



tusa | Consulting Services
Raising the Bar in Critical Communications



City of Naperville, Illinois

Full Implementation Proposal

SECTION 1 Overview



Overview

The original proposal from TUSA included project management, coverage testing, and functional acceptance testing. Our response was targeted to correspond to the requirements of your RFP. It did not include Engineering and Technical Support, a feature many customers desire. This includes supporting the critical design review, factory staging, fleet mapping support, and on-site inspections during the construction period of the project.

In addition, we did not know how to price implementation because we didn't know what the final solution was going to look like. Our original pricing was for 12 months, which is short of the 18 months that Motorola is proposing with their schedule.

	Original Proposal	Change Order Proposal
Schedule Timeline	12 Months	18 Months
Turnkey Project Management	✓	✓
Turnkey Technical Support		✓
Critical Design Review		✓
Fleetmapping Support		✓
Codeplug Development Support		✓
Monthly Site Inspections		✓
Factory RF Staging		✓
Factory Microwave Staging		✓
Final Site Inspections	✓	✓
Coverage Testing	✓	✓
Final Acceptance Test	✓	✓
On Site Cutover Support		✓
System As-built Documentation		✓

SECTION 3

Scope of Work



Overview

TUSA Consulting Services will further assist the City of Naperville by providing best in class technical oversight for your project. Our number one goal is to make sure you are getting a public safety grade system that is built to industry standard best practices, while conforming to the requirements of the contract. Our services include support for implementation management, inspection, acceptance testing, coverage testing, and cutover assistance as required for the project.

KICK OFF MEETING AND CRITICAL DESIGN REVIEW

TUSA will schedule and participate in the project kick-off meeting and critical design review. The purpose of the kickoff meeting is to meet the vendor's project team, review the schedule, and identify reporting processes and responsibilities. The detail design review is to start reviewing the components of the system and preliminary engineering documents.

The meeting will cover the following:

- Identify project team members;
- Finalize project schedule and responsibilities;
- Establish project reporting process (weekly reports, meetings, conference calls, etc.);
- Finalize system design (review in detail);
- Review site issues (availability/access, modifications needed, etc.);
- Confirm FCC licensing requirements (modifications/new frequencies);
- Finalize Acceptance Test Plan;
- Review subscriber radio reprogramming requirements and timing;
- Conduct a detailed design review;
- Verify all contractual conditions and requirements.



Scope of Work (Con't)

TECHNICAL SUPPORT

TUSA will support the installation portion of the project by providing technical oversight and guidance throughout the project, as well as verifying that all work done follows industry best practices. TUSA will provide the following services during installation:

- TUSA will inspect all installations to make sure the installer is following industry standard best practices. This includes:
 - Tower Installations
 - Shelter Installations
 - Generator Installations
 - Antenna Installation
 - Microwave Installation
 - Infrastructure Equipment Installation
 - Console Equipment Installation
 - Fencing Installation
 - Grounding Verification
 - Line Sweep Verification
 - Alarm Verification
 - Subscriber Code Plug Development and Installation
 - FCC Licensing and Frequency Plan Verification
 - DAQ and BER Testing
 - Microwave Fade Margin Verification
 - Network Security Verification
- TUSA will perform a physical inspection of each site and create a punch list of any items that must be corrected.
 - Electrical Punch List
 - Civil Punch List
 - Mechanical Punch List
- TUSA will reconcile the punch list items with the vendor and make sure all items have been remedied to the satisfaction of the City of Naperville.
- TUSA will monitor optimization process of the radio sites, dispatch consoles, and microwave system.
- Attend weekly conference calls and monthly progress meetings.
- Assist with fleetmapping and codeplug development



Scope of Work (Con't)

RF AND MICROWAVE STAGING

The RF staging and microwave staging activity is where functionality of the system is verified before it ships out to the location in the form of a factory acceptance test. TUSA will participate in in the staging activities and sign off on Naperville's behalf.

- TUSA will participate in the staging activity and factory acceptance test.
- TUSA will verify the system is functioning per the terms of the contract, and sign off on Naperville's behalf.

SYSTEM COVERAGE ACCEPTANCE (CATP)

Coverage Testing is a critical step in ensuring that Naperville's stakeholders have received the level of performance as specified by the radio vendor's contract. During this stage, TUSA will have two people onsite to support the coverage testing activity.

- TUSA will monitor and participate in radio system coverage testing;
- TUSA will conduct necessary audio quality verification;
- TUSA will document any deficiencies within the coverage testing results and document as a part of a punch list to be resolved by the vendor.

FINAL SYSTEM ACCEPTANCE

TUSA will oversee the final acceptance of the system, including the resolution of all punch list items and delivery of As-Built documentation. Once we are satisfied, we will submit a Notice of Completion, which would then allow release of any retained funds to the vendor and also initiate the project's warranty period.

TUSA will provide the following services during Final System Acceptance:

- Participate in Final Acceptance Testing
- Assist and monitor Agency cutovers;
- Inspect final system installations;
- Review all As-Built and system closeout documentation;
- Provide the City of Naperville with a Notice of Completion.

SECTION 5

Pricing



City of Naperville - Full Implementation Support			
Description	Consultant Hours	Hourly Rate	Cost
Task 1 - Kickoff Meeting and DDR	88	\$185.00	\$16,280.00
Task 2 - 18 Months Project Management Support (1 person, 1 monthly visit)	576	\$185.00	\$106,560.00
Task 3 - 18 Months Technical Support (1 person, 1 multiday monthly visit)	576	\$185.00	\$106,560.00
Task 4 - Radio System Staging (2 Person, Multiday Trip)	64	\$185.00	\$11,840.00
Task 5 - Microwave Staging (1 Person, Multiday Trip)	32	\$185.00	\$5,920.00
Task 6 - CATP (1 Person, Multiday Trip)	160	\$185.00	\$29,600.00
Task 7 - Functional Acceptance Testing	80	\$185.00	\$14,800.00
		Expenses	Included
		Phase III Total	\$291,560.00