



04/20/2021

*Effective for 30 Days*

Motorola Solutions is pleased to present the following turnkey proposal to install Mutual Aid equipment at the Forest and Baseline Tower Sites to comply with the requirements for Region 9. We have provided a proposal that includes all of the necessary hardware and labor.

**Baseline Tower:**

The Baseline Tower Site design will utilize the existing Microwave and Antenna system installed at the site. The Microwave will provide the Mutual Aid equipment with connectivity back to the Master Site for the MCC7500 console position to access the Mutual Aid Channel. The new Mutual Aid repeater will use both the Transmit and Receive antennas existing at the site reducing cost to Marion County. This configuration will eliminate the requirement of a duplexer. The Baseline site will not require remediations due to all tower top equipment previously installed.

**Forest Tower:**

The Forest Tower Site design will require the installation of a new transmit antenna and transmit line only. The design will utilize the existing receive antenna and tower top amp located at the site. The installation of a new transmit antenna and 7/8" line will eliminate the need for a duplexer. The existing Marion County network will provide the Mutual Aid equipment with connectivity back to the Master Site for the MCC7500 console position to access the Mutual Aid Channel.

The Forest Tower design may require a structural analysis for approval to install new equipment on the tower.

- Quote assumes all towers have climbing facilities and waveguide ladders with open slots
- Any equipment/labor outside this scope of work is not included in this project
- **Customer is responsible for coordinating a structural analysis with an engineering firm and any potential tower remediations**

**Proposal Total: \$83,561.00**



04/20/2021

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Motorola Solutions is pleased to present the following turnkey proposal to install a new Tower Top Amplifier, Multicoupler, Receive Antenna (1), Transmit Antenna (2), and replacement line for the Receive and Transmit Antennas located at the Pinnacle Tower site. The existing Tower Top Amplifier has suffered a failure due to age and wear. The failure has removed the ability to support redundancy at the site. This is a consistent alarm and immediate attention is recommended to prevent loss of the Pinnacle Tower Site. We have provided a proposal that includes all of the necessary hardware and labor.

**Proposal:**

The quote provides replacement of:

QTY (1) Receive Antenna located at 250 Feet, line 7/8" helix

QTY (2) Transmit Antennas Located at 250 Feet, 1 1/4" Helix

6' Side Arms, Transmission Lines, Connectors, Hangers, Hoisting Grips per R56 Guideline.

Tower Top Amplifier and Multicoupler

- Quote assumes antennas will be the direct replacement of existing antenna in use today
- Quote assumes all towers have climbing facilities and waveguide ladders with open slots
- Any equipment/labor outside this scope of work is not included in this project
- **Customer is responsible for coordinating a structural analysis with an engineering firm and any potential tower remediations.**

**Pinnacle Site Total: \$120,138.00**



04/20/2021

*Effective for 30 Days*

Motorola Solutions is pleased to present the following turnkey proposal to install a new Receive Antenna located at the Pistol Range Tower site. When the TTA was replaced, a TDR report was performed and reflects a bad RX antenna at the Pistol Site. In addition, the line passed but had several bad spots. Therefore, we are recommending it to be replaced before it becomes an issue. We have provided a proposal that includes an antenna and line replacement. Please note, a bad receive antenna will give you degraded coverage as your inbound signal may not have enough energy to be decoded as it travels down the coax. In-building coverage around the tower will also be degraded as it will not be able to make up for some of the building loss.

**Proposal:**

The replacement antenna is a BMR12-H-B1 Omni Directional Antenna which is the direct replacement of the existing antenna in use today. The quote provides replacement of QTY (1) antenna, receive line (1ea 1/2" test line and 1ea 7/8" RX line 530' ea), transmit line (2 ea 1 1/4" TX line 530' ea), receive applicable snap in hangers, jumper, lightning protection, and labor.

- Quote assumes antennas will be the direct replacement of existing antenna in use today
- Quote assumes all towers have climbing facilities and waveguide ladders with open slots
- Any equipment/labor outside this scope of work is not included in this project

Motorola Solutions is pleased to provide a proposal for the necessary microwave equipment that provides redundant connectivity between the Pistol Range (Prime Site) and Marion County Sheriff Office (Master Site). The existing equipment is no longer under manufacturer support and suffered a catastrophic failure due to equipment age and regular exposure to the environment.

**Proposal:**

The replacement microwave equipment is a Microwave Networks Proteus MX 11 GHz Gigabit Ethernet Radio. The replacement proposal includes all hardware and labor required to replace the inoperable microwave system that is located at both the Prime Site and Master Site. The proposal includes 5 years of manufacturer support.

- **Customer is responsible for coordinating a structural analysis with an engineering firm and any potential tower remediations.**

**Pistol Range Site Total: \$283,599.00**



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Motorola Solutions is pleased to present the following turnkey proposal to install a new Tower Top Amplifier, Multicoupler, Receive Antenna (1), Transmit Antenna (2), and replacement line for the Receive and Transmit Antennas located at the Florida Gas Tower site. A high reflected power is reported utilizing the Advanced Power Monitor (APM) located at the Florida Gas Tower Site. This is a consistent alarm and immediate attention is recommended to prevent loss of the Florida Gas Tower Site. We have provided a proposal that includes all of the necessary hardware and labor.

**Proposal:**

The quote provides replacement of:

QTY (1) Receive Antenna located at 380 Feet, line 7/8" helix

QTY (2) Transmit Antennas Located at 380 Feet, 1 1/4" Helix

6' Side Arms, Transmission Lines, Connectors, Hangers, Hoisting Grips per R56 Guideline.

Tower Top Amplifier and Multicoupler

- Quote assumes antennas will be the direct replacement of existing antenna in use today
- Quote assumes all towers have climbing facilities and waveguide ladders with open slots
- Any equipment/labor outside this scope of work is not included in this project
- **Customer is responsible for coordinating a structural analysis with an engineering firm and any potential tower remediations**

**Florida Gas Site Total: \$98,531.00**

**Project Total (Pinnacle, Pistol Range, & Florida Gas): \$502,268.00**