OFFICIAL FILE COPY
CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 14(A)(18)
07-24-07

RESOLUTION NO. R-905-07

RESOLUTION AUTHORIZING EXECUTION OF A PLANNING FUNDING AGREEMENT BETWEEN NEXTEL OPERATIONS, INC. (NEXTEL) AND MIAMI-DADE COUNTY, WHICH SETS THE OBLIGATIONS OF THE PARTIES CONCERNING THE PLANNING ACTIVITIES NECESSARY TO RECONFIGURE THE COUNTY'S 800 MHz RADIO EQUIPMENT PURSUANT TO FEDERAL COMMUNICATION COMMISSION ORDERS; WAIVING FORMAL BID PROCEDURES DUE TO THE MANDATES OF THE FEDERAL COMMUNICATIONS COMMISSION ORDER

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board finds it is in the best interest of Miami-Dade County to waive formal bid procedures pursuant to Section 5.03(D) of the Home Rule Charter and Sections 2-8.1, 2-8.3 and 2-8.4 of the County code by a two-thirds (2/3s) vote of the Board members present; authorizing the execution of a Planning Funding Agreement between Nextel Operations Inc. (Nextel) and Miami-Dade County, providing for Nextel to pay for the costs associated with planning for the reconfiguration of the County's 800 MHz radio communication equipment as mandated by orders from the Federal Communications Commission; authorizing the County Mayor or his designee to execute the agreement on behalf of the County and exercise all provisions contained therein.

The foregoing resolution was offered by Commissioner Jose "Pepe" Diaz, who moved its adoption. The motion was seconded by Commissioner Rebeca Sosa and upon being put to a vote, the vote was as follows:

Bruno A. Barreiro, Chairman aye
Barbara J. Jordan, Vice-Chairwoman aye

Jose "Pepe" Diaz	aye	Audrey M. Edmonson	aye
Carlos A. Gimenez	aye	Sally A. Heyman	aye
Joe A. Martinez	absent	Dennis C. Moss	aye
Dorrin D. Rolle	aye	Natacha Seijas	aye
Katy Sorenson	aye	Rebeca Sosa	aye
Sen. Javier D. Souto	absent		

The Chairperson thereupon declared the resolution duly passed and adopted this 24th day of July, 2007. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF COUNTY
COMMISSIONERS

HARVEY RUVIN, CLERK

By: KAY SULLIVAN
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Oren Rosenthal

Memorandum

MIAMI-DADE COUNTY

Date: July 24, 2007

To: Honorable Chairman Bruno A. Barreiro
and Members, Board of County Commissioners

Agenda Item No. 14(A)(18)

From: George M. Burgess
County Manager

Subject: Resolution Authorizing the Execution of a Planning Funding Agreement Between Nextel Operations, Inc. and Miami-Dade County for Reconfiguration of the County's 800 Megahertz Radio Communication Infrastructure

---

Recommendation

It is recommended that the Board authorize the execution of the attached Planning Funding Agreement (PFA) with Nextel Operations, Inc. (Sprint/Nextel) to support the upcoming reconfiguration of the County's 800 Megahertz (MHz) radio communication infrastructure. The Federal Communications Commission (FCC) report and order dated August 6, 2004, mandated those commercial users of frequency bands adjacent to 800 MHz frequencies, such as Sprint/Nextel, pay for the cost of reconfiguring public safety and radio systems in order to decrease interference into the County's system. The attached planning agreement is the initial step in the reconfiguration process and will eventually lead to a "Frequency Reconfiguration Agreement" between Sprint/Nextel and the County that will come back to this Board for approval.

Scope

The PFA establishes the terms under which Sprint/Nextel will pay for the planning necessary to determine the specific extent of the 800 MHz radio system frequency reconfiguration effort in Miami-Dade County. The planning effort includes specific work associated with engineering, frequency analysis, and system inventory and project management. This effort will have a countywide impact once the reconfiguration is complete.

Fiscal Impact/Funding Source

Under this Planning Funding Agreement, and consistent with the FCC Order, Sprint/Nextel will pay all the costs associated with the planning phase of the overall reconfiguration project, estimated at approximately $1.46 million. As a result of the FCC Order requiring Sprint/Nextel to undertake this project, it is necessary to waive formal bid procedures to enter into this agreement with Sprint/Nextel to accomplish the migration. No matching funds are required of Miami-Dade County. As mentioned above, a second agreement (Frequency Reconfiguration Agreement) will come back to this Board for approval and will outline the extent and all associated costs of the reconfiguration.

Track Record/Monitor

Sprint/Nextel has been providing the County with wireless services for many years. At present, there are no known contractual issues between the County and this vendor. Don Fleming, Director of the Enterprise Technology Services Department (ETSD), will be responsible for monitoring this Planning Funding Agreement and the subsequent implementation of the Frequency Reconfiguration Agreement.

Background

Over the past few years, public safety and other radio systems occupying the 800 MHz band have been experiencing interference as a result of the growth in adjacent commercial bands. As utilization of the

adjacent bands proliferated, interference problems became more prevalent. On August 6, 2004, the FCC issued a report and order to modify its rules governing the 800 MHz band in order to minimize the harmful interference to public safety radio communications systems operating in this frequency band. Users of the 800 MHz radio frequency band nationwide, including Miami-Dade County, have been ordered by the FCC to reconfigure their operations by engaging in a frequency "swap" with Sprint/Sprint/Nextel to eliminate frequency band interference. It is anticipated that a portion of the transmitters, receivers, repeaters, and subscriber radios in operation would not be re-tunable to the new frequencies, and, will therefore be replaced as part of the rebanding effort. Miami Dade has fifty-two (52) 800 MHz frequencies used by the County's main radio communication system in support of public safety and general government operations that are affected by the FCC order. Substantial completion is expected by April 2009.

The overall reconfiguration process involves the following steps:

1) Negotiation and execution of the subject Planning Funding Agreement (PFA) between Sprint/Nextel and the County to determine the specific requirements for the reconfiguration effort. The associated planning effort is estimated to take up to nine months from the time of execution.

   In order to obtain the funding from Sprint/Nextel for these planning activities, the County must enter into this PFA. The County was required to define the work and submit estimates for all costs associated with the reconfiguration planning activities which are detailed in the agreement. The County has also opted to have Sprint/Nextel pay the vendors that are supporting the planning effort directly, as allowed under the FCC order. Of the approximate $1.46 million to be paid by Sprint/Nextel, $510,000 represents costs payable to the County for work conducted by its own staff. The balance will be paid by Sprint/Nextel directly to the planning vendors supporting the effort on behalf of the County (M/A Com and RCC Consultants). M/A Com, the system manufacturer, will receive an amount estimated at $358,000, while RCC Consultants will receive approximately $588,000.

2) At the end of the Planning project, the two parties will begin negotiating the basis of the actual Frequency Reconfiguration Agreement. This will establish the equipment that Sprint/Nextel must retune, or, if not reconfigurable, replace, to meet the FCC mandate and any other necessary conditions. The resulting agreement, as well as associated contracts that the County will rely on for support, are expected to be presented to the Board in early to mid 2008 for approval.

   During the reconfiguration process, the County must operate its radio system with zero downtime or impact to Public Safety agencies. Therefore, our goal is to negotiate an agreement that protects our ability to sustain critical radio communications, even if this requires the acquisition of redundant components. As with the planning phase, all reconfiguration costs are expected to be paid by Sprint/Nextel.

3) The actual reconfiguration process will begin upon approval of the Frequency Reconfiguration Agreement. We are estimating that the actual reconfiguration process could take up to eighteen months, but is contingent on the details of both the planning effort and the subsequent negotiated reconfiguration agreement.

Interoperability

Miami-Dade County has one of the nation's largest 800 MHz radio communication systems supporting more than 27,000 radio users, with over 8 million transmissions monthly. Numerous federal, state, county, and municipal agencies depend on this system for day-to-day communications among first responders, joint and immediate response to catastrophic accidents or natural disasters, and special events requiring the formation of task forces made up of local, state, and federal agencies for extended periods of time.

Interoperability, which is the ability for personnel to talk with one another across various communications systems, is recognized as a problem that has hindered recovery efforts between participating agencies during past natural and man-made disasters nationwide. Public safety agencies, including Miami-Dade Police, Miami-Dade Fire Rescue, Corrections, and ETSD, have formed a local consortium to address the development of common requirements, identify interoperability gaps given current capabilities, and obtain the required technology to enable communications across local and regional jurisdictions as incident needs dictate.

The reconfiguration effort will present an opportunity to more efficiently address interoperability enhancements. The County will concurrently explore options throughout the reconfiguration effort to retool its radio system with more advanced technologies. Such enhancements would not be covered by Sprint/Nextel under the reconfiguration effort. The County would seek to secure separate funding for this important public safety undertaking at a later time.

Assistant County Manager

MEMORANDUM
(Revised)

TO: Honorable Chairman Bruno A. Barreiro and Members, Board of County Commissioners

DATE: July 24, 2007

FROM: R.A. Cuevas, Jr. Acting County Attorney

SUBJECT: Agenda Item No. 14(A)(18)

Please note any items checked.

✓ "4-Day Rule" ("3-Day Rule" for committees) applicable if raised

____ 6 weeks required between first reading and public hearing

____ 4 weeks notification to municipal officials required prior to public hearing

____ Decreases revenues or increases expenditures without balancing budget

____ Budget required

____ Statement of fiscal impact required

____ Bid waiver requiring County Manager's written recommendation

____ Ordinance creating a new board requires detailed County Manager's report for public hearing

____ Housekeeping item (no policy decision required)

____ No committee review

PLANNING FUNDING AGREEMENT
[800 MHZ RECONFIGURATION]

This PLANNING FUNDING AGREEMENT ("Agreement") is made this _____ day of _____, 200_, by and between Miami-Dade County ("Incumbent"), having an address of 6010 SW 87 Avenue, Miami, Florida, 33173, and Nextel Operations, Inc., a wholly owned indirect subsidiary of Sprint Nextel Corporation, a Kansas corporation ("Nextel") having an address of 2001 Edmund Halley Drive, Reston, VA 20191. Nextel and Incumbent may be referred to collectively in this Agreement as the "Parties."

RECITALS:

A. On August 6, 2004, the Federal Communications Commission ("FCC") issued a report and order to reconfigure the frequency allocations in the 800 MHz band ("Reconfiguration"), including frequency allocations on which Incumbent and Nextel are currently authorized to operate (respectively, the "Incumbent Frequencies" and "Replacement Frequencies").

B. On December 22, 2004, the FCC issued a Supplemental Order and Order on Reconsideration. The August 6, 2004 and December 22, 2004 FCC orders, any binding actions issued by the Transition Administrator pursuant to its delegated authority under the orders ("Actions"), and any supplemental FCC orders in the Reconfiguration proceeding or subsequent Actions after the date of this Agreement, are collectively referred to as the "Order."

C. Pursuant to the Order, Nextel and Incumbent intend to enter into an 800 MHz Frequency Reconfiguration Agreement ("Reconfiguration Agreement") that will define the Parties' respective obligations regarding the Reconfiguration, including without limitation Nextel's obligation to pay for reasonable costs incurred in effecting the Reconfiguration.

AGREEMENT:

1. **Planning Cost**. In order to facilitate negotiation of the Reconfiguration Agreement involving the license(s) for the Incumbent Frequencies granted by the FCC as identified in Schedule A (the "Incumbent Licenses") and in accordance with the work described in the Statement of Work attached to this Agreement as Schedule B, Nextel will pay the cost of the planning activities identified on Schedule C attached hereto ("Planning Cost") in an amount not to exceed the Planning Cost estimate set forth on Schedule C ("Planning Cost Estimate"), as may be amended to reflect any changes in scope pursuant to Section 5. All Planning Costs incurred for internal labor must be consistent with the Transition Administrator Incumbent Labor Rate Reimbursement Policy as set forth at www.800TA.org. The planning activities and deliverables identified in Schedule B will commence upon execution by both Parties of this Agreement ("Agreement Execution") and will be completed no later than one hundred eighty (180) days following Agreement Execution.

2. **Payment Terms**. Nextel will make payments in accordance with the payment terms identified on Schedule C for both payments made directly to Incumbent and payments made on behalf of Incumbent directly to each third party vendor or service provider identified on Schedule C ("Planning Vendor").

3. **Confidentiality**. The terms of this Agreement and any proprietary, non-public information regarding the Incumbent Frequencies, Replacement Frequencies, Nextel's business and Incumbent's business must be kept confidential by the Parties and their employees, shareholders, agents, attorneys and accountants (collectively, "Agents"), which confidentiality will survive final payment

or termination of this Agreement for a period of two (2) years. The Parties may make disclosures as required by law and to the Transition Administrator and to a Planning Vendor [but only to the extent that such disclosure specifically relates to that Planning Vendor's work and costs under this Agreement (as identified on Schedule C)] as required to perform obligations under this Agreement, provided, however, that each Party will cause all of its Agents to honor the provisions of this Section. Nextel, Incumbent and their respective Agents may make disclosures regarding the terms of this Agreement to other public safety licensees and their Agents. Each party involved in such disclosures shall cause all of its Agents to confine the disclosure of the terms of this Agreement to only public safety licensees and will advise the party to whom the disclosure was made, to limit further disclosure to only public safety licensees in accordance with the FCC Order, WT Docket No. 02-55, adopted January 8, 2007. As a State of Florida subdivision, Miami-Dade County is subject to the provisions of Chapter 119 of the Florida Statutes, Public Records. As such, Nextel understands and agrees that Miami Dade County must comply with any requests that are made pursuant to Public Records law, without limitation.

4. **Review Rights**. In order to enable the Transition Administrator to comply with its audit obligations under the Order, Incumbent agrees to maintain records and other supporting evidence related to the costs that Incumbent has expended in connection with planning activities related to the Reconfiguration and that Nextel has paid or will pay to Incumbent pursuant to this Agreement. Incumbent agrees to maintain such records and make them reasonably available to the Transition Administrator for review or reproduction until twenty-four (24) months after Closing, as defined in Section 7, or for a longer period if Incumbent, for its own purposes, retains such records for a longer period of time. As used in this provision, "records" includes books, documents, accounting procedures and practices and other data regardless of type and regardless of whether such items are in written form, in the form of computer data or in any other form.

5. **Changes**. If either Party believes that a change to the planning activities contemplated by the Planning Cost Estimate is required (including changes by Planning Vendors), such Party will promptly notify the other Party in writing. Such written notice (the "Planning Funding Change Notice") shall set forth (i) a description of the scope of the change believed to be necessary and (ii) an estimate of any increase or decrease in the Planning Cost Estimate and in the time required to finish planning for the reconfiguration of Incumbent's existing facilities. A Party receiving a Planning Funding Change Notice shall immediately perform its own analysis of the need for and scope of the change and its impact on the Planning Cost Estimate and schedule and negotiate the change in good faith with the other Party. After the Parties have agreed upon a change to this Agreement, they shall prepare a proposed amendment to this Agreement pursuant to Section 13 and submit to the Transition Administrator a copy of the proposed amendment together with a written request for its approval. Such request shall be accompanied by reasonable documentation supporting the need for and scope of the change and any proposed increase or decrease in the Planning Cost Estimate and in the time required to finish planning for the reconfiguration of Incumbent's existing facilities. Incumbent is responsible for all changes necessary as it relates to work performed by a Planning Vendor on behalf of Incumbent. No change to the Planning Cost Estimate, the planning activities contemplated by the Planning Cost Estimate or the time required to finish planning for the Reconfiguration of Incumbent's existing facilities shall become effective until the Transition Administrator has approved the change in writing and both Parties have signed an amendment incorporating such approved change into this Agreement pursuant to Section 13.

6. **Disputes**. The Parties agree that any dispute related to Nextel's obligation to pay the cost of any planning activities related to the Reconfiguration of Incumbent's system contemplated by this Agreement, which is not resolved by mutual agreement, shall be resolved in accordance with the dispute resolution provisions of the Order, as it may be amended from time to time. In agreeing to abide by the provisions of the Order concerning dispute resolutions, the Parties do not waive any other rights provided by Florida law, should the processes provided by the Order be exhausted without agreement between the Parties for those matters governed solely by state court jurisdiction.

7. **Closing**. The closing ("Closing") of the transactions contemplated by this Agreement will take place after delivery by Incumbent to Nextel of: (i) all receipts, invoices and other documentation required to substantiate the actual costs of the planning activities contemplated by the Planning Cost Estimate ("Actual Planning Costs"), and certification that any Actual Planning Costs incurred for internal labor are consistent with the Transition Administrator policy on Incumbent Labor Rate reimbursement as identified at www.800TA.org; and (ii) a copy of all deliverables required to be delivered pursuant to the Statement of Work. Prior to Closing, Incumbent will submit to Nextel documentation (including without limitation invoices, receipts, and timesheets or equivalent documentation) demonstrating the Actual Planning Costs. Upon receipt by Nextel of documentation of the Actual Planning Costs, Nextel and Incumbent will reconcile the Actual Planning Costs against the payments made by Nextel to Incumbent pursuant to this Agreement and the Parties will agree upon the amount of any additional payments due to Incumbent or any refunds due to Nextel.

8. **Reconciliation**. The effective date of agreement on reconciliation of the Actual Planning Costs and signing of the Closing documents by both Parties is considered the "Planning Funding Reconciliation Date." Any additional payments due to Incumbent from Nextel will be disbursed to Incumbent within thirty (30) days of the Planning Funding Reconciliation Date, provided the additional payments do not result from Actual Planning Costs that exceed the Planning Cost Estimate. Any refunds due to Nextel from Incumbent will be made within thirty (30) days of the Planning Funding Reconciliation Date. In the event Incumbent's Actual Planning Costs exceed the Planning Cost Estimate, Incumbent must submit a Planning Funding Change Notice pursuant to Section 5 of this Agreement describing the change in scope of work that resulted in Incumbent's Actual Planning Costs exceeding the Planning Cost Estimate. Approval of any Planning Funding Change Notice will not be automatic but will be processed in accordance with Section 5 of this Agreement. Additional payments due to Incumbent, which result from an excess of Actual Planning Costs over the Planning Cost Estimate, as agreed on the Planning Funding Reconciliation Date, will be disbursed to Incumbent within thirty (30) days of the Transition Administrator's approval of a Planning Funding Change Notice and execution by both Parties of an amendment incorporating such approved change into this Agreement pursuant to paragraph 13.

9. **Vendor Performance Issues**: Incumbent will select and contract directly with any vendor or service provider performing the planning activities. Neither the Transition Administrator nor Nextel will be responsible for, or assume the risk of any failure of that Planning Vendor to perform its obligations under any contract entered into between Incumbent and such Planning Vendor in connection with this Agreement.

10. **Termination**. This Agreement may be terminated and the transactions contemplated by this Agreement abandoned: (i) by mutual consent of the Parties provided in writing; (ii) for cause by either Party upon material breach of the other Party, following a thirty (30) day period for cure by the breaching Party following written notice of the breach or (iii) by Nextel in the event of any Adverse Decision by any governmental entity of competent jurisdiction affecting the Order. For purposes of this Agreement, an "Adverse Decision" means an order, decree, opinion, report or any other form of decision by a governmental entity of competent jurisdiction that results, in whole or part, in a stay, remand, or reversal of the Order, or otherwise in any revision to the Order that Nextel determines, in its sole discretion, to be adverse to its interests. In the event of termination due to an Adverse Decision, Nextel will pay Incumbent for all costs incurred up to the date of termination.

11. **Notices**: All notices and other communications under this Agreement must be in writing and will be deemed given (i) the same day if delivered personally or sent by facsimile; (ii) the next business day if sent by overnight delivery via a reliable express delivery service; or (iii) after five (5) business days if sent by certified mail, return receipt requested, postage prepaid. All notices are to be delivered to the Parties at the following addresses:

If to Incumbent, to:	If to Nextel, to:
Miami-Dade County Felix Perez, Division Director Radio Communications Services Division Enterprise Technology Services Department 6010 SW 87 Avenue, Miami, Florida, 33173 Phone: (305) 596-8098 Fax: (305) 596-8839 Mobile: (786) 255-8891 E-mail: fap@miamidade.gov	Nextel Operations, Inc. c/o Sprint Nextel Corporation 2000 Edmund Halley Drive Reston, VA 20191 Attn: Heather P. Brown, Esq. Phone: (703) 433-4000 Fax: (703) 433-4483 With a copy that shall not constitute Notice: Sprint Nextel Corporation 6575 The Corners Parkway Norcross, GA 30092 Attn: William M. Jenkins, VP Spectrum Resources Phone: (770) 326-7484 Fax: (678) 405-8252
	And a copy that shall not constitute Notice to: Sprint Nextel Corporation Attn: Rob Easton, Director, Spectrum Development 114 Coronation Circle Bountiful, UT 84010 Fax: (801) 296-6556 Phone: (801) 294-4810

12. **Assignment**: This Agreement is binding upon and inures to the benefit of the Parties and their respective successors and permitted assigns. Either Party may assign this Agreement to any direct or indirect subsidiary or affiliate of the Party, upon delivery of written notice to the other Party.

13. **Amendments:** This Agreement, including without limitation the scope of the planning activities contemplated hereby and the Planning Cost Estimate thereof to be paid by Nextel, may be amended or modified only by a written instrument signed by authorized representatives of both Parties, provided, however, no amendment or modification to this Agreement shall become effective until approved by the Transition Administrator.

14. **Benefits:** This Agreement is for the benefit of the Parties and their successors and permitted assigns, and nothing in this Agreement gives or should be construed to give any legal or equitable rights under this Agreement to any person or entity, other than (i) the successors and assigns of the Parties, and (ii) the Transition Administrator as specifically provided for in Sections 3, 4, 5, 8, 9 and 13.

15. **Miscellaneous**: If any provision(s) of this Agreement is held in whole or part, to be invalid, void or unlawful by any administrative agency or court of competent jurisdiction, then such provision(s) will be deemed severable from the remainder of this Agreement, will in no way affect, impair or invalidate any other provision contained in the Agreement and the Parties will use their

commercially reasonable efforts to amend this Agreement to make the unlawful provision compliant with applicable law so as to preserve the rights and obligations of the Parties. No action taken pursuant to this Agreement should be deemed to constitute a waiver of compliance with any representation, warranty, covenant or agreement contained in this Agreement and will not operate or be construed as a waiver of any subsequent breach, whether of a similar or dissimilar nature. This Agreement, together with the Schedules, constitutes the entire understanding and agreement between the Parties concerning the subject matter of this Agreement, and supersedes all prior oral or written agreements or understandings. This Agreement is governed by the laws of the state of Florida without regard to conflicts of law principles thereof. This Agreement may be executed in one or more counterparts, including by facsimile, which will be effective as original agreements of the Parties executing the counterpart.

In consideration of the mutual consideration set forth herein, this Agreement is effective as a legally binding agreement between the Parties upon execution by the Parties.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

INCUMBENT:	NEXTEL:
Miami-Dade County, Florida	Nextel Operations, Inc.
By:_____	By: _____
Name:	Name:
Title:	Title:

SCHEDULE A

INCUMBENT LICENSE(S) INVOLVED IN PLANNING ACTIVITIES

[redacted]			
WPGD547	WPGD548	WPGD549	WPKI745
WPMP618			

SCHEDULE B

STATEMENT OF WORK

Installation Commencement Timing Activities	
Start Date	***End Date***
Upon Agreement Execution	180 days from Agreement Execution

1.0 System Description

Miami-Dade County operates five (5) internal radio systems that are affected by 800 MHz rebanding. All systems are manufactured by M/A-COM. Four systems are networked together and carry voice traffic. The remaining system is dedicated to wireless data service.

Two of the County's systems (System A and System B) are each comprised of twenty (20) NPSPAC channels operating in EDACS trunked simulcast configurations at seven (7) sites. The systems are overlaid on top of each other as capacity cells in order to achieve the ultimate system capacity required to accommodate more than 27,000 users. Even so, these systems are heavily loaded and nearing the limit of available logical IDs (LIDs). The seven (7) simulcast sites together with two (2) auxiliary receiver sites provide coverage to the population areas of the County.

System C is a single-site, 5-channel trunked EDACS multi-site system. Located on the Miccosukee Reservation, System C operates on NPSPAC channels, primarily as a coverage cell in western Dade County for County users who normally use either System A or System B. Additionally, System C provides localized coverage for the Miccosukee Police Department who depends on it for primary communications.

System D is also a single-site, 5-channel trunked EDACS multi-site system. It also operates on NPSPAC channels, primarily as a capacity cell within a portion of the area served by the System A and System B simulcast systems. System D operates on non-NPSPAC channels.

Systems A through D comprise an integrated trunked voice communications network. These systems are networked together such that calls may be routed across systems to achieve wide-area coverage and capacity. Networking is accomplished through the use of two network switches, which are EDACS Integrated Multi-site Controllers (IMC's). The configuration is such that Systems A and D are attached as multi-site systems to IMC A, while Systems B and C are associated with IMC B. IMC's A and B are then networked to each other through Conventional Interfaces thereby selectively passing traffic among all four systems.

The fifth system is 3-site, 3-channel data system serving Miami-Dade Transit. Channels are distributed among sites to achieve coverage and capacity for the County's various transit routes. Base stations are installed in a redundant configuration to assure high availability for this critical public safety application. The Transit system serves 1,500 buses and 30 people movers.

As adjuncts to its internal systems of communications, the County also operates two additional systems supporting its public safety mission. The first is a mutual aid network consisting of stations operating on the national NPSPAC mutual aid channels. These facilities are distributed countywide to ensure coverage for a mutual aid response. The second support system is a transportable 5-channel trunked system consisting of selected NPSPAC channels from Systems A and B, which may be deployed for special events, critical incidents involving the public safety, or communications restoration in the event of an outage suffered by a primary system of communications.

Only systems A, B, and C, the Transit Data System, transportable trunked system and the NPSPAC mutual aid channels are subject to this RFPF (Wave 3 – NPSPAC). System D is a Lower 120 system and was already considered separately and covered by FRA, Deal No. DL8904419216.

Purpose, Objectives and Scope:

The FCC ordered the reconfiguration of the 800 MHz band to minimize increasing levels of interference to critical public safety communications systems from commercial wireless carriers. Rebanding in Wave 3 impacts the County's communication infrastructure, specifically those licenses currently held by the County.

The following table is derived from an existing County database. The level of accuracy for all of the information in the database (model, features, etc) is unknown, however, the County feels confident that the subscriber count is reasonably accurate.

System Description	
Number of mobile units used for day-to-day communications covered by this RFPF (used to calculate per unit cost); include control stations and SCADA units	9,848
Number of portable units used for day-to-day communications covered by this RFPF	17,715
Number of channels covered by this RFPF (exclude channels not to be reconfigured)	60
Number of sites to be inventoried under this RFPF	10
Number of entities using the 800 MHz system being reconfigured	143

2.0 Frequency Analysis

2.1 Co-channel Analysis (RCC Task)

Since the NPSPAC frequencies are being moved as a block, existing co-channel and adjacent channel relationships will be preserved. RCC will communicate with the NSPAPC Regional Band Plan Manager to determine if any changes to the plan are being made or are being contemplated due to the rebanding of the County or of other 800 MHz licensees (such as might be considered to accommodate Florida Statewide Mutual Aid that is currently operating on 853.3875 MHz). If so, for

additional cost (not included in this RFPF), RCC will review the proposed changes and provide comments and assist the County with filing concurrences or objections to the plan changes.

2.2 Combiner and Receiver Multi-coupler Suitability (M/A-COM Task)

Based on the Infrastructure Inventory proposed at Section 3.1, M/A-COM will report on suitability/comparability of TA-allocated reconfiguration frequencies with respect to their effect on frequency management equipment. Consideration will be given to the complement of existing equipment including transmitter combiners, tower mounted amplifiers, and receiver multi-couplers, as well as the results of the Intermodulation studies to be performed by RCC Consultants and further described at Section 2.3.

2.3 Intermodulation Study (RCC Task)

The County and RCC shall collect the necessary frequency information for sites to be evaluated. This will consist of the proposed replacement channels supplied by the Transition Administrator, County owned non-800 MHz equipment as well as other RF equipment not owned or operated by the County. RCC will perform inter-modulation, transmitter noise, and receiver desensitization studies to identify harmful RF emissions and interactions at each uniquely configured site. RCC will provide a report and recommendation to the County.

A full Intermodulation analysis for the TCC site has been performed as part of the Lower-120 reconfiguration of the County's System D in relationship to the relocated NPSPAC channels. It was agreed during negotiations that half of the cost associated with the frequency analysis will be applied to Stage II and paid for by way of the PFA associated with this Stage II RFPF. RCC will verify that no changes have been made to the system since the frequency analysis. In the event changes have been made that necessitates a new analysis, at an additional cost (not included in this RFPF), RCC will perform the new Intermodulation analysis.

The County's base station receivers are co-located with, or near, other wireless operators' base station transmitters. RCC will perform Intermodulation, transmitter noise/receiver densense analyses with existing frequencies and collated equipment at base station and receiver sites. An IM analysis involves applying a model to an RF inventory at a co-site. Such an IM analysis produces a candidate list of potential IM interference products and their respective IM source frequencies. Such a study is only as good as its underlying model and its input dataset. RCC will assemble input datasets from all reasonably available sources to maximize the usefulness of the model's results. As RCC's model is capable of conducting a TNRD (Transmitter Noise Receiver Desensitization) analysis, that is integral and concurrent with IM analysis, a TNRD co-analysis will be performed.

The County does not have existing IM studies for the sites (except for TCC), and therefore, a *totally new* IM study is required. RCC will utilize all information available, including the FCC's ULS databases, to deduce potential IM source frequencies that might preclude the proper operation of a radio receiver at the protected frequencies. If the outcome of such analyses indicates that the IM interference at the protected frequencies is likely negligible, then the IM analysis will be considered complete and a report will be issued.

If the outcome of this study suggests there is a significant potential for previously unmitigated IM interference at the protected frequencies, RCC will conduct further study and/or consider the deployment of conventional mitigation techniques to reduce the potential IM interference levels comparable with those endured by the radio station before 800 MHz reconfiguration. Conventional mitigation techniques will include filter and isolator placement strategies, appropriate antenna spacing or changing the proposed frequency.

Further study may include assembling a more complete co-site inventory, including actual antenna system geometries, existing filter and isolator arrangements, a site visit(s) with spectrum analyzer tools to verify the existence or non-existence of relevant IM products suggested in the initial analysis. The goal is to separate the actual sources of significant IM interference from the theoretical interference sources and to deduce if they can be eliminated by practical and economical mitigation techniques.

After conducting further data gathering and modeling analysis, the IM study will be considered complete and a report will be issued.

Frequency and Interference Analysis deliverables include:

Deliverables	Estimated Date of Completion
Combiner and Receiver Multi-Coupler Suitability Assessment	180 days following Agreement Execution
Intermodulation Analysis	180 days following Agreement Execution

Internal Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Labor Name
Frequency and Interference Analysis							
Co-channel Analysis							
Combiner Suitability							
Intermodulation Study							
Other Frequency and Interference Analysis							
Total Internal Cost			0				

Vendor Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Vendor Name
Frequency and Interference Analysis							
Co-channel Analysis			1	$160.00	$160.00		*RCC*
Combiner Suitability			40	$175.00	$7,000.00		*M/A-COM*
Intermodulation Study			260.42	$160.00	$41,667.20		*RCC*
Other Frequency and Interference Analysis							
Total Vendor Cost			301.42		$48,827.20		

3.0 System Inventory

3.1 Infrastructure Inventory

The 800 MHz fixed network equipment (FNE) must be audited and current-state suitability assessments made. The assessment includes manufacturer information, software versions, system platform release versions, and hardware configurations.

3.1.1 RCC Inventory Tasks

RCC will perform a detailed inventory of each antenna structure (tower and roof-top) of the County NPSPAC radio system as well as all other collocated radio systems. For the County NPSPAC radio system, RCC's scope will be from the entrance bulkhead to the antenna. This detailed inventory will be provided to M/A-COM for their use in developing the technical portion of the Rebanding Plan and Estimate. For all collocated radio systems, the inventory will include transmitter and receiver, filters/combiners/duplexers/multi-couplers, transmission lines, pre-amplifiers, and antenna systems. RCC will determine equipment filter response curves for the equipment. RCC will audit each antenna structure providing a detailed tower loading diagram, documenting the antenna model, transmission line, antenna height, and mounting orientation. The tower loading information and filter curves will be used to determine the level of antenna system isolation that is required when performing an Intermodulation, transmitter noise, and receiver desensitization analysis. The inventory effort will involve a tower climber to identify the antenna system (antenna and transmission line) location and model. "Dead" antennas and transmission lines that can be removed to assist in the Physical Rebanding Process will be documented. This information will also be used during the Engineering and Implementation Phase to develop the reconfiguration plan.

RCC will inventory any existing ancillary systems that are used to support the 800 MHz system and not the responsibility of M/A-COM and the County to inventory. These ancillary systems are critical to uninterrupted operation of the County systems affected by rebanding and are frequency sensitive:

- Bi-directional amplifier systems
- Distributed indoor antenna systems
- RF over fiber systems
- Other indoor/underground range extension systems

3.1.2 County Inventory Tasks

The County will inventory the microwave infrastructure to collect as-built documentation and verify the microwave system channel plan. This information will be used in the Engineering/Implementation Planning phase in the event additional microwave system capacity is required by the selected Rebanding Methodology. In addition, the County will research and provide the locations of the following systems to RCC to allow RCC to survey and inventory the equipment:

- Bi-directional amplifier systems
- Distributed indoor antenna systems
- RF over fiber systems
- Other indoor/underground range extension systems

3.1.3 M/A-COM Inventory Tasks

M/A-COM will audit the infrastructure sites and develop the infrastructure inventory for their contractual obligations. This will include all of the 800 MHz equipment owned and operated by the County, including all common network equipment that must be assessed for its ability to accommodate software changes associated with rebanding. For antenna systems, M/A-COM will be responsible up to the antenna bulkhead (RCC to provide inventory from bulkhead to antenna to minimize costs and avoid duplication of effort.)

M/A-COM will audit remote sites, control points, and dispatch centers and develop the infrastructure inventory. This will include all of the NPSPAC-band 800 MHz equipment owned and operated by the County including all common network equipment, which must be assessed for their ability to accommodate software/reprogramming changes associated with band reconfiguration. The following equipment and subsystems will be included in M/A-COM's inventory:

- Base stations
- Transmitter combining systems
- Receiver multi-coupler systems
- TAU Radios
- Trunking controllers
- Integrated Multi-site Controllers
- Data network controllers
- Simulcast control equipment
- Spare parts

Also as part of the communications site audit, M/A-COM will inventory the site facilities in the event it is necessary to locate parallel and/or swing equipment as may be needed to ensure minimal disruption to public safety operations. Consideration will be given to available space within equipment shelters, commercial power and distribution, backup power and distribution, and HVAC.

3.2 Subscriber Inventory

3.2.1 County Inventory Tasks

For the purpose of generating the rebanding Cost Estimate during the planning phase, it is impractical for the County to perform a physical inventory of all 27,000+ subscriber devices that operate on the systems to be rebanded. The County has an existing inventory to an unknown level of accuracy. The County has speculated it may be approximately 75% accurate, but cannot provide any surety to the figure. The County's method to perform a subscriber inventory, for the purposes of generating a good-faith rebanding Cost Estimate, is as follows:

1) Utilize an existing County inventory with an unknown level of accuracy

2) Perform a physical inventory of up to 20% of the subscribers in the County inventory. The sample will be spread among the agencies within the County, weighted based upon the number of subscribers assigned to each agency. For instance, if an agency is shown in the inventory to have 200 radios, then the County will perform a physical inventory of 40 radios. The physical inventory will include a radio "read" in order to determine its configuration (memory capacity, programming template, etc.) Subscribers will include:

- Mobile radios and antennas
- Portable radios and antennas
- Vehicular charger/adapter/amplifier/antenna systems
- Vehicular repeater systems (in-band and cross-band)
- Portable or suitcase repeaters
- Mobile Command vehicles
- Alerting Devices
- Control stations
- RF modems
- Bi-Directional Amplifiers

3) From the existing inventory and the results from the sample, the County will generate an estimated inventory for use in generating the rebanding Cost Estimate.

4) The County will also perform a physical inventory of the spare parts the County radio shop maintains for the non-rebandable radios that M/A-COM has indicated will be required to be replaced as part of the rebanding process.

As with all estimates, the exact quantity of radios that will be required to be reprogrammed and replaced will not be known. Furthermore, the County does not know the level accuracy that will result from the inventory plan presented above. It is the County's understanding that the TA policy is that a reasonable effort be made to determine the radio inventory and that 100% accuracy is not required. The County feels that the inventory plan specified above is reasonable, can be implemented during the planning period, and not represent an exorbitant planning phase cost.

The County is not responsible for inventorying the subscriber equipment associated with the integrated voice and data transit communications system (see below).

3.2.2 M/A-COM Inventory Tasks

With assistance from Miami-Dade County only as necessary, M/A-COM will specifically inventory subscriber equipment associated with the integrated voice and data transit communications system. M/A-COM will pay particular attention to the use of full-duplex voice radios as used with the County's People Mover vehicles.

System Inventory deliverables include:

Deliverables	Estimated Date of Completion
Infrastructure Inventory	180 days following Agreement Execution
Subscriber Inventory	180 days following Agreement Execution

Internal Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Labor Name
System Inventory							
Infrastructure Inventory			988	$59.30	$58,588.40		County Staff
Subscriber Inventory			3,868.52	$51.30	$198,455.08	$25,497.45	County Staff
Total Internal Cost			4,856.52		$257,043.48	$25,497.45	

Vendor Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Vendor Name
System Inventory							
RCC Infrastructure Inventory			904	$146.99	$132,878.96	$24,800.00	RCC
M/A-COM Infrastructure Inventory			352	$169.89	$59,801.28	$7,035.00	M/A-COM
Transit Subscriber Inventory			136	$161.76	$21,999.36	$1,407.00	M/A-COM
Total Vendor Cost			1,392		$214,679.60	$33,242.00	

4.0 Engineering/Implementation Planning

Under the FCC Report and Order, the County is entitled to comparable 800 MHz radio communications system performance and capabilities after the system has been rebanded. The only way to ensure that the County has received comparable communications performance and capabilities after rebanding implementation is to develop a detailed baseline from which to measure comparable facilities. To establish a baseline, as a team, the County, RCC, and M/A-Com will:

- Produce an assessment of the infrastructure and user equipment inventory
- Determine the current level of vendor support
- Review system functionality (features, functions, channel / talk group structures)
- Document fixed and mobile interoperability and mutual aid, including quantifying radio interoperability agreements with outside agencies
- Quantify radio coverage performance (coverage reliability and service area)
- Quantify system capacity
- Assess system configuration and redundancy
- Assess system expandability
- Quantify operational functionality including back-up system use and capability

The planning effort will integrate this information to develop a Rebanding Plan with appropriate cut-over and fall-back capability that will provide comparable facilities and avoid more than minimal disruption during the transition, and provide comparable facilities in the reconfigured system, equipment, and operational uses.

4.1 Interoperability Planning

4.1.1 M/A-COM Interoperability Planning Tasks

M/A-COM will provide an equipment specific report defining the capabilities of that equipment to maintain interoperations during the reconfiguration process. Based upon input provided by the County and RCC, M/A-COM will prescribe the methodology

and determine the cost to ensure that the interoperability environment remains operational during the reconfiguration process.

4.1.2 County and RCC Interoperability Planning Tasks

The County and RCC will assess the impact to operations and interoperability capabilities that must be maintained during and after the rebanding process. This operational assessment includes:

- Obtain list of outside agency users that have subscriber units and control stations programmed on the County 800 MHz system.
- Coordinate the rebanding schedule of the County with the schedule of the interoperability partners.

RCC will review County documentation on present interoperability arrangements that must be maintained during and after the rebanding process. These interoperability arrangements may include cross-programming of radios or interconnection of radio systems through networks or interoperability devices. Other data to be collected and documented include:

- Copies of documentation of memoranda of understanding or mutual aid agreements that describe operations and responsibilities
- Subscriber units with other systems programmed
- Roaming subscribers programmed in host system
- Other systems interconnected with host system
- Conventional mutual aid stations or cross-banded equipment

RCC will assist the County in assessing and documenting the requirements to avoid more than minimal disruption of interoperations during the reconfiguration process.

4.2 Site Reconfiguration Planning

4.2.1 M/A-COM Site Reconfiguration Planning Tasks

During the planning process, M/A-COM will meet and coordinate with Miami-Dade County and RCC Consultants to discuss, plan and finalize a reconfiguration plan – the *Rebanding Plan.* A detailed scope of work will be developed identifying the tasks, labor hours, labor rates, reconfiguration milestones, and other data needed to negotiate a Frequency Reconfiguration Agreement with Sprint Nextel.

On a site-by-site basis, M/A-COM will prescribe the technical reconfiguration of the system infrastructure. M/A-COM will differentiate between central site infrastructure and remote site infrastructure. For the former, M/A-COM will describe the tasks and itemize costs associated with reconfiguring central site equipment including control systems and network management systems. For the latter, M/A-COM will describe tasks and itemize costs associated with reconfiguring each repeater site, including base stations and auxiliary receivers, transmitter combiners, receiver multi-couplers, tower

mounted amplifiers, antennas, and transmission lines. Additionally, in planning the reconfiguration, M/A-COM will advise the County of any requirements associated with modifying or expanding the backhaul communications infrastructure. Finally, M/A-COM will prescribe pre-retune and post-retune site/system verification and test to ensure the County that the reconfigured systems are comparable to their originally operating states.

Any temporary reduction in coverage, capacity, or functionality will be carefully coordinated with the County and RCC. Should the County determine that such reduction in facilities creates a significant disruption to County operations, M/A-COM will propose alternative solutions to infrastructure reconfiguration such as special rebanding techniques, swing equipment, or an overlay system.

From the inventory audit, M/A-COM will perform an assessment of the ability of infrastructure sites to accommodate additional equipment. Depending on circumstances, it may be necessary to install additional equipment on a permanent or temporary basis during system reconfiguration in order to provide uninterrupted operation. A critical requirement is the availability of additional space in equipment shelters for base stations, controllers, audio switches, power supplies, transmitter combiners, transmission lines, receiver multi-couplers, and other ancillary equipment. Additional equipment will place additional electrical and heat loads on the shelter infrastructure. M/A-COM will determine whether existing facilities are adequate to support the modifications associated with system reconfiguration. That assessment, those findings, and the analysis thereof will be reflected in the *Rebanding Plan.*

4.2.2 County and RCC Site Reconfiguration Planning Tasks

The County will determine site access arrangements for site modifications and contractor work. At leased sites, leased documents will be reviewed for provisions allowing replacement or addition of equipment at the site. If required by M/A-COM's rebanding plan, RCC will determine the price from the site manager for installation of replacement or swing equipment. At owned sites, RCC will determine if rights-of-way, easements, or zoning approvals allow installation of replacement or swing equipment. RCC will identify the price and/or steps that are required to provide access. This information will be provided to M/A-COM to incorporate into their portion of the Rebanding Plan and Estimate.

4.3 Retune/Reprogram/Replace Determination

4.3.1 M/A-COM Retune/Reprogram/Replace Determination Tasks

M/A-COM will review the complete subscriber inventory as performed by the County and determine the reconfiguration method (retune, reprogram, or replace) appropriate to the specific model of equipment. If radio replacement is required, M/A-COM will specify the model requiring replacement and offer its comparability matrix to assist the County in determining the replacement model. If reconfiguring subscriber equipment requires touching units more than once, M/A-COM will explain the methodology proposed to ensure minimal disruptions to County's operations. M/A-COM's ultimate prescription for system and subscriber reconfiguration will seek to achieve balance among minimal cost, comparability, schedule, and disruption to operations.

For the case of the County's MDR full duplex radios, M/A-COM will develop an

alternative solution to yield acceptable functionality for the People Mover transit application.

4.3.2 RCC Retune/Reprogram/Replace Determination Tasks

RCC will review the inventory of the existing ancillary systems that are used to support the 800 MHz system and not the responsibility of M/A-COM and determine the reconfiguration method (retune, reprogram, replace) appropriate to the specific equipment model.

- Bi-directional amplifier systems
- Distributed indoor antenna systems
- RF over fiber systems
- Other indoor/underground range extension systems

4.4 Comparability Analysis

Two types of comparability analyses will be performed during the planning and implementation phases and are categorized as theoretical/predictive and measured analyses. Both are used to develop appropriate comparability determination.

Theoretical and predictive analyses are completed in the planning phase. Measured analysis will be performed in the implementation phase, though planning for the measured analysis will be performed in the planning phase.

4.4.1 System Capacity (M/A-COM)

M/A-COM will produce operating statistics reports of the 800 MHz system. M/A-COM will review the reports to determine the utilization of the system and its ability to support the offered traffic under varying conditions. This analysis is intended to determine if any or some channels can be taken off-line for retuning without creating a risk of disruption of the County operations. The effect of taking these channels out of service will necessarily be to reduce the capacity of the affected radio system and such reduction in capacity may be unacceptable to the County and will necessitate a rebanding plan that prevents such disruption of operations. M/A-COM will review the channels available to the County to determine if some or all of them may be used to produce additional capacity or to service in a "swing" capacity during the rebanding process.

4.4.2 Measured Baseline Analyses Planning

To help ensure that the County receives "comparable facilities" following rebanding, M/A-COM will conduct a critical "before" and "after" comparison of the system coverage. This baseline is essential to protection of the County's interest in the even the result of the Physical Rebanding Process has degraded performance of the County's 800 MHz radio systems.

Given signal and noise floor as the "root cause" of rebanding the public safety spectrum, it is appropriate to develop comparability testing of these parameters following methods that are used in both mitigation techniques and how, absent rebanding, a public safety licensee would go about planning and testing if they were to add or modify their own

spectrum allocation.

4.4.2.1 Plan for Fixed Site Signal and Noise Floor Measurements (M/A-COM)

To provide a baseline of site interference conditions before the Physical Rebanding Process, M/A-COM will develop a plan to perform noise floor comparability measurements at the County base station and receiver sites that are employed in the County's existing system. These measurements are intended (a) to provide documentation of the conditions at the site for comparison before and after the Physical Rebanding Process and (b) to serve as a point of reference for existing interference conditions. The actual tests will be performed during the implementation phase of the project.

The criteria for the test plan will be set by the County and RCC.

4.4.2.2 Determine Locations of Existing Sprint-Nextel Interference (RCC and County)

The County will develop a list of locations known by the County that interference from Sprint-Nextel antenna sites exists.

RCC will develop a list of potential interference sites based upon a thorough analysis of Sprint Nextel antenna sites.

4.4.2.3 Plan for Additional Site Signal and Noise Floor Measurements (M/A-COM)

M/A-COM will develop a plan to conduct additional signal and noise floor measurements at locations that have been previously identified as potential interference zones either by the County or RCC. These measurements are intended (a) to provide documentation of the conditions at the site for comparison before and after the Physical Rebanding Process and (b) to serve as a point of reference for existing interference conditions. The actual tests will be performed during the implementation phase of the project.

The criteria for the test plan will be set by the County and RCC.

4.4.2.4 Plan for Drive Test Measurements (M/A-COM)

M/A-COM will develop a plan to conduct drive test to cover a minimum amount of testing to ensure that all rebanded channels are operating to end user agency requirements.

The criteria for the test plan will be set by the County and RCC.

4.4.2.5 Plan for Audio Quality Comparability Tests (M/A-COM)

M/A-COM will develop a plan to conduct "before" and "after" Circuit Merit / Delivered Audio Quality comparability measurements to cover a minimum amount of testing to ensure that all rebanded channels are operating to end user agency requirements.

The criteria for the test plan will be set by the County and RCC.

4.5 Transition Planning

The integrated Rebanding Plan prepared by RCC will expand the M/A-COM equipment specific reports and include an analysis of various methods that could be employed to effect the physical rebanding of the County's radio system and the effect of those methods upon (a) the magnitude of risks to the continued operations of the radio system, including loss of availability, capacity, and functionality and (b) the probability of assuring comparable facilities after the implementation of the Rebanding Plan.

RCC will recommend for the Rebanding Plan those methods to effect the physical rebanding of the County's radio system which (a) properly address the risks of the Physical Rebanding Process to the continued uninterrupted operation of the County's radio system, including loss of availability, capacity, and functionality, (b) properly assure that comparable facilities will be available to the client after the implementation of the Rebanding Plan, and (c), subject to (a) and (b) are those that can be implemented most cost-effectively.

4.5.1 Operational Review

RCC will conduct an operational review of the County's radio system as a critical element in the development of the Rebanding Plan. In this operational review, information is gathered that will be factored into the risk assessment with respect to the Physical Rebanding Process and will be used in the development of the objectives and strategy for the Physical Rebanding Process and of the Rebanding Plan. An operational review will also contribute to the hazard assessment that also needs to be developed in conjunction with the risk assessment.

The Physical Rebanding Process will require changes that will affect the operations of the County 800 MHz radio communications systems used by public safety and/or public services. RCC will assist County in the following activities:

Develop an operating baseline of the communications processes and procedures followed by County:

- Use of the radio network for dispatch and coordination purposes
- Use of the radio network for mutual aid and cross boundary interoperation
- Use of the system during natural and manmade disasters or civil unrest
- Document operating procedures for maintenance and upgrades of the network and strategies used to minimize interruption of service
- Develop operational metrics for the rebanding process
- Essential functionality of the radio network that must be maintained
- Management of risk in relation to the operation of the radio network
- Network availability target for no more than minimal disruption of operations
- Develop a logistical plan for the reconfiguration of subscriber units

4.5.1.1 Work Sessions Between RCC, County, and County Agencies for

Operations, Logistics, and Disruptions

RCC will interview relevant County personnel to gain a current understanding of the operation of the County radio system and all systems connected with it or dependent thereupon. This assessment will be used in the preparation of the risk assessment and hazard assessment for the Physical Rebanding Process and to develop a set of decision rules that will form the basis of setting tolerable disruptions and comparability with respect to the operational aspects.

The initial interviews will focus on the operational impact of the radio communications system and identify tolerable interruption of service that might occur during the Physical Rebanding Process. Information collected in the interviews will be used in the development of the Rebanding Plan.

Follow-up interviews will present the cutover methodology and plan approaches focusing upon the acceptable impact and disruption to the users.

-Identify user agencies and talk-group programming-

RCC will review the relevant client documentation concerning the agencies that use County radio system and the existing talk-group matrix. This information will be used in the development of the Rebanding Plan. Key personnel contacts at those agencies will be identified for use in connection with the implementation of the rebanding Plan. These user agencies will be asked to nominate a point of contact to participate in the development of the Rebanding Plan.

-Determine programming conventions for radios-

RCC will review the templates and other relevant client documentation to determine the programming conventions used in County radio system and determine in consultation between RCC and the County team if those conventions should be employed in the Physical Rebanding Process.

-Policies on system maintenance and interruption of service-

RCC will review County policies on system maintenance and any interruption of service that may occur during such routine or emergency maintenance. These policies will be used in the development of both (a) the risk analysis and (b) the Rebanding Plan.

-Decision Rules-

RCC will develop a set of decision rules to use as the guidelines to develop integrated cutover plans acceptable and to expedite the final review and approval of the integrated rebanding plan by the using agencies.

4.5.1.2 Operational Risk and Hazard Assessment

In preparation of the Rebanding Plan, RCC will identify and analyze, among other risks, those risks inherent in the Physical Rebanding Process that could have an adverse effect upon the availability, capacity, or functionality of a

licensee's 800 MHz radio system and which may interrupt the operations of the County.

M/A-Com will provide the technical capabilities of the equipment reconfiguration.

RCC and the County will review and integrate the impact of, event, timing, and other risks associated with the Physical Rebanding Process. In the development of the integrated Rebanding Plan, RCC will recommend steps to mitigate these risks in the recommended methodology.

Issues that will be addressed in the Risk Analysis include:

- Protection of users' ability to utilize system during the physical rebanding process.
- Potential single points of failure and other sources of risk that must be protected against.
- Availability or creation of a retreat path in the event of failure during the rebanding process

RCC will consider the effects of the Rebanding Process on each user agency of the County's system(s) and will incorporate the input of these users into the development of the Rebanding Plan. This work addresses the operational aspect of rebanding as opposed to the technical aspects that will be addressed by M/A-Com.

In conjunction with the preparation of the Rebanding Plan, RCC will conduct a hazard assessment that addresses "Event Risk". Event Risk relates to the possibility that while the County radio system(s) is compromised in the Physical Rebanding Process through the disablement of sites, channels, or other functionality and an event then occurs that requires response by emergency first responders. Such events include response to hazards whose presence and risk to the public safety are known to the public safety community and for which response plans are in place. An Event Risk can vary from location to location and may include terrorist acts, natural hazards, industrial facilities, petrochemical facilities, transportation facilities, or other facilities that are critical to the daily functioning of the region served by the County's radio system.

In such an event there is the possibility that the performance of the County's statutory responsibilities for public safety will be negatively affected by reduced communications system functionality and as a result loss of life or injury may occur and claims may be made against the County.

RCC will work with the County team to identify and assess the nature, frequency, and seriousness of the emergency situations that may arise and for which the County's radio system must support a response. The hazard assessment will be combined with the risk assessment in order to consider the consequences of these risks that may affect public safety response. These inputs will be used to develop a rebanding methodology that minimizes Event Risk.

4.5.2 Cutover Plan Analysis - Recommendation of Methodology

The cutover plan is comprised of the technical steps recommended by M/A-Com and expanded by the County and RCC to incorporate ancillary equipment and systems that are not the responsibility of M/A-Com and the decision rules from the operational methodology that will be implemented by the County to ensure that operations avoid more than minimal disruptions. The cutover plan integrates the methodologies into a step-by-step process that addresses the vital system components of the fixed infrastructure, the subscriber units and radio control stations, and the interface with the communications center equipment. Permutations of the rebanding methodology that integrate operational requirements with the technical equipment capabilities include:

- Reprogram or modify subscriber units where such work can be done with minimal disruption of client operations, replace equipment as necessary

- Obtain a swing fleet of subscriber units to be programmed with the new frequency plan and talk groups to issue to users; collect existing subscriber units for reprogramming or replacement as determined by the Rebanding Plan developed in conjunction with the County and M/A-Com.

- Reprogram fixed infrastructure where such work is practical, replace equipment as necessary

- Build a full or partial overlay infrastructure where the rebanding involves a complex system or a simulcast radio system with multiple sites and a significant number of channel changes that cannot be accomplished without significant disruption of services.

- Develop an equipment, site and system switchover methodology for the communications center console electronics and other controllers that will allow uninterrupted operation during cutover.

4.5.3 Develop the Integrated Rebanding Plan and Estimate

In conjunction with the other rebanding team members from the County and M/A-Com, RCC will develop the integrated Rebanding Plan which will contain details of the implementation of the Physical Rebanding Process and lay out the steps to be taken therein. This document represents the integration of the technical tasks performed by, or to be performed by the contractors and the processes to be followed by the County and other stakeholders in the project. RCC serves as the consultant to integrate these processes by taking the technical recommendations of equipment from M/A-Com and applying the operational review for County acceptance.

The development of the Rebanding Plan will be coordinated with M/A-Com and other manufacturers of the equipment to be rebanded. The Rebanding Plan will reflect the objectives of the County with respect to the management of risk adopted by County.

The Rebanding Plan is a major element of the submission to the TA in the Commercial Rebanding Process. The cost of implementing the Rebanding Plan is also one of the principal inputs to the Rebanding Estimate, which is another major element of the submission to the TA in the Commercial Rebanding Process.

RCC will develop with M/A-Com and County input, the budget for the reconfiguration of the County 800 MHz radio communications system. This estimate will include labor, services, and/or equipment that are needed to accomplish the reconfiguration in accordance with the methodology selected in the Rebanding Plan. Items that are contemplated to be included in the Rebanding Estimate include:

4.5.3.1 Internal County Costs

RCC will work with the County team to identify internal costs incurred in connection with either the Physical Rebanding Process or the Commercial Rebanding Process that must be tracked in order to seek reimbursement from Sprint-Nextel by way of the Rebanding Estimate. These costs may include:

- Pro rata salary and fixed costs of the County project management staff
- Pro rata salary and fixed costs of the County technical staff assigned to the rebanding process
- Pro rata salaries and fixed costs for personnel involved in transporting, removing, installing, testing, reprogramming, re-installing, trouble shooting, delivery, training, scheduling reprogramming of subscriber units.
- Pro rata salaries and fixed costs for financial and accounting personnel who are assigned to tracking costs
- Pro rata salaries and fixed costs for personnel assigned to inventory management costs
- Pro rata salaries and fixed costs for County legal personnel assigned to review agreements and assist in negotiations
- Pro rata salaries and fixed costs for supervisory personnel responsible for planning and coordinating the various departmental and user agency resources
- Out of pocket costs for inventory tracking software or modules, inventory tags
- Salary and fixed costs, including overtime, of user agency personnel who must be trained or who are required to take other steps to accommodate the rebanding process
- Excess operating costs due to the reconfigured system

4.5.3.2 External County Costs

RCC will assist the County team in documenting external costs to be incurred in connection with the Rebanding Process. External costs include all replacement, temporary and modified equipment costs along with the related services. Additional costs may include, but are not limited to:

- Consulting and engineering fees

- Temporary labor
- Tower inspection and structural analysis
- Tower reinforcement or replacement
- Equipment shelter design, modification
- Permitting fees
- Power supply modification
- Equipment removal
- Equipment installation
- Frequency coordination fees
- Legal fees
- Accounting fees
- Software
- Equipment purchases
- Excess operating cost
- Equipment installation and testing services
- Radio frequency interference studies
- Coverage and acceptance testing
- Equipment or materials disposal
- Radio programming costs
- Equipment rental
- Rental vehicles
- Antenna installation contractors
- Supplemental insurance coverage

4.5.3.3 <u>Legal Services</u>

Internal and external legal services may be needed in connection with the Physical Rebanding Process (contract negotiations and drafting of documents, land use issues, etc.) and in connection with the Commercial Rebanding Process (support of development of a submission to the TA, negotiations with

Sprint-Nextel, contract drafting, and, in the absence of an agreement with Sprint-Nextel, legal proceedings to determine the matter of cost recovery).

4.5.3.4 Antenna Site Leases and Rights of Way

At leased antenna sites a modification of the site license or lease may be required to permit the installation of new antenna systems and transmission lines associated with the rebanding process. This may result in a temporary or permanent increase in the antenna site rent. There also may be a requirement for negotiation of a new site lease that will require external or internal legal services. These factors could lead to changes in operating costs that will be included in the Rebanding Estimate.

4.5.3.5 Antenna Site Planning and Zoning Approvals for New Antenna Installations

At some antenna sites it may be necessary to seek planning or zoning approvals for installation of additional antennas and transmission lines. In these cases it may be necessary for County to incur application fees, professional services such as engineering or legal, and staff time to present the application to the appropriate authority. RCC will, as an option, assist County in this process to obtain the needed variances or conditional use permits to allow the installation of the equipment. These costs will be included in the Rebanding Estimate.

4.5.3.6 End User Training Programs

If substantial changes are required to a radio system to accommodate rebanding, it is likely that training programs will be needed for operational and maintenance personnel. End users, such as police, fire, EMS, for which radio equipment is changed, may also require in-service training. Costs associated with the development of a training program, training materials, and travel expenses must be tracked and should be part of the Rebanding Estimate. Training costs may also include internal costs for salaries and overtime for the attendees. Those costs must also be included in the Rebanding Estimate.

4.5.3.7 System Operations and Maintenance Training

If substantial changes are made to the County's radio system to accommodate rebanding, training on system management and maintenance functions are likely to be required. The County system manager and radio maintenance personnel may need to attend training programs on the new equipment or systems. Likewise, training on radio reprogramming or modification may also be needed to accommodate the rebanding changes. Travel expenses may be incurred for this type of training. All of these costs must be tracked and made a part of the Rebanding Estimate.

Engineering/Implementation Planning deliverables include:

The Rebanding Plan and Estimate is listed as a deliverable under Project Management

Deliverables	Estimated Date of Completion
Interoperability Assessment	180 days following Agreement Execution

Site Reconfiguration Assessment	180 days following Agreement Execution
Retune/Reprogram/Replace Determination	180 days following Agreement Execution
Comparability Analysis and Planning	180 days following Agreement Execution
Operational Risk and Hazard Assessment	180 days following Agreement Execution
Cutover Plan Analysis	180 days following Agreement Execution

Internal Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Labor Name
Engineering/ Implementation Planning							
Interoperability Planning			135	$94.98	$12,822.30		*County Staff*
Site Reconfiguration Planning			68	$96.15	$6,538.20		*County Staff*
Retune/Reprogram/ Replace Determination							
Comparability			200	$59.01	$11,802.00		*County Staff*
Transition Planning			1,370	$85.63	$117,313.10		*County Staff*
Total Internal Cost			1,773		$148,475.60		

Vendor Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Vendor Name
Engineering/ Implementation Planning							
RCC Interoperability Planning			56	$200.00	$11,200.00	$2,024.00	*RCC*
M/A-COM Interoperability Planning			80	$175.00	$14,000.00		*M/A-COM*
RCC Site Reconfiguration Planning			34	$200.00	$6,800.00		*RCC*
M/A-COM Site Reconfiguration Planning			632	$170.82	$107,958.24	*$10,050.00*	*M/A-COM*
RCC Retune/Reprogram/ Replace Determination			40	$180.00	$7,200.00		*RCC*
M/A-COM Retune/Reprogram/ Replace Determination			32	$175.00	$5,600.00		*M/A-COM*
RCC Comparability			12	$166.67	$2,000.04		*RCC*
M/A-COM Comparability			40	$175.00	$7,000.00		*M/A-COM*
RCC Transition Planning			208	$189.42	$39,399.36	*$8,096.00*	*RCC*
M/A-COM Transition Planning			192	$172.50	$33,120.00		*M/A-COM*
Total Vendor Cost			1,326		$234,277.64	$20,170.00	

5.0 Legal Costs (Limited to attorney's fees, no project management costs)

The Commercial Rebanding Process includes preparation of required submissions, the negotiation of an agreement with Sprint-Nextel on its bearing the costs of both the Planning and Implementation of the Physical Rebanding Process.

In the development of the Rebanding Plan, a Planning Funds Agreement will be required. If agreement on cost-bearing of Rebanding Plan Development is reached with Sprint-Nextel, a written contract reflecting that agreement will be prepared. In the absence of such agreement, additional submissions will need to be prepared in connection with any follow-on mediation, arbitration, or proceeding before the FCC, or appeals to the federal court system. These matters will require participation from County legal counsel.

Both in-house and external legal resources will be assigned to perform services related to the negotiation of Planning Funding Agreement, the Frequency Reconfiguration Agreement, and other support tasks through Alternative Dispute Resolution.

5.1 PFA Legal Advice

5.1.1 County PFA Legal Advice

The County internal legal staff shall review the FCC Report and Order, provide legal advice and support for the project and assist in developing all contracts for external support and agreements with Sprint Nextel.

5.1.2 RCC PFA Legal Advice

RCC will work with the County internal and external legal team to identify the nature and substance of the legal support that will be needed in connection with (a) the Commercial Rebanding and (b) in connection with the Physical Rebanding Process. RCC will provide technical support to the County internal and external legal staff as they require. The work performed by the outside law firm will be independent of the work performed by RCC.

5.2 PFA Negotiations

This Request for Planning Funding is in compliance with the TA's Fast Track Planning Funding Process. Therefore, negotiations for the PFA are not anticipated to be required and are therefore not included.

5.3 PFA Contract Review

The County internal legal staff will perform a contract review of the PFA.

5.4 FRA Legal Advice

5.4.1 County FRA Legal Advice

The County internal legal staff will provide legal advice and support for the project and assist in developing all contracts for external support and agreements with Sprint Nextel. Actual time and expenses incurred will be submitted for inclusion into a negotiated FRA.

5.4.2 RCC FRA Legal Advice

RCC will provide support to the County internal and external legal staff as they require. Work performed by RCC will not be duplicative of work performed by the external law firm. Actual time and expenses incurred will be submitted for inclusion into a negotiated FRA.

5.4.3 External FRA Legal Advice

An outside law firm will provide support to the County internal and external legal staff as they require. Work performed by RCC will not be duplicative of work performed by the external law firm. Actual time and expenses incurred will be submitted for inclusion into a negotiated FRA.

5.5 FRA Negotiations (optional)

The County, RCC, and external legal staff will participate in negotiations of an FRA. Actual time and expenses incurred will be submitted for inclusion into a negotiated FRA.

5.6 FRA Contract Review (optional)

The County, RCC, and external legal staff will perform a contract review of the FRA. Actual time and expenses incurred will be submitted for inclusion into a negotiated FRA.

Internal Labor Table - PFA

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Labor Name
Legal (PFA)							
PFA Legal Advice			8	$127.51	$1,020.08		*County Legal Staff*
PFA Negotiations							
PFA Contract Review			32	$96.36	$3,083.52		*County Legal Staff*
Total Internal Cost			40		$4,103.60		

Vendor Labor Table - PFA

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Vendor Name
Legal (PFA)							
PFA Legal Advice			8	$250.00	$2,000.00		*RCC*
PFA Negotiations							
PFA Contract Review			2	$200.00	$400.00		*RCC*
Total Vendor Cost			10		$2,400.00		

Internal Labor Table - FRA

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Labor Name
Legal (FRA)							
FRA Legal Advice							
FRA Negotiations							
FRA Contract Review							
Total Internal Cost			0				

Vendor Labor Table - FRA

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Vendor Name
Legal (FRA)							
RCC FRA Legal Advice							
External FRA Legal Advice							
RCC FRA Negotiations							
External FRA Negotiations							
RCC FRA Contract Review							
External FRA Contract Review							
Total Vendor Cost			0				

6.0 Project Management

6.1 Planning Support

6.1.1 M/A-COM Planning Support Tasks

M/A-COM's project manager (PM) will participate in periodic status meetings and coordinate personnel and equipment resources for on-site efforts. The PM will oversee M/A-COM's activity throughout the planning process. The PM will be responsible to schedule and coordinate all M/A-COM work, including negotiations support, provide general project team guidance, and ensure schedule adherence.

6.1.2 RCC and County Planning Support Tasks

6.1.2.1 Project Team Meetings

Project team meetings will be held throughout the Planning phase of the project in order to support the development, integration and finalization of the Rebanding Plan and the Rebanding Estimate. The Reconfiguration Plan and Estimate will support the negotiation of a Frequency Reconfiguration Agreement (FRA) with Sprint Nextel. Attendees of these meetings will include the representatives of the County, M/A-Com, and RCC Teams as are required for the subject matter to be covered.

The Initial Project Meeting will precede the commencement of work and shall have as its central purposes:

- finalization of the details of the scope of work
- identification of the personnel of the County with responsibilities for the 800 MHz rebanding process (the "County team") and the clarification of the roles of the members of the County team
- the identification of the RCC personnel to be responsible for the 800 MHz rebanding process as it affects the client (the "RCC team") and the clarification of the roles of the members of RCC

- the identification of the M/A-Com personnel to be assigned to the Physical Rebanding of the 800 MHz radio communications system(s) and the roles of those persons

Other meetings such as agency operational inputs and reviews, technical reviews as well as briefings and updates to County management will be conducted as required to assure the various sponsors, stakeholders and agencies are appropriately advised, review and approvals can be obtained.

6.1.2.2 Develop Unified Project Schedule

RCC will develop a work breakdown structure that reflects the activities of the various Rebanding Team members for the various detailed tasks required to carry out the project. This work breakdown structure will be the basis for the Tentative Project Schedule and will include all of the tasks to be completed by each member of the rebanding team, which includes:

- County Team
- Internal Legal Support
- External Legal Support
- M/A-Com Team
- RCC Team

RCC will develop a tentative schedule for the Project to be presented to the Client Team (the "Tentative Project Schedule").

The Tentative Project Schedule will be prepared using Microsoft Project and will be based on the work breakdown structure established for the Project and which incorporates submissions by M/A-Com and County.

The duration of the Project will be estimated on the basis of the work to be performed and the schedule established for the 800 MHz rebanding process by the Transition Administrator (the "TA") and the Federal Communications Commission (the "FCC"). The Tentative Project Schedule may be modified at any time and from time to time as the Project progresses to take into account all matters that develop which have an effect upon the duration of the Project.

The Tentative Project Schedule will be affected by matters concerning (a) the planning and implementation of the physical rebanding of the County 800 MHz facilities (the "Physical Rebanding Process"). Such matters may include, but not be limited to, the methodologies determined to be necessary for the Physical Rebanding Process, the availability of required equipment, the necessity, if any, of coordinating the Physical Rebanding Process with the physical rebanding of the 800 MHz facilities of other licensees with whom County interoperates, and the suitability of the new channels assigned to the County by the TA.

And (b) the conduct of the process to determine the costs of the 800 MHz rebanding process to be borne by Sprint-Nextel (the "Commercial Rebanding

Process"), including, but not limited to the nature and scope of the submissions to the TA determined to be necessary, the response of the TA and Sprint-Nextel to those submissions, the time necessary to reach, if possible, an agreement with Nextel on the costs of the 800 MHz rebanding process to be borne by Sprint-Nextel, and the nature and pace of the legal processes to be followed in the absence of an agreement with Sprint-Nextel on the costs of the 800 MHz rebanding process to be borne by Sprint-Nextel.

Accordingly, modifications will be made to the Project Schedule based on actual conditions and circumstances that arise as the Project progresses.

M/A-Com will provide a planning schedule to address internal staff and deliverables. Elements will be combined with the County schedule to develop an overall as appropriate for the planning phase.

6.1.2.3 Establish Internal Project Team Responsibilities

The reconfiguration team is critical to the pre-planning process (developing a Request for Planning Funding), the planning process as well as defining the elements of the Request for Planning Funding and Frequency relocation agreements. The County team will include operational, administrative, financial, and legal personnel. The roles of the County team are described as follows:

6.1.2.3.1 Rebanding Project Manager

The County team includes a general manager for the Project ("County Project Manager") who shall be responsible for the overall management of the activities of the County team members, RCC and the M/A-COM team.

The County Project Manager shall be the single point of contact between the leader of RCC ("RCC Leader") and the project manager of M/A-COM, and other project stakeholders.

The County Project Manager shall work closely with RCC Leader and the M/A-Com Project Manager to maintain the Tentative Project Schedule and the budget for the Project (the "Project Budget") and to provide access to other County resources during the progress of the Project.

6.1.2.3.2 Availability of County Resources

The responsibilities of the members of the County team for the rebanding process shall be identified. In addition, personnel within the County organization who are not members of the reconfiguration team, but who have information, knowledge, or expertise relevant to the Project will also be identified.

6.1.2.3.3 Purchasing

The Pre-planning (procure services and develop the Request For Planning Funding and subsequent Planning Funding Agreement),

and the Planning Process (leading to the execution of a Frequency Relocation Agreement) will require the involvement of the County Purchasing Department.

Equipment and/or services will need to be procured for both the Pre-planning and Planning processes, and procurement efforts will require expediting to meet the Tentative Project Schedule.

6.1.2.3.4 Accounting

All costs associated with Pre-planning and Planning processes will be tracked, documented, and supported and included in the "Rebanding Estimate" which is a critical element of the submissions to be made in the Planning Funding and Frequency relocation Agreements. These agreements, the Rebanding Plan and the Rebanding Estimate, which includes all claims of the County for reimbursement by Sprint Nextel will be reviewed by the TA.

The County will assign personnel to establish an accounting process that will allow the tracking of the following costs:

- Payroll and benefit costs (including overtime costs) for County or user group personnel that perform tasks associated with either Pre-planning, Planning, Implementation, negotiation and contract execution processes. As an example, this includes the payroll and benefits costs associated with personnel who must take vehicles or radios to a depot or other location for retuning and/or modification.

- Equipment, supplies, and materials used in the Physical Rebanding Planning and Implementation process.

- Travel expenses related to local and long distance travel such as approved rebanding training activities.

- Mileage costs for client vehicles for inventory and operations reviews and that must be shuttled for radio installation or de-installation and modification.

- Services including consultants, contractors, service providers, internal and external legal support.

- Increased costs of antenna site leases (and the negotiation thereof) or access fees that result from reconfiguration of the 800 MHz system(s).

- Administrative costs, such as for production, duplication, supplies, and services.

- Regulatory filing costs for frequency coordination or license fees.

RCC will work with the County team to identify the nature and substance of the financial and accounting support that will be needed to provide the level of documentation required to support the Rebanding Estimate. That work will also extend to the collection of third-party data (vendor proposals, etc.) necessary to be including in the financial and accounting management required to develop and support the Rebanding Estimate.

6.1.2.3.5 Agency Operations and Maintenance Personnel

County operations, user agencies, and maintenance personnel will be involved in the provision of information and guidance in the development of the Rebanding Plan and Estimate. Operations and maintenance personnel will assist in the gathering of inventory information, documentation of the radio communications system configuration, records regarding system maintenance policies, traffic data (needed to abstract the system utilization on a historic basis), and other historical operational data. They will provide data for input to and review of the logistics impact of the plan and cost estimates.

6.1.2.3.6 RCC Planning Support

The County is the integrator, licensee and owner-operator. The County delegates specific tasks and activities to RCC in connection with technical review and recommendations and operational assessments, impact and recommendations.

RCC project staff coordination responsibilities provide and supervision and oversight for their staff and is not to be interpreted as coordination and oversight of the County or other contractors.

The County will provide operations impact review and acceptance and the County will develop logistics support resulting in development of the integrated rebanding Plan and Estimate.

RCC acts as a technical and operational integration support for the County. This includes providing technical input to M/A-Com, reviewing and assessing M/A-Com deliverables. RCC will apply the County operation and logistic requirements to develop the integrated Rebanding Plan and Estimate.

6.1.3 Prepare Request for Planning Funding (RFPF)

RCC and the County will develop Pre-Planning Funding Request data and information that will be provided to the County as part of the planning phase.

RCC will assist the County with estimation for their own staff and develop the applications and forms for the planning funding request. RCC will incorporate the estimates provided by each of the contractors and the County for submission to Sprint Nextel and the TA along with a completed TA Request for Planning Funding Forms. The application for planning funding will include cost estimates for planning work to be performed by the following entities:

- County staff - Radio shop, User Agencies, and County Project Management
- Internal legal support
- External legal support
- RCC Consultants, Inc. staff and resources
- M/A-Com planning support
- Other contractor staff and resources - equipment, service and maintenance providers

The County will review the completed RFPF application and supporting documentation. The County will then review the application and the process with Management and the Legal Department before submitting the application to Sprint Nextel.

6.2 Negotiations Support

6.2.1 Negotiate Planning Funding Agreement (PFA)

RFPF is being submitted as a Fast-Track Application and therefore negotiation of Planning Funding Agreement does not apply.

6.2.2 Negotiate Frequency Relocation Agreement (FRA)

At this time, the County, RCC, and M/A-COM are unable to accurately estimate how much time will be required to negotiate a satisfactory Frequency Relocation Agreement (FRA) with Sprint Nextel. A basic amount of time has been allocated for this task assuming a reasonable and expedited effort. Actual time and expenses incurred will be submitted along with the Rebanding Plan and the Rebanding Estimate upon completion of the negotiation of the Frequency Relocation Agreement (FRA).

In the event a Planning Funding agreement(s) are not reached, the County, RCC, and M/A-COM will track actual time and expenses related to this activity.

Project Management deliverables include:

Deliverables	Estimated Date of Completion
RFPF Document	180 days following Agreement Execution
Rebanding Plan and Estimate	180 days following Agreement Execution

Internal Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Labor Name
Project Management							
Planning Support			602	$84.97	$51,151.94		*County Staff*
Negotiations Support			240	$100.33	$24,079.20		*County Staff*
Total Internal Cost			842		$75,231.14		

Vendor Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses*	Vendor Name
Project Management							
RCC Planning Support			478	$205.45	$98,205.10	$4,075.00	*RCC*
M/A-COM Planning Support			152	$164.74	$25,040.48	$2,211.00	*M/A-COM*
RCC FRA Negotiations Support*			152	$210.53	$32,000.56	$3,318.00	*RCC*
M/A-COM FRA Negotiations Support			280	$172.86	$48,400.80	$7,035.00	*M/A-COM*
Total Vendor Cost			1,062		$203,646.94	$16,639.00	

7.0 Other

7.1 Other Frequency and Interference Analysis (RCC Task)

To the knowledge of County, RCC, and M/A-COM, neither the TA nor the FCC has responded to requests as to how the recognized Channel 69 interference issue will be addressed. The County, RCC, and M/A-Com strongly feels that it is prudent to incorporate into the Rebanding Plan any detrimental affects that the existing WAMI-TV Channel 69 TV station transmitter may have upon the site noise at the County sites. To analyze the affects of the interference after the rebanding plan and estimate have been completed, negotiated, and contracted is wasteful and is counter to the directive of the FCC that the rebanding shall be performed for the minimal necessary cost necessary.

Because of known occurrences of channel 69 television interference to existing lower 120 channel frequency assignments, RCC will investigate the impact of WAMI-TV channel 69 interference in the new NPSPAC band of 806 to 810 MHz. RCC will measure channel 69 aural, visual, and out of band emissions (OOBE) from at least two typical receiver sites including one rooftop, using typical tower mount pre-amplifiers. RCC will meet with WAMI-TV engineering department and discuss the results of the field measurements. With permission of WAMI-TV, RCC will measure aural, visual, and OOBE directly from WAMI-TV's transmitter directional sampling coupler. RCC will quantify the station's ERP and level of OOBE relative to carrier levels. RCC will identify any parameters exceeding FCC levels. RCC will determine the impact of TV 69 on the reconfigured NPSPAC receivers. RCC will deliver a report with findings and recommendations.

7.2 Contingent Site Survey for Installation of New Facilities

If the rebanding methodology selected by the County involves the installation of additional and/or temporary facilities (e.g. new shelter, replacement tower) inside a site's compound, it is necessary to perform a survey of adequate detail to determine the feasibility of installing the new equipment. The survey also needs to be adequate for permitting purposes. If necessary, RCC will perform a survey of the site and provide information to M/A-COM for incorporation into the Rebanding Plan. This information will also be used during the Implementation Phase to obtain permits, as required. The cost to perform eight detailed survey is included in the RFPF estimate (estimated at $3,500 per site survey).

7.3 Contingent Antenna Structure Planning Efforts

The applicability of these efforts will be identified as appropriate during the planning process. The

estimated costs for the following tasks have been included in the RFPF estimate. Detail on the contingency costs are provided in the cost estimate detail at the end of this section.

7.3.1 Additional Antennas

In the event that the rebanding methodology chosen by the County requires installation of additional antennas on towers or other antenna support structures as either permanent replacement or temporary "swing" antennas, RCC will review the space that is available at relevant heights or that can be made available on existing antenna support structures for replacement antennas or for temporary antennas that will enable the change-out of the primary antenna system to be used for rebanded system configuration.

7.3.2 Structural Analyses and Tower Modification Designs

If necessary, RCC will retain a structural engineer to assess the ability of the antenna support structures to support the additional antenna loads associated with replacement or temporary antenna systems. An estimated cost to perform eight tower structural analyses has been included in the RFPF estimate (estimated at $3,500 per tower). The actual cost of the work will be determined during the planning phase. In the event the cost exceeds the estimate, a change order with Sprint-Nextel will be required.

An estimated cost to perform four tower modification designs has been included in the RFPF estimate (estimate at $10,000 per design). The actual cost of the work as well as the quantity of tower modification designs will be determined during the planning phase. In the even the cost exceeds the estimate, a change order with Sprint-Nextel will be required.

7.3.3 FAA Compliance

If the rebanding methodology selected by the County involves the installation of additional antennas on existing tower structures, it is necessary to assess the impact of such installation on the FAA lighting and marking requirements and FCC tower registration (an increase in height). RCC will review the requirements to determine if a change in antenna height will affect the current marking and lightning specifications and develop and submit the antenna site registration forms and applications.

Other deliverables include:

Deliverables	Estimated Date of Completion
Channel 69 Interference Analysis	180 days following Agreement Execution
Contingent Site Surveys for Installation of New Facilities	180 days following Agreement Execution
Additional Antenna(s) Planning	180 days following Agreement Execution
Structural Analyses and Tower Modification Designs	180 days following Agreement Execution
FAA Compliance Verification	180 days following Agreement Execution

Internal Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Labor Name
Other (explain)							
Total Internal Cost							

Vendor Labor Table

Planning Cost Category/Tasks	Start Date	End Date	Labor Hours	Labor Rate	Cost (Hrs x Rate)	Expenses	Vendor Name
Other (explain)							
Channel 69 Interference Analysis			207	$157.87	$32,679.09	$1,465.00	*RCC*
RCC Site Survey for Additional Facilities			90	$168.00	$15,120.00	$1,438.00	*RCC*
RCC Subcontractor Site Survey for Additional Facilities			8	$3,500.00	$28,000.00		*RCC Subcontractor*
Facilities Analysis for Swing Equipment			90	$168.00	$15,120.00	$1,438.00	*RCC*
RCC Structural Analyses and Tower Modification Designs			45	$168.00	$7,560.00		*RCC*
RCC Subcontractor Structural Analyses			8	$3,500.00	$28,000.00		*RCC Subcontractor*
RCC Subcontractor Tower Modification Designs			4	$10,000	$40,000.00		*RCC Subcontractor*
FAA Review			4.5	$150.00	$675.00		*RCC*
Total Vendor Cost			456.5		$167,154.09	$4,341.00	

Vendors:

Tyco Electronics (M/A COM)
Danielle Marcella
7022 TPC Drive Suite 500
Orlando, FL. 32822
marcellda@tycoelectronics.com
407-581-3786

RCC Consultants, Inc.
John M. Hogan, P.E.
Director of Southeast Region
2425 Millcreek Court
Tallahassee, FL 32308
V: (850) 224-4451 x 22
F: (850) 224-3059
C: (850) 212-4916
E: jhogan@rcc.com

SCHEDULE C

800 MHZ RECONFIGURATION

PLANNING COST ESTIMATE – CERTIFIED REQUEST

Incumbent's Name: Miami-Dade County, Florida

Request for Planning Funding

Pursuant to the Order, Incumbent is required to reconfigure its existing facilities and requests Nextel to fund the following estimated planning costs:

Incumbent Payment Terms: Nextel will pay Incumbent an amount not to exceed the Planning Cost Estimate for Incumbent with respect to each category of work, as set forth below. Nextel will pay Incumbent Two Hundred Fifty-Five Thousand One Hundred Seventy-Five Dollars and Sixty-Four Cents ($ 255,175.64) within 15 days (30 days if Incumbent elects to be paid by check rather than electronic funds transfer) after receipt by Nextel of the fully executed Agreement and fully completed Incumbent Information Form (as set forth on Exhibit 1). Nextel will pay any outstanding balance of the Actual Planning Costs due to Incumbent within 30 days after the Planning Funding Reconciliation Date (as "Actual Planning Costs" and "Planning Funding Reconciliation Date" are defined in this Agreement).

Vendor Payment Terms: Nextel will pay each Planning Vendor an amount not to exceed the Planning Cost Estimate for that Planning Vendor with respect to each category of work, as set forth below. Nextel will pay each Planning Vendor within 30 days after receipt by Nextel of (A) an invoice from the Planning Vendor and (B) Incumbent's approval of receipt of goods and services and approval of associated costs included on the Planning Vendor invoice.

Description of Planning Work To Be Performed	**Payee (separately identify Incumbent and each Planning Vendor being paid for work performed)**	**Planning Cost Estimate for Incumbent and each Planning Vendor (Not to exceed listed amount)**
Legal – See Statement of Work Schedule B	Miami-Dade County RCC Consultants	$4,103.60 $2,400.00
Frequency Analysis – See Statement of Work Schedule B	RCC Consultants M/A COM	$41,827.20 $7,000.00
System Inventory – See Statement of Work Schedule B	Miami-Dade County RCC Consultants M/A COM	$282,540.93 $157,678.96 $90,242.64
Engineering and Implementation Planning – See Statement of Work Schedule B	Miami-Dade County RCC Consultants	$148,475.60 $76,719.40

	M/A COM	$177,728.24
Project Management – See Statement of Work Schedule B	~~Miami-Dade County~~	$75,231.14
	RCC Consultants	$137,598.66
	M/A COM	$82,687.28
Other Costs (provide detailed description of nature of cost) – See Statement of Work Schedule B	RCC Consultants	$171,495.09
Total Estimated Planning Costs		**$1,455,728.74**

Certification

Pursuant to the Order, Incumbent hereby certifies that the funds requested are the minimum necessary to support the planning activities to provide facilities comparable to those currently in use. Incumbent further certifies, to the best of Incumbent's knowledge, that any Planning Vendor costs listed on Schedule C are comparable to costs that Planning Vendor previously charged Incumbent for similar work.

Signature: _____
Print Name: _____
Title: _____
Phone Number: _____
E-mail: _____
Date: _____

EXHIBIT 1

Incumbent Information

THE FOLLOWING QUESTIONS ARE REQUIRED FOR PROCESSING ELECTRONIC FUNDS TRANSFERS. ALL INFORMATION CONTAINED HEREIN SHALL BE KEPT STRICTLY CONFIDENTIAL AND WILL BE USED ONLY IN COMPLETION OF THE PLANNING FUNDING AND FREQUENCY RECONFIGURATION TRANSACTION.

I. INCUMBENT INFORMATION

Please provide the following information:

Company/Name: _____

Contact: _____ Title: _____

Address: _____

City/State/Zip: _____

Phone: _____

Fax: _____

If not identified in the contract, please provide the following:

If Incumbent is a Partnership, please provide name, address and phone numbers of all other partners:

Name: _____ **Name:** _____

Address: _____ **Address:** _____

_____ _____

City/State/Zip: _____ **City/State/Zip:** _____

Phone: _____ **Phone:** _____

II. BANK ACCOUNT INFORMATION (Required for payment via electronic funds transfer.)

Name of Bank: _____ Address of Bank: _____ City/State/Zip: _____

Bank Phone #: _____

ABA (Routing #): _____

Account #: _____

Name on Account: _____

Federal, State or Individual SS #: _____

Name of Brokerage Firm (if applicable): _____

Brokerage Account # (if applicable): _____

In the event Incumbent will not provide information for electronic funds transfer, Incumbent acknowledges that all payments made by check will be mailed within thirty (30) days of the date of performance required by Incumbent (for each payment) as stipulated in the Agreement.

Acknowledged by Incumbent: _____ ***(signature required only if Incumbent does not want an electronic funds transfer)***

III. TAX INFORMATION

The Internal Revenue Service and state tax authorities require Nextel to report all transactions, even if the transaction is exempt from taxation (if so, it will be reported to the IRS as a like-kind exchange). Therefore, it is necessary for Nextel to collect the information below. If you have specific questions about your tax implications in this transaction, you should consult your own accountant or financial advisor.

Incumbent's Federal, State or Individual Tax ID #, FEIN (Federal) or SSN (individuals): _____

State(s) – sales tax license, resale permit, employment, etc.): _____

Local (if applicable): _____

Current State and County location for your principal executive office: _____

If there has been more than one location for the principal executive office within the past five (5) years, list each such City/County/State location: _____

_____

I hereby acknowledge that all of the information provided herein is true and correct as of the date signed below.

Incumbent Signature: _____

Print Name: _____

Title: _____

Date: _____