looks to expand mission critical communication capabilities, you must consider how the system will perform in the most challenging situations. In addition, you have to consider future needs and how to maximize any investments for the long term.

## **AVAILABILITY FOR THE MOST GRUELING ENVIRONMENTS**

First responders must work in adverse conditions, such as an approaching hurricane, traffic lights out or a multi-building fire. Communications are often the only lifeline, so systems must be intuitive and always available. From built-in resiliency and redundancy to new capabilities that can allow the system to automatically switch, in case of catastrophic loss, to a geographically separated ASTRO® 25 core to maintain system operation, the ASTRO 25 system has been designed to help ensure it is always available for public safety agencies.

## **FLEXIBLE RADIO ACCESS**

When the communication system is needed, it must provide the required access. ASTRO 25 is a very flexible voice and data platform that allows agencies to use conventional, trunking, simulcast and dedicated data – all on one integrated system. With its support of multiband (VHF, UHF, 700 MHz, 800 MHz and 900 MHz), ASTRO 25 also allows multiple agencies to share one network. And it's easy to add capabilities such as Project 25 Phase 2 TDMA with software-definable equipment.

## **INTEROPERABILITY WITH MULTIPLE AGENCIES**

When an incident demands a coordinated response, the first responder wants to be able to communicate with the right set of resources to get the job done. ASTRO 25 enables seamless communications with other agencies and jurisdictions using Project 25 systems. With agency partitioning, agencies can share an ASTRO 25 system to save costs and improve interoperability, yet manage and maintain control over their own resources. The modular platform allows an existing SMARTNET® or SmartZone™ system to be leveraged while building out an ASTRO 25 system. Plus, subscriber radios can work across multiple bands and multiple digital and analog systems from conventional to SMARTNET and SmartZone to ASTRO 25 for true interoperability.

## **CONSTANT CONTACT AND CONTROL**

Command operations are a critical cornerstone to any public safety operations. As a dispatcher coordinates response to an incident, the system must be intuitive and easy to use. The MCC 7500 IP Dispatch Console is a robust, proven solution that delivers mission critical functionality: emergency calls that are prioritized no matter how busy the network; high quality audio even with high traffic loads; calls set in a fraction of a second regardless of system size and true end-to-end encryption.



# YOUR RADIO HAS ONE JOB TO DO **KEEP YOU SAFE**

**IN AN EMERGENCY OTHER FIRST RESPONDERS MAY BE TEN FEET AWAY OR TEN MILES AWAY. WHEN EVERY SECOND COUNTS, PUBLIC SAFETY AGENCIES NEED A RADIO THEY CAN RELY ON TO GET THE JOB DONE.**



Working with public safety communities around the world, we have redefined safety in two-way radio communications. Understanding how first responders operate radios under stress and in harsh environments is a science we pioneered, and this science of high velocity human factors plays a pivotal role in the way we design radios. The result is the APX™ series of radios; designed with the user in mind – from the rugged, easy-to-operate controls, to the loudest, clearest audio, to integrated data and mission critical features – APX radios keep your personnel and the community safe.

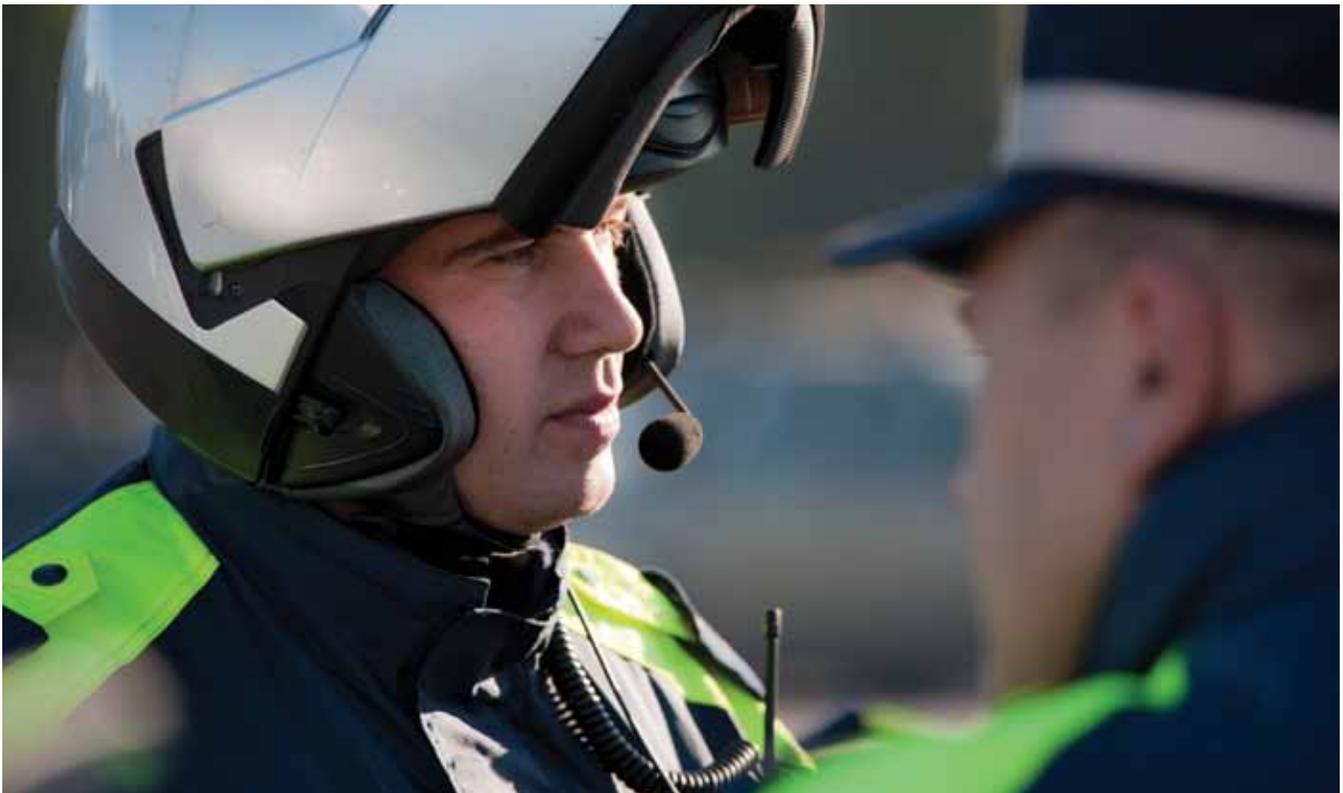
# TODAY.

## ACCESS TO REAL-TIME INFORMATION

Officers need to be out in the community with access to information that will help them to do their jobs better, while responding to the needs of the community. ASTRO® 25 dedicated data systems allow officers to receive critical information in real time, complete routine reports, access databases and much more.

In addition to voice communications, a lifeline for first responder, the ASTRO 25 system can provide a Project 25 standards-based Integrated Voice and Data system plus a dedicated data-only network. A dedicated HPD data network can be installed as a stand alone ASTRO 25 system or integrated into a voice and data system providing more capacity for data applications.

- ASTRO 25 integrated data systems and applications can help you improve productivity and efficiency.
- Enabled by GPS technology, the location of remote personnel can be quickly identified, providing faster response to an incident and improved officer safety.
- Dispatchers and mobile users can easily send and receive text messages, providing a valuable tool in maintaining communication in any environment.
- Radios can remain in the field where officers need them, while receiving critical or routine programming updates over the air.
- With an open software platform, you can add the applications you require such as field reporting, database look-ups, Be On the Look Out (BOLO) broadcast messages, license plate checks and more.



# TOMORROW.

## THE NEXT GENERATION OF PUBLIC SAFETY

At the heart of every mission is the ability to communicate in an instant each and every time to coordinate response and protect lives. The starting point for any public safety communications, the ASTRO 25 system is uniquely designed to deliver uncompromising voice services and provide a lifeline to the first responders. As your agency moves to the future, Motorola will stand by your side building the next generation of public safety communications systems.

### INTEGRATING THE COMMAND CENTER

Maximizing situational awareness for safer, faster, better incident resolution is the goal of every command center operation. Today it means integrating voice and data dispatch. Tomorrow it means correlating voice, video and data from multiple sources, prioritizing and distributing the most relevant data to first responders in the field.

### CONVERGING INFORMATION

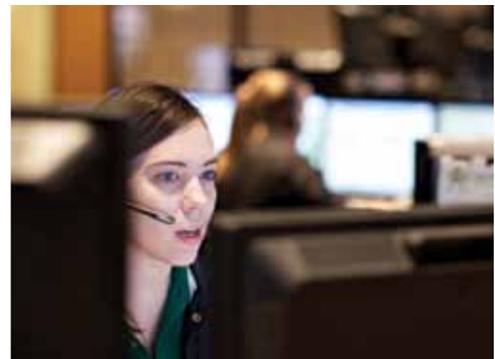
As an officer moves across multiple P25 systems, visibility in the home network is important. Converging voice-centric workflows in the future will provide a more holistic understanding of an incident and better decision making where it matters most.

### INTEROPERATING ACROSS PLATFORMS

Public safety needs to communicate regardless of technology or jurisdiction boundaries. Today you can interoperate across multiple P25 systems and multiple bands. In the future, bridges will be built between P25 systems and Public Safety LTE broadband systems.

### COLLABORATING DEVICES

Receiving the right information over the right device is critical to any public safety operation. Pairing mission critical two-way radios with companion data devices allows you to supplement voice with rich-media content for improved decision making. In the future, responders will access voice talkgroups to push images or video to the accompanying data devices over a broadband network.



**IMAGINE A WORLD WHERE TECHNOLOGY IS SECOND NATURE**

# INCREASE RELIABILITY DECREASE COSTS NEUTRALIZE THREATS

Benefit from our experience, knowledge and know-how. Our leading public safety technology and sound methodologies ensure intelligent growth strategies and best-in-class, standards-based solutions.

## UNPARALLELED FLEXIBILITY IN SYSTEM DESIGN

From single site to country-wide deployments, ASTRO® 25 is a flexible, modular system with advanced call processing capabilities designed to meet the needs of public safety. ASTRO 25 can adapt and change to accommodate additional users, increased geographic coverage, trunked and conventional systems, enhanced data applications and connectivity to other systems to ensure an efficient and cost-effective solution for decades to come.

## LEVERAGE INVESTMENT FOR YEARS TO COME

Standing by your side over the life of your system, the ASTRO 25 system provides Project 25 interoperability today and is a flexible solution that can support future advancements in mission critical communications. Motorola provides a modular platform that allows agencies to start investing in Project 25 capabilities while gradually migrating an existing SMARTNET® or SmartZone™ system to ASTRO 25.

## INFORMATION ASSURANCE

Keeping your system up and running is critical for public safety. Information assurance helps to manage information-related risks on an ASTRO 25 system to ensure the confidentiality, integrity and availability of information. This is accomplished through prevention, detection and response.

## SYSTEM MANAGEMENT

A robust portfolio of system management tools allows a public safety agency to remotely manage the health of the system, as well as configure and manage the system network and subscriber equipment from a central control point. Centralized network configuration and fault management enable changes to be automatically distributed throughout the ASTRO 25 system, saving valuable technician and administrator time.



# BRINGING IT ALL TOGETHER SO YOU CAN FOCUS ON YOUR MISSION

Motorola provides robust network design plus centralized pre-build and testing for timely and efficient system deployment. We offer ongoing support to maintain peak technical and operational performance including 24 x 7 network monitoring, anti-virus support, firewall and intrusion management, basic repair, and system management and operations.

<b>DESIGN</b>	Systems designed to optimize mission critical operations and enable interoperability with other P25 systems, Public Safety LTE networks, commercial carrier networks, two-way radio systems and agency enterprise data networks.
<b>IMPLEMENT</b>	Unparalleled expertise and experience in deploying large-scale public safety networks that marry IP-based networks with optimized transport of voice and data services across wide and local area networks in the most challenging environments.
<b>SUPPORT</b>	ASTRO 25 system performance and continuity assured with 7 x 24 x 365 network monitoring and triage. Emergency response teams engage directly with development, production and factory engineers for rapid resolution.
<b>SECURE</b>	Defend against threats and protect data resources for gap-free security across the entire communication platform from applications, RF system, IP transport, down to the data on a user's device.
<b>MANAGE</b>	Our experienced team of system managers, project managers and IT professionals can manage the support of public safety and government agencies for maximum cost-of-ownership efficiencies.

## SERVING GOVERNMENT EVERY DAY

**300** trunked systems worldwide

Over **2,000** conventional sites worldwide

**500** systems monitored, **4,000** sites

**1,000,000** events per month

**2,000** cases opened and closed per month

**85%** same-day closure of open cases

**950** service locations

**6,100** service professionals

**250** factory field technical representatives

**100** project management professionals managing over **1,000** projects every year

**8,000** world-class partners and certified subcontractors

# AT ANY MOMENT...

SEVERAL CARS WILL COLLIDE IN AN INTERSECTION

A FIRE WILL SPREAD TO MULTIPLE BUILDINGS

HAIL AND HEAVY RAIN WILL CAUSE A POWER OUTAGE

# YOUR MOMENT IS COMING.

WHEN YOU NEED MISSION CRITICAL COMMUNICATIONS,  
WHO WILL YOU RELY ON?

## CHAMPAIGN, ILLINOIS

### FIRST RESPONDERS FROM DIFFERENT AGENCIES WORK TOGETHER AS ONE



“November 7, 2008 marked the largest fire in a decade and the first major test of our countywide 800 MHz digital trunked system. Not only did everything work well, everyone was interoperable – fire, EMS and police – during an incident that required a lot of communication and coordination. That morning it was important for us to talk to units at various locations and to do so uninterrupted. We could talk to our dispatch center on one talk group, to the police agency on another talk group. We need to have uninterrupted communications with the people that are in peril and the system helped us do that, no question about it.”

Chief Douglas Foresman, Champaign, IL Fire Department

## ARIZONA STATE UNIVERSITY

### DEPENDABLE COMMUNICATIONS MEAN A SAFER CAMPUS



“Our primary objective is the security of the residents and property of Arizona State University (4 campuses and 65,000 students). In the past, we didn’t really have a means of communicating with other agencies. We had the Insight Bowl game played at Sun Devil Stadium. I was able to go to a Tempe traffic channel and talk to their traffic sergeants about our post game plan as things changed. I didn’t have to rely on phone contact, and the information was immediately shared with others across the radio system.”

Corporal Larry Fuchtman, Special Events coordinator, Arizona State University



## **COBB COUNTY, GEORGIA**

### **THE STORM OF THE CENTURY STRIKES**



September 19, 2009 marked one of the worst storms in the history of Georgia. Rivers swelled from two feet to 20 feet. Vehicles were swept away. 250 roads were closed. Lightening hit the Sandy Plains repeater site. Tracy Roberts explained the importance of having 24x7 system and site monitoring on the radio system during the disaster, " I received three different emails from the Motorola Network Operations Center about three component failures. Not only did I receive this information, but Motorola's certified service shop did and immediately sent technicians out to evaluate and repair the site. I can't emphasize how important it was that we had the situation stabilized before the first user in the field even called in."

Tracy Roberts, Communications System Manager, Cobb County, GA

## **MISHAWAKA, INDIANA**

### **WORKING SMARTER AND FASTER**



"Street guys receive so much more information on their way to the call. Cross streets can pop up if you need directions to the scene. Officers can look up information without having to tie up voice traffic or drive to the station. It's a huge time saver", Russ Haimbaugh explains about the HPD overlay on the ASTRO 25 citywide system. "Another great feature is car-to-car messaging. Officers can quickly share information with other officers on duty. The more data we make available to officers, when they're working the beat, the more comfortable they will be going into a situation and once they get there, they will be able to make better decisions."

Russ Haimbaugh, NetRMS Administrator, Mishawaka, IN

At the heart of every mission is the ability to communicate in an instant to coordinate response and protect lives.

Come with us as we lead the way to the next generation of public safety solutions. Start with the world's most widely deployed P25 voice and data platform. Build on it in the future with broadband connectivity, rich-media applications and collaborative devices that carry crucial voice, data and video into the field and into the hands of first responders.

Vital information that's simply at their fingertips when and where they need it. Technology that's Second Nature™.

**Work directly with a Motorola specialist.** Consider all the advantages of ASTRO 25 and consult with Motorola specialists to design or upgrade a system to meet your requirements. Motorola's extensive experience in delivering hardware, software, service, and support can enable any agency or municipality to assess current capabilities, measure system baselines, and design and implement solutions to optimize communications when it is needed most.

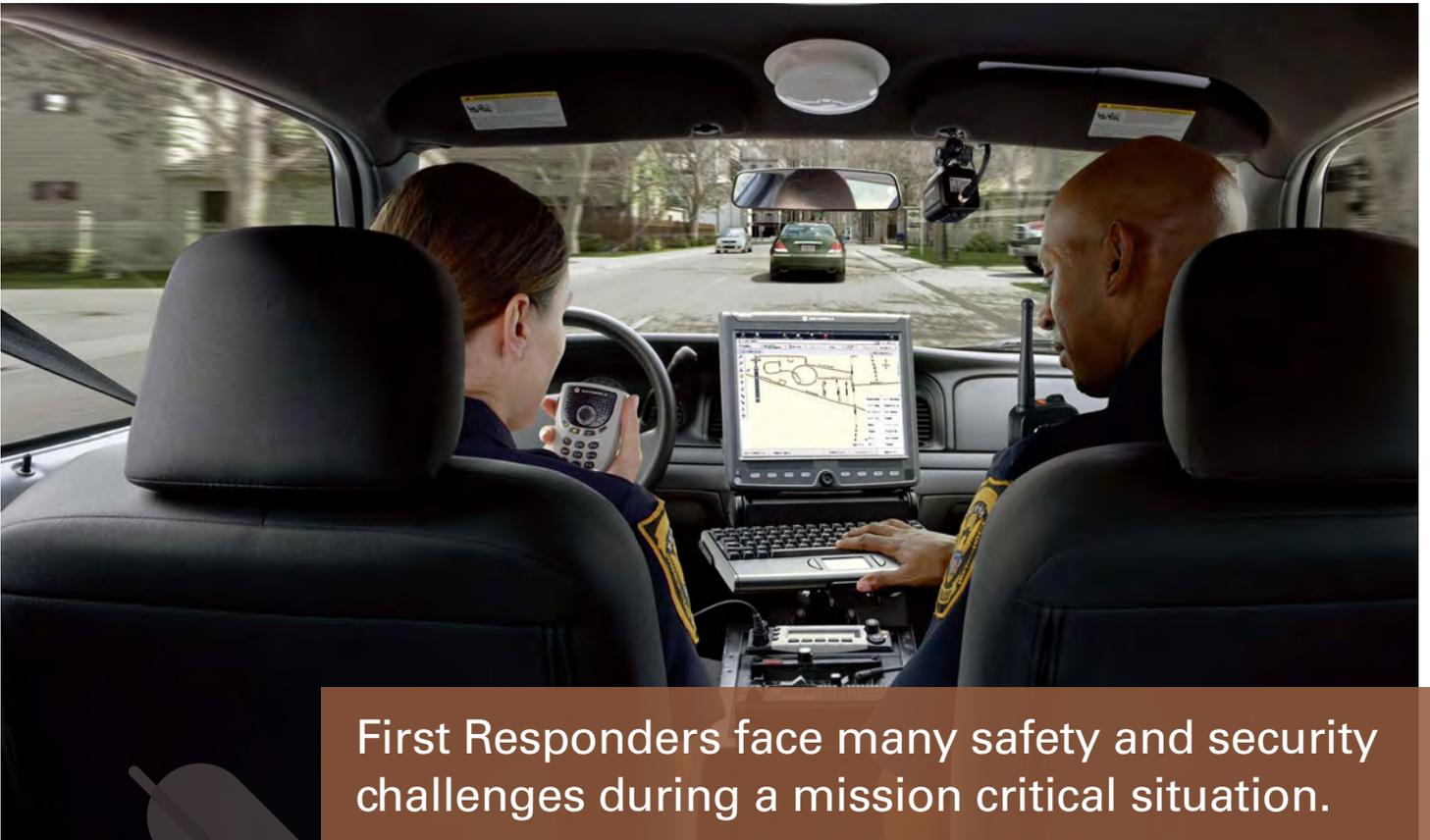
For more information on how your organization can gain the benefits of an ASTRO 25 solution that fits your needs and your budget today, contact your Motorola representative or visit [motorola.com/ASTRO25](http://motorola.com/ASTRO25)

Motorola Solutions, Inc. 1301 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A. [motorolasolutions.com](http://motorolasolutions.com)

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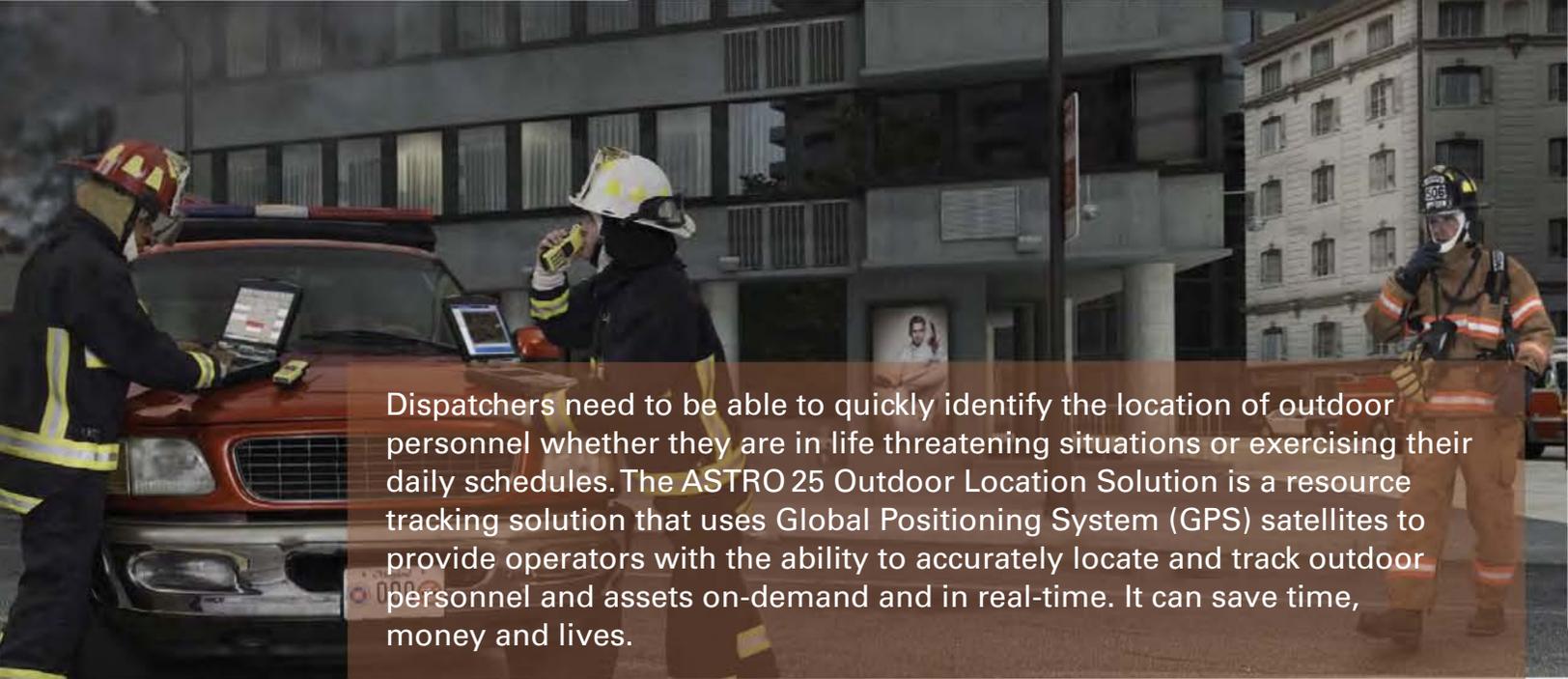


# ***ASTRO<sup>®</sup>25 Location Tracking Solutions***



First Responders face many safety and security challenges during a mission critical situation.

Location solutions are essential to helping ensure safety, security and appropriate resource allocation.

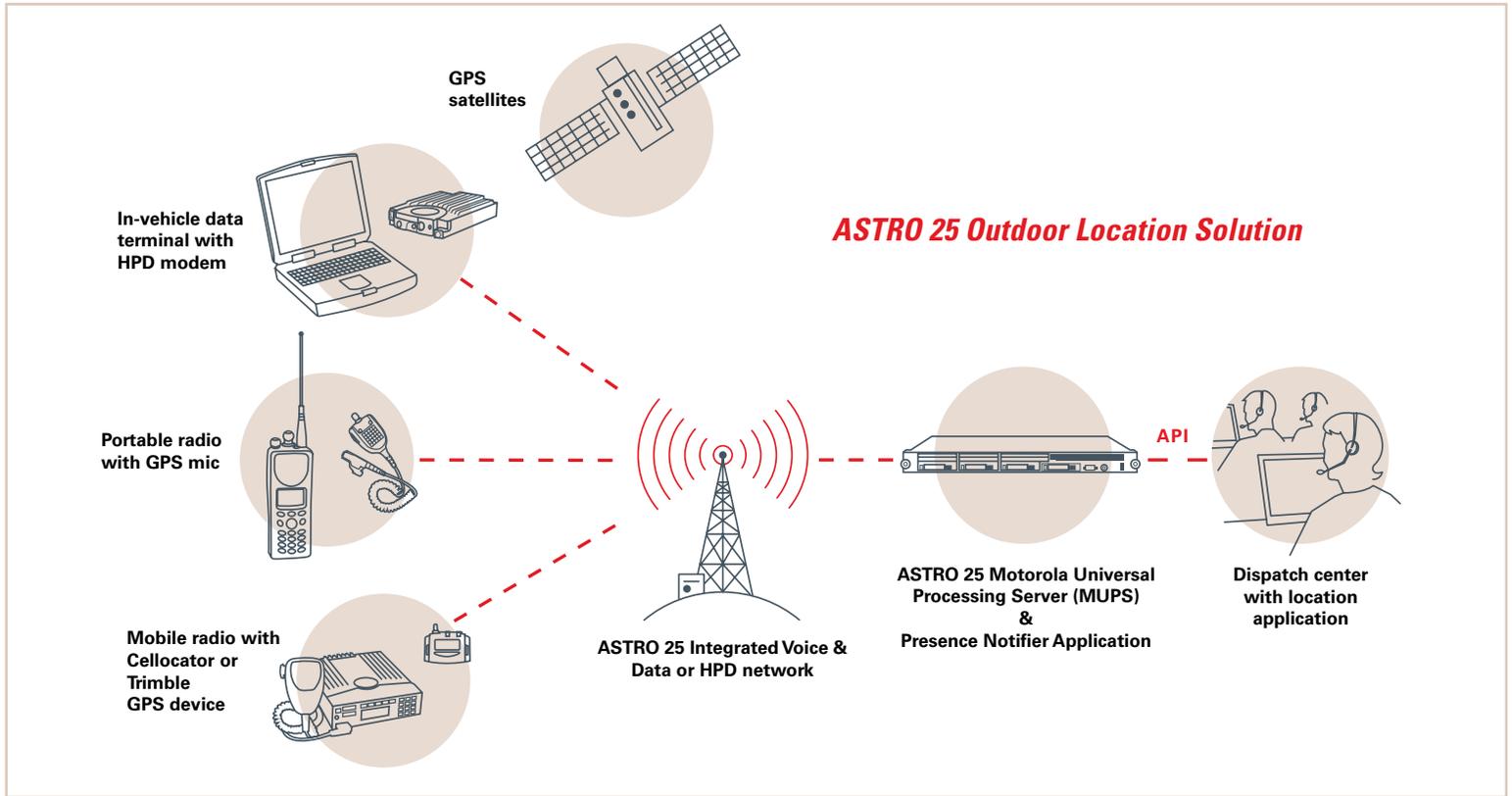


Dispatchers need to be able to quickly identify the location of outdoor personnel whether they are in life threatening situations or exercising their daily schedules. The ASTRO 25 Outdoor Location Solution is a resource tracking solution that uses Global Positioning System (GPS) satellites to provide operators with the ability to accurately locate and track outdoor personnel and assets on-demand and in real-time. It can save time, money and lives.

- **Emergency situations** – A simple press of the emergency button sends location information back to the Command center, which enables dispatch operators to readily locate the user and provide the appropriate back-up. This can enhance outdoor personnel safety and improves the allocation of resources by enabling rapid response to emergency situations.
- **Day-to-day operations** – To manage information per your agencies needs, flexibility is built in to the system. The location of an officer in the field can be automatically sent based on a periodic or distance rate which enables dispatch operators to track a users position without manual intervention. When the officer goes off duty the dispatcher can stop automatic reporting to save on bandwidth usage. The reporting rate can easily be changed from the dispatch center.

The ASTRO 25 Outdoor Location Solution is a suite of products that can track the location of people and assets via Motorola-provided GPS devices connected to an ASTRO 25 radio. The location information can be transmitted to those who need the information over an ASTRO 25 Integrated Voice and Data (IV&D) or HPD network. This solution provides the utmost in flexibility for vehicular and portable radios.

- **Location monitoring over a wide area** – The location of the asset being tracked is determined from the GPS satellite constellation and the data is sent over the ASTRO 25 networks according to user defined, configurable parameters such as distance based reporting, periodic reporting, and emergency reporting.
- **GPS device** – For personnel location tracking, the GPS remote speaker microphone is convenient to wear and connects to ASTRO 25 portable radios. For vehicular location solutions, Motorola provides a selection of GPS devices that mount easily within the vehicle.
- **Dispatch Mapping** – The GPS coordinates can be sent over the air to the Motorola Universal Processing Server (MUPS). This location information can be sent to a mapping application via the Application Programming Interface (API).
- **In-vehicle Sensing** – Discrete digital sensor inputs are available to monitor telemetry events in the vehicle. Digital sensor outputs are available for remote operation of sensors in the vehicle. A dead reckoning unit is available for determining location when the vehicle is not continuously in direct line of sight of the satellites—this is useful in urban canyon situations or densely forested areas.
- **In-vehicle Mapping** – In-vehicle mapping is available which determines the location of a vehicle and its immediate surroundings. The location coordinates can be integrated into a mapping application by using the software Developer Kit (SDK). The SDK provides the ability for a third party application developer to interface seamlessly with the ASTRO 25 Outdoor Location Solution.
- **Voice transmissions first priority** – To maintain the mission criticality of the ASTRO 25 Integrated Voice & Data network the voice transmissions remain priority—GPS data transmissions will not interfere with voice transmissions.



**ASTRO 25 Outdoor Location Solution**

**Outdoor location solution provides flexibility in network and user configurations.**

<b>ASTRO 25 Network</b>	ASTRO 25 IV&D & HPD networks utilize GPS technology to send and receive location information.
<b>Portable Radios</b>	ASTRO 25 two-way portable radios are integrated voice and data devices which can send GPS location information over an ASTRO 25 IV&D network. The GPS Remote Speaker Microphone (RSM) houses the GPS intelligence.
<b>Mobile Radios</b>	The ASTRO 25 mobile radios operate as a voice & data communications device sending GPS in-vehicle location information over an ASTRO 25 IV&D network. GPS location information can be provided from either a Cellocator™ device or a Trimble™ device. The Cellocator™ Olympic device provides both GPS location and telemetry data to monitor inputs within the vehicle. The Trimble Placer™ Gold has multiple devices which include multiple channels, and a dead reckoning position while outside of the GPS coverage.
<b>In-vehicle Mobile Data Device</b>	The ASTRO 25 location mobile data terminal location proxy allows the GPS coordinates to be sent over an HPD 1000 modem to a dispatch center through either an ASTRO 25 HPD network or using a Multi-Net™ mobility proxy through any wireless data network. In addition, the SDK allows a mapping application to access the GPS coordinates on the HPD modem and display the location on a an in-vehicle mapping tool.
<b>Presence Notifier Application</b>	Provides the presence and absence information to any compatible data application located in the dispatch center. It interfaces with data applications and subscriber radios using User Datagram Protocol / Internet Protocol (UDP/IP).
<b>Motorola Universal Processing Server (MUPS)</b>	The MUPS is a gateway for the location, telemetry, and presence information from the ASTRO 25 radios. It transfers data to any back-office applications. Additionally, it routes requests and commands from the back-office application to the devices.
<b>ASTRO 25 Location Application Programming Interface (API)</b>	Contains all the necessary interface documentation that a third party application developer needs to receive location, telemetry, and presence data from the Motorola Universal Processing Server. The API pushes data messages in near real time to a third-party application, plus it supports remote commands through a set of messages which can be sent to field units.



# **MOTOA<sup>4</sup>**

## *MOTOA4 Mission Critical Portfolio*

The ASTRO 25 network is part of the MOTOA4 Mission Critical Portfolio offering seamless connectivity between first responders. Motorola puts real-time information in the hands of public safety and government personnel to provide better information that enables better decisions for better outcomes. It's Technology That's Second Nature™.

For more information on the ASTRO 25 network's outdoor location solutions or the entire MOTOA4 mission critical portfolio, please visit our website or contact your Motorola representative.



[motorola.com/secondnature](http://motorola.com/secondnature)



**MOTOROLA**

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RC-99-2196

**Exhibit D**  
**System Acceptance Certificate**

**Customer Name:** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

This System Acceptance Certificate memorializes the occurrence of System Acceptance. Motorola and Customer acknowledge that:

1. The Acceptance Tests set forth in the Acceptance Test Plan have been successfully completed.
2. The System is accepted.

Customer Representative:

Motorola Representative:

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**FINAL PROJECT ACCEPTANCE:**

Motorola has provided and Customer has received all deliverables, and Motorola has performed all other work required for Final Project Acceptance.

Customer Representative:

Motorola Representative:

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



**AIA**<sup>®</sup>

# Document A312™ – 2010

Bond No. \_\_\_\_\_

## Performance Bond

**CONTRACTOR:**

*(Name, legal status and address)*

**SURETY:**

*(Name, legal status and principal place of business)*

**OWNER:**

*(Name, legal status and address)*

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

**CONSTRUCTION CONTRACT**

Date: \_\_\_\_\_

Amount: \_\_\_\_\_ Dollars  
( )

Description:

*(Name and location)*

**BOND**

Date: \_\_\_\_\_

*(Not earlier than Construction Contract Date)*

Amount: \_\_\_\_\_

Modifications to this Bond:     None             See Section 16

**CONTRACTOR AS PRINCIPAL**

Company: \_\_\_\_\_ *(Corporate Seal)*

**SURETY**

Company: \_\_\_\_\_ *(Corporate Seal)*

Signature: \_\_\_\_\_

Name \_\_\_\_\_

and Title: \_\_\_\_\_

*(Any additional signatures appear on the last page of this Performance Bond.)*

Signature: \_\_\_\_\_

Name \_\_\_\_\_, Attorney-in-Fact

and Title: \_\_\_\_\_

*(FOR INFORMATION ONLY — Name, address and telephone)*

**AGENT or BROKER:**

**OWNER'S REPRESENTATIVE:**

*(Architect, Engineer or other party:)*

**§ 1** The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

**§ 2** If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

**§ 3** If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

**§ 4** Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

**§ 5** When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

**§ 5.1** Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

**§ 5.2** Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

**§ 5.3** Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

**§ 5.4** Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

**§ 6** If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

**§ 7** If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

**§ 8** If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

**§ 9** The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

**§ 10** The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

**§ 11** Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

**§ 12** Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

**§ 13** When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### **§ 14 Definitions**

**§ 14.1 Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

**§ 14.2 Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

**§ 14.3 Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

**§ 14.4 Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

**§ 14.5 Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

**§ 15** If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

*(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)*

**CONTRACTOR AS PRINCIPAL**

**SURETY**

Company: \_\_\_\_\_  
*(Corporate Seal)*

Company: \_\_\_\_\_  
*(Corporate Seal)*

Signature: \_\_\_\_\_  
Name and Title: \_\_\_\_\_  
Address: \_\_\_\_\_

Signature: \_\_\_\_\_  
Name and Title: \_\_\_\_\_, Attorney-in-Fact  
Address: \_\_\_\_\_



**AIA**<sup>®</sup>

# Document A312<sup>™</sup> – 2010

## Payment Bond

Bond No. \_\_\_\_\_

**CONTRACTOR:**

*(Name, legal status and address)*

**SURETY:**

*(Name, legal status and principal place of business)*

**OWNER:**

*(Name, legal status and address)*

**CONSTRUCTION CONTRACT**

Date: \_\_\_\_\_

Amount: Dollars  
()

Description:  
*(Name and location)*

**BOND**

Date: \_\_\_\_\_  
*(Not earlier than Construction Contract Date)*

Amount: \_\_\_\_\_

Modifications to this Bond:     None         See Section 18

**CONTRACTOR AS PRINCIPAL**

Company: \_\_\_\_\_  
*(Corporate Seal)*

**SURETY**

Company: \_\_\_\_\_  
*(Corporate Seal)*

Signature: \_\_\_\_\_

Name \_\_\_\_\_

and Title: \_\_\_\_\_

*(Any additional signatures appear on the last page of this Payment Bond.)*

Signature: \_\_\_\_\_

Name \_\_\_\_\_, Attorney-in-Fact

and Title: \_\_\_\_\_

*(FOR INFORMATION ONLY — Name, address and telephone)*

**AGENT or BROKER:**

**OWNER'S REPRESENTATIVE:**

*(Architect, Engineer or other party:)*

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

**§ 1** The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

**§ 2** If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

**§ 3** If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

**§ 4** When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

**§ 5** The Surety's obligations to a Claimant under this Bond shall arise after the following:

**§ 5.1** Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

**§ 5.2** Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

**§ 6** If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

**§ 7** When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

**§ 7.1** Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

**§ 7.2** Pay or arrange for payment of any undisputed amounts.

**§ 7.3** The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

**§ 8** The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

**§ 9** Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

**§ 10** The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

**§ 11** The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

**§ 12** No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

**§ 13** Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

**§ 14** When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

**§ 15** Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

#### **§ 16 Definitions**

**§ 16.1 Claim.** A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

**§ 16.2 Claimant.** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

**§ 16.3 Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

**§ 16.4 Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

**§ 16.5 Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

**§ 17** If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

**§ 18** Modifications to this bond are as follows:

*(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)*

**CONTRACTOR AS PRINCIPAL**

Company: \_\_\_\_\_

*(Corporate Seal)*

**SURETY**

Company: \_\_\_\_\_

*(Corporate Seal)*

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Address: \_\_\_\_\_

,

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_, Attorney-in-Fact

Address: \_\_\_\_\_

,

# CHANGE ORDER

Order No. 1

Date: February 22, 2012

Agreement Date: September 6, 2011

NAME OF PROJECT: Upgrade and Expansion of a county-wide 700MHz P25  
Communications System

OWNER: Baldwin County Commission

CONTRACTOR: Motorola Solutions, Inc.

The following changes are hereby made to the CONTRACT DOCUMENTS:

**ADD: Retrofit of the Baldwin County Commission Robertsdale 345' Guy Tower.  
This will accommodate additional antenna loading required for this project.**

**TOTAL \$ 37,419.00**

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The Original (CONTRACT PRICE)	\$4,335,962.00
Net change by previously authorized Change Orders	\$ 0.00
The (Contract Price) prior to this Change Order was	\$4,335,962.00
The new (Contract Price) will be (increased) by this Change Order	\$ 37,419.00
The new (CONTRACT PRICE) including this CHANGE ORDER will be	\$4,373,381.00

CONTRACTOR: 

RECOMMENDED: 

OWNER: 





<b>Change Order #:</b>	001
<b>Date:</b>	2/7/12
<b>Project Name:</b>	Baldwin County, AL
<b>Customer Name:</b>	Baldwin County Commission
<b>Customer Project Manager:</b>	David Pimperl
<b>Motorola Project Manager:</b>	Earl Dittburner
<b>Motorola Account Manager:</b>	Richard Shelby

**1. The purpose of this Change Order:**

System Design: This Change Order provides for the mutually agreed modifications to the system design listed below:

<b>Motorola Contract No.</b>	<b>11-29111</b>	<b>Contract Date:</b>	<b>9/6/2011</b>
------------------------------	-----------------	-----------------------	-----------------

In accordance with the terms and conditions of the Contract identified above between **Motorola Solutions, Inc. f/k/a Motorola, Inc.** and **Baldwin County Commission, Baldwin Co. AL**, the changes described here are approved:

**2. Contract Price Adjustments**

<b>Original Contract Price:</b>	\$ 4,335,962.00
<b>Amounts of Previous Change Orders</b>	\$ 0.00
<b>This Change Order 001:</b>	\$ 37,419.00
<b>New Contract Price :</b>	\$ 4,373,381.00

**3. Completion Date Adjustments**

<b>Original Completion Date:</b>	May 31, 2012
<b>Current Completion Date prior to this Modification:</b>	May 31, 2012
<b>New Completion Date as of Change Order 001</b>	May 31, 2012



**4. Changes in Equipment:**

Change Order 001 Pricing/Equipment List is included in Exhibit "A."

**5. Changes in Services:**

Change Order 001 System Description located in Exhibit "B".  
Change Order 001 Scope of Work located in Exhibit "C".

**6. Schedule Changes:** No changes to the scheduled completion date.

**7. Pricing Changes:** The changes described herein result in a net change of \$37,419.00 to the Contract Price.

**8. Customer Responsibilities:** No change.

**9. Payment Schedule:** Payment Terms for Change Order.

Unless amended above, all other terms and conditions of the Contract shall remain in full force. If there are any inconsistencies between the provisions of this Change Order and the provisions of the Contract, the provisions of this Change Order will prevail.

IN WITNESS WHEREOF, the parties have executed this Change Order, which is effective as of the last date signed below.

**Motorola Solutions, Inc.**

By: 

Name: Marshall Wright

Title: MSSSI Vice President & Director, Sales

Date: February 17, 2012

**Baldwin County Commission**

By: 

Name: ROBERT E. JAMES

Title: CHAIRMAN

Date: 2/22/12

**PROJECT MANAGER APPROVAL:** The work described herein has  / has not  been completed.



### Exhibit A

#### **Pricing Summary**

Original contract price	total \$ 4,335,962.00
Robertsdale EOC Tower retrofit (steel replacement/welding/re-guying quote	total \$ 37,419.00
Grand Total after retrofit	Total \$4,373,381.00

### Exhibit B

#### **System Description**

No changes to project system description

### Exhibit C

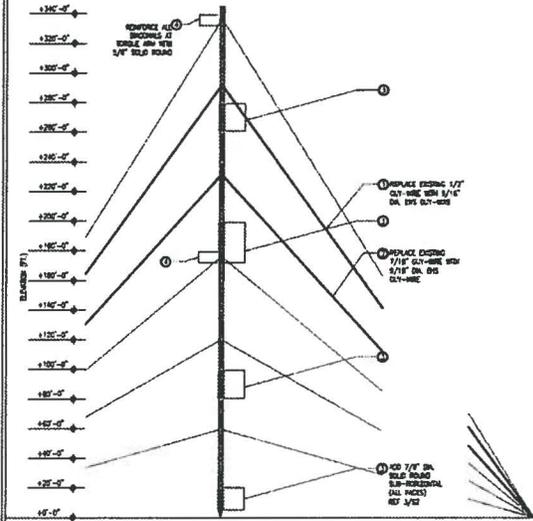
#### **Scope Of Work**

Tower retrofit work required for Robertsdale EOC guided tower located at 23100 McAuliffe Drive, Robertsdale, Alabama to maintain minimum TIA/EIA 222, Revision F standard after additional antenna and line installations associated with this project.

The retrofit includes, adding guy pull-offs and upsizing the guy-wires at elevations of 229' and 289', relocating the proposed antenna dishes to the 180' and 230' levels to distribute the load on the structure, as well as, reinforcing eight (8) tower sections of diagonal supports.

This work is necessary to maintain the structural integrity of the tower in adverse weather conditions, as well as, the safety of the general public in the area.

**FOR PRICING ONLY**



- GENERAL NOTES**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AT THE SITE BEFORE PROCEEDING WITH FABRICATION AND INSTALLATION OF ANY MATERIALS. ANY DISCREPANCIES SHOULD IMMEDIATELY BE FORWARDED TO THE OFFICE OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
  2. THESE DIMENSIONS DO NOT INCLUDE THE EFFECTS OF CONSTRUCTION. THE CONTRACTOR SHALL DETERMINE AND VERIFY THE ROWS AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION BEAMS, SCHEDULES, SEQUENCES AND PROCEDURES. THE TOWER IDENTIFICATION LIST IS ONLY AN ILLUSTRATIVE REFERENCE.
  3. REQUIRED MODIFICATIONS ARE TO BE COMPLETED IN COLD WEATHER WHEN THE WIND VELOCITY IS LESS THAN 15 MPH AT GROUND LEVELS.
  4. TEMPORARILY SUPPORT THE TOWER AS REQUIRED.
  5. ALL STEEL FABRICATIONS AND CONNECTIONS SHALL CONFORM TO THE LATEST EDITION OF AISC/AIAA-323-F REQUIREMENTS AND THE LATEST EDITION OF THE AISC "MANUAL OF STEEL CONSTRUCTION".
  6. ALL NEW STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A153 STANDARD. ALL BOLTS ARE GALVANIZED IN ACCORDANCE WITH ASTM A153 (NOT APPLICABLE).
  7. ANY CHANGE TO DIMENSIONS SHALL BE COVERED WITH ZINC RICH PRIMER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  8. THE TOWER DESIGN COMPLIES WITH THE AIAA-323-F CODE. THE TOWER WAS DESIGNED FOR:
    - A BASIC WIND SPEED OF 115 MPH
    - FOR A WIND SPEED OF 25 MPH WITH 1/4" BRASS, ETC.
  9. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS WITH THE NEARBY OF ANY TELEPHONE/POWER LINES.
  10. THE MINIMUM WELD STRENGTH OF STRUCTURAL MEMBERS SHALL BE AS FOLLOWS:
    - STEEL PLATE & CLAMPS TO NEW AIA
    - STEEL BRASS 60KSI-50
    - RETURN TOWER LEGS INTO AIAA 4800 ONCE IN PL - 5000 PU + 6500
    - CONNECTION BOLTS ARE A153
  11. ALL BOLTS SHALL BE REFERRED TO A "PLUG FIT" CONDITION AS DEFINED BY AISC.
  12. ALL BOLTS AND NUTS MUST BE IN PLACE BEFORE THE PROPOSED LOADS LISTED ON TABLE 2.8 ARE INSTALLED.
  13. WELDING SHALL BE PERFORMED WITH EXTRA PRECAUTIONS IN ACCORDANCE WITH AISC CODES AND SUPERSEDED BY AN AISC CERTIFIED WELDING INSPECTOR. USE 1/4" WELDS UNLESS NOTED OTHERWISE ON THE DRAWING.
  14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL PRACTICES AND PROCEDURES UTILIZED DURING ASSEMBLY AND ERECTION DO NOT ENDANGER THE SAFETY OF ANY PERSONNEL OR THE STRUCTURAL INTEGRITY OF THE TOWER INSTALLED.

SEALED  
PROFESSIONAL ENGINEER

**S1**  
**PARTIAL TOWER ELEVATION**  
SCALE: N.T.S.

NO.	REV.	DESCRIPTION
1	01/18/12	ISSUE FOR PERMIT



**AMEC E&I, INC.**  
3200 TOWN POINT DRIVE NW,  
SUITE 100  
KENNESAW, GA 30144  
TEL: (770) 431-3400

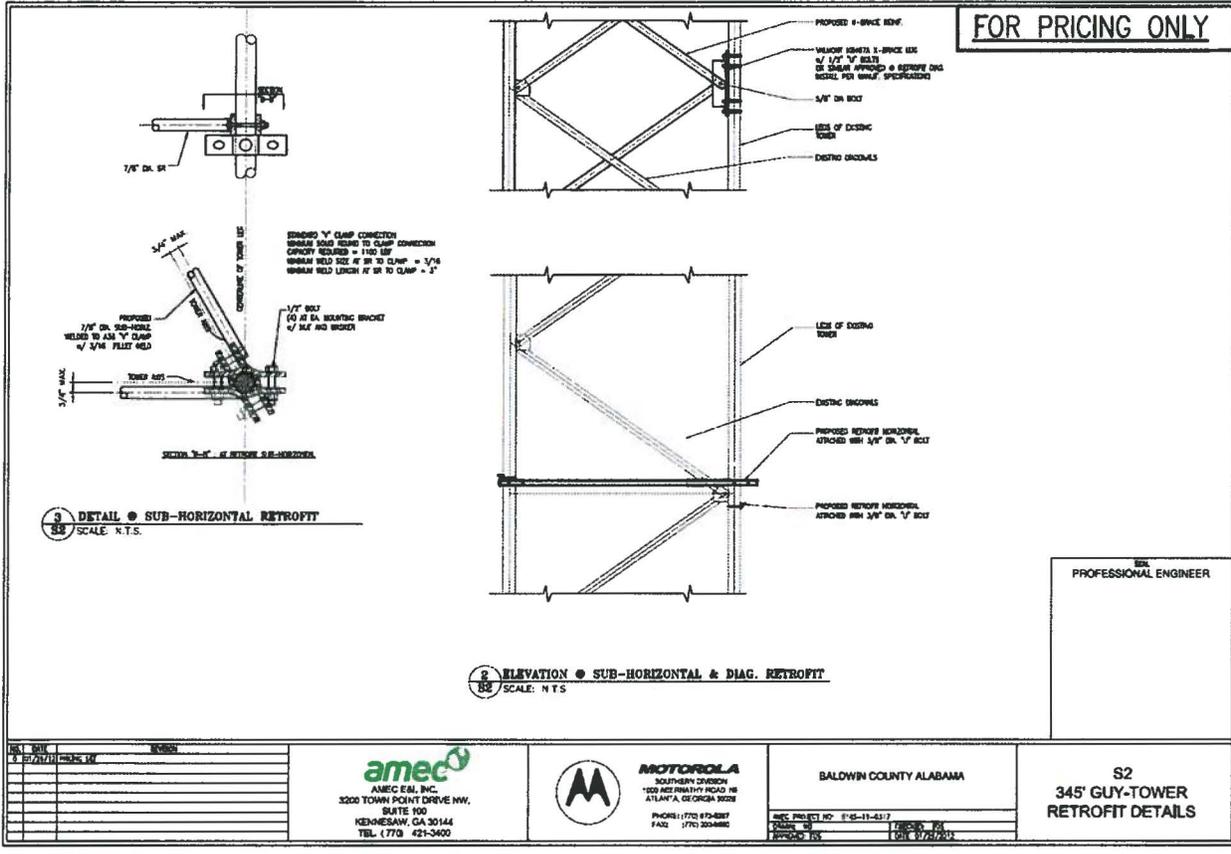


**MOTOROLA**  
SOUTHERN DIVISION  
4000 BELLAVILLE ROAD, NE  
ATLANTA, GEORGIA 30341  
PHONE: (770) 673-6287  
FAX: (770) 234-8889

BALDWIN COUNTY ALABAMA

REC. PROJECT NO. 016-11-217  
 REC. NO. [ ] REC. DATE [ ]  
 APPROVAL [ ] DATE [ ]

**S1**  
**345' GUY-TOWER  
RETROFIT**



# CHANGE ORDER

Order No. 2

Date: March 8 2012

Agreement Date: September 6, 2011

NAME OF PROJECT: Upgrade and Expansion of a county-wide 700MHz P25  
Communications System

OWNER: Baldwin County Commission

CONTRACTOR: Motorola Solutions, Inc.

The following changes are hereby made to the CONTRACT DOCUMENTS:

**ADD: Retrofit of the Baldwin County E911 Seminole Tower and Magnolia Springs Tower.  
This will accommodate additional antenna loading required for this project.**

**TOTAL \$ 142,103.75**

The Original (CONTRACT PRICE)	\$4,335,962.00
Net change by previously authorized Change Orders	\$ 37,419.00
The (Contract Price) prior to this Change Order was	\$4,373,381.00
The new (Contract Price) will be (increased) by this Change Order	\$ 142,103.75
The new (CONTRACT PRICE) including this CHANGE ORDER will be	\$4,515,484.75

CONTRACTOR: *Jim Schwach* Director of Services  
Motorola Solutions, Inc.

RECOMMENDED: *[Signature]*

OWNER: *[Signature]*





<b>Change Order #:</b>	002
<b>Date:</b>	3/06/12
<b>Project Name:</b>	Baldwin County, AL
<b>Customer Name:</b>	Baldwin County Commission
<b>Customer Project Manager:</b>	David Pimperl
<b>Motorola Project Manager:</b>	Earl Dittburner
<b>Motorola Account Manager:</b>	Scott Montana

**1. The purpose of this Change Order:**

System Design: This Change Order provides for the mutually agreed modifications to the system design listed below:

<b>Motorola Contract No.</b>	<b>11-29111</b>	<b>Contract Date:</b>	<b>9/6/2011</b>
------------------------------	-----------------	-----------------------	-----------------

In accordance with the terms and conditions of the Contract identified above between **Motorola Solutions, Inc. f/k/a Motorola, Inc.** and **Baldwin County Commission, Baldwin Co. AL**, the changes described here are approved:

**2. Contract Price Adjustments**

<b>Original Contract Price:</b>	\$ 4,335,962.00
<b>Amounts of Previous Change Orders</b>	\$ 37,419.00
<b>This Change Order 002:</b>	\$ 142,103.75
<b>New Contract Price :</b>	\$ 4,515,484.75

**3. Completion Date Adjustments**

<b>Original Completion Date:</b>	May 31, 2012
<b>Current Completion Date prior to this Modification:</b>	May 31, 2012
<b>New Completion Date as of Change Order 002</b>	May 31, 2012



**4. Changes in Equipment:**

Change Order 002 Pricing/Equipment List is included in Exhibit "A."

**5. Changes in Services:**

Change Order 002 System Description located in Exhibit "B".  
Change Order 002 Scope of Work (Seminole) located in Exhibit "C".  
Change Order 002 Scope of Work (Magnolia Springs) located in Exhibit "D"

**6. Schedule Changes:** No changes to the scheduled completion date.

**7. Pricing Changes:** The changes described herein result in a net change of \$142,103.75 to the Contract Price.

**8. Customer Responsibilities:** No change.

**9. Payment Schedule:** Payment Terms for Change Order.

Unless amended above, all other terms and conditions of the Contract shall remain in full force. If there are any inconsistencies between the provisions of this Change Order and the provisions of the Contract, the provisions of this Change Order will prevail.

IN WITNESS WHEREOF, the parties have executed this Change Order, which is effective as of the last date signed below.

**Motorola Solutions, Inc.**

By: *Jim Schneider*

Name: Jim Schneider

Title: Director of Services

Date: March 2, 2012

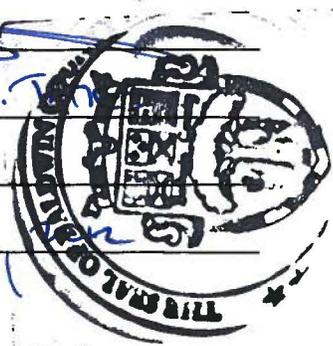
**Baldwin County Commission**

By: *[Signature]*

Name: ROBERT E. TERRY

Title: CHAIRMAN

Date: MARCH 12



**PROJECT MANAGER APPROVAL:** The work described herein has  / has not  been completed.



### Exhibit A

#### **Pricing Summary**

Original contract price (including previous Change Order 001)	total \$ 4,373,381.00
Seminole Tower Rev G retrofit (steel replacement/welding/re-guying)	total \$ 49,912.50
Magnolia Springs Tower Rev G retrofit (steel replacement/welding/re-guying)	total \$ 92,191.25
Grand total after retrofits	total \$4,515,484.75

### Exhibit B

#### **System Description**

No changes to project system description

### Exhibit C

#### **Scope of Work**

**Seminole** - Tower retrofit work required for guyed tower, located on Fire Tower Road in Baldwin County, Alabama to comply with TIA/EIA 222, Revision G standard, upon the completion of the additional antenna and line installations associated with this project.

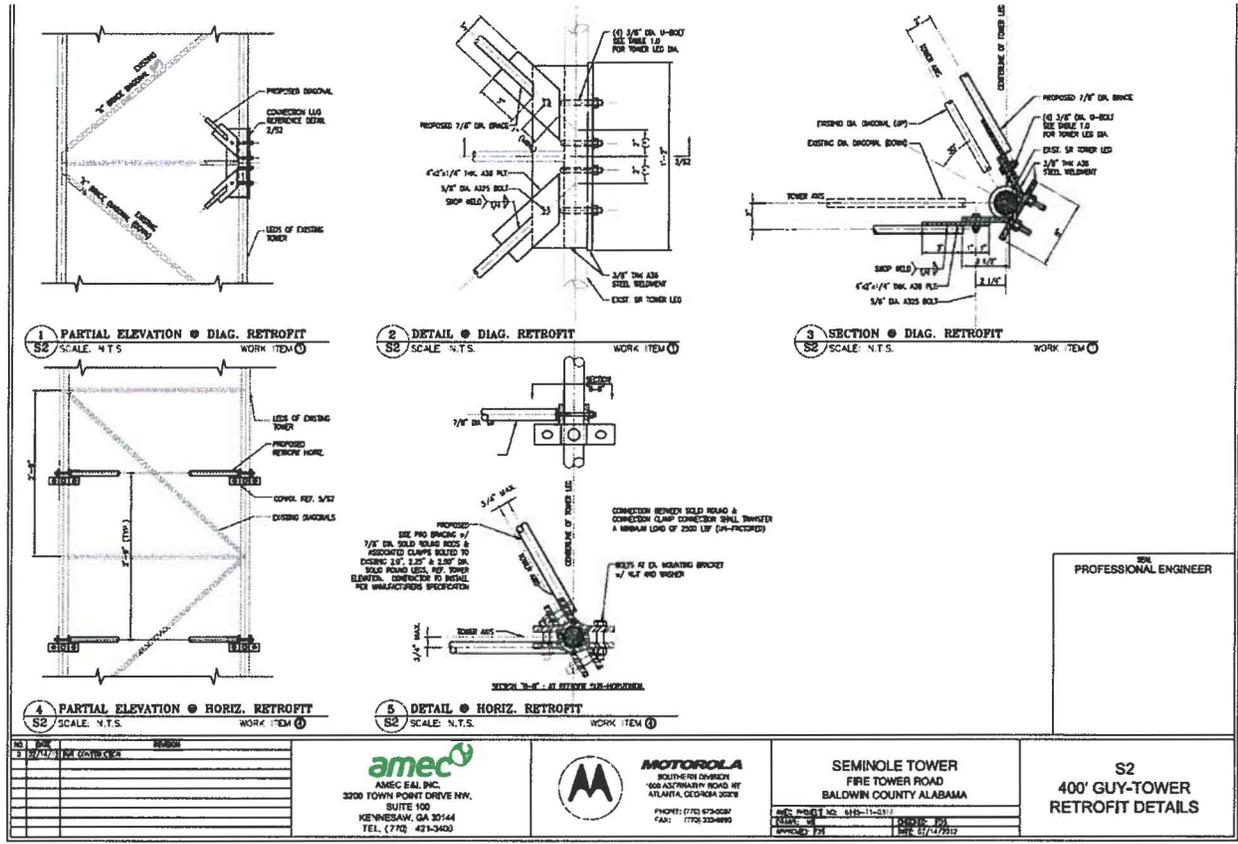
The retrofit includes, upsizing the guy-wires, reinforcing tower diagonal supports, and adding additional sub-horizontal bracing.

This work is necessary, in accordance with the latest Federal guidelines, to maintain the structural integrity of the tower during severe wind-load conditions, ensuring emergency communications during natural disasters. The retrofit will reinforce strategic mechanical aspects and address grounding upgrades adding to the longevity and reliability of the structure.



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**Exhibit D**

**Scope of Work**

**Magnolia Springs** - Tower retrofit work required for guyed tower, located on Baudin Lane in Baldwin County, Alabama to comply with TIA/EIA 222, Revision G standard, upon the completion of the additional antenna and line installations associated with this project.

The retrofit includes, upsizing the guy-wires, reinforcing tower diagonal supports, and adding additional sub-horizontal bracing.

This work is necessary, in accordance with the latest Federal guidelines, to maintain the structural integrity of the tower during severe wind-load conditions, ensuring emergency communications during natural disasters. The retrofit will reinforce strategic mechanical aspects and address grounding upgrades adding to the longevity and reliability of the structure.



- GENERAL NOTES**
- THE STRUCTURE IS DESIGNED TO BE BUILT AFTER THE CONSTRUCTION IS FULLY COMPLETED. THE CONTRACTOR MUST FOLLOW APPROVED DRAWINGS PREPARED IN ORDER TO MAINTAIN THE SAFETY OF THE CONSTRUCTION AND THE OWNER'S SAFETY.
  - ALL DIMENSIONS SHALL COMPLY FULLY WITH THE APPLICABLE PROVISIONS OF THE INTERNATIONAL BUILDING CODE AND ALL LOCAL ORDINANCES. ALL REQUIREMENTS SPECIFIED IN THE CODES SHALL BE STRICTLY ENFORCED AS IF THEY WERE CALLED FOR ON DRAWING OR THE DRAWING.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE TIME BEFORE PROCEEDING WITH ORDERING OF ANY MATERIAL, FABRICATION AND INSTALLATION OF ANY MATERIALS. NO FORM DIMENSION COMPARISSON SHALL BE ALLOWED UNLESS IT IS DIFFERENCE BETWEEN THE ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWING. ANY DIMENSIONS SHALL BE PROVIDED TO THE CONTRACTOR AND OWNER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
  - ANY DIMENSIONS MUST COMPLY TO THE DIMENSIONS OF THESE NOTES AND SHOULD BE SUBJECT TO BEING CHECKED. ALL DIMENSIONS SHALL BE SUBMITTED TO THE ENGINEER ON RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
  - THE CONTRACTOR SHALL COMPLY WITH ALL THE OSHA REQUIREMENTS FOR PROTECTION.
  - THE CONTRACTOR SHALL VERIFY THE ESTIMATED QUANTITIES FROM TO SUBMITTING A BID.
- STEELWORK**
- THE TOWER DESIGN CONFORMS WITH THE AISC 360-10 CODE. THE TOWER AND DESIGN FOR:
    - A STEEL WIND SPEED OF 150 MPH
    - FOR A WIND SPEED OF 150 MPH PER 10' MEAN R/C
- FIELD ERECTION**
- THESE DRAWINGS DO NOT INCLUDE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL DETERMINE AND VERIFY THE METHOD AND SHALL BE FULLY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. THE TOWER DIMENSIONS ARE TO BE COMPLETED IN ONE MEMBER WITH THE WIND RESISTANT TO 150 MPH IN ALL DIRECTIONS.
  - PRECAUTIONS AND EFFORTS SHALL BE TAKEN TO ENSURE THAT ALL DIMENSIONS AND WEIGHTS ARE FULLY COMPLIED WITH THE PROVISIONS OF TEMPORARY SUPPORTS TO THE TOWER WHEN APPLICABLE. STRUCTURAL, FINISHED SUCH AS: BRACKETS, HANGERS, ETC.
  - ANY DAMAGE TO SURROUNDING SHALL BE CLEANED AND RE-COATED WITH THE SAME FOR PAINT IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.
  - CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS WITHIN THE VICINITY OF ANY TEMPORARILY EXISTING LINES.
  - IT IS THE ENGINEER'S RESPONSIBILITY TO ENSURE THAT ALL PROCEDURES AND PROCEDURES RELATED TO THE DESIGN AND CONSTRUCTION DOES NOT ENDANGER THE SAFETY OF ANY PERSONNEL OR THE STRUCTURE. THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS, PROCEDURES, SAFETY AND HEALTH AND METHODS OF CONSTRUCTION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF OSHA AND THE INTERNATIONAL BUILDING CODE (LATEST EDITION).
  - UPON COMPLETION OF ALL WORK, THE SITE SHALL BE CLEANED OF ALL DEBRIS AS REQUIRED. ALL SURPLUS MATERIALS NOT REQUIRED FROM THE SITE SHALL BE REMOVED IN AN AREA DESIGNATED BY THE OWNER'S REPRESENTATIVE.
  - THE TOWER SHALL BE PLACED AND RE-ANCHORED IN COLD WEATHER. WIND DESIGN FACE OF 0.7-WIND BLOWING STRONG ARE FOR NORMAL TEMPERATURES FOR THE SITE.
- FOUNDATION NOTES**
- THE FOUNDATION DESIGN ARE BASED ON THE DATA SHOWN ON DRAWING 51.
  - THE DESIGNER OF RECORD SHALL BE CONSULTED IF THE EXISTING SITE CONDITIONS DIFFER.
  - THE DESIGN OF ALL FOUNDATION SHALL BE INSPECTED FOR UNDERMINING, HOLE, CAVE, TRENCH, ETC. PRIOR TO EXCAVATION.
  - ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LOCAL CODES AND SAFETY REGULATIONS. PROCEDURES FOR PROTECTION OF EXISTING UTILITIES, CONSTRUCTION AND FINISHES SHALL BE ESTABLISHED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORK.
  - SPACING, SLOPING AND SLOPING OF EXCAVATION SHALL BE DONE IN ACCORDANCE WITH LOCAL AND FEDERAL CODES.
- MINIMUM CONCRETE COVER FOR CONCRETE CAST AGAINST EARTH SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC-308. THE MINIMUM CONCRETE COVER SHALL BE 1.5 INCHES.**
- STRUCTURAL STEEL**
- ALL STEEL FABRICATIONS AND CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF AISC-360. STEELWORK SHALL BE IN ACCORDANCE WITH THE AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360.
  - ALL NEW STEEL SHALL BE CUT UP DIMENSIONS PER AISC-360. ALL STEEL ARE DIMENSIONS IN ACCORDANCE WITH AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360.
  - THE MINIMUM YIELD STRENGTH OF STRUCTURAL MATERIAL SHALL BE AS FOLLOWS:
    - STEEL PLATE, RAILS, CHANNELS & CLAMPS: A572
    - WELDED CHANNELS, SOLD BOLTS AND WELDS: A500
    - CONCRETE WITH WELDS: A500
  - ALL WELDS SHALL BE SCOURED WITH THE "THROU-OUT" METHOD AS DESCRIBED IN THE LATEST EDITION OF THE AISC-360.
  - ALL WELDS AND BOLTS MUST BE IN PLACE BEFORE THE PREPARED LOANS LISTED ON TABLE 2.0 ARE INSTALLED.
  - WELDING SHALL BE PERFORMED WITH EARTH ELECTROLYTES IN ACCORDANCE WITH AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360.
  - SPICE MATERIAL SHALL BE COMPLETELY FRESHLY MIXED AND MUST BE HEATED AFTER WELDING IN ACCORDANCE WITH THE AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360. STEEL SHALL BE IN ACCORDANCE WITH THE AISC-360.
  - THE FINISH DIMENSIONS OF RIGID WELDS SHALL NOT BE MORE THAN 1/16" LARGER THAN THE NOMINAL RIGID DIMENSIONS UNLESS OTHERWISE SPECIFIED.
  - MATERIAL MAY BE CUT BY SAWING, SANDING OR CUTTING WITH A ROUGH CUT ON THE MATERIAL DIMENSION SHALL BE IN TOLERANCE SHALL NOT BE EXCEEDED.
  - ALL CUTS SHALL BE SMOOTH AND FREE FROM FRACTURE SURFACES AND ANGLED EDGES. SMOOTH EDGES OF RIGID PLATES SHALL BE FINISHED TO A FINISH OF 1/16" RE-RADIATION EXCEPT SHALL BE SUBJECT. IF RE-RADIATION CUTS ARE USED THEY SHALL BE FILLED BY DRILLING HOLE TO 1/16".
  - PRICE TO FABRICATING ALL FABRICATED STEEL SHALL BE PROBABLY SHOP BOTTLED AND SHIPPED TO SITE.
- REINFORCED CONCRETE**
- ALL CONCRETE WORK SHALL COMPLY TO AISC-308. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION. DESIGN IS BASED ON AISC-308. "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" LATEST EDITION.
  - WELDED WELDS DIMENSIONS, ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI.
  - CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH AISC-308 SECTION 5.1.
  - RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S.
  - UNLESS NOTED OTHERWISE ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI.
  - CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH AISC-308 SECTION 5.1.
  - RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S.
  - USE OF CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS IN CONCRETE IS NOT PERMITTED. THE AIR CONTENT IN ALL CONCRETE EXPOSED TO WEATHER SHALL BE TYPICAL OF 10%.
  - CONTRACTOR SHALL PERFORM CONCRETE INSPECTION AND TESTING IN ACCORDANCE WITH INTERNATIONAL SPECIFICATIONS.
  - NUMBER OF POUND ALL FINISHED CONCRETE MINIMUM 1/4".
  - REINFORCED CONCRETE DIMENSIONS AND ACCEPTANCE IN ACCORDANCE WITH AISC-308. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION.
  - REINFORCING STEEL SHALL COMPLY TO AISC-308. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION. UNLESS NOTED OTHERWISE.
  - BE ALL REINFORCING STEEL AND DIMENSIONS TO BE IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN THE POSITION OF REINFORCING STEEL. PROVIDE SUFFICIENT BRACING DURING ALL CONSTRUCTION ACTIVITIES. "BRACING" SHOULD NOT BE CONSIDERED AS NOT PERMITTED.
  - DO NOT WELD OR USE WELD REINFORCING STEEL UNLESS APPROVED OR INSPECTED BY THE STRUCTURAL ENGINEER.
  - REINFORCING STEEL PLACEMENT SHALL BE INSPECTED IN ACCORDANCE WITH AISC-308. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION. UNLESS NOTED OTHERWISE.
- CONCRETE INFORMATION**
- DESIGNER OF RECORD: M.A. F. AND SONS, 1700-1800
  - SEAL: ENGINEER: M.S. MURPHY, 770-811-1819

SEAL  
PROFESSIONAL ENGINEER

NO.	DATE	REVISION
1	02/14/12	FOR CONSTRUCTION

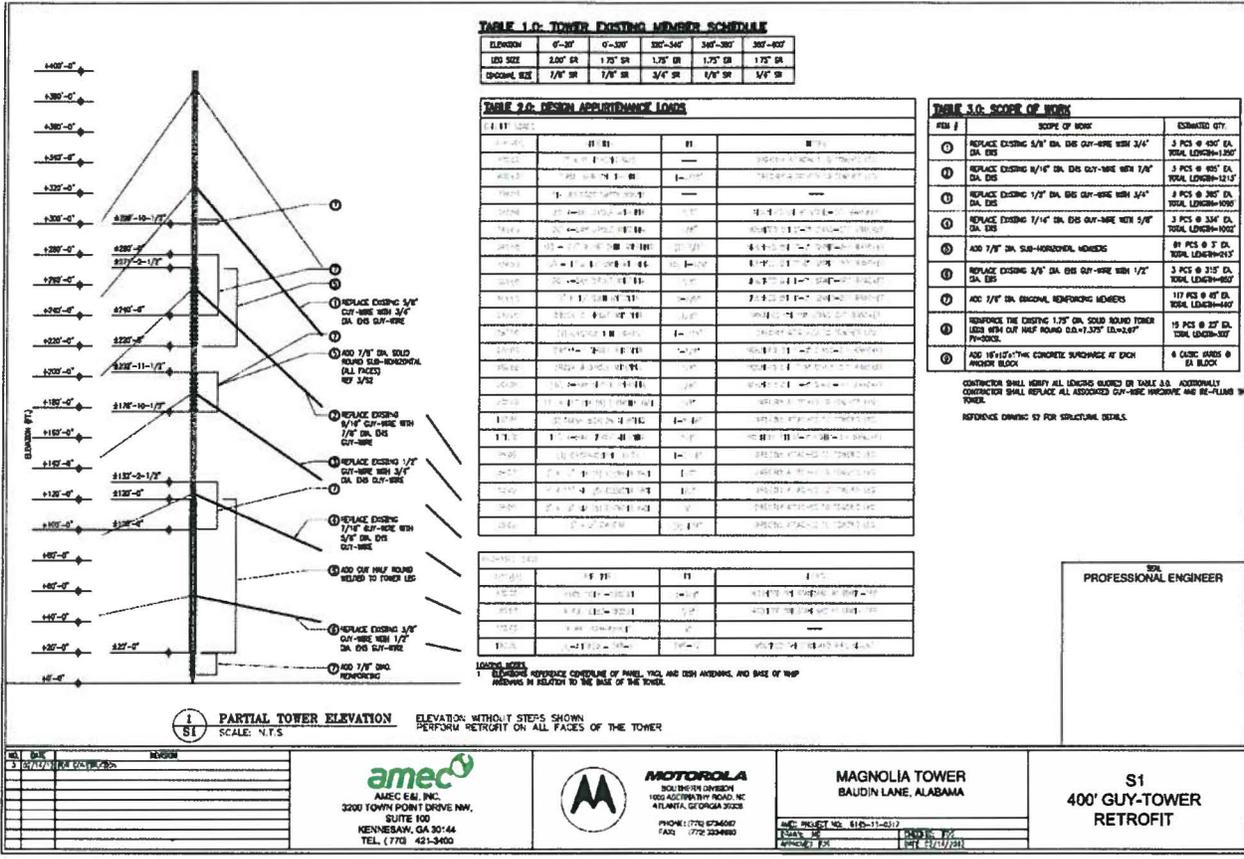
**amec**  
AMEC E&I, INC.  
3000 TOWN POINT DRIVE NW  
SUITE 100  
KENNESAW, GA 30144  
TEL: (770) 421-3400

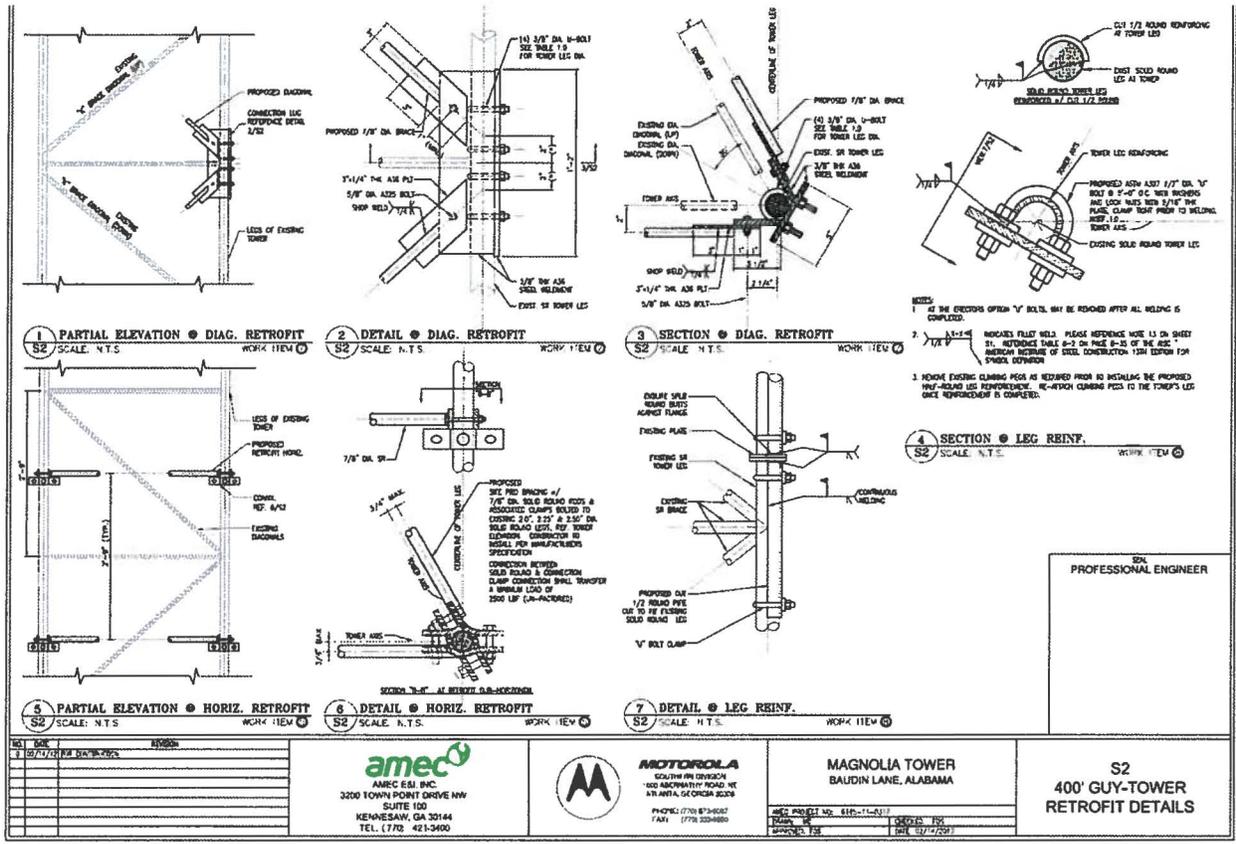
**MOTOROLA**  
TELEPHONE DIVISION  
100 ASPENHURST ROAD, SE  
ATLANTA, GEORGIA 30335  
PHONE: (770) 654-8887  
FAX: (770) 558-8889

**MAGNOLIA TOWER**  
BAUDIN LANE, ALABAMA

REV: PROJECT NO. A16-11-031  
ISSUE NO. 1  
DATE: 02/14/2012

**S0**  
**GENERAL NOTES**





**1 PARTIAL ELEVATION • DIAG. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM S2

**2 DETAIL • DIAG. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM S2

**3 SECTION • DIAG. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM S2

**4 SECTION • LEG REINF.**  
S2 SCALE: N.T.S. WORK ITEM S2

**5 PARTIAL ELEVATION • HORIZ. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM S2

**6 DETAIL • HORIZ. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM S2

**7 DETAIL • LEG REINF.**  
S2 SCALE: N.T.S. WORK ITEM S2

**NOTES:**

- AS THE SECTION OPTION "V" BOLTS, MAY BE REMOVED AFTER ALL WELDING IS COMPLETED.
- INDICATES FUEL WELD. PLEASE REFERENCE WIRE 13 ON SHEET S1. REFERENCE TABLE 8-2 ON PAGE 8-25 OF THE AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION 13th EDITION FOR SPANEL EXTENSION.
- REMOVE EXISTING CLIMBING PEEL AS RETAINED PRIOR TO INSTALLING THE PROPOSED HORIZ. RETROFIT REINFORCEMENT. RE-ATTACH CLIMBING PEEL TO THE TOWER'S LEG ONCE REINFORCEMENT IS COMPLETED.

**PROFESSIONAL ENGINEER**

NO.	DATE	REVISION
1	05/17/12	ISSUE FOR PERMITS

**amec**  
AMEC E&I, INC.  
3200 TOWN POINT DRIVE NW  
SUITE 100  
KENNESAW, GA 30144  
TEL: (770) 421-2400

**MOTOROLA**  
SOUTH WIL CONSTRUCTION  
100 ABBOTTSFORD ROAD, NE  
136 WILMINGTON, GEORGIA 30686  
PHONE: (770) 673-4007  
FAX: (770) 222-8880

**MAGNOLIA TOWER**  
BAUDIN LANE, ALABAMA

AMEC PROJECT NO. 616-11-0317  
DRAWN BY: [Redacted]  
CHECKED BY: [Redacted]  
DATE: 02/12/2012

**S2**  
400' TOWER  
RETROFIT DETAILS



## COUNTY COMMISSION

BALDWIN COUNTY

312 COURTHOUSE SQUARE, SUITE 12

BAY MINETTE, ALABAMA 36507

(251) 937-0264

FAX (251) 580-2500

[www.baldwincountyal.gov](http://www.baldwincountyal.gov)

March 20, 2012

MEMBERS  
1. FRANK BARKER, JR.  
2. ROBERT E. JAMES  
3. DEE WILKINSON  
4. CHARLES E. CRUBER

Motorola Solutions, Inc.  
1700 Belle Meade Court  
Lawrenceville, GA 30045  
**ATTN:** Earl G. Dittburner

**REFERENCE:** Interoperable Communications Systems Upgrade and Expansion of County-wide 700 MHz P25 Communications System for the Baldwin County Commission.

Dear Mr. Dittburner:

The Baldwin County Commission during their regularly held meeting on March 20, 2012, approved Change Order #3 in the amount of **\$22,488.00** for the Interoperable Communications Systems Upgrade and Expansion of County-wide 700 MHz P25 Communications System project.

Please find attached your executed copy.

If you have any questions regarding this matter, please contact the Purchasing Officer, Wanda Gautney at (251) 580-2520.

Sincerely,

  
ROBERT E. JAMES, Chairman  
Baldwin County Commission

REJ:wg Item #EC2

attachment

cc: Wanda Gautney, Purchasing Officer  
David Pimperl, CIS Director  
Alainna Elliott, Grants Coordinator

CHANGE ORDER

Order No. 3

Date: March 20, 2012

Agreement Date: September 6, 2011

NAME OF PROJECT: Upgrade and Expansion of a county-wide 700MHz P25 Communications System

OWNER: Baldwin County Commission

CONTRACTOR: Motorola Solutions, Inc.

The following changes are hereby made to the CONTRACT DOCUMENTS:

**ADD: One (1) Motorola MCC7500 dispatch console and associated equipment to be installed at the E911 Center in Robertsdale..... \$ 47,974.00**

**DEDUCT: Credit associated with PTP Microwave redesign..... \$ (25,486.00)**

**TOTAL \$ 22,488.00**

The Original (CONTRACT PRICE)	\$4,335,962.00
Net change by previously authorized Change Orders	\$ 179,522.75
The (Contract Price) prior to this Change Order was	\$4,515,484.75
The new (Contract Price) will be (increased) by this Change Order	\$ 22,488.00
The new (CONTRACT PRICE) including this CHANGE ORDER will be	\$4,537,972.75

CONTRACTOR: Jen Schneider Director of Services

RECOMMENDED: [Signature]

OWNER: [Signature]





<b>Change Order #:</b>	003
<b>Date:</b>	3/20/12
<b>Project Name:</b>	Baldwin County, AL
<b>Customer Name:</b>	Baldwin County Commission
<b>Customer Project Manager:</b>	David Pimperl
<b>Motorola Project Manager:</b>	Earl Dittburner
<b>Motorola Account Manager:</b>	Scott Montana

**1. The purpose of this Change Order:**

System Design: This Change Order provides for the mutually agreed modifications to the system design listed below:

<b>Motorola Contract No.</b>	<b>11-29111</b>	<b>Contract Date:</b>	<b>9/6/2011</b>
------------------------------	-----------------	-----------------------	-----------------

In accordance with the terms and conditions of the Contract identified above between **Motorola Solutions, Inc.** f/k/a Motorola, Inc. and **Baldwin County Commission, Baldwin Co. AL**, the changes described here are approved:

**2. Contract Price Adjustments**

<b>Original Contract Price:</b>	\$ 4,335,962.00
<b>Amounts of Previous Change Orders</b>	\$ 179,522.75
<b>This Change Order 003:</b>	\$ 22,488.00
<b>New Contract Price :</b>	\$ 4,537,972.75

**3. Completion Date Adjustments**

<b>Original Completion Date:</b>	May 31, 2012
<b>Current Completion Date prior to this Modification:</b>	May 31, 2012
<b>New Completion Date as of Change Order 003</b>	May 31, 2012



**4. Changes in Equipment:**

Change Order 003 Pricing/Equipment List is included in Exhibit "A."

**5. Changes in Services:**

Change Order 003 System Description located in Exhibit "B".  
Change Order 003 Scope of Work located in Exhibit "C".

**6. Schedule Changes:** No changes to the scheduled completion date.

**7. Pricing Changes:** The changes described herein result in a net change of \$22,488.00 to the Contract Price.

**8. Customer Responsibilities:** No change.

**9. Payment Schedule:** Payment Terms for Change Order.

Unless amended above, all other terms and conditions of the Contract shall remain in full force. If there are any inconsistencies between the provisions of this Change Order and the provisions of the Contract, the provisions of this Change Order will prevail.  
The dollar amount for this change order must be include in a purchase order for the actual work to be completed at this tower site.

IN WITNESS WHEREOF, the parties have executed this Change Order, which is effective as of the last date signed below.

**Motorola Solutions, Inc.**

**Baldwin County Commission**

By: Jim Schneider  
Name: Jim Schneider  
Title: Director of Services  
Date: March 16, 2012

By: [Signature]  
Name: ROBERT E. GANES  
Title: CHAIRMAN  
Date: 3.20.2012



**PROJECT MANAGER APPROVAL:** The work described herein has  / has not  been completed.



**Exhibit A**

**Pricing Summary**

Original contract price (including previous Change Orders)	total \$ 4,515,484.75
One (1) Motorola MCC7500 dispatch console & associated equipment	total \$ 47,974.00
Credit associated with PTP microwave redesign	total (\$25,486.00)
Sub-total (MCC7500 console cost minus credit amount)	sub-total \$ 22,488.00
 Grand Total	 Total \$ 4,537,972.75

**Equipment List**

QTY	NOMENCLATURE	DESCRIPTION
1	TT2312	Z400 MID TIER WITH WINDOWS 7 (64-BIT) NON-RETURNABLE
1	B1933	MOTOROLA VOICE PROCESSOR MODULE
1	CA00147AF	ADD: MCC 7500 SECURE OPERATION
1	CA00245AA	ADD: ADP ALGORITHM
1	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN
1	CA01643AA	ADD: MCC 7500 TRUNKING OPERATION LICENSE
1	CA01644AA	ADD: MCC 7500 ADVANCED CONVENTIONAL OPERATION LICENSE
1	CA01642AA	ADD: MCC 7500 BASIC CONSOLE FUNCTIONALITY SOFTWARE LICENSE
1	B1905	MCC 7500 ASTRO 25 SOFTWARE
2	B1912	MCC SERIES DESKTOP SPEAKER
2	B1913	MCC SERIES HEADSET JACK
1	B1914	MCC SERIES DESKTOP GOOSENECK MICROPHONE
1	RLN6098	HDST MODULE BASE W/PTT, 15' CBL
2	RMN5077A	SUPRAPLUS SINGLE MUFF HEADSET
1	BLN6732	FOOT, SWITCH TRADITIONAL
1	DS019BLK	19" LCD, BLACK, NON-TOUCH
1	DSVPR3MCC	PROTECTION MODULE FOR MCC 7500 OPERATOR HEADSET INTERFACE
1	DDN1245	DUAL IRR SW USB HASP WITH LICENSE (VERSION 45)
1	DDN1118	PCI EXPRESS SOUND BLASTER X-FI XTREME AUDIO
1	CDN6673	CREATIVE LABS INSPIRE A60

MCC7500 Dispatch Console Equipment	Total	\$ 47,974.00
Redesigned PTP Microwave customer credit	Total	\$ 25,486.00



## Exhibit B

### System Description

- Removal of PTP-800 Microwave system
- Add Aviat Eclipse Microwave system,
  - Gopher Hill – Rabun (11GHz - licensed)
  - Rabun – Bay Minette (6GHz - licensed)
  - Robertsdale - Seminole (6GHz –licensed))
  - Robertsdale – Spanish Fort (5.8GHz - unlicensed)
  - Foley – Magnolia Springs (5.8Ghz – unlicensed)
- Add one (1) Motorola MCC 7500-dispatch console

## Exhibit C

### Scope of Work

Motorola Solutions has redesigned the Point-to-Point (PTP) microwave transport system on the contract to reduce tower loading. This redesign has altered the originally quoted PTP equipment utilizing high-powered radios, smaller antenna dishes and downsized wave-guide to decrease wind-load. As a result, the PTP hop between Robertsdale-EOC and Spanish Fort, as well as, the hop from Foley to Magnolia Springs, will now be 5.8GHz unlicensed microwave.

Motorola Solutions Inc. will provision and install equipment, software and hardware to provide an additional dispatch position console (MCC7500) in the Baldwin County 9-1-1 Dispatch Center located on McAuliffe Street, Robertsdale, Alabama.

# CHANGE ORDER

Order No. 2

Date: March 8 2012

Agreement Date: September 6, 2011

NAME OF PROJECT: Upgrade and Expansion of a county-wide 700MHz P25  
Communications System

OWNER: Baldwin County Commission

CONTRACTOR: Motorola Solutions, Inc.

The following changes are hereby made to the CONTRACT DOCUMENTS:

**ADD: Retrofit of the Baldwin County E911 Seminole Tower and Magnolia Springs Tower.  
This will accommodate additional antenna loading required for this project.**

**TOTAL \$ 142,103.75**

---

The Original (CONTRACT PRICE)	\$4,335,962.00
Net change by previously authorized Change Orders	\$ 37,419.00
The (Contract Price) prior to this Change Order was	\$4,373,381.00
The new (Contract Price) will be (increased) by this Change Order	\$ 142,103.75
The new (CONTRACT PRICE) including this CHANGE ORDER will be	\$4,515,484.75

CONTRACTOR: *Jim Schuch* Director of Services  
Motorola Solutions, Inc.

RECOMMENDED: *[Signature]*

OWNER: *[Signature]*





<b>Change Order #:</b>	002
<b>Date:</b>	3/06/12
<b>Project Name:</b>	Baldwin County, AL
<b>Customer Name:</b>	Baldwin County Commission
<b>Customer Project Manager:</b>	David Pimperl
<b>Motorola Project Manager:</b>	Earl Dittburner
<b>Motorola Account Manager:</b>	Scott Montana

**1. The purpose of this Change Order:**

System Design: This Change Order provides for the mutually agreed modifications to the system design listed below:

<b>Motorola Contract No.</b>	<b>11-29111</b>	<b>Contract Date:</b>	<b>9/6/2011</b>
------------------------------	-----------------	-----------------------	-----------------

In accordance with the terms and conditions of the Contract identified above between **Motorola Solutions, Inc. f/k/a Motorola, Inc.** and **Baldwin County Commission, Baldwin Co. AL**, the changes described here are approved:

**2. Contract Price Adjustments**

<b>Original Contract Price:</b>	\$ 4,335,962.00
<b>Amounts of Previous Change Orders</b>	\$ 37,419.00
<b>This Change Order 002:</b>	\$ 142,103.75
<b>New Contract Price :</b>	\$ 4,515,484.75

**3. Completion Date Adjustments**

<b>Original Completion Date:</b>	May 31, 2012
<b>Current Completion Date prior to this Modification:</b>	May 31, 2012
<b>New Completion Date as of Change Order 002</b>	May 31, 2012



**4. Changes in Equipment:**

Change Order 002 Pricing/Equipment List is included in Exhibit "A."

**5. Changes in Services:**

Change Order 002 System Description located in Exhibit "B".  
Change Order 002 Scope of Work (Seminole) located in Exhibit "C".  
Change Order 002 Scope of Work (Magnolia Springs) located in Exhibit "D"

**6. Schedule Changes:** No changes to the scheduled completion date.

**7. Pricing Changes:** The changes described herein result in a net change of \$142,103.75 to the Contract Price.

**8. Customer Responsibilities:** No change.

**9. Payment Schedule:** Payment Terms for Change Order.

Unless amended above, all other terms and conditions of the Contract shall remain in full force. If there are any inconsistencies between the provisions of this Change Order and the provisions of the Contract, the provisions of this Change Order will prevail.

IN WITNESS WHEREOF, the parties have executed this Change Order, which is effective as of the last date signed below.

**Motorola Solutions, Inc.**

By: *Jim Schneider*

Name: Jim Schneider

Title: Director of Services

Date: March 2, 2012

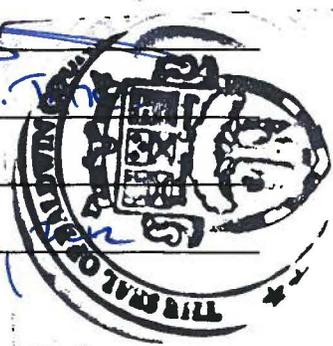
**Baldwin County Commission**

By: *[Signature]*

Name: Robert E. Taylor

Title: Chairman

Date: March 12



**PROJECT MANAGER APPROVAL:** The work described herein has  / has not  been completed.



### Exhibit A

#### **Pricing Summary**

Original contract price (including previous Change Order 001)	total \$ 4,373,381.00
Seminole Tower Rev G retrofit (steel replacement/welding/re-guying)	total \$ 49,912.50
Magnolia Springs Tower Rev G retrofit (steel replacement/welding/re-guying)	total \$ 92,191.25
Grand total after retrofits	total \$4,515,484.75

### Exhibit B

#### **System Description**

No changes to project system description

### Exhibit C

#### **Scope of Work**

**Seminole** - Tower retrofit work required for guyed tower, located on Fire Tower Road in Baldwin County, Alabama to comply with TIA/EIA 222, Revision G standard, upon the completion of the additional antenna and line installations associated with this project.

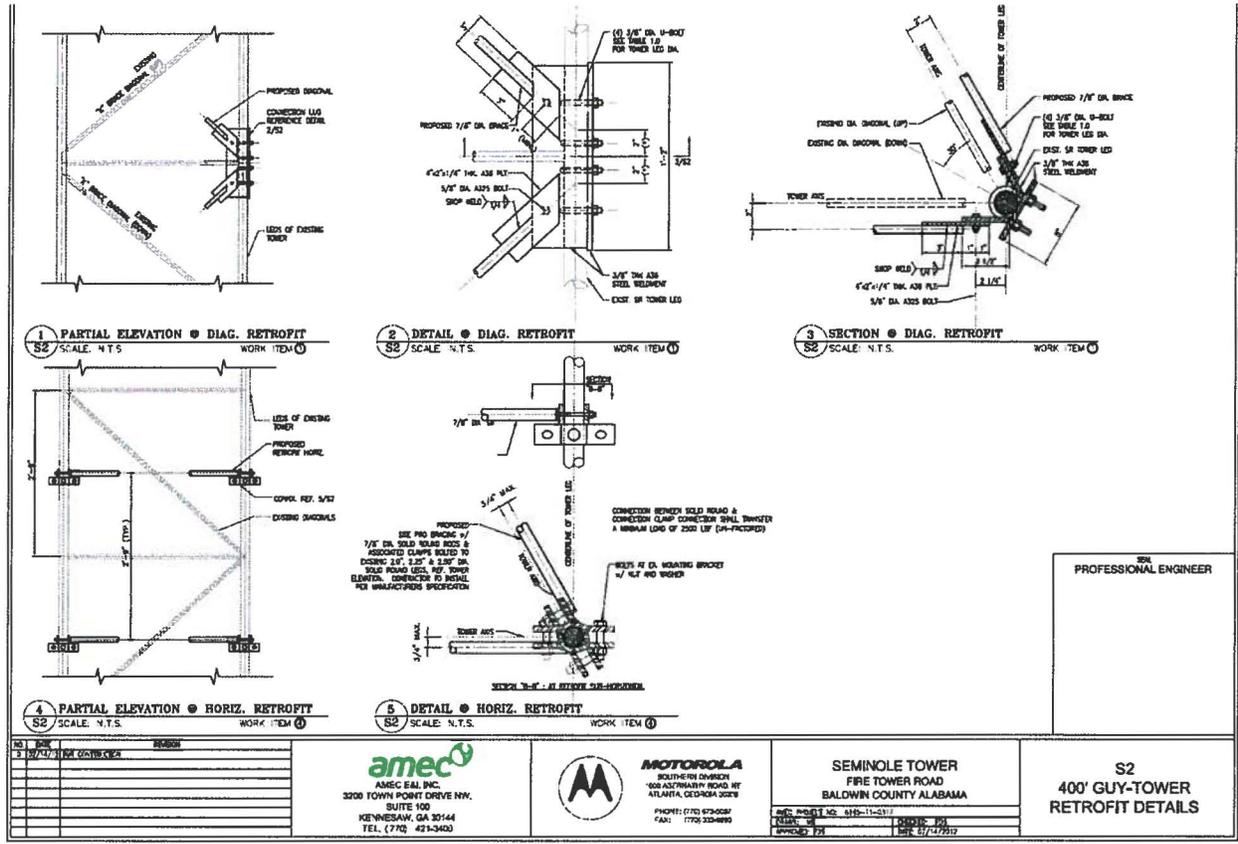
The retrofit includes, upsizing the guy-wires, reinforcing tower diagonal supports, and adding additional sub-horizontal bracing.

This work is necessary, in accordance with the latest Federal guidelines, to maintain the structural integrity of the tower during severe wind-load conditions, ensuring emergency communications during natural disasters. The retrofit will reinforce strategic mechanical aspects and address grounding upgrades adding to the longevity and reliability of the structure.



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**Exhibit D**

**Scope of Work**

**Magnolia Springs** - Tower retrofit work required for guyed tower, located on Baudin Lane in Baldwin County, Alabama to comply with TIA/EIA 222, Revision G standard, upon the completion of the additional antenna and line installations associated with this project.

The retrofit includes, upsizing the guy-wires, reinforcing tower diagonal supports, and adding additional sub-horizontal bracing.

This work is necessary, in accordance with the latest Federal guidelines, to maintain the structural integrity of the tower during severe wind-load conditions, ensuring emergency communications during natural disasters. The retrofit will reinforce strategic mechanical aspects and address grounding upgrades adding to the longevity and reliability of the structure.



**GENERAL NOTES**

1. THE STRUCTURE IS DESIGNED TO BE BUILT AFTER THE CONSTRUCTION IS FULLY COMPLETED. THE CONTRACTOR MUST FOLLOW APPROVED DRAWINGS PREPARED IN ORDER TO OBTAIN THE SAFETY OF THE CONSTRUCTION AND THE OWNER'S SAFETY.
2. ALL DIMENSIONS SHALL COMPLY FULLY WITH THE APPLICABLE PROVISIONS OF THE INTERNATIONAL BUILDING CODE AND ALL LOCAL ORDINANCES. ALL REQUIREMENTS SPECIFIED IN THE CODES SHALL BE REFERRED TO AS IF THEY WERE CALLED FOR ON DRAWING OR THE DRAWING.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE TIME BEFORE PROCEEDING WITH ORDERING OF ANY MATERIAL, FABRICATION AND INSTALLATION OF ANY MATERIALS. NO FORM DIMENSION COMPARISON SHALL BE ALLOWED UNLESS IT IS DIFFERENCE BETWEEN THE ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE DRAWING IS LESS THAN 1/8" (2.54 MM). ANY DIMENSIONS SHALL BE FORWARDED TO THE CONSULTANT AND OWNER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
4. ALL DIMENSIONS MUST COMPLY TO THE DIMENSIONS OF THESE NOTES AND SHOULD BE SUBJECT TO CHECK BEFORE ANY DIMENSIONS SHALL BE SUBMITTED TO THE OWNER OR RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
5. THE CONTRACTOR SHALL COMPLY WITH ALL THE OSHA REQUIREMENTS FOR PROTECTION.
6. THE CONTRACTOR SHALL VERIFY THE ESTIMATED QUANTITIES FROM TO SUBMITTING A BID.

**STEEL JOISTS**

1. THE TOWER DESIGN CONFORMS WITH THE AISC 360-10 CODE. THE TOWER HAS DESIGN FOR:
  - a. A WIND SPEED OF 145 MPH
  - b. FOR A WIND SPEED OF 1/2 MPH PER 1'20" WIND RISE

**FIELD JOISTS**

1. THESE DRAWINGS DO NOT INCLUDE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL DETERMINE AND VERIFY THE METHOD AND SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. THE TOWER DIMENSIONS ARE TO BE COMPLETED IN ONE MEMBER WITH THE WIND RESISTANT TO 120 MPH IN ALL DIRECTIONS.
2. PRECAUTIONS AND EFFECTS SHALL BE TAKEN TO ENSURE TOWER STABILITY DURING ERECTION. THIS WILL INCLUDE BUT IS NOT LIMITED TO THE PROVISION OF TEMPORARY SUPPORTS TO THE TOWER WHEN APPLICABLE. PROTECT STRUCTURAL MEMBERS SUCH AS BRACINGS, MEMBERS, ETC.
3. ANY DAMAGE TO MATERIALS SHALL BE CLEANED AND RE-COATED WITH ZINC FOR PAINT IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.
4. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS WITHIN THE MEANS OF ANY TEMPORARY SUPPORTS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL PRACTICES AND PROCEDURES FOLLOWED DURING CONSTRUCTION AND ERECTION DOES NOT ENDANGER THE SAFETY OF ANY PERSONNEL OR THE STRUCTURE. THE CONTRACTOR SHALL COMPLY WITH ALL REGULATORY PROCEDURES, LAWS AND ALL APPLICABLE CODES OF CONSTRUCTION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF OSHA AND THE INTERNATIONAL BUILDING CODE (LATEST EDITION).
6. UPON COMPLETION OF ALL WORK, THE SITE SHALL BE CLEANED OF ALL DEBRIS AS REQUIRED. ALL DEBRIS MATERIALS NOT REMOVED FROM THE SITE SHALL BE MOVED AWAY FROM THE SITE AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
7. THE TOWER SHALL BE PLACED AND RE-ANCHORED IN CASE OF WIND. INITIAL DESIGN FOR 120 MPH WIND SPEEDING STRONG WIND FOR NORMAL TEMPERATURES FOR THE SITE.

**FOUNDATION NOTES**

1. THE FOUNDATION DESIGN IS BASED ON THE DATA SHOWN ON DRAWING 51.
2. THE DESIGN OF RECORD SHALL BE CONTROLLED BY THE EXISTING SITE CONDITIONS OTHER THAN SHOWN ON DRAWING 51.
3. THE DESIGN OF ALL FOUNDATION SHALL BE INSPECTED FOR UNDERMINING, HOLE, CAVE, TRENCH, ETC. PRIOR TO ERECTION.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LOCAL CODES AND SAFETY REGULATIONS. PROCEDURES FOR PROTECTION OF EXISTING UTILITIES, CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK.
5. SPACING, SHAPING AND SLOPING OF ERECTION SHALL BE DONE IN ACCORDANCE WITH LOCAL AND FEDERAL CODES.

1. THE MINIMUM CONCRETE COVER FOR CONCRETE CAST AGAINST EARTH SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC-308. THE MINIMUM CONCRETE COVER AGAINST SHALL BE 1" MINIMUM.

**STRUCTURAL STEEL**

1. ALL STEEL FABRICATIONS AND CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF AISC-360. STEEL JOISTS AND THE LATEST EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.
2. ALL NEW STEEL SHALL BE HOT ROLLED (EXCEPT FOR STEEL AT 112) STANDARD. ALL STEEL ARE GALVANNEAL IN ACCORDANCE WITH ASTM A1024 (S16) GRADE (S16).
3. THE MINIMUM YIELD STRENGTH OF STRUCTURAL MATERIAL SHALL BE AS FOLLOWS:
  - a. STEEL PLATE, SHAPES, CHANNELS & CLAMPS: A572
  - b. REINFORCING BARS: A601
  - c. CONCRETE: A601
4. ALL STEEL SHALL BE SCOURED WITH THE "THRU-OUT" METHOD AS DESCRIBED IN THE LATEST EDITION OF THE AISC MANUAL.
5. ALL BOLTS AND NUTS MUST BE IN PLACE BEFORE THE PREPARED JOISTS LIFTED ON TRUCKS TO BE INSTALLED.
6. WELDING SHALL BE PERFORMED WITH E60XX ELECTRODES IN ACCORDANCE WITH AISC CODES AND SPECIFIED IN THE WELDING SPECIFICATION. USE 1/4" MINIMUM WELD UNLESS NOTED OTHERWISE ON THE DRAWING. WELDING IS NOT APPROVED UNLESS PERMITTED BY THE ENGINEER OF RECORD.
7. SPICE MATERIAL SHALL BE COMPLETELY FREDERICKS BEFORE WELDING AND POST HEATED AFTER WELDING IN ACCORDANCE WITH THE ENGINEER'S WELDING PROCEDURE. WHICH MUST BE APPROVED BY THE ENGINEER OF RECORD.
8. THE FINISH DIMENSION OF RIGID JOISTS SHALL NOT BE MORE THAN 1/16" LARGER THAN THE NOMINAL RIGID DIMENSION UNLESS NOTED OTHERWISE.
9. MATERIAL MAY BE CUT BY SAWING, SANDING OR CUTTING WITH A ROUGH CUT ON THE MATERIAL DIMENSION SHALL BE IN TOLERANCE SHALL NOT BE EXCEEDED.
10. CUT EDGES SHALL BE SMOOTH AND FREE FROM FRACTURE BURRS AND ANGLED EDGES. SHARP EDGES OF RIGID JOISTS SHALL BE FINISHED TO A FINISH OF 1/16" RE-RADIUS EXCEPT SHALL BE ALLOWED. IF RE-RADIUS CUTS ARE USED THEY SHALL BE FILLED BY DRILLING HOLE TO 1/16".
11. PRIOR TO GALVANIZING ALL PAINTED STEEL SHALL BE PROBABLY SHOP BLENDED AND BLENDED CORNERS.

**REINFORCING CONCRETE**

1. ALL CONCRETE WORK SHALL COMPLY TO AISC 308. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION. DESIGN IS BASED ON A308 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" LATEST EDITION.
2. UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI.
3. CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH A318 SECTION 5.1.
4. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S.
5. UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI.
6. CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH A318 SECTION 5.1.
7. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S.
8. USE OF CALCIUM CHLORIDE, CALCIUM OIL, OR OTHER SALTS IN CONCRETE IS NOT PERMITTED. THE AIR CONTENT IN ALL CONCRETE EXPOSED TO WEATHER SHALL BE TYPICAL OF THE MIXTURE.
9. CONTRACTOR SHALL PERFORM CONCRETE INSPECTION AND TESTING IN ACCORDANCE WITH INTERNATIONAL SPECIFICATIONS.
10. NUMBER OF POUND ALL FINISHED CONCRETE MINIMUM 1/4".
11. DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH A318 "BUILDING CODE REQUIREMENTS", LATEST EDITION.
12. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 UNLESS NOTED OTHERWISE.
13. BE ALL REINFORCING STEEL AND ACCESSORIES INSTALLED IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN THE POSITION OF REINFORCEMENT FROM SETBACKS DURING ALL CONSTRUCTION ACTIVITIES. "STICKING" SHOULD NOT BE PERMITTED.

1. DO NOT WELD OR USE WELD REPAIRING STEEL UNLESS APPROVED OR SPECIFIED BY THE STRUCTURAL ENGINEER.
2. REINFORCING STEEL PLACEMENT SHALL BE INSPECTED IN ACCORDANCE WITH A318 SECTION 5.1 BY A REGISTERED STRUCTURAL ENGINEER, OR BY A REPRESENTATIVE RESPONSIBLE TO HIM.

**CONCRETE INFORMATION**

1. ENGINEER OF RECORD: M.A. FORD ENGINEERING, INC.
2. DESIGN ENGINEER: MRS. MARGARET DANIEL, 770-811-1819

REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION
1	02/14/12	FOR CONSTRUCTION

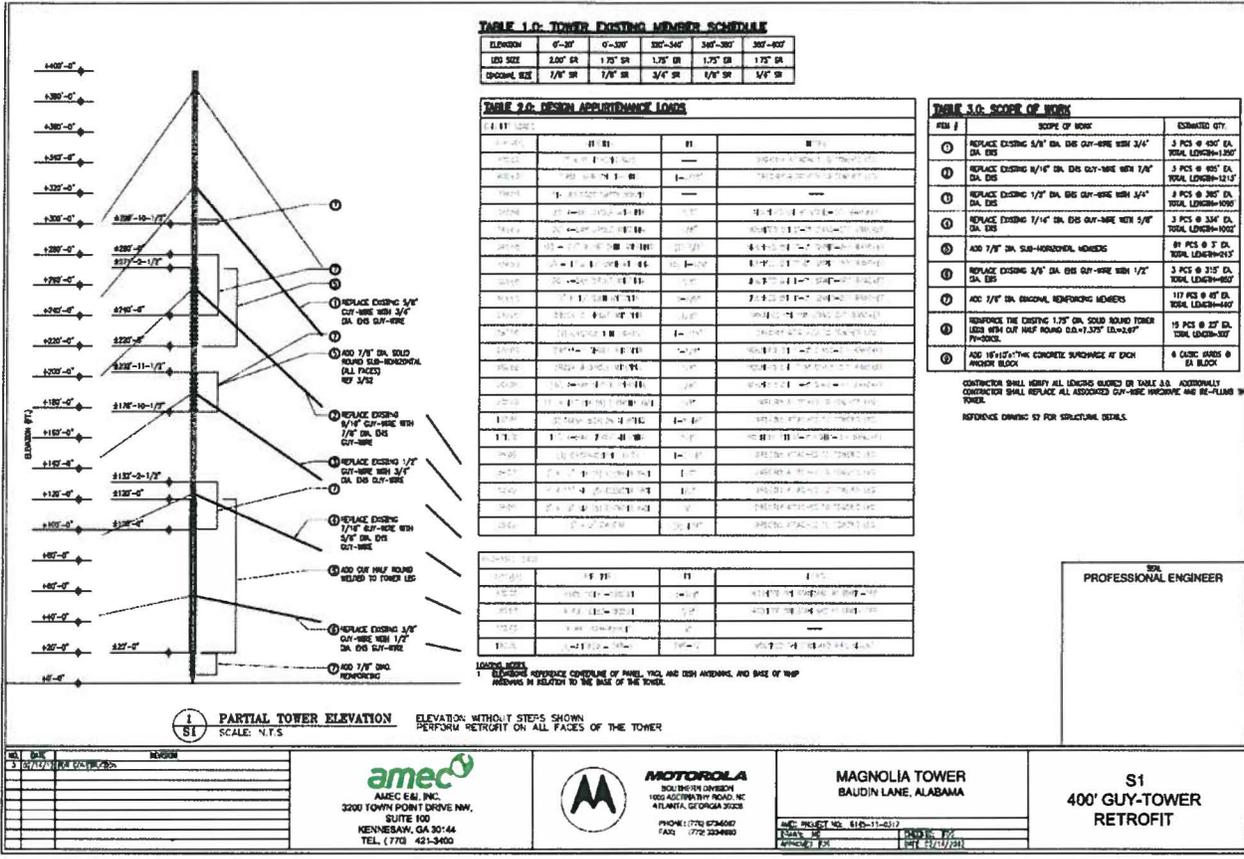
**amec**  
 AMEC E&I, INC.  
 3000 TOWN POINT DRIVE NW  
 SUITE 100  
 KENNESAW, GA 30144  
 TEL: (770) 421-2400

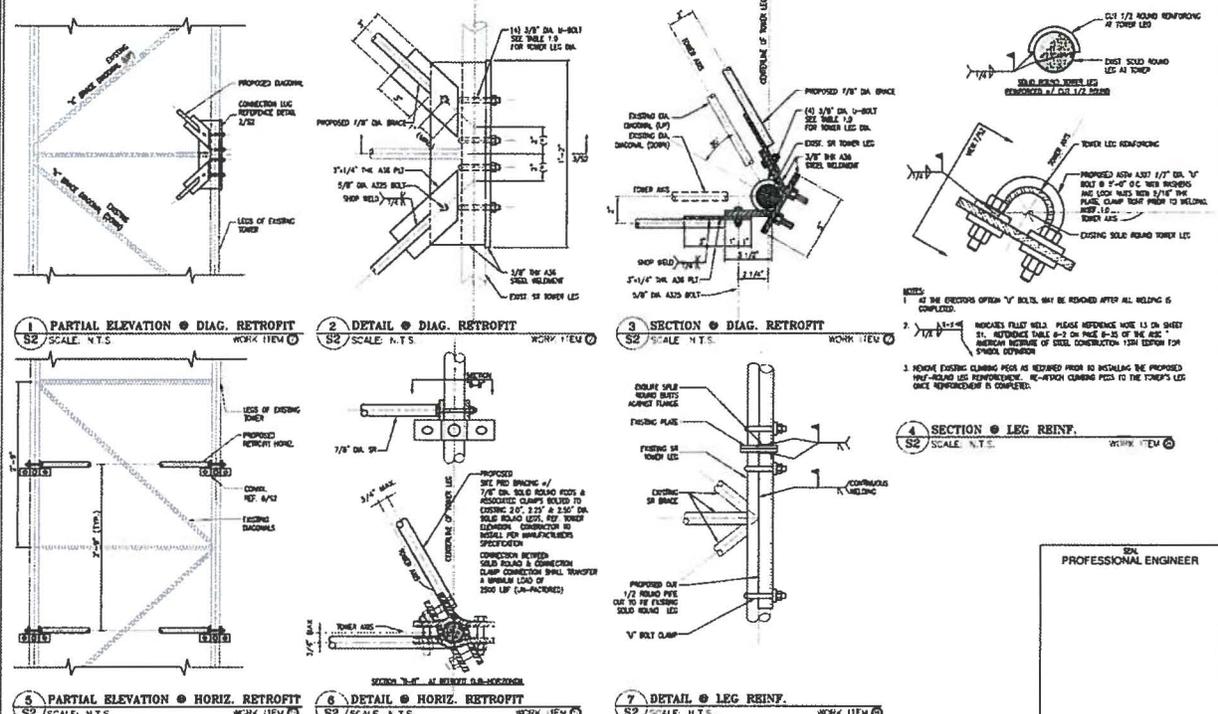
**MOTOROLA**  
 TELEPHONE DIVISION  
 100 ASPENHURST ROAD, SE  
 ATLANTA, GEORGIA 30338  
 PHONE: (770) 606-8887  
 FAX: (770) 558-8889

**MAGNOLIA TOWER**  
 BAUDIN LANE, ALABAMA

REV. PROJECT NO. A16-11-031  
 DRAWING NO. 51  
 SHEET NO. 02/14/2012

**S0**  
**GENERAL NOTES**





**1 PARTIAL ELEVATION • DIAG. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM 0

**2 DETAIL • DIAG. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM 0

**3 SECTION • DIAG. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM 0

**4 SECTION • LEG REINF.**  
S2 SCALE: N.T.S. WORK ITEM 0

**5 PARTIAL ELEVATION • HORIZ. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM 0

**6 DETAIL • HORIZ. RETROFIT**  
S2 SCALE: N.T.S. WORK ITEM 0

**7 DETAIL • LEG REINF.**  
S2 SCALE: N.T.S. WORK ITEM 0

**NOTES:**

- AS THE SECTION OPTION "V" BOLTS, MAY BE REMOVED AFTER ALL WELDING IS COMPLETED.
- INDICATES FUEL WELD. PLEASE REFERENCE WELD IS ON SHEET S1. REFERENCE TABLE 8-2 ON PAGE 8-25 OF THE AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION 13th EDITION FOR SPANEL EXTENSION.
- REMOVE EXISTING CLIMBING PEEL AS RETAINED PRIOR TO INSTALLING THE PROPOSED HALF-ROUND LEG REINFORCEMENT. RE-ATTACH CLIMBING PEEL TO THE TOWER'S LEG ONCE REINFORCEMENT IS COMPLETED.

**PROFESSIONAL ENGINEER**

NO.	DATE	REVISION
1	05/17/12	ISSUE FOR PERMITS

**amec**  
AMEC E&I, INC.  
3200 TOWN POINT DRIVE NW  
SUITE 100  
KENNESAW, GA 30144  
TEL: (770) 421-2400



**MOTOROLA**  
SOUTH RIVER CENTER  
100 ABBOTTSFORD ROAD, SE  
ATLANTA, GEORGIA 30328  
PHONE: (770) 674-4000  
FAX: (770) 252-8880

**MAGNOLIA TOWER**  
BAUDIN LANE, ALABAMA

AMEC PROJECT NO. 616-11-0317  
DRAWN BY: [blank] CHECKED BY: [blank]  
DATE: [blank] DATE: 02/12/2012

**S2**  
**400' GUY-TOWER**  
**RETROFIT DETAILS**



## COUNTY COMMISSION

BALDWIN COUNTY

312 COURTHOUSE SQUARE, SUITE 12

BAY MINETTE, ALABAMA 36507

(251) 937-0264

FAX (251) 580-2500

[www.baldwincountyal.gov](http://www.baldwincountyal.gov)

March 20, 2012

MEMBERS  
1. FRANK BARKER, JR.  
2. ROBERT E. JAMES  
3. DEE WILKINSON  
4. CHARLES E. CRUBER

Motorola Solutions, Inc.  
1700 Belle Meade Court  
Lawrenceville, GA 30045  
ATTN: Earl G. Dittburner

**REFERENCE:** Interoperable Communications Systems Upgrade and Expansion of County-wide 700 MHz P25 Communications System for the Baldwin County Commission.

Dear Mr. Dittburner:

The Baldwin County Commission during their regularly held meeting on March 20, 2012, approved Change Order #3 in the amount of **\$22,488.00** for the Interoperable Communications Systems Upgrade and Expansion of County-wide 700 MHz P25 Communications System project.

Please find attached your executed copy.

If you have any questions regarding this matter, please contact the Purchasing Officer, Wanda Gautney at (251) 580-2520.

Sincerely,

  
ROBERT E. JAMES, Chairman  
Baldwin County Commission

REJ:wg Item #EC2

attachment

cc: Wanda Gautney, Purchasing Officer  
David Pimperl, CIS Director  
Alainna Elliott, Grants Coordinator

CHANGE ORDER

Order No. 3

Date: March 20, 2012

Agreement Date: September 6, 2011

NAME OF PROJECT: Upgrade and Expansion of a county-wide 700MHz P25 Communications System

OWNER: Baldwin County Commission

CONTRACTOR: Motorola Solutions, Inc.

The following changes are hereby made to the CONTRACT DOCUMENTS:

**ADD: One (1) Motorola MCC7500 dispatch console and associated equipment to be installed at the E911 Center in Robertsdale..... \$ 47,974.00**

**DEDUCT: Credit associated with PTP Microwave redesign..... \$ (25,486.00)**

**TOTAL \$ 22,488.00**

The Original (CONTRACT PRICE)	\$4,335,962.00
Net change by previously authorized Change Orders	\$ 179,522.75
The (Contract Price) prior to this Change Order was	\$4,515,484.75
The new (Contract Price) will be (increased) by this Change Order	\$ 22,488.00
The new (CONTRACT PRICE) including this CHANGE ORDER will be	\$4,537,972.75

CONTRACTOR: Jen Schneider Director of Services

RECOMMENDED: [Signature]

OWNER: [Signature]





<b>Change Order #:</b>	003
<b>Date:</b>	3/20/12
<b>Project Name:</b>	Baldwin County, AL
<b>Customer Name:</b>	Baldwin County Commission
<b>Customer Project Manager:</b>	David Pimperl
<b>Motorola Project Manager:</b>	Earl Dittburner
<b>Motorola Account Manager:</b>	Scott Montana

**1. The purpose of this Change Order:**

System Design: This Change Order provides for the mutually agreed modifications to the system design listed below:

<b>Motorola Contract No.</b>	<b>11-29111</b>	<b>Contract Date:</b>	<b>9/6/2011</b>
------------------------------	-----------------	-----------------------	-----------------

In accordance with the terms and conditions of the Contract identified above between **Motorola Solutions, Inc.** f/k/a Motorola, Inc. and **Baldwin County Commission, Baldwin Co. AL**, the changes described here are approved:

**2. Contract Price Adjustments**

<b>Original Contract Price:</b>	\$ 4,335,962.00
<b>Amounts of Previous Change Orders</b>	\$ 179,522.75
<b>This Change Order 003:</b>	\$ 22,488.00
<b>New Contract Price :</b>	\$ 4,537,972.75

**3. Completion Date Adjustments**

<b>Original Completion Date:</b>	May 31, 2012
<b>Current Completion Date prior to this Modification:</b>	May 31, 2012
<b>New Completion Date as of Change Order 003</b>	May 31, 2012



**4. Changes in Equipment:**

Change Order 003 Pricing/Equipment List is included in Exhibit "A."

**5. Changes in Services:**

Change Order 003 System Description located in Exhibit "B".  
Change Order 003 Scope of Work located in Exhibit "C".

**6. Schedule Changes:** No changes to the scheduled completion date.

**7. Pricing Changes:** The changes described herein result in a net change of \$22,488.00 to the Contract Price.

**8. Customer Responsibilities:** No change.

**9. Payment Schedule:** Payment Terms for Change Order.

Unless amended above, all other terms and conditions of the Contract shall remain in full force. If there are any inconsistencies between the provisions of this Change Order and the provisions of the Contract, the provisions of this Change Order will prevail.

The dollar amount for this change order must be include in a purchase order for the actual work to be completed at this tower site.

IN WITNESS WHEREOF, the parties have executed this Change Order, which is effective as of the last date signed below.

**Motorola Solutions, Inc.**

**Baldwin County Commission**

By: Jim Schneider  
Name: Jim Schneider  
Title: Director of Services  
Date: March 16, 2012

By: [Signature]  
Name: ROBERT E. GANES  
Title: CHAIRMAN  
Date: 3.20.2012



**PROJECT MANAGER APPROVAL:** The work described herein has  / has not  been completed.



**Exhibit A**

**Pricing Summary**

Original contract price (including previous Change Orders)	total \$ 4,515,484.75
One (1) Motorola MCC7500 dispatch console & associated equipment	total \$ 47,974.00
Credit associated with PTP microwave redesign	total (\$25,486.00)
Sub-total (MCC7500 console cost minus credit amount)	sub-total \$ 22,488.00
 Grand Total	 Total \$ 4,537,972.75

**Equipment List**

QTY	NOMENCLATURE	DESCRIPTION
1	TT2312	Z400 MID TIER WITH WINDOWS 7 (64-BIT) NON-RETURNABLE
1	B1933	MOTOROLA VOICE PROCESSOR MODULE
1	CA00147AF	ADD: MCC 7500 SECURE OPERATION
1	CA00245AA	ADD: ADP ALGORITHM
1	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN
1	CA01643AA	ADD: MCC 7500 TRUNKING OPERATION LICENSE
1	CA01644AA	ADD: MCC 7500 ADVANCED CONVENTIONAL OPERATION LICENSE
1	CA01642AA	ADD: MCC 7500 BASIC CONSOLE FUNCTIONALITY SOFTWARE LICENSE
1	B1905	MCC 7500 ASTRO 25 SOFTWARE
2	B1912	MCC SERIES DESKTOP SPEAKER
2	B1913	MCC SERIES HEADSET JACK
1	B1914	MCC SERIES DESKTOP GOOSENECK MICROPHONE
1	RLN6098	HDST MODULE BASE W/PTT, 15' CBL
2	RMN5077A	SUPRAPLUS SINGLE MUFF HEADSET
1	BLN6732	FOOT, SWITCH TRADITIONAL
1	DS019BLK	19" LCD, BLACK, NON-TOUCH
1	DSVPR3MCC	PROTECTION MODULE FOR MCC 7500 OPERATOR HEADSET INTERFACE
1	DDN1245	DUAL IRR SW USB HASP WITH LICENSE (VERSION 45)
1	DDN1118	PCI EXPRESS SOUND BLASTER X-FI XTREME AUDIO
1	CDN6673	CREATIVE LABS INSPIRE A60

MCC7500 Dispatch Console Equipment	Total	\$ 47,974.00
Redesigned PTP Microwave customer credit	Total	\$ 25,486.00



## Exhibit B

### System Description

- Removal of PTP-800 Microwave system
- Add Aviat Eclipse Microwave system,
  - Gopher Hill – Rabun (11GHz - licensed)
  - Rabun – Bay Minette (6GHz - licensed)
  - Robertsdale - Seminole (6GHz –licensed))
  - Robertsdale – Spanish Fort (5.8GHz - unlicensed)
  - Foley – Magnolia Springs (5.8Ghz – unlicensed)
- Add one (1) Motorola MCC 7500-dispatch console

## Exhibit C

### Scope of Work

Motorola Solutions has redesigned the Point-to-Point (PTP) microwave transport system on the contract to reduce tower loading. This redesign has altered the originally quoted PTP equipment utilizing high-powered radios, smaller antenna dishes and downsized wave-guide to decrease wind-load. As a result, the PTP hop between Robertsdale-EOC and Spanish Fort, as well as, the hop from Foley to Magnolia Springs, will now be 5.8GHz unlicensed microwave.

Motorola Solutions Inc. will provision and install equipment, software and hardware to provide an additional dispatch position console (MCC7500) in the Baldwin County 9-1-1 Dispatch Center located on McAuliffe Street, Robertsdale, Alabama.