

## **Scope of Work**

# **Camp Rell**

**38 Smith Street  
Niantic, Connecticut**

**August 31, 2004  
Amended after  
Contractors Walk-through**

**Department of Information Management  
Telecommunications Section**



## **PURPOSE**

**This project has been developed to address the current phone infrastructure issues at Camp Rell. This project is necessary to eliminate the current phone service interruptions that are now deemed critical and have been causing increased costs and efforts in maintenance not to mention extensions that can not be repaired due to oxidation of existing copper.**

## **STANDARDS AND COMPLIANCE**

**All work will be based on industry standards;  
Compliant with all Federal, State, and Local codes;**

## **PRODUCT DELIVERABLES**

**All products used on the project to include cable, wall outlets, patch panels, connectors and wire management devices, Building entrance Terminators will be industry standard products within the telecommunications and electrical fields.**

## **CRAFTSMANSHIP AND QUALITY**

**The contractor will be committed to providing the highest quality craftsmanship. The contractor will provide clean, well documented. Cable bundles will be attached directly to the building structure to avoid interference with other building systems (e.g. HVAC, Sprinkler Systems, etc.), and recommended cable bend radius and termination practices will be strictly followed.**

## **PROJECT MANAGEMENT**

**Project management will be provided by contractor with on-site supervision, and work directly with military personnel from the DOIM Telecom staff. Timelines will be developed in advance with definable benchmarks. Status updates will be provided daily to track project success. The installation team leader will verify and ensure that every detail of the installation is completed (e.g. wire panels are grounded, fire barrier penetrations are firestopped, phone outlets are machine labeled according to guidance provided by the DOIM telecom section, any ceiling tiles are put back in place if disturbed during installation, trash will be removed from the site, etc.).**



## TESTING, SYSTEM AUDIT, AND DOCUMENTATION

**Rigorous testing of each cabled location will be performed by the contractor as well as a system audit to ensure compliance and an application-ready cable system. Complete system documentation, including cable records and test results, panel layout information, if appropriate and an extensive installation checklist of materials used and where they were installed will be provided to the customer upon completion of the installation identifying all work that has been accomplished during the project.**

## CUSTOMER RESPONSIBILITIES

It is the customer's responsibility to:

- Provide free and ready access to the work area.
- Identify all work areas that may contain asbestos or any other hazardous materials.
- Make the physical cross-connects in Bldg 806 and in the other buildings based on wire map provided by the contractor. If a connection(s) fail to work, the contractor will be obligated to return to assist in corrective action.
- Provide all necessary equipment room space, telecom closet space, secure storage space, electrical outlets, and electrical ground, unless arranged otherwise in advance.
- Provide marked site map, indicating the location(s) and type of each cable termination required. i.e. Terminal; Splice Box.
- Establish mutually agreed upon project commencement and completion dates.
- Identify a primary contact to authorize move, add, and change activity to the original agreement configuration.



## DESCRIPTION OF THE CABLE SYSTEM

Contractor will furnish, install, test, and document the following:

### **Leg 1 (Customer: Native Sons)**

- Fifty (50) pair of 24 gauge, outside plant (OSP) gel filled with metal sheath telephone distribution cable linking 50 pair in Pedestal #1, outside and across the street from Bldg 806 in the proximity to pole 9 with Col. Nett Hall, pole S1 Utilizing the messenger carrying the fiber by removing the rings, lashing the 50 pair and finally over-lashing the fiber back. This portion of leg traverses 10 poles, approximate distance 1390 feet. At pole S1 install terminal. Splice twenty (20) pair to existing 25 pair copper traveling to Col. Nett Hall.
  - Continuing with Fifty (50) pair of 24 gauge OSP gel filled metal sheath telephone distribution cable linking Nett Hall, pole S1 to pole S5 in the proximity of the Front Gate. At Pole M1, transfer fifty (50) pair telephone distribution cable from existing fiber messenger and begin wrapping to existing telephone distribution cable. This portion of leg traverses 5 poles, approximate distance 510 feet. At pole S5 install terminal. Splice five (5) pair of adequate drop wire linking pole S5 to Front Gate through underground conduit. Approximate distance, S1 to Guard Shack, 170 feet. Number of dropped pairs, five (5). Number of spliced pairs, twenty-five (25).
  - 12 strand fiber optic cable, multimode, 62.5um core, linking Bldg 806 (FATS) to Front Gate, Guard Station, with SC termination. Approximate distance 2500 feet.
- Total number of pairs used for Leg 1 (Customer: Native Sons): 25.**

### **Leg 1 (Customer: CTARNG - Department Of Information Management)**

- Continuing with Fifty (50) pair of 24 gauge OSP gel filled metal sheath telephone distribution cable linking pole S5 to pole S22, adjacent to Bldg 53 following the existing overhead infrastructure around the Officer Candidate School (OCS).
- 2 - Two (2) pair drop wire linking Bldg 410 with installed terminal located at pole S7. Splice three (3) pair.
- 2 - Two (2) pair drop wire linking Bldg 409 with installed terminal located at pole S11. Splice three (3) pair.
- 2 - Two (2) pair drop wire linking Bldg 501 with installed terminal located at pole S11. Splice three (3) pair.
- 4 - Two (2) pair drop wires linking Bldg 401, 402, 403, and 404 with installed terminal located at pole S14 with self suspended drop wire crossing roadway and affixed to adjacent pole, traversing existing messenger running along the buildings, splice one (1) pair for Bldg's 401 through 404. Longest drop wire distance approximately 150 feet. Splice four (4) pairs.
- 4 - Two (2) pair drop wires linking 405, 406, 407, and 408 with installed terminal located at pole S15 with self suspended drop wire crossing roadway and affixed to adjacent pole, traversing existing messenger running along the buildings, splice one (1) pair for Bldg's 405 through 407 and two (2) pair for Bldg 408. Longest drop wire distance approximately 150 feet. Splice five (5) pairs.
- 2 - Two (2) pair drop wire linking Bldg 52, through existing underground conduit with installed terminal at pole S18. Splice two (2) pair.
- 1 - Two (2) pair wire linking Bldg 22, (Pavilion), with Bldg 52 using a waterproof encasement installed at the rear edge of the Pavilion. Splice one (1) pair. (Path for wire to Bldg 22 will be determined before project commencement date)
- 1 - Two (2) pair drop wire linking Bldg 1, with installed terminal located at pole S21 using existing underground conduit. Splice two (2) pair.

- 1 - Two (2) pair drop wire linking Bldg 53, with installed terminal located at pole S22. Splice two (2) pair. **Note:** Fifty (50) pair of OSP gel filled with metal sheath telephone distribution cable will terminate at pole S22.
- 1 - Two (2) pair drop wire linking Bldg 54, (The Point), with terminal located at pole S22 will travel by pole S23 to Bldg 54. Splice one (1) pair.
- All Fifty (50) pair of 24 gauge OSP gel filled metal sheath telephone distribution cable will travel thru vendor installed terminals as indicated in above description.
- Contractor will ensure that BET's are adequate at all building termination points. Approximate distance 2420 feet.

**Total number of pairs used for Leg 1 (Customer: CTARNG-DOIM): 25.**

**Total number of pairs used for ENTIRE Leg 1: 50.**

**Leg 2 (Customer: CTARNG - Department Of Information Management)**

- Fifty (50) pair of OSP gel filled with metal sheath telephone distribution cable linking 50 pair in Pedestal #1, outside and across the street of Bldg 806 in the proximity to pole 9 with pole 19 on Perimeter Road between Bldg's 800 and 59.
- 2 - Two (2) pair drop wire linking installed terminal located at pole 13 to Bldg 10. Splice three (3) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 13 to Bldg 8. Splice one (1) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 13 to Bldg 11. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 13 to Bldg 12. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 15 to Bldg 13. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 15 to Bldg 14. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 15 to Bldg 15. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 15 to Bldg 16. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 15 to Bldg 67. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 16 to Bldg 18. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 16 to Bldg 19. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 16 to Bldg 20. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 16 to Bldg 21. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 18 to Bldg 22. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 18 to Bldg 23. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 18 to Bldg 24. Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 18 to Bldg 25.



- Splice two (2) pair.
- 2 - Two (2) pair drop wire linking installed terminal located at pole 18 to Bldg 800.  
Splice four (4) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 19 to Bldg 26.  
Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 19 to Bldg 27.  
Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 19 to Bldg 28.  
Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 19 to Bldg 29.  
Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 19 to Bldg 58.  
Splice two (2) pair.
- 1 - Two (2) pair drop wire linking installed terminal located at pole 19 to Bldg 59.  
Splice two (2) pair.
- All Fifty (50) pair of 24 gauge OSP gel filled metal sheath telephone distribution cable will travel thru vendor installed terminals as indicated in above description. An adequate messenger will be installed between pole 19 and 22 to support drop wire traveling from terminal located at pole 19 for Bldg's 29, 58, and 59. Due to the unmanageability of the existing telephone distribution cable it will be cut away from the messenger and suspended on a J hook while new telephone distribution cable is installed. After cutover, it will be removed.
- Contractor will ensure that BET's are adequate at all building termination points. Approximate distance 944 feet.

**Total number of pairs used for Leg 2: 50.**

### **Leg 3 (Customer: Department Of Information Management)**

- Fifty (50) pair of OSP gel filled with metal sheath telephone distribution cable linking 50 pair in Pedestal #1, outside and across the street of Bldg 806 in the proximity to pole 9 with pole 16 adjacent to Bldg 102/103.
- Drop 25 pair cable from installed splice box located at pole 11 to Bldg 801 through existing underground conduit. Reaffix loose riser tube to pole 11. Splice ten (10) pair.
- Drop 25 pair cable from installed splice box located at pole 12 to Bldg 802 through existing underground conduit.  
Splice ten (10) pair.
- Drop 25 pair cable from installed splice box located at pole 13 to Bldg 803 through existing underground conduit.  
Splice ten (10) pair.
- Drop 25 pair cable from installed splice box located at pole 14 to Bldg 804 through existing underground conduit.  
Splice ten (10) pair.
- 1 – 2 pair drop wire from installed terminal located at pole 16 to Bldg 105.  
Splice two (2) pair.
- 2 – 2 pair drop wire from installed terminal located at pole 16 to Bldg 103.  
Splice four (4) pair.
- 2 – 2 pair drop wire from installed terminal located at pole 16 to Bldg 101.
- Splice four (4) pair.
- Contractor will ensure that BET's are adequate at all building termination points.



Between poles 12 and 14, separate cables. Wrap Fifty (50) pair telephone distribution cable on existing cable with its own attached messenger. Once drops have been transferred to new telephone distribution cable, remove the excess cable.

Approximate distance 1117 feet.

**Total number of pairs used for Leg 3: 50.**

## **GENERAL AGREEMENTS**

- All boots installed will be weatherproofed devices to lessen wire deterioration.
- Upon completion of the cable plant, a full documentation package will be provided including: as-builts, test results for copper cable pair records with a relationship to D-MARC, Pedestal, Splice Boot, Terminal, and BET splicing points.
- Free and ready access to the work area, during normal business hours.  
All work performed and completed in one contiguous work process.

This Scope is in coordination with Native Sun requirement to provide connectivity from Pedestal #1 to the Front Gate for Security Systems. CTARNG will incur the costs to continue without break in cabling from S-5 to The Point. Bid submissions will identify a price for the Native Sons portion of this project and a price for the CTARNG portion. The contractor will further itemize unit costs for the purpose of Job Change Requests.

## **Proposal Requirements**

The Offeror will provide lump sum proposals for:

Leg 1 (Customer Native Son)

Leg 1, Leg 2 and Leg 3 (Customer: Department Of Information Management)

The Offeror will provide unit pricing per foot.