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THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



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Victoria F. Sheehan Commissioner

William Cass, P.E. Assistant Commissioner

His Excellency, Governor Christopher T. Sununu and the Honorable Council State House Concord, New Hampshire 03301

Bureau of TSMO May 23, 2022

REQUESTED ACTION

Authorize the Department of Transportation to enter into contract with R & R Communications, Inc. (Vendor #154891), Swanzey, NH, on the basis of a sole bid of \$172,852.00, for the purpose of providing statewide service and repairs to the Department's land mobile radio system, from the date of Governor and Council approval, through June 30, 2024. 87% Highway Funds, 12% Turnpike and 1% General Fund.

Funding is available as follows for FY 2023 and is contingent upon the availability and continued appropriation of funds for FY 2024, with the ability to adjust encumbrances through the Budget Office between State Fiscal Years if needed and justified.

Table with 3 columns: Description, FY 2023, FY 2024. Rows include Highway Maintenance Bureau, Central Turnpike Maintenance, Blue Star Memorial Highway Maintenance, Spaulding Turnpike Maintenance, and Aeronautics, with a Total row at the bottom.

EXPLANATION

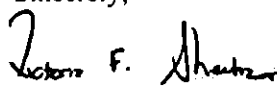
The Department of Transportation operates a statewide radio communications network that consists of mountain top repeaters, dispatch centers, control (base) stations, and land mobile radios that link toll, bridge maintenance, traffic operations, and highway maintenance facilities with field staff. For the longevity and viability of this communication system it is necessary that maintenance be performed. This contract is established to provide regular maintenance inspections to the equipment as well as provide unscheduled and emergency maintenance, as needed at the contract prices bid.

A bid invitation was advertised in the Manchester Union Leader on April 20, 2022 and four local radio shops were e-mailed the bid invitation. The single bid was received from R & R Communications, Inc., and was lower than the Department's estimate. Attached is a copy of the bid tabulation. The Department is satisfied that the bid prices are reasonable and that R & R Communications, Inc. is capable of performing the required work.

This contract has been approved by the Attorney General as to form and execution and the Department has verified that the necessary funds are available. Copies of the fully executed contract are on file at the Secretary of State office and the Department of Administrative Services office, and subsequent to Governor and Council approval will be on file at the Department of Transportation.

Your approval of this contract is respectfully requested.

Sincerely,

A handwritten signature in black ink, appearing to read "Victoria F. Sheehan". The signature is written in a cursive style with a large initial "V".

Victoria F. Sheehan
Commissioner

Attachments

EXHIBIT-C

Bid Tabulation Table			R&R Communications, Inc.	Department Estimated Costs
Subtotal from Section-1	Page 1 of 7	Preventive Maintenance (PMI)	\$ 17,651.00	\$ 50,080.00
Subtotal from Section-2	Page 2 of 7	Dispatch Preventive Maintenance	\$ 3,080.00	\$ 6,055.00
Subtotal from Section-3	Page 3 of 7	Repeater "Site" PMI	\$ 5,925.00	\$ 8,200.00
Subtotal from Section-4	Page 4 of 7	"Antenna" System Work	\$ 10,320.00	\$ 14,100.00
Subtotal from Section-5	Page 5 of 7	Mobile radio Installations	\$ 1,030.00	\$ 900.00
Subtotal from Section-6	Page 6 of 7	Unscheduled Maintenance	\$ 48,420.00	\$ 56,670.00
Annual contract amounts			\$ 86,426.00	\$ 136,005.00

Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name New Hampshire Department of Transportation		1.2 State Agency Address NHDOT, Seven Hazen Drive, PO Box 483 Concord, NH 03301-0483	
1.3 Contractor Name R & R Communications Inc.		1.4 Contractor Address PO Box 10383, Swanzey, NH 03446	
1.5 Contractor Phone Number 603-352-1825	1.6 Account Number Multiple Accounts, See Attached	1.7 Completion Date June 30, 2024	1.8 Price Limitation \$ 172,852.00
1.9 Contracting Officer for State Agency David Rodrigue, PE, Director of Operations		1.10 State Agency Telephone Number 603-271-6862	
1.11 Contractor Signature <i>Jeffrey G. Barden</i> Date: <i>5/19/22</i>		1.12 Name and Title of Contractor Signatory Jeff Barden, President	
1.13 State Agency Signature <i>David Rodrigue</i> Date: <i>6/1/2022</i>		1.14 Name and Title of State Agency Signatory NHDOT Director of Operations	
1.15 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.16 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By: <i>Emily C. Darling</i> On: <i>6/7/2022</i>			
1.17 Approval by the Governor and Executive Council (if applicable) G&C Item number: _____ G&C Meeting Date: _____			

2. SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT B which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement as indicated in block 1.17, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.13 ("Effective Date").

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds affected by any state or federal legislative or executive action that reduces, eliminates or otherwise modifies the appropriation or availability of funding for this Agreement and the Scope for Services provided in EXHIBIT B, in whole or in part. In no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to reduce or terminate the Services under this Agreement immediately upon giving the Contractor notice of such reduction or termination. The State shall not be required to transfer funds from any other account or source to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT C which is incorporated herein by reference.

5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete

compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Contractor shall comply with all applicable statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal employment opportunity laws. In addition, if this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all federal executive orders, rules, regulations and statutes, and with any rules, regulations and guidelines as the State or the United States issue to implement these regulations. The Contractor shall also comply with all applicable intellectual property laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.

6.3 The Contractor agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely cured, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 give the Contractor a written notice specifying the Event of Default and set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 give the Contractor a written notice specifying the Event of Default, treat the Agreement as breached, terminate the Agreement and pursue any of its remedies at law or in equity, or both.

8.3. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

9. TERMINATION.

9.1 Notwithstanding paragraph 8, the State may, at its sole discretion, terminate the Agreement for any reason, in whole or in part, by thirty (30) days written notice to the Contractor that the State is exercising its option to terminate the Agreement.

9.2 In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall, at the State's discretion, deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT B. In addition, at the State's discretion, the Contractor shall, within 15 days of notice of early termination, develop and

submit to the State a Transition Plan for services under the Agreement.

10. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

10.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

10.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

10.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

11. CONTRACTOR'S RELATION TO THE STATE. In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.

12.1 The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written notice, which shall be provided to the State at least fifteen (15) days prior to the assignment, and a written consent of the State. For purposes of this paragraph, a Change of Control shall constitute assignment. "Change of Control" means (a) merger, consolidation, or a transaction or series of related transactions in which a third party, together with its affiliates, becomes the direct or indirect owner of fifty percent (50%) or more of the voting shares or similar equity interests, or combined voting power of the Contractor, or (b) the sale of all or substantially all of the assets of the Contractor.

12.2 None of the Services shall be subcontracted by the Contractor without prior written notice and consent of the State. The State is entitled to copies of all subcontracts and assignment agreements and shall not be bound by any provisions contained in a subcontract or an assignment agreement to which it is not a party.

13. INDEMNIFICATION. Unless otherwise exempted by law, the Contractor shall indemnify and hold harmless the State, its officers and employees, from and against any and all claims, liabilities and costs for any personal injury or property damages, patent or copyright infringement, or other claims asserted against the State, its officers or employees, which arise out of (or which may be claimed to arise out of) the acts or omission of the

Contractor, or subcontractors, including but not limited to the negligence, reckless or intentional conduct. The State shall not be liable for any costs incurred by the Contractor arising under this paragraph 13. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and continuously maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 commercial general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate or excess; and

14.1.2 special cause of loss coverage form covering all property subject to subparagraph 10.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than ten (10) days prior to the expiration date of each insurance policy. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. The Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. **NOTICE.** Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

17. **AMENDMENT.** This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no such approval is required under the circumstances pursuant to State law, rule or policy.

18. **CHOICE OF LAW AND FORUM.** This Agreement shall be governed, interpreted and construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party. Any actions arising out of this Agreement shall be brought and maintained in New Hampshire Superior Court which shall have exclusive jurisdiction thereof.

19. **CONFLICTING TERMS.** In the event of a conflict between the terms of this P-37 form (as modified in EXHIBIT A) and/or attachments and amendment thereof, the terms of the P-37 (as modified in EXHIBIT A) shall control.

20. **THIRD PARTIES.** The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. **HEADINGS.** The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. **SPECIAL PROVISIONS.** Additional or modifying provisions set forth in the attached EXHIBIT A are incorporated herein by reference.

23. **SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. **ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings with respect to the subject matter hereof.

EXHIBIT-A, Special Provision

Section-14. Insurance and Bond

Amend Section 14.1.1 To include commercial general liability insurance for any and all activities related to Scope of Work including antenna tower work in amounts not less than \$5,000,000.00 per occurrence and \$5000,000.00 in the aggregate.

Amend Section 14.1.1 To include comprehensive automobile liability insurance, including Bodily Injury and Property Damage Liability insurance covering all motor vehicles including owned, hired, borrowed and non-owned vehicles, in amounts not less than \$1,000,000.00 combined single limit for bodily injury and property damage.

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EXHIBIT-B

SECTION-1, Scope of Services

- 1) Provide all labor, equipment, repair parts, software, transportation and lodging (prior approval for lodging required) necessary for maintaining the Department's statewide land mobile radio (LMR) communication equipment to meet specifications of item #2. The Statewide LMR system is comprised of Harris (formerly M / A COM Inc.), Motorola Inc., Icom Inc., Kenwood, Tait and Bosch Telex Communications, and Cambium microwave equipment. The system as of April 15, 2022, consists of the equipment outlined in the UHF & VHF land mobile, VHF-Aeronautic, and VHF-Marine equipment tables. See Pages-~~26~~, ~~27~~, ~~28~~ and ~~29~~ of Exhibit-B.

These types and quantities may increase or decrease during the contract period as specified by the Department's durable inventory. The contracted services shall be provided for all such equipment not otherwise covered or restricted by manufacturers' or point of sale warranty but also limited to LMR equipment owned by the Department.

Note: The term *unscheduled* shall be synonymous with word *unplanned* when reference is made to maintenance, service, and or repair. The term *failed* shall be synonymous with a system or equipment end item that no longer functions or meets specifications as defined by item #2

- 2) Specifications in addition to original manufacturer's shall include the commissioning data or system acceptance, normal performance specifications, normal device functionality, previous acceptance level, as built diagrams, owner preferred (documented) configuration settings, and applicable Federal Communications Commission (FCC) authorization(s).
- 3) Provide requested service and or **unscheduled repair** to failed radio equipment governed by Federal Code of Regulation (CFR) 47, Part-80, **Maritime** and Part-87, **Aviation** services by retention of a FCC licensed repair technician with a valid first or second class radiotelegraph operator's license or a general radiotelephone operators license See item # 15 for more details.
- 4) Provide for **annual** physical and **preventive maintenance inspections (PMI)** of the **land-mobile radio system dispatch equipment, repeater stations, control stations, remote controls, and solar charged battery banks**, completing all necessary adjustments **tasks and documentation** outlined in applicable NHDOT PMI task lists to meet specifications as summarized in item #2 at the **fixed price** as submitted in Exhibit-C, Sections 1, 2, and 3. The minimum-required preventive maintenance task list(s) is included in.
- 5) Provide for **Preventive Maintenance Inspections (PMI)** of Department designated mobile and portable radios on a 24-month interval including all associated equipment at their assigned location or mutually agreeable site(s), completing all necessary updates and PMI **tasks and documentation** to meet specifications as summarized in item #2 at the **fixed (unit) price** as submitted in Exhibit-C, Section-1. The minimum-required preventive maintenance task inspection list(s) is included.
- 6) Contractor shall contact NHDOT, Communications Supervisor the **same** business day for Department generated issue number(s) for problem(s) discovered during PMIs that are cause for repair outside the scope of a PMI. Additionally, for problems found but **not** corrected on the spot during the scheduled PMI, the contractor shall report this and seek an Issue number for scheduling and job tracking purposes on the day of discovery or as soon as practical immediately following.

- 7) Contractor shall stock at their own expense and have readily available common replacement parts for Department owned equipment and is responsible to facilitate timely on-site repairs to the most prevalent model(s) LMR mobile and portable radio equipment with these parts. Parts not made available for repair *on the day of discovered need* shall be reported to Communications Supervisor through the Department's job reporting system with explanation of reason(s) for non-availability and an explanation of when the part will be made available for use and repair of Department owned LMR equipment.
- 8) Provide for **unscheduled repairs to a failed repeater system**, including but not limited to: repairs to the tower-mounted antenna and cable system, repeater transceiver equipment, antenna combiner or receiver multi-coupler equipment, repairs to restore alternating current (AC) power at communications sites from the power supplying wall outlet to the radio equipment, and repairs necessary to maintain or restore direct current (DC) power at the Mount Cardigan repeater site, Orange NH, that consists of wet-cell storage batteries, solar panels, propane-powered generator and related load management equipment thus meeting the specifications as summarized in item #2 at *cost(s) per hour* as specified in Exhibit-C, Section-4 and Section-6.
- 9) Provide for **unscheduled repairs to failed control (base) stations** including but not limited to: repairs to control station equipment, repairs to failed station tower-mounted antenna systems, and repairs necessary to restore electric power from the AC power-supplying wall outlet to the communications equipment to meet specifications as summarized in item #2 at a *cost per hour* as specified in Exhibit-C, Section-6.
- 10) Provide for **unscheduled repairs to failed control (base) station antenna and grounding systems** with various mounting configurations that are *not* tower mounted, such as but not limited to, antennae that are accessible from a ladder, rooftop, and or any antenna mounting structures not considered a tower and not at the *rate(s)* identified for Section-4, but equal to the bid rate of unscheduled repairs to control (base) stations at a cost per hour as specified in Exhibit-C, Section-6, "Base Stations"
- 11) Provide for **routine and emergency unscheduled repairs to failed dispatch locations** including but not limited to: repairs to dispatch location radios or radio remote control equipment, console or remote control premises wiring, evaluation of end to end performance and functionality of leased telecommunications lines that comprise the dispatch communication network, repairs necessary to restore electric power at dispatch locations sites from the AC power-supplying wall outlet to the communications equipment to meet the specifications as summarized in item #2 at a *cost per hour* as specified in Exhibit-C, Section-6.
- 12) Provide for **unscheduled repairs to desktop (radio) remote controls** including but not limited to: repairs to remote controls, interconnection cables & connectors, premise wiring, evaluation of end to end performance and functionality of leased telecommunications lines, reporting of faulty leased lines, and repairs necessary to restore electric power at the desktop remote site from the AC power-supplying wall outlet to the communications equipment thus meeting the specifications as summarized in item #2 at a *cost per hour* as specified in Exhibit-C, Section-6.

- 13) Provide for **unscheduled repairs to failed mobile radios** at their assigned locations, or at the Department's prerogative, a mutually agreeable site. Repairs to failed mobile radio equipment to include but are not limited to; transceiver, microphone, internal / external speaker, mobile antenna system, interconnection cables, connectors, power conditioners, DC to DC converters, DC power cables and connectors, repairs necessary to restore electrical power from battery (or pre-designated point of origin) to radio equipment thus meeting the specifications as summarized in item #2 at a *cost per hour* as specified in Exhibit-C, Section-6.

Note: The Department owns and operates approximately 60-each, 24-volt vehicles

- 14) Provide for **unscheduled repairs to failed portable radios** at contractor repair facility or mutually agreeable location. Restoring to portable radio equipment to specifications as summarized in item #2 at a *cost per hour* as specified in Exhibit-C, Section-6.
- 15) Provide for **unscheduled repairs to Aeronautic Unicom**s and or **Marine radios** at their assigned locations, or at the Department's prerogative, a mutually agreeable site. Repairs to failed equipment to include but not limited to transceiver, microphone, internal / external speakers, antenna system connectors, surge protection, repairs necessary to restore electrical power to radio equipment from the AC power-supplying wall outlet to the communications equipment meeting specifications as summarized in item #2 at a *cost per hour* as specified in Exhibit-C, Section-6.
- 16) Results of all PMI inspections, requested evaluations, unscheduled repairs, adjustments or contractor recommendations shall be forwarded in a Microsoft compatible electronic document within **4-Calendar days** of contractor action to NH DOT, Communications Supervisor. Handwritten records will only be excepted under conditions when standard forms of internet telecommunications are unavailable such as during a declared emergency.
- a) Electronic documents shall be stand alone for unscheduled repairs and the resulting resolution report, required measurements, and notes.
 - b) Electronic documents for PMIs may be a composite document for all like LMR equipment such as the repeaters, mobiles, portables, that is updated, that the Communications Supervisor is alerted to on a shred drive on on-going basis.
 - c) Electronic documents for dispatch systems shall be separate document for all dispatch locations but will include a variety of LMR equipment types and documented tasks.
 - d) Electronic Documents shall be searchable for document title, dates, words, locations, names, and serial numbers.
 - e) All electronic documents shall be editable upon receipt by Department for updating, correction, and storage purposes.
 - f) Electronic documents for **unscheduled maintenance** shall include but not be limited to; issue number, title of job as conveyed to contractor through DOT job correspondence, and subsequent revisions of titles, work location, equipment model number, original manufactures serial number, date the service was initially requested, date(s) service was rendered, repair or replacement parts used, the repair technician's name or identification number, and all documented measurements and tasks otherwise required during preventive maintenance activities, and finally a brief (reported or found) problem resolution report.

- g) Electronic document for *scheduled maintenance (PMI)* shall include location the work was performed, last date equipment was inspected or repaired, the newly completed PMI inspection date, the model number and serial number of equipment, the technician's name or identification number, documented results of all required preventive maintenance inspection and testing tasks and readings, identified with inspection task item number, and free form comment(s)
- 17) *On-site response* to unscheduled maintenance request by Department shall be no greater than thirty 32 hours or four (4) normal business days (weather and travel conditions permitting). Department shall transmit issue numbers for all such requested work. Contractor shall credit the Department 4-hours of contracted bid rate (per applicable radio equipment type and travel rate) for each eight (8) hours of delay in on-site response after thirty-two (32) business hours.
- 18) *Immediate on-site response*, of less than twenty-four (24) hours is required for *emergency* repairs to Items-3, 8, 9, 10, 11, and 12 as requested by the Department. The Department will exercise discretion over prioritizing multiple service requests or failures. Contractor shall credit Department Eight (8) hours of contracted rate (per applicable radio equipment type and travel rate) for every four (4) hours of delay in immediate response after twenty-four (24) hours. Other unscheduled repairs shall be, within normal (contractor) working hours and shall be performed in accordance to item #14, weather and traveling conditions permitting, unless otherwise requested by Contractor then authorized or waived by the Department. That authorization may be obtained from the Communications Supervisor or Bureau of TSMO Administrator
- 19) Provide for *installation* of Department spares for mission critical communication end item components. The use & distribution of supplied Departmental spares shall be at the discretion and authorization of the Department's Communication Supervisor.
- 20) Provide for (computer) drafting of radio equipment configuration files, and file transfer of equipment configuration files, firmware, software, and or feature updates upon request, that are not part of file transfers as required by scheduled maintenance, at a *cost per hour* as specified in Exhibit-C, Section-6.
- 21) Provide mobile radio, antenna, and associated power system installations for trunk & dash mounted mobile radios and accessories at vehicles' assigned location or location designated by Department for a fixed rate as specified in Exhibit-B, Section -5 (with travel allowance specified in Exhibit -C, Section -6.
- 22) Provide for new or replacement *installations or inspections* of existing fixed base or repeater *antennae* with (NHDOT) standardized grounding, bonding and lightning protection systems by retention of a tower crew certified in tower climbing and personnel rescue at hourly rate that covers labor and travel cost per person with all personnel required to complete a specified installation, replacement or inspection at *cost(s) per hour* as specified in Exhibit-C, Section-4.

- 23) Travel allowances (rate) to the job site(s) for installation work and unscheduled maintenance shall be computed from the Contractor's or Subcontractor's *closest* repair facility that are located within the State of New Hampshire or closest NH state border if outside of NH, and shall be identified by the hourly rate in Exhibit -C, Section-6 that covers all cost self-identified by contractor for a combination of vehicle(s) and personnel. Travel allowance shall not be calculated for scheduled maintenance inspections or unscheduled maintenance performed in conjunction with scheduled inspections for repeater sites. However, the contractor is encouraged perform scheduled maintenance on all other fixed location, mobile and portable LMR assets due for PMIs while out performing unscheduled maintenance
- 24) **Annual** physical inspections and preventive maintenance for all equipment locations including District and Bureau offices *shall be scheduled by the contractor* and shall result in the least disruption to ongoing operations as determined by District Engineer or Bureau Administrator. Contractor shall provide 48-hour advanced notice to the District Office for repeater and dispatch equipment preventive maintenance inspections.
- 25) To what extent a failed equipment will permit, Contractor shall first *document results* of performed PMI procedures on failed equipment *prior* to undertaking other repairs necessary to restore equipment to conditions and specifications as outlined in item #2.
- 26) Repair costs for parts and labor covered under ongoing or remaining manufacturers' warranties are not included in this contract.
- 27) Where equipment repair involves a combined part and labor cost that is greater than (>) one-half (1/2) the (equal equipment) *replacement cost*, the contractor shall contact the NH DOT Communications Supervisor prior to facilitating repair.
- 28) The Department reserves the right to make additions and / or deletions to this Scope of Services as required by budgetary restraints, State and Federal regulation, or unrealized requirements.
- 29) The Department requests that bidders for this contract provide the following information which is believed to be critical in the overall maintenance of the Department's radio system. Failure to provide this information may result in the disqualification of the request for bid submission.
- a. *A brief profile of the contractor's employees* that would be charged with maintenance and repair of the Department's radio system. This information should include at a minimum, employees name, job title, experience, qualifications, and FCC issued General Radio Telephone Operators (GROL) license number. Additionally, profile should describe any specific experience or training employee has maintaining or installing, Motorola Inc., Harris Inc., (formerly M / A Com Inc.) Bird TX / RX Systems Inc., Bosch Telex Communications Inc., Cambium Networks Inc., equipment as well as all varieties of communications consoles and portable radios.
- b. *A description of repair facilities*, radio and telecommunications test equipment, specialized repair and installation equipment, computer equipment, computer software, and service vehicles including all-terrain vehicles (ATV) and snowmobiles.

Note: The *successful bidder*, shall provide a certificate of calibration traceable to National Institute Standards & Technologies (NIST) *for each* piece of electronic test equipment intended for use maintaining Department's radio system that is to be used to measure parameters governed by ► FCC regulations and licensee authorizations such as, (RF) power, frequency and bandwidth.

- c. *A description of the contractor's after hours service response plan* including a commitment to a guaranteed (phone) call back time with an estimated time of travel to contractor's repair facility including State and Federal holidays.
- d. The successful bidder /contractor shall be responsible for insuring all existing, and future, employees charged with maintenance of Department systems, subsystems, and components, are familiar with the task list(s) associated with each preventive maintenance routine, and Department required documentation routine he or she shall be charged with performing.
- e. A list of no less than two (2) radio communication systems comprised of the same equipment type and complexity maintained by Contractor with contact information of references shall be submitted for consideration.

30) Billing for services will be presented to the Department's bureaus as detailed in Exhibit-C, Section-8.

EXHIBIT-B

SECTION-2, PREVENTIVE MAINTENANCE TASK LISTS

Annual and bi-annual physical inspections and preventive maintenance to be performed on each type of land-mobile radio equipment shall include, but not be limited to, the following inspection items. The preventive maintenance inspection (PMI) is to be completed during an initial inspection and if any follow-up repairs or corrective action outside the scope of task list are required, this action should be *self-scheduled* and completed as soon as practical. Work request numbers shall be requested and obtained from Department's Communications Supervisor or designee to track the follow-up unscheduled maintenance or repairs. The following types of corrective action shall be indicative of *preventive maintenance*; cleaning, tightening, securing and retying cables, replacing electrical or radio frequency (RF) connections, removing foreign debris & cleaning components or sub-assemblies, measurement, recalibration, adjustment of operating parameters of end item equipment. Replacement of worn or broken indicators and controls, replacement of broken or worn-out antenna whips, loading coils, microphone parts or assemblies. Writing updated radio equipment configuration file. PMI reports shall be submitted to the Communications Supervisor, or designee within 7 business days. The report shall contain contractor provided technical readings and notes on Department approved electronic document. Updates to documents information shall be communicated to Department Communications Supervisor through a work request response email per occurrence. All costs for travel time, including the use of vehicle(s), for physical inspections and preventive maintenance shall be included in the unit price for the PMI of the specific equipment type.

I. Repeater(s) & Site

A. Mechanical Inspection to Include:

1. Visual inspection of antenna and cable system from ground with visual magnification aid. i.e. binoculars. Photographs may be requested from Department.
 - a. Inspect antenna mount attachments
 - b. Inspect cable attachment to tower or fixture
 - c. Inspect for any signs of ice or other forms of damage to cables.
 - d. Inspect for loose, corroded, detached ground or bonding connection.
 - e. Inspect for physical mounting or electromagnetic field conflicts with co-site users.

2. Visual of infrastructure

- a. Inspect the antenna supporting structure for any obvious signs of wear, damage, vandalism or loose guy wires.
- b. Inspect equipment shelter for any obvious problems such as rodents, vandals, water leaks, and environmental controls that are detrimental to NH DOT equipment
- c. Inspect ground and bonding connections between NH DOT equipment and external ground grid elements.

3. Visual inspection of repeater and antenna combiner system. (If applicable) Note on report any deficiencies

- a. Inspect cabinets for ease of access and security and integrity.
- b. Inspect all cables, RF and ground connectors internal to the shelter for tightness cleanliness and electrical integrity.
- c. Inspect for any signs of water or rodent damage.
- d. Insect for proper electrical breaker labeling and manual cutoff operation.
- e. Check for missing 50-ohm terminations on RX multi-coupler and TX combiner rack.
- f. Verify service literature and hand mic' is stored in DOT equipment cabinet.
- g. Replace worn out door seals
- h. Inspect cabinet electric fans and clean air filters. Note completion of cleaning task.
- i. Inspect under (old style) RF power Amplifier cover, clean inside PA removing all dust and debris. Note completion
- j. ▼ Check for posting of transmitter's current Federal Communications Commission (FCC) authorization.

Please Note on the PMI report any items they warrant further inspection, major corrective action, or notification to responsible party. Contractor shall follow-up, follow through on corrective actions that are part of PMI.

As suggested by Contractor and or requested by NHDOT, Contractor shall perform closer inspection of tower mounted antenna system(s) by means of their choosing.

The New Hampshire Department of Natural and Cultural Resources, (NH DNCR) Division of Forest and Lands is the communications site manager for all NH Department of Transportation repeater sites with the exception of the following locations. Specific points of contact for each exception site and tower vary but shall be provided by Department. Existing site standards shall be provided to contractor.

Moose Mountain- New Hampshire Public Broadcasting System.
Mount Ascutney- Electronic Communications Association, Inc.
Mount Uncanoonuc- Town of Goffstown (Police)
Mount Whittier- Whittier Communications Inc.
Hackett Hill – NHDOT

B. Electrical Inspection to Include (Document as found values prior to adjustment)

i. Power Supplies (PS)

1. Measure and record AC line voltage at PS outlet.
2. Measure and record the supply DC voltage while in standby and while under load.(transmitting)

ii. Transmitter measurements- Adjust as required

1. ► Measure and record RF power output from transmitter
(TX) power amplifier (PA).
2. Calculate and record voltage standing wave ratio (VSWR) between TX and combiner or duplexer cavity.
3. Measure and record RF power at the output of combiner cavity.
4. Calculate and record the VSWR between the output cavity or duplexer and TX antenna cable.

$$VSWR = \frac{1 + \sqrt{\frac{P_{rev}}{P_{fwd}}}}{1 - \sqrt{\frac{P_{rev}}{P_{fwd}}}}$$

Where P_{rev} = reverse power
 P_{fwd} = forward power

5. ► Measure and record repeater voice frequency modulation
(FM) deviation.
 6. ► Measure and record repeater continuous tone coded sub-audible squelch (CTCSS) FM deviation
- g. ► Measure and record carrier frequency of operation (error)
- h. Investigate PA alarm light. (if applicable)

iii. Receiver Measurements-Adjust as necessary

1. Measure and record receiver (RX) sensitivity through RX multi-coupler or duplexer.
2. Measure and record the signal level needed for the RXer to achieve 12-dB SNR without antenna system and terminated into a load.
3. Using a directional coupler, measure and record both signal levels needed to achieve 12-dB signal-to-noise ratio (SNR) through RX multi-coupler or duplexer **with and without** RX site antenna. See Diagram-1
4. Observe and note any co-channel users or adjacent channel interference that occurs while CTCSS decode is disabled.
5. Calculate and record the difference (if any) in decibel signal level between the two SNR readings in step b.

- ▶ Denotes FCC license parameter
- ▼ Denotes Site Standard

Signal to Noise test setup with Directional Coupler

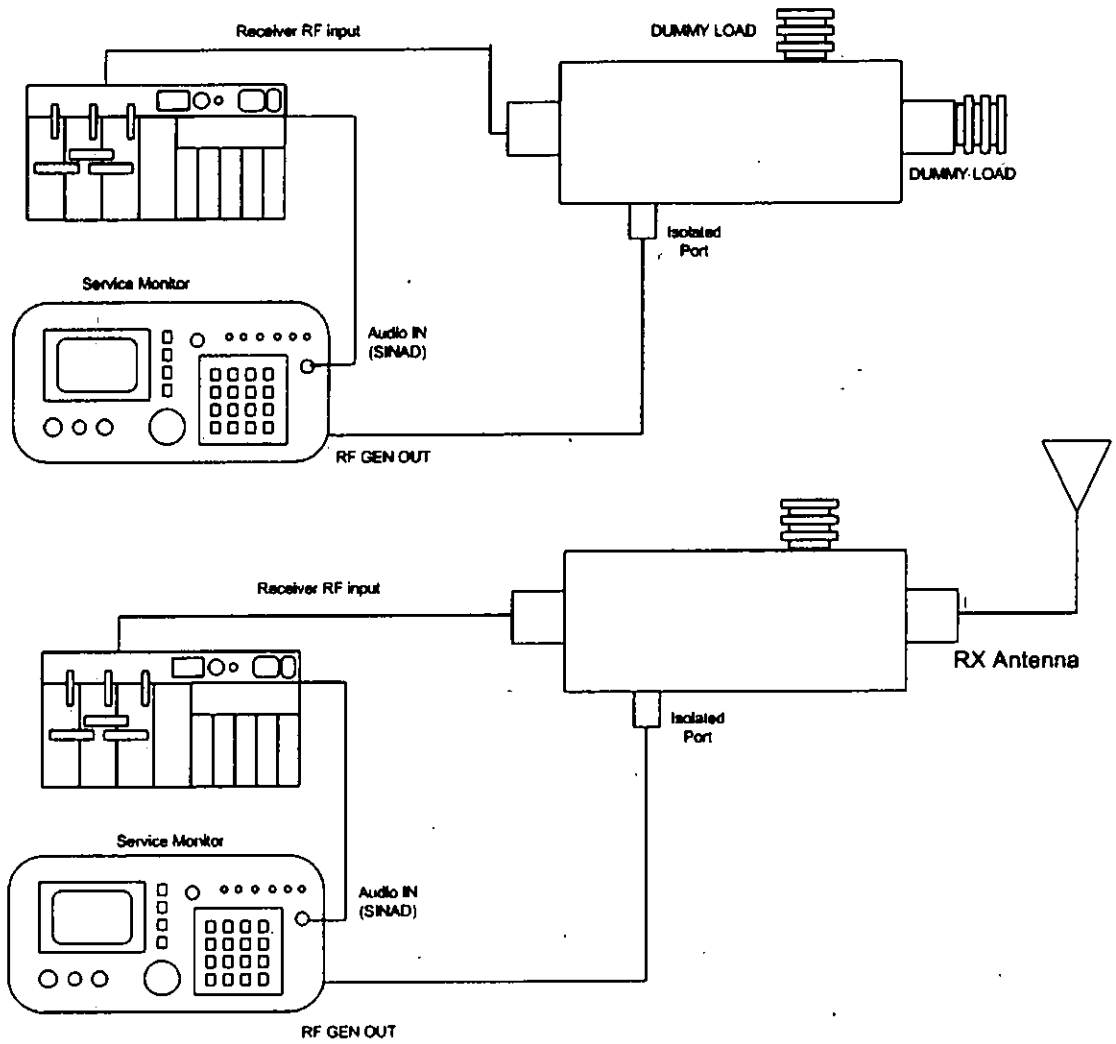


Diagram-1

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II. Base Stations Either Harris Inc., Mastr III, M7100, Motorola XTL2500 or Kenwood; TK5820. TK 5810 and NX-5000. In addition to stand-alone base radios, this inspection routine shall be used for dispatch base stations both local and remote associated with Dispatch Center preventive maintenance inspections.

A. Mechanical Inspection to Include:

1. Visual inspection of antenna and cable system from ground level with visual magnification aid. i.e. binoculars
 - a. Inspect antenna mount attachment(s)
 - b. Inspect cable attachments to mounting fixture and building facility.
 - c. Inspect for any signs of damage to exposed RF cable(s).
 - d. Inspect for loose, corroded, detached ground or bonding connections of antenna system and base radio.
 - e. Check for presence of a Polyphaser ® in antenna system
 - f. Note on inspection report the specific type (s) and estimated length of antenna system cable (s).
 - g. ► Record on inspection report the polarization of the antenna.
 - h. ► Record on inspection report the height, in feet at the tip of the antenna to nearest foot.

2. Visual of infrastructure
 - a. Inspect the antenna supporting structure for any obvious signs of wear, damage. Record model number of antenna if known.
 - b. Inspect ground and bonding connections between equipment and external ground field elements.
 - c. Verify presence of an earth terminal ground rod that antenna system is attached to. Note exceptions
 - d. Inspect wall or ceiling outlet that provides commercial power to base station.
 - e. Inspect RF cable entry port weather seal. Maintain as needed.

3. Visual of Local and Remote Base Station

- a. Inspect for any signs of rodent or water damage.
- b. Inspect radio alternating current (AC) power cord and plug.
- c. Inspect telco interconnect wiring (for remote base)
- d. Inspect main RF cable, RF Cable stub and connector that attaches to radio. Insure mini UHF tightness.
- e. Check for presence of a test microphone at remote sites. (leave mic' disconnected from base at remote sites)
- f. Check physical condition of microphone at local and remote control station.
- g. Note on report if power supply is bonded to central electrical ground via electric cord. (i.e. no 3-prong adaptors)
- h. Check electric outlet for Ground Fault with test light
- i. Note on report if Chassis of station is bonded to site ground
- j. Clean inside and outside equipment as needed.**
- k. ▼ Verify presence of current FCC authorization (License)

B. Electrical Inspection to Include (Document *as found* values prior to changes or adjustment)

1. Power Supply

- a. Measure and **record** AC input voltage
- b. Measure and **record** the DC voltage while in standby and while transmitting.

2. Software / Firmware

- a. Read radio program file and save (until deemed unneeded) preserving any features function unique to radio
- b. **Record** configuration *file name* if unique to the radio.
- c. Update file, with appropriate configuration or change as provided by NHDOT.
- d. Update flash version as necessary.
- e. Harris Inc., M7100 _____
Motorola, XTL 2500 as recommended by manufacturer.
Kenwood TK5820 as recommended by manufacturer.
- f. Kenwood NX 5820 as recommended by manufacturer.
- d. **Record** version found and version used for update.

3. Transmitter (TX) measurements- Adjust as required. Document *as found* and *as corrected* values.
 - a. Verify local push-to-talk (PTT) TX operation.
 - a. ► Measure and record RF power output from transmitter.
 - b. Calculate and record voltage standing wave ratio (VSWR) between TX and antenna cable.
 - c. ► Measure and record TX voice frequency modulation (FM) deviation.
 - d. ► Measure and record TX CTCSS only FM deviation.
 - e. ► Measure and record error of carrier frequency of operation.
 - f. Verify **remote** TX channel selection and TX PTT operation for all remote channels. (DDC-100 exempt from all remote channels requirement)
 - g. Measure and record **remote** voice FM deviation level.

4. Receiver (RX) measurements & Scan operation

- a. Measure and record in dB RX sensitivity at antenna jack.
- b. Verify CTCSS decode, decode enable / disable operation.
- c. While CTCSS decode is disabled, over-modulate a test frequency with a 1-kHz test tone and document what level of (over) modulation the RX is unable to demodulate.
- d. Verify local and remote scan disable and enable, if applicable.
- e. Verify scan, scan resume operation.
- f. Verify power-up default settings if applicable. (channel, scan, volume audio level etc.)
- g. Check for and Note any adjacent channel interference or co-channel user activity.
- h. For a remote dispatch station measure and record (in volts) the **line out** audio level while terminated into a) the remote control device such as an IP 223 / 224 or Zetron tone remote termination panel or b) simulated audio load.

- Denotes FCC license parameter
- ▼ Denotes Site Requirement

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III. Dispatch Equipment

A. Visual of infrastructure all locations

1. Inspect all 120-volt power source, check for proper electric breaker labeling and manual cutoff operation. Label breaker panel if needed
2. Inspect 12-volt power supplies and wiring for PC console, HB plus headset adaptor, and each Bosch, Telex IP-223 or IP224 and local dispatch base.
3. Verify uninterruptible power source (UPS) operation.
4. Inspect any & all associated premise telecommunications network wires up to local Ethernet Switch and or landline Demarcation point.

B. General Inspection of Bosch PC Console equipment at Bedford.

1. Inspect PC monitor for quality and cleanliness correct screen justification if necessary and clean.
2. With forced air, remove debris from beneath keys on keyboard.
3. Inspect physical condition and action of user controls, keys, buttons, displays, foot-switch, and microphone.
4. Inspect condition of interconnection cabling. Tie up and bundle and protect all cables as necessary

C. Electrical Measurements- Adjust as necessary

1. With 1,000 Hz test tone, measure and record in decibels (dB) the minimum audio signal level necessary to generate busy data generation on both channels of all IP-223 or IP-224. Note radio channel-name.
2. Measure and record in dB the average voice level during transmit on each wire line of each console channel. Perform functional test with Telex test handset.
4. Obtain IP-223 / 224 web page and verify and record revision number of firmware.
5. Update IP-223 firmware if necessary. Note if updated

D. Functional Test

1. Verify UPS operation by simulated AC power functionality for 3-minutes. (District-2 and District-5)
2. Inspect and note UPS battery service date as marked on battery(s)

E. Swanzey Dispatch Location

1. General Inspection of 3-Telex, C-6200

- a. Inspect display for legibility and accuracy. Correct as necessary.
- b. Inspect physical condition and action of user controls, keys, buttons, displays, foot-switch, and microphone.
- c. Inspect for any corrosive damage to exterior console positions.
- d. Inspect inside console equipment cabinets.
- e. Inspect condition of interconnection power and data cabling.
- f. Check time clock(s) for local time accuracy.

2. Functional Check

- a. Verify all available push-to-talk (PTT) functions of console and audio with microphone.
- b. Verify TX indications of both consoles on all channels used.
- c. Verify channel mute-functions.
- d. Verify all channel bank and channel selection operation.
- e. Verify any cross muting or interlock operation.
- f. Verify audio volume adjustment / settings

3. Electrical Measurements- Adjust as necessary

- a. Measure and record in decibels (dB) the audio signal level necessary to generate busy indication for both channels. A & B of both console channel cards as measured on the associated telco line input. Note channel name designation.
- b. Measure and record in dB the average voice level from channels A & B of all channel cards as measured on the associated telco line.
- c. Measure and record in dB the audio telco line level input to the console system that is the result of a fully-quiet, over-the air 1-kHz. Direct modulation of all base radios

IV. Radio Remote Controls, for Dispatch PMIs and unscheduled maintenance at Districts-1, District-3, District-5, Portsmouth Crew-15 Office, Portsmouth Lift Bridges, and John O. Morton (JOM) Building, Bureau Highway Maintenance.

1. Visual

- a. Review network topography if communications network has multiple (radio remote) control points. (JOM and Bedford)
- b. Inspect AC power source. Note if a UPS is used. Note what other office devices share the AC power beyond the AC wall socket.
- c. Inspect interconnecting telecommunications wires and connectors.
- d. Inspect any associated premise telecommunications network wires.
- e. Check for presence of a Polyphaser® in the remote's premise telecommunications wire(s). Note findings

2. General Inspection

- a. Check for presence of channel labels or display names. Inspect labels or display for legibility and accuracy. Correct as necessary.
- b. Inspect physical condition and action of user controls, keys buttons, displays, indicators and microphone.
- c. Perform *internal* visual inspection of device.
- d. Inspect condition of primary (AC) power cable.
- e. Verify UPS operation by simulated AC power failure
- f. Verify and Note UPS battery(s) service date

3. Functional Check

- a. Review any user concerns
- b. Verify all push-to-talk (PTT) functions of remote's buttons and microphone.
- c. Verify Transmit (TX) indication for all PTTs.
- d. Verify TX voice operation.
- e. Verify channel indication for each channel of operation.
- f. Verify channel change function for each channel of operation. (Zetron DDC 100 exempt from each and every requirement)
- g. Verify audio volume adjustment operation.
- h. Verify receive busy indicator operation.
- i. Verify monitor enable, disable and reset function
- j. Verify scan operation and indications.

Note: See Dispatch Inventory for details on types of radio remote controls used at some locations.

V. Mobile Radios

A. Mechanical Inspection to Include:

1. Visual inspection for damage or wear.

- a. Inspect mobile antenna MOT roof mount and O-ring. Apply silicon as needed to O-ring
- b. **Document by photograph** any alternative method of mobile antenna installation that does not incorporate a proper antenna ground plane by placement of roof mount or by L-bracket mounting for all styles of UHF and VHF antenna with the exceptions of no -ground plane antenna
- c. **Document by photograph** any secondary mobile antenna that is too close to State radio antenna and not related to DOT LMR radio service, such as but not limited to scanner, CB, or other transmitter.
- d. Inspect mobile antenna loading coil and whip
- e. Inspect complete antenna for any signs of physical, weather or ultra-violet damage. Replace applicable parts
- f. Inspect antenna RF connector for looseness proper installation. Note: Mini UHF cannot be finger-tightened, this requires torque tool
- g. Inspect exposed portions of antenna cable for damage.
- h. Inspect main DC power wire and connectors for condition, damage or corrosion.
- i. Inspect interconnection and option cables for condition, damage or corrosion.
- j. Verify that unused slack in interconnection, power cabling, and accessory cables are not vulnerable to physical damage or corrosion.
*Attention to option cable connector of M7100
- k. Inspect for secure mounting of all radio components and accessories. Tighten or remount any component that are loose or have become unmounted.
- l. Inspect overall condition of main radio components: transceiver, control head, microphone. Note on inspection report
- m. Verify that the main (DC) power wire is fused at a practical and safe distance from point of connection to battery or pre-designated source of power. (Preferably 1-foot)
- n. Inspect radio main lead direct current (DC) ground connection for corrosion.

B. Software / Firmware

- a. Read radio program file(s) and save (until deemed unneeded)
- b. Program radio with latest applicable Code plug program file.
- c. Verify or update MDC encode number (h-number of vehicle) as needed.
- d. Motorola XTL2500 firmware update will not be part of a PMI and shall be considered unscheduled maintenance due to the time needed to transfer file(s).

C. Functional Checks and Corrosion Control

1. Functional Check

- a. Verify radio is configured for "switched ignition" on -off operation. **Record** any exceptions to not working with Key per user request.
- b. Verify power -on option button.
- c. Operate all manual controls and verify proper travel and functions of user controls.
- d. Verify proper scan and monitor enable / disable with microphone.
- e. Verify microphone push-to-talk transmit indication and operation.
- f. Verify proper voice operation of microphone.
- g. Verify proper speaker operation.

2. Corrosion Control

- a. Remove any paint or corrosion inhibitor from brass MOT mount found during visual inspection.
- b. Perform any corrective action required for main DC power connection to source power.
- c. Perform any corrective action required for main DC ground up to and including re-locating ground point. Apply anti-oxide if needed.
- d. Clean external surfaces of radio components. Remove dust debris, sand or grim.

D. Electrical Measurements

1. Direct Current (DC) voltage

- a. Verify proper voltage and current power source at point of supply. Record vehicles standby operating voltage
- b. Verify DC to DC converter output voltage & current if applicable.
- c. Record if DC to DC converter is configured for 24-volt 'switched ignition' operation

2. Radio Frequency measurements, ► Denotes FCC license parameter

a. Transmitter (TX) -adjust, repair or correct as necessary.

- I. ► Measure and record in watts TX RF power output.
- II. Measure, calculate and record VSWR between TX and antenna.
- III. ► Measure and record TX carrier frequency error.
- IV. ► Measure and record TX voice modulation level
- V. Insure mini UHF Connector is tightly connected when PMI is completed.

b. Receiver (RX)

- I. Measure and record in dB the level necessary to break RX critical squelch.

VI. Portable Radios, including accessories

A. Mechanical Inspection to Include

1. Record manufacture's Serial number
2. Record manufacturer's model, make or trade name.
3. Inspect chassis, display, escutcheon, battery case, antenna, and carrying case and speaker microphone when applicable.
4. Inspect battery contact plating, Note metal composition and condition
5. Inspect charger (battery) pocket for cleanliness Clean as needed
6. Record overall assessment of portable condition: New, fair, good, poor.
7. Record specific attributes that contribute to the condition such as damage, stress, cleanliness, corrosion, wear, etc.
8. Check for presence of (NHDOT) date inscription on battery case.
9. Clean all items as needed.
10. Add or Replace 16-channel label as needed.

Bureau specific channel labels to be provided by Department.

B. Verify current conformance to Department's 16-Channel Frequency plan. Reprogram and update as needed.

C. Test and Measurement

1. Portable Transceiver

a. Functional Check

- I. Will radio 'power up'?
- II. Will radio transmit a carrier?
- III. Will radio transmit a modulated carrier?
- IV. Will radio provide a receive indication?
- V. Will radio provide recovered receive audio?
- VI. Verify proper functions of applicable user controls

- A. ON-Off /Volume
- B. Channel monitor
- C. Channel / channel bank selection
- D. Scan, Scan channel add and delete
- E. Hi-Low power setting
- F. Back-Light, if applicable

☐ Refer to Item #27-Scope of Services when a portable radio fails a functional check.

Where equipment repair involves a combined part and labor cost that is greater than (>) one-half (1/2) the (equal equipment) **replacement cost**, the contractor shall contact the NH DOT Communications Supervisor prior to facilitating repair.

b. Receiver Test and Measurement

- I. Measure and record in dB the receiver sensitivity at a 50 Ω input point to the receiver.
* Alternatively a radiated sensitivity test may be employed when a suitable RF connection adaption is not available.
However, test and result must be repeatable.
- II. Verify proper receiver indications.
- III. Verify proper CTCSS decode.
- IV. Verify proper CTCSS decode enable and disable
- V. Verify proper Scan indication.
- VI. Verify proper Scan-receive operation.

c. Transmit Test and Measurement-document *as found* and *as corrected* values

- I. Measure and record HI output power.
- II. Measure and record Low output power.
- III. Measure and record voice modulation level.
- IV. Measure and record CTCSS modulation level
- V. Measure & record carrier frequency error either:

2. Battery

- a. Measure and record terminal voltage after a charge time of 1/2-Hour.
- b. Document
 - I. the Model number of the battery
 - II. the milli-ampere hour rating the battery
 - III. Month and year inscribed on battery

- c. Removed from service and dispose of any and all batteries with inscriptions indicating a service date of greater than 48-months
- d. Inscribe replacement battery(s) with current service date month and year (MM /YYYY).
- e. Replacement battery(s) shall be charged to full potential prior to return of the portable radio to the end user.

D. Replacement batteries requested by the Department and bureaus independent of those provided during contractor PMI routine shall be inscribed with a service date, month and year. (MM /YYYY)

NHDOT Radio "Dispatch" Equipment Schedule per site for Preventive Maintenance

Lancaster District-1	Lancaster Office Local Base Station-1 Local Base Station-2	Mt Prospect, Lancaster Remote Base Station-1 Remote Base Station-2	Telex IP 2002 Remote IP223
Enfield District-2	Enfield Office Remote Base Station-1 Local Base Station-2	Moose Mountain, Hanover Remote Base Station-1 Remote Base Station-2	PC Console (x2) Bosch C-soft
Gilford District -3	Gilford Office Local Base Station -1 Local Base Station -2	Tamworth Patrol Section Remote Base Station -1	Telex IP-2002 Remote IP-223
Swanzy District-4	Swanzy Office Remote Base Station-1	Hyland Hill, Westmoreland Remote Base Station-1	3-Telex 6200 Concoles 2- IP-223
Bedford District-5	Bedford Office Remote / local Base Station	Bedford Office Radio Shelter Remote Base Station-1 Remote Base Station-2	PC Console (x2) Bosch C-Soft
Durham District-6	Durham Office Local Base Station -1 Local Base Station -2		No Console 2nd Control Head
Portsmouth Bridge Maintenance	Ranger Way Office Local Base Station-1		No Console
Portsmouth Bridge Maintenance	Sara M. Long Bridge Local LMR Base Marine Radio Base		No Console
Portsmouth Lift Bridges	Memorial Bridge / Sara Long Bridge 1- Local LMR Base 1- Marine Radio Base		No Console 2nd Control Head
Concord Highway Maintenance	John O. Morton Building Remote Base Station-1		2-Remote Controls Zetron DDC 100

Revised March 2022

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2022 UHF EQUIPMENT COUNTS

District, Bureau, Rest Areas	Repeaters	Fixed Base	Disp. Base	Mobiles	Portables
District One	5	6	4	106	75
District Two	4	1	3	91	35
District Three	3	3	3	90	65
District Four	4	0	2	66	52
District Five	5	5	3	134	46
District Six	1	0	1	81	34
Commissioner's Office	0	0	0	3	0
Fuel Distribution	0	0	0	3	0
Bridge Design	0	0	0	3	0
Bridge Maintenance	0	1	3	67	38
Survey Section	0	0	0	0	38
Mechanical Services	0	5	0	27	3
Materials Research	0	0	0	0	4
Bureau of Traffic	0	0	0	2	4
Bureau of TSMO	9	1	20	5	4
Highway Maintenance	0	1	0	2	0
Bureau of Aeronautics	0	0	0	1	0
Rail and Transit	0	0	0	1	0
Bureau of Turnpikes	3	29	1	34	0
NH DNCR (Rest Areas)	0	8	0	0	0
Department Totals	34	60	40	716	398

As of April 2022

2022 VHF Equipment with Single Band Mobiles

District or Bureau	Mobile	Portable
District One	2	0
District Two	0	0
District Three	2	0
District Four	0	0
District Five	2	0
District Six	3	0
Commissioner's Office	0	0
Bridge Maintenance	7	15
Mechanical Services	0	0
Bureau of Traffic	0	0
Bureau of TSMO	2	1
Highway Maintenance	0	0
Aeronautics	1	2
Rail and Transit	4	3
Bureau of Turnpikes	0	0
Department Totals	23	21

As of April 2022

Aeronautics and Marine Radios

Aeronautics	Make	Model
BERLIN	ICOM	A200B
COLEBROOK	KING	193
CONCORD	ICOM	A120 W
CLAREMONT	ICOM	A200B
FRANCONIA	ICOM	A200B
HAMPTON	ICOM	A200B
HAVERHILL	ICOM	A120 W
HILLSBORO	None	None
KEENE	ICOM	A120 W
JAFFREY	ICOM	A120 W
LACONIA	ICOM	A200B
NEWPORT	ICOM	A200B
PLYMOUTH	ICOM	A200B
ROCHESTER	ICOM	A200B
TWIN MOUNTAIN	None	None
WHITEFIELD	ICOM	A200B

Marine	Make	Model
Hampton River Bridge	ICOM	IC-M502
Memorial Bridge	ICOM	IC-M502
Sara Mildred Long	ICOM	IC-M504a
Crew-15 Spare	ICOM	IC-M502

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EXHIBIT-C

Section - 1 Preventive (scheduled) Maintenance Inspections

Sub-system	Cost Per Unit	# of Units	Total Yearly Cost
Generic Repeater PMI (no site)	\$165.00	1	\$165.00
Control Stations non-dispatch	\$85.00	60	\$5,100.00
Desktop Remote Controls	\$22.00	5	\$110.00
Mobile radios all vehicle types with or with DC converters	\$22.00	358	\$7,876.00
Portable Radios	\$22.00	200	\$4,400.00
Sub-Total for Preventative Maintenance Inspections (PMI) ►			\$17,651.00

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EXHIBIT-C Section-2

Dispatch Equipment Complete- System
See Dispatch Equipment Schedule and PMI Task Lists

Location	Location Detail	Site Bid Price
Lancaster District-1	Lancaster Office and remote site	\$440.00
Enfield District-2	Enfield Office and remote site	\$330.00
Gilford District -3	Gilford Office and remote site	\$330.00
Swanzy District-4	Swanzy Office and remote site	\$220.00
Bedford District-5	Bedford Office and Local site	\$330.00
Durham District-6	Durham Office only	\$220.00
Portsmouth Bridge Maintenance	Ranger Way Office only	\$220.00
Portsmouth Bridge Maintenance	Portsmouth Sara Long Bridge	\$330.00
Portsmouth Bridge Maintenance	Portsmouth Memorial Bridge	\$330.00
Concord Highway Maintenance	Concord John O. Morton Building	\$330.00
Disp. PMI Sub-Total This Page ►		\$3,080.00

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EXHIBIT-C

Section-3 Repeater and Antenna System Preventive Maintenance

Site Name and Town	Equipment & Quantity	Antenna System	Price per site example \$1.11	Access to site
Holden Hill, W. Stewarts Town	Ericsson Mastr III, 2 each	TX / RX Combiner	\$350.00	Drive to Seasonal Road
Mt Washington,	Ericsson Mastr III, 2 each	TX / RX Combiner	\$350.00	Drive to Seasonal Road
Mt Prospect Lancaster	Tait, 1 each	Duplexer	\$190.00	Drive to Seasonal
Cannon Mountain, Franconia	Ericsson Mastr III, 3 each	TX / RX Combiner	\$525.00	Drive to Park Tram and Hike
Cardigan, Orange	Kenwood + Solar power Plant	Duplexer	\$190.00	Drive to Park Hike to Summit
Mt Belknap, Gilford	Ericsson Mastr III, 3 each	TX / RX Combiner	\$525.00	Drive to Park Seasonal Hike to summit
Mt Kearsage, Warner	Ericsson Mastr III, 3 each	TX / RX Combiner	\$190.00	Drive to Park Hike to Summit
Moose Mt, Hanover	Ericsson Mastr III, 1 each	Duplexer	\$350.00	Drive to Seasonal
Mt Ascutney, Winsor VT.	Ericsson Mastr III, 2 each	3rd Party Combiner	\$350.00	Drive to Park Seasonal Hike to sSummit
Mt Whittier, Tamworth	Ericsson Mastr III, 2 each	TX / RX Combiner	\$350.00	Drive to Park Hike or ATV all year
Pitcher Mt., Stoddard	Tait, TB9100, 1 each	Duplexer	\$190.00	Drive to Seasonal Hike to Fire tower
Land Hill, Westmoreland	Ericsson Mastr III, 1 each	Duplexer	\$190.00	Drive to Seasonal Road
Miller Park, Peterborough	Ericsson Mastr III, 3 each	TX / RX Combiner	\$525.00	Drive to Seasonal Road
Warner Hill, Derry	Ericsson Mastr III, 1 each	Duplexer	\$190.00	Drive to
Mt Uncanoonuc, Goffstown (HWY)	Ericsson Mastr III, 2 each	TX / RX Combiner	\$350.00	Drive to
Mt Uncanoonuc, Goffstown (TP)	Ericsson Mastr III, 1 each		\$190.00	Drive to
Hackett Hill, Hooksett (HWY)	Ericsson Mastr III, 1 each	TX / RX Combiner	\$190.00	Drive to
Hackett Hill, Hooksett (TP)	Ericsson Mastr III, 1 each		\$190.00	Same
Mt Bluejob, Strafford (HWY)	Tait, 1 Each, Mastr III 1 each	TX / RX Combiner	\$350.00	Drive to Park Hike to summit
Mt Bluejob, Strafford (TP)	Ericsson Mastr III, 1 each		\$190.00	Same

Sub-Total for Repeater Site Preventive Maintenance Inspections ►

\$5,925.00

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EXHIBIT-C

SECTION 4- ANTENNA SYSTEM INSTALLATION or INSPECTION

Personnel	Cost Per Hour	Estimated Hours Per Year	Total Cost Per Year
Tower Climber-1	\$90.00	48	\$4,320.00
Tower Climber -2	\$90.00	48	\$4,320.00
Installation Technician	\$70.00	12	\$840.00
System Technician	\$70.00	12	\$840.00
Subtotal yearly cost for Antenna System Installation ►			\$10,320.00

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EXHIBIT-C

Section-5 Installation Rates for Mobile Radios with Accessories (per unit)

Vehicle Type	Radio type	Estimated Number of Units Per Year	Cost per unit
Light Truck or Car	Trunk / Remote Mount	1	\$190.00
Light Truck or Car	Dash Mount	1	\$150.00
Light Truck or Car	Multi-Band / Remote	1	\$225.00
3-5 Ton Truck	Trunk / Remote Mount	1	\$190.00
Heavy Equipment 24-volt	Dash Mount w/ 24 volt converter	1	\$175.00
Radio removal all types	Both Dash and Remote mount	1	\$100.00
Sub-total yearly cost ►			\$1,030.00

Accessories: Antennae, Standard Option Cables, DC Power Cables, External / Internal Speaker(s)

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EXHIBIT-C
Section-6 Unscheduled Maintenance

Repairs & Misc.	Cost per Hour	Estimated number of Hours / Yearly	Yearly extended Cost
Repeaters	\$75.00	100	\$7,500.00
Base Stations	\$75.00	50	\$3,750.00
Dispatch Locations	\$75.00	24	\$1,800.00
Desk-top Remotes	\$75.00	5	\$375.00
Mobile Radios	\$75.00	80	\$6,000.00
Portable Radios	\$75.00	20	\$1,500.00
Marine / Aeronautics	\$75.00	8	\$600.00
file Preparation	\$35.00	2	\$70.00
Radio Programming	\$35.00	30	\$1,050.00
	Price Per Night	Estimated # of Nights Yearly	Estimated Yearly Cost
Lodging	\$150.00	1	\$150.00
	Price Adjusted for Minimum Hrs & OT	Estimated number of 4-hr Callouts Yearly	Estimated Yearly Cost
Emergency Callout	\$125.00	1	\$125.00
			Yearly Cost for replacment parts
Replacement Parts	This fixed cost shall be included in your Bid		\$16,500.00
	Cost Per Hour	Estimated Yearly Hours	
Travel Rate for Vehicle	\$45.00	100	\$4,500.00
	Cost Per Hour	Estimated Yearly Hours	
Travel Rate for Tech's	\$45.00	100	\$4,500.00
Yearly Sub-total Unscheduled Maintenance ►			\$48,420.00

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EXHIBIT-C
Section-7 Bid Tabulation Table

Subtotal from Section-1	Page 1 of 7	Preventive Maintenance (PMI)	\$17,651.00
Subtotal from Section-2	Page 2 of 7	Dispatch Preventive Maintenance	\$3,080.00
Subtotal from Section-3	Page 3 of 7	Repeater "Site" PMI	\$5,925.00
Subtotal from Section-4	Page 4 of 7	"Antenna" System Work	\$10,320.00
Subtotal from Section-5	Page 5 of 7	Mobile radio Installations	\$1,030.00
Subtotal from Section-6	Page 6 of 7	Unscheduled Maintenance	\$48,420.00
This is your annual bid ►			\$86,426.00

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EXHIBIT-C

Section-8, Invoice and Billing Information

- I. Invoices shall be delivered by one of the following methods:
 - A. As preferred, by email to the following address
dot-tsmo-accountspayable@dot.nh.gov
 - B. As needed, hand delivered by contractor to Bureau of TSMO, 110
Smokey Bear Boulevard, Concord, NH.

- II. Portable document format (PDF) Invoices shall be consistently transmitted with subject lines as specified.
 - A. All bureaus with exception of Turnpikes and Aeronautics

Email Subject Line: NHDOT, RMC, Invoice, Highway

 - B. Bureau of Turnpike Invoices

Email Subject Line: NHDOT, RMC, Invoice, Turnpikes

 - C. Bureau of Aeronautics invoices

Email Subject Line: NHDOT, RMC, Invoice, Aeronautics

- III. Invoice(s) for all work performed from *first* day of each month to *last* day of each month shall be combined onto a single invoice. In addition to a letterhead identifying the Contractor by name, the invoice(s) shall contain the following information in a table or column format
 - A. A common invoice number for all corresponding DOT work request numbers
 - B. Date of invoice
 - C. DOT work request (WR) numbers
 - D. DOT work request *title* as received by email
 - E. Department *Bureau* work was performed for, if not identified by DOT WR title
 - F. A *basic* description of work performed with work *site* description.
 - G. Date(s) the work was accomplished by Contractor per work request
 - H. Contract cost at bid rates per work request for *labor hours or unit cost*
 - I. Cost per work request for *materials*
 - J. Contract cost at bid rates per work request for round trip *travel hours*, if applicable

- IV. The NHDOT, Bureau of TSMO, Administrator shall make final determination of completeness maintenance or work action, per work order (number). Requested changes, revisions, deletion, or deferred payment (based upon incomplete work or continued system trouble) by the Department shall be handled in writing by the Administrator or their designee.

- V. Contractor shall establish a NET-30 terms for the Department.
- VI. Successful Contractor shall provide *accounts receivable* contact information and any subsequent changes to that information as referenced in Section-2 that includes; name, title, mailing address, e-mail, and telephone number for mailing purposes and the resolution of all invoicing discrepancies.

SECTION-9, Contractor Contact Information

Maintenance Supervisor:

- a) Name: Evelyn French
- b) Title Office Manager
- c) Address PO Box 10383 Swanzey, NH 03446
- d) Email: Evelyn259@randrcomm.com
- e) Telephone number: 603-352-1825

Accounts Receivable:

- a) Name: Evelyn French
- b) Title Office Manager
- c) Address PO Box 10383 Swanzey, NH 03446
- d) Email: Evelyn259@randrcomm.com
- e) Telephone number: 603-352-1825

State of New Hampshire

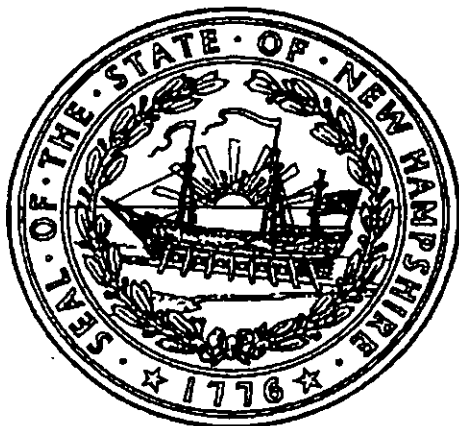
Department of State

CERTIFICATE

I, David M. Scanlan, Secretary of State of the State of New Hampshire, do hereby certify that R. & R. COMMUNICATIONS, INC. is a New Hampshire Profit Corporation registered to transact business in New Hampshire on January 21, 1975. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 17737

Certificate Number: 0005773305



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 9th day of May A.D. 2022.

A handwritten signature in black ink, appearing to read "D. Scanlan", is written over a faint circular stamp.

David M. Scanlan
Secretary of State

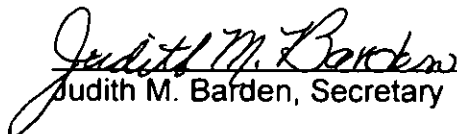
CERTIFICATE OF VOTE

I, **Judith M. Barden**, Secretary of **R&R Communications, Inc.**, hereby **Certify**, I am the Duly Elected Secretary of R&R Communications, Inc., and that the following is a true copy of a vote taken at a meeting of the Board of Directors of said corporation duly called and held on May 9, 2022, at which meeting a quorum of the directors being present and voting. It was

"VOTED: To authorize Jeffrey A. Barden, President to meet with officials of New Hampshire Department of Transportation including the Communications Supervisor to discuss a contract for two-way radio maintenance/repair services for the State of New Hampshire Department of Transportation, and to execute any and all documents, contracts and agreements regarding said services. This authorization shall remain in full force from May 9, 2022 through June 30, 2022.

I further certify that said vote has not been amended or repealed and that Jeffrey A. Barden is the duly elected President of R&R Communications, Inc.

DATED: This 9th Day of May, 2022.


Judith M. Barden, Secretary

(corporate seal)



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
5/26/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Kapiloff Insurance Agency, Inc. 417 Winchester St Keene, NH 03431	CONTACT NAME: PHONE (A/C, No, Ext): (603) 352-2224 E-MAIL ADDRESS: bstockton@kapiloff.com	FAX (A/C, No): (603) 357-1217
	INSURER(S) AFFORDING COVERAGE	
INSURED R & R Communications Co., Inc. PO Box 10383 Swanzey, NH 03446	INSURER A: Ohio Security Insurance Company	NAIC # 24082
	INSURER B: West American Insurance Company	NAIC # 44393
	INSURER C: The Ohio Casualty Insurance Company	NAIC # 24074
	INSURER D:	
	INSURER E:	
INSURER F:		

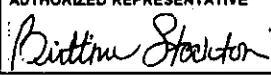
COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			BKS55768773 USO55768773	1/1/2022 1/1/2022	1/1/2023 1/1/2023	EACH OCCURRENCE \$ 5,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 6,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY			BAW55768773	1/1/2022	1/1/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE EACH OCCURRENCE \$ AGGREGATE \$
C	<input type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY <input type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/ MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N Y	XWO55768773	1/1/2022	1/1/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Installation Contract
New Hampshire Department of Transportation is listed as Additional Insured/Maintenance Contract

CERTIFICATE HOLDER **CANCELLATION**

New Hampshire Department of Transportation of TSMO PO Box 483 Concord, NH 03302	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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